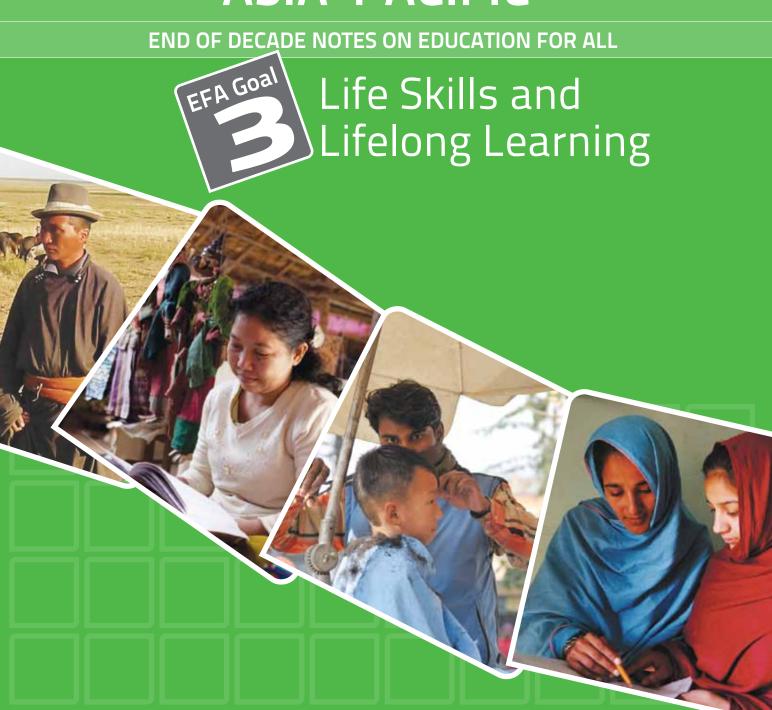


UNESCO Bangkok
Asia and Pacific Regional Bureau
for Education



ASIA-PACIFIC



ASIA-PACIFIC

END OF DECADE NOTES ON EDUCATION FOR ALL



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Acronyms

ADB Asian Development Bank

ALS Alternative Learning Systems (Philippines)

APACC Asia-Pacific Accreditation and Certification Commission

ASEAN Association of Southeast Asian Nations

BANBEIS Bangladesh Bureau of Educational Information and Statistics

BRAC Bangladesh Rural Advancement Committee

CASEL Collaborative for Academic, Social, and Emotional Learning

CFS Child-Friendly School

CHED Commission on Higher Education (Philippines)

CI creative industry

CLC Community Learning Centre

CPSC Colombo Plan Staff College (intergovernmental international organization, Philippines)

DVV Deutschen Volkschochschul-Verbandes (German Adult Education Association)

International

EDN End-of-Decade Note (Asia-Pacific End of Decade Notes on Education for All)

EFA Education for All

EMIS Education Management Information System

EXCEL Expanded and Continuous Education and Learning (Myanmar)

FAO Food and Agriculture Organization

FLEMMS functional literacy, education and mass media survey

GDP gross domestic product GER gross enrolment rate

GMR Global Monitoring Report (EFA)

HIV/AIDS Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome

IBE International Bureau of Education

ICT Information and Communication Technologies

IEA International Association for the Evaluation of Educational Achievement

IGP income-generation programme ILO International Labour Organization

ISCED International Standard Classification of Education

IVET initial vocational education and training KWAPM Poor Students Trust Fund (Malaysia)

LADCA Lao Development and Cooperation Association

Lao PDR Lao People's Democratic Republic

LEARN Literacy and Education in Afghanistan: Right Now!

LMI labour market information

LSE life skills education

LSHE Life Skills for HIV Education programme (Cambodia)

MDA Mid-Decade Assessment (EFA)
MICS Mixed Indicators Cluster Survey

MOE Ministry of Education

MoEYS Ministry of Education Youth and Sport (Cambodia)

NER net enrolment rate
NFE Non-Formal Education

NGO non-governmental organization

NLAP National Literacy Action Plan (Afghanistan)
NORRIC Nordic National Recognition Information Centres

NQF National Qualification Framework

OECD Organisation for Economic Co-operation and Development

OOSCI Out-of-School Children Global Initiative (UNICEF-UIS)

PAP Priority Action Programme (Cambodia)

PISA Programme for International Student Assessment

SBA school-based assessment

SPN Sistem Pendidikan Negara Abad Ke-21 (Brunei Darussalam)

SWAp Sector-Wide Approach

TIMSS Trends in International Mathematics and Science Study

TREE Training for Rural Economic Empowerment
TVET Technical-Vocational Education Training

UIS UNESCO Institute for Statistics

UNAIDS Joint United Nations Programme on HIV/AIDS

UNESCAP United Nations Economic and Social Commission for Asia and the Pacific

UNESCO United Nations Educational, Scientific and Cultural Organization

UNFPA United Nations Population Fund

UNGASS United Nations General Assembly Special Session

UNGEI United Nations Girls' Education Initiative

UNICEF United Nations Children's Fund

UNICEF EAPRO UNICEF East Asia and Pacific Regional Office UNICEF ROSA UNICEF Regional Office for South Asia

WDA Work Force Development Agency of Singapore

Preface

"The equation is simple: Education is the most basic insurance against poverty. Education represents opportunity. At all ages, it empowers people with the knowledge, skills and confidence they need to shape a better future."

Irina Bokova, Director-General, UNESCO

Article 26 of the 1948 Universal Declaration of Human Rights states that "everyone has the right to education". Not only is education a basic human right, it both equips individuals with the skills and knowledge to lead better lives and underpins human development. But education is still not a right recognized by all, and many who miss out on education miss out on the opportunity to improve their lives.

In recognition of this, governments, United Nations agencies, donors, NGOs and civil society groups made a joint commitment to provide Education for All (EFA) in March 1990 at the World Conference on Education for All in Jomtien, Thailand. The pledge was made by 155 governments and representatives from 20 intergovernmental and 150 non-governmental agencies. The *World Declaration on Education for All* and the *Framework for Action to Meet Basic Learning Needs* adopted by the World Conference on EFA in Jomtien reaffirmed education as a fundamental human right and urged governments to intensify their efforts to address the basic learning needs of all by 2000 (UNESCO, 1990).

The global assessment of EFA progress in 2000 showed that the commitment made in Jomtien was not delivered. Thus in April 2000 at the World Education Forum in Dakar, Senegal, the international community reaffirmed its commitment to achieve Education for All, this time by 2015.

The Dakar Framework for Action specifies the following six goals:

- 1. Expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children.
- 2. Ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete free and compulsory primary education of good quality.
- 3. Ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life skills programmes.
- 4. Achieving a 50 per cent improvement in the levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults.
- 5. Eliminating gender disparities in primary and secondary education by 2005, and achieving gender equality in education by 2015, with a focus on ensuring girls' full and equal access to and achievement in basic education of good quality.
- 6. Improving all aspects of the quality of education and ensuring excellence of all, so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.

Some of these goals were later reiterated in September 2000 when 189 nations came together at the United Nations Millennium Summit and endorsed the Millennium Declaration. The Declaration set out the eight Millennium Development Goals (MDGs) to be achieved by 2015, including achieving universal primary education (MDG 2) and promoting gender equality and empowering women (MDG 3). There is clear consensus that the achievement of EFA contributes to the attainment of the other MDGs as well.

The End of Decade Notes

At the close of the 2000s, specialists within the Asia-Pacific region reviewed the regional and national progress toward the EFA goals and targets. The resulting *Asia-Pacific End of Decade Notes on Education for All* take stock of the progress, persisting issues and remaining challenges in achieving each EFA goal.

The End of Decade Notes, or EDNs, highlight examples of innovative policy reforms and strategies, particularly those aimed at reducing disparities in access to and quality of education. They also emphasize the policy, capacity and governance gaps to be addressed in order to achieve EFA in the region.

The EDNs consist of six reports, one for each EFA goal that build on the findings of the Asia-Pacific EFA Mid-Decade Assessment (2006–2008), which examined EFA progress and gaps at the mid-way point of the 2000–2010 decade.

The first section of each EDN report provides an overview of progress towards the respective EFA goal. The second section discusses the remaining challenges and priority issues. Each report concludes with recommendations on what needs to be done to accelerate progress towards the 2015 targets.

While each EDN covers the Asia-Pacific region, it also highlights issues and challenges specific to subregional groupings, as per the *Education for All Global Monitoring Report*. The EDNs thus cover the subregions of Central Asia, South and West Asia and East Asia and the Pacific. Details on which countries are included in the subregional groupings are found in the Statistical Annex at the end of this EDN.

Foreword

In 1990, a World Declaration on Education for All was adopted in Jomtien, Thailand reaffirming the notion that education was a fundamental human right.

With less than four years remaining for the EFA goals to be achieved, it is now an opportune moment to take stock in Asia and the Pacific of both achievements and shortcomings to draw lessons and move forward. Understanding and sharing the information on how much has been accomplished during the past decade and the main hurdles to attaining the goals by 2015 will help countries and EFA partners in the region identify options and strategies for achieving the goals. Success in Education for All is critical to meeting the Millennium Development Goals, including in areas related to poverty reduction, nutrition, child survival and maternal health.

Within this context, the *Asia-Pacific End of Decade Notes on Education for All Goals* examine what the region has attained between 2000-2010. The Notes highlight policy reforms and strategies implemented by countries, especially addressing disparities in education, as potential models and provide the latest thinking on ways forward.

The Asia-Pacific region has experienced strong economic growth, substantially reduced poverty and ensured more children are enrolled in school. This progress, however, has been skewed; rising income inequality and inequalities in access to basic human services continue to plague the region, presenting significant challenges and long-term consequences.

Progress in meeting the six goals has been uneven with some groups of children left out, such as ethnic minorities, migrant children, children with disabilities and in South Asia, girls. Slow progress has been especially noted in the expansion of early childhood care and education, in reducing out-of-school numbers, and in improving the quality of education.

To ensure regional stability and prosperity, we must address these inequities and we must ensure the provision of quality education for all learners. Many countries in the region have endeavoured to 'reach the unreached' and ensure that education is truly for all. The End of Decade Notes aim to support and strengthen this momentum, energy and commitment to EFA in the region.

With less than four years remaining before 2015, we are racing against time. We need renewed vigour and concerted action to guarantee equitable access to quality education and to ensure that children are not missing out on schooling and learning opportunities because of their sex, geographic location, ethnicity, disability, socio-economic status or other causes of marginalization.

UNESCO and UNICEF are committed to supporting countries and working with partners to speed up progress in meeting the EFA targets by 2015. The End of Decade Notes, created under the auspices of the Regional Thematic Working Group on EFA, which UNESCO and UNICEF co-chair, is one way of extending our support and advocacy for EFA.

We hope the End of Decade Notes will serve to guide actions and interventions and ultimately accelerate the progress towards the EFA goals.

Gwang-Jo Kim Director

Mang Jo kim

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^{*} Website of the Regional TWG on EFA: http://www.unescobkk.org/education/efa/efa-network/east-and-south -east-asia/twg-on-efa

Executive Summary

Education for All Goal 3 is a commitment to "ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life skills programmes".

Goal 3 is largely concerned with broadening the opportunities for learning and continuous education and advancing the fulfillment of the right to education. It encompasses the learning needs of all young people and adults, and includes all modes of learning delivery: formal, nonformal, vocational training, distance education, on-the-job training and self-learning. Goal 3 targets the entire population from the age of 10 upwards.

Goal 3 incorporates three distinct concepts: learning needs, appropriate learning, and life skills. It cuts across the entire Education for All agenda in its commitment to meeting the learning needs of young people and adults as a critical foundation for their well-being and participation in work and society.

The statement of Goal 3 has been subject to multiple interpretations by countries in the region, and acted upon in a variety of ways. The low level of detail and lack of clear and quantifiable targets in the Goal have often hampered the tracking of progress and arguably weakened the scrutiny of government action in this vitally important area of education. Furthermore, the lack of consensus on the monitoring framework of Goal 3 has made international comparative evaluation of progress difficult.

This End of Decade Note presents the progress achieved by Asia-Pacific countries towards meeting Goal 3. The Note identifies the key issues and challenges that countries have encountered in their efforts to achieve the Goal, and makes recommendations for improvements.

Considering the areas under the purview of other EFA goals, this Note examines three learning domains:

- 1. Secondary Education
- 2. Technical and Vocational Education and Training (TVET)
- 3. Non-Formal Education (NFE).

Life skills education is reviewed within these domains, covering psychosocial skills, health promotion skills, HIV prevention, livelihood and income-generation skills.

The Note is structured as follows: each domain is analyzed in relation to definition and context; progress and trends; meeting the needs of learners; key issues and remaining challenges; and recommendations for priorities and strategies. Due to a lack of empirical data, the Note focuses on policy and programme initiatives undertaken across the region. Progress is assessed only in part due to limited data and information. Below is a summary of the main findings, key issues and recommended strategies.

Summary of Main Findings and **Key Issues**

Secondary Education

Considerable progress has been made in secondary education in Asia and the Pacific. However, there are still serious disparities in access to secondary education, which are particularly pronounced for students in the lowest economic quintiles, those living in remote geographic locations, girls, ethnic minorities and people with disabilities and special needs. Of equal concern is the generally poor quality of secondary education and the low levels of knowledge and skills of secondary school completers. Without a major push forward, many of the gains made in the past decade are likely to be undermined.

Life skills education is currently being integrated into national secondary school curricula. As reported by a UNICEF study, life skills education is delivered in three ways: i) as a stand-alone subject; ii) inserted into a main carrier subject; and iii) infused into several subjects across the curriculum. Generally, there exist two modalities in providing life skills education: the first involves the application of life skills to a particular thematic issue or discipline, e.g. health education or HIV prevention; while the second integrates life skills as a broad approach to education.

Technical and Vocational Education and Training (TVET)

Despite the recognition of TVET's importance for economic growth, participation in formal TVET remains patchy across the region. In particular, improving access to TVET among difficult-to-reach sections of the population such as the unemployed, and rural and informal workers remains a challenge. A large proportion of marginalized groups are women, people with disabilities, and members of poor families. TVET could provide these groups with the necessary knowledge and skills to break out of a cycle of low skills, low productivity and poverty.

Some reforms have been made to TVET curricula, such as inclusion of relevant general and specific skills. However career guidance, counselling services and financial assistance to graduates transitioning from school to work are not usually available.

Life skills and essential working skills are included in both formal and non-formal TVET curricula. These skills, also referred to as core, generic, or key skills, are playing a significant role in ensuring that young people have the necessary capabilities to enter and participate in the workforce.

Non-Formal Education (NFE)

Most countries in the region recognize NFE's key role in reaching marginalized and disadvantaged groups and have put in place NFE frameworks for out-of-school youths and adults. However, many countries in the Asia-Pacific region lack standardized quality frameworks for NFE programmes, including equivalency programmes and non-formal TVET/income-generation programmes (IGPs). Concern about the poor quality of NFE programmes is further exacerbated by insufficient teacher training, funding, and effective quality assurance mechanisms. In addition, employers tend to be less willing to recognise the qualifications of NFE graduates.

Life skills have been mainstreamed into both equivalency programmes and IGPs. As a result, the content has been complemented by methodologies that promote behaviour change related to specific health topics, including sanitation/hygiene education, smoking and alcohol prevention, and specific skills acquisition related to jobs and livelihoods. As the term 'life skills' becomes more commonly used and the interpretation broader, there are numerous examples of NFE being used for HIV education and life skills.

Life skills education

The review of how life skills or life skills education (LSE) has been applied in countries across Asia and the Pacific revealed three distinct approaches, which are not mutually exclusive. These can be categorized as:

- 1. Focus on psychosocial skills, including social-emotional learning, leadership and self-regulation;
- 2. Focus on income-generation skills and livelihood development;
- 3. Focus on healthy behaviours and risk reduction for HIV prevention.

Life skills education programmes target specific learner groups, programme content and delivery methods. Content may include health education, HIV prevention, vocational training or income generation. Programmes may be delivered in secondary schools or in non-formal, out-of-school settings. LSE is also often integrated into the Child-Friendly Schools (CFS) model, which is being rolled out across Asia with UNICEF support. Many countries have also developed education and training programmes to deliver life skills under different names according to their specific contexts. However, all LSE programmes, regardless of their approach and focus, face common challenges, including lack of teacher training and capacity, and difficulties associated with assessing programme effectiveness (which would require measuring changes in skills and behaviours).

Summary of strategies and key recommendations

Based on the analysis of progress that countries have achieved, the challenges they face, and the urgency for achieving EFA Goal 3, the following recommendations are offered for the three domains of the education system as well as for life skills education:

Strategy 1: Improve the information base for secondary education, TVET and NFE systems

- Where non-existent, develop an education management information system (EMIS) for tracking enrolment and completion in all three domains.
- Track progress in education system reform in secondary education particularly with regard to governance, financing, curriculum development, teacher training and assessment of learning outcomes.
- Analyze labour market demand for general and specific skills to assess the relevance of TVET curricula.
- Involve the private sector in an array of partnerships to improve quality, access and relevance of TVET programmes.
- Collect and disseminate empirical data about effective NFE programmes, practices, participation and outcomes.
- Assess the causes and processes of educational exclusion for all marginalized groups.

Strategy 2: Strengthen policies, strategies and implementation frameworks

- Reform in-school assessment practices and post-school examinations in secondary school to focus more on learning outcomes.
- Strengthen the alignment of TVET policies with socio-economic development strategies and plans and ensure that TVET policies and programmes are responsive to rapidly changing labour markets.
- Increase partnerships with the private sector and non-state actors to promote closer collaboration between employers and industry in TVET, secondary and NFE.
- Strengthen NFE policies with clear strategies and action plans supported by appropriate legislation and resources so that NFE features as an integral part of education sector plans and national development strategies.
- Encourage formal education institutions and employers to recognize and validate the knowledge and skills acquired outside the formal system (such as through equivalency programmes and non-formal vocational training).

Strategy 3: Increase the quality and relevance of secondary education, TVET and NFE

- Enhance secondary education curricula to better respond to social and workplace demands.
- Mainstream life skills education in all formal and non-formal curricula as well as in TVET and NFE programmes.
- Include HIV education in the curriculum of secondary education and NFE and co-curricular activities.
- Ensure the relevance of NFE by designing programmes based on needs and situational analysis of NFE target groups.
- Improve the quality of, and access to, pre-service and in-service training for secondary teachers and TVET and NFE facilitators, particularly in information technology and life skills education.

Introduction

Education for All Goal 3: "Ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life skills programmes."

The statement of this Goal is wide-ranging in its scope. It encompasses the learning needs of all young people and adults, and includes all modes of learning: formal, non-formal and informal, vocational training, skills training, distance education, on-the-job training and self-learning (UNESCO, IBE, 2007).

EFA Goal 3 states that the learning needs of all young people and adults should be met. However, what these 'learning needs' are – and how they can be measured – have not been clearly defined. Youth (15-24 year olds) represent an estimated 17.9 per cent of Asia-Pacific's population, or roughly 710 million people. Sixty-one per cent of the world's young people (10-24 year olds) live in the region – representing a diverse group with very different needs. For example, while universities produce consummate graduates in science, computer programming, economics and the arts, over 69 million illiterate young men and women (54 per cent of the global total) also live in the region (see the Statistical Annex of EDN 4). Millions of young people and adults are faced with challenges such as inadequate education, unemployment and underemployment, and the need to constantly adapt to rapid social, cultural, economic, and political changes.

Furthermore, the terms 'appropriate learning' and 'life skills' programmes have not yet found common understanding. The International Bureau of Education (IBE) derives its understanding of learning from the four pillars of learning in the Delors report: learning to know, learning to do, learning to be and learning to live together. It defines life skills as the personal management and social skills necessary for adequate functioning on an independent basis (UNESCO, IBE, 2007). UNICEF has defined life skills as those psychosocial and interpersonal skills that are generally considered important. However, exactly which skills are considered important depends on the context. For example, decision-making may feature strongly in HIV/AIDs (Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome) prevention, whereas conflict management may be more prominent in a peace education programme. According to UNICEF, it is ultimately the linkages between skills that produce powerful behavioural outcomes, especially where this approach is supported by other strategies such as media, policies and health services (UNICEF, 2012).

In sum, Goal 3 combines a high level of ambition with a low level of detail, and to date there is still no international consensus on a conceptual and monitoring framework. The wide-ranging nature of the Goal, together with the absence of quantifiable targets or easily measurable outcomes, has hampered the tracking of its progress. The lack of benchmarks has weakened the ability of governments to evaluate attempts to address this vitally important area of education policy and delivery. Notwithstanding the challenges of definition and measurement, the core principles of Goal 3 are fundamental to the Education for All agenda since meeting the learning needs of young people and adults is critical for expanding opportunities in life and work.

1.1 Rationale and scope of Goal 3

The broad objective of Goal 3 has led to multiple understandings and interpretations globally and specifically in Asia and the Pacific. Countries in the region have defined its scope quite differently, and thus national policies, strategies and programmes to meet the Goal differ widely.

The expanded commentary of Goal 3 declares: "All young people and adults must be given the opportunity to gain the knowledge and develop the values, attitudes and skills which will enable them to develop their capacities to work, to participate fully in their society, to take control of their own lives, and to continue learning" (UNESCO, 2000, p. 16).

The commentary further emphasizes the need to expand secondary education and to make youthfriendly programmes available to protect young people, and in particular adolescent girls, from risks of exploitative labour, unemployment, conflict and violence, drug abuse, school-age pregnancy and HIV/AIDS. It also mentions the need to provide opportunities for all youth to continue learning, in particular for those who dropped out of school or completed school without acquiring core literacy, numeracy and life skills (UNESCO, 2000).

While parts of the Goal refer to certain sub-sectors of the education system – that is, secondary education, TVET, and NFE – other components are concerned with learning content. One such area is life skills, which can be considered a cross-cutting theme as it is relevant to secondary education, TVET and NFE, and is included in both formal and non-formal learning content.

For the purposes of this review, adults are defined as 15 years and older, young people as those in the 10-24 age group, and adolescents as between the ages of 10 and 19 years.² Although the age ranges of adolescents, young people and adults overlap, they represent distinctive groupings. It should also be noted that various definitions of young people and youth exist in the region. In the Philippines, for example, youth is defined as persons aged 15-30 in Republic Act 8044, and as those aged 15-24 by the Department of Labour and Employment. In Viet Nam, the Youth Law defines young people as those aged 16-30 and the Development Strategy for Youth as those between 15-34 (FAO, ILO and UNESCO, 2009). These variations in the age-definition of young people in Asia-Pacific countries add to the difficulty of making cross-regional comparisons.

While young people (10-24 years old) are the key target group of Goal 3, particular reference is made to adolescent girls. The situation of adolescents is particularly alarming in South Asia. According to UNICEF's State of the World's Children 2011 report, South Asia was home to 335 million adolescents in 2009, constituting 21 per cent of the total population (UNICEF, 2011b).3 V. Ramachandran notes that "in spite of legal age limits that demarcate childhood and adolescence from adulthood, many adolescents and young children in South Asia are engaged in adult activities such as work in the unorganized sector, marriage, as primary caregivers of children at home and in conflict areas, [and] as soldiers" (UNESCO and Plan India, 2011, p.14). The situation is critical in particular for marginalized adolescent girls. The 2008 UN Joint Programming Framework for Reaching Marginalized Adolescent Girls argues that "adolescent girls represent a huge untapped potential: they hold the key to breaking the inter-generational cycle of poverty and achieving the MDGs" (UN Inter-agency Task Force on Adolescent Girls, 2008, p. 13).

Given the enormous potential of young people and their key role in economic and social development on the one hand, and the challenges they face such as access to quality education, high rates of unemployment and the presence of health risks on the other, the achievement of Goal 3 is of great importance to most countries of the region. In an increasing number of countries (for example Japan, Republic of Korea, Thailand, China), aging populations pose numerous challenges, including the need for adults to continuously adapt to changes and to continue learning throughout their lives. The challenges for regional education systems are to not only offer equitable access to

Adolescence is "a very specific stage between childhood and adulthood, when people have to negotiate a complex interplay of both personal and socio-economic changes in order to maneuver the 'transition' from dependence to independence, take effective control of their own lives and assume social commitments" (UNESCO, 2004).

Cited in: UNESCO and Plan India, 2011. 'South Asian Regional Conference. Responding to the needs of Out of School Adolescents. Experiences of South Asian Countries'. New Delhi.

all, but also to ensure that the learning that is provided is relevant and responds to the requirements of today's rapidly changing world.

1.2 Learning needs, learning and life skills programmes

1.2.1 Definitions

As mentioned above, no clear definitions of 'learning needs', 'learning' and 'life skills' programmes were provided in the Dakar Framework. This brief section will, therefore, try to provide insight into how these terms have been interpreted and defined since Dakar, both in international discourse and at the country level in Asia and the Pacific.

Learning needs

The issue of learning has not been prominently positioned or clarified in EFA either globally or regionally (Bannerjee and Duflo, 2011). As a consequence, the matter of identifying the learning needs of young people has been largely ignored in EFA reporting. This is an unfortunate omission as it is clearly an important factor in ensuring the relevance of education service delivery, and is essential to discussions on the quality of education.

While the scope of and attention paid to international student assessments is broadening, it appears that researchers have not focused on assessing the ability of schools to meet the needs of individual learners in their specific contexts. In this respect, there is very little 'client power' in education in general and particularly in framing the learning agenda.

Analyzing how learning needs have been interpreted globally and in the region highlights an emerging trend towards definitions that focus on what learners are expected to know, understand and be able to apply as a result of learning (knowledge, skills and competencies). These learning outcomes are acquired not only in formal education environments, but also in non-formal and informal settings.

Ministries of education across Asia and the Pacific are continuing to improve the way they identify the learning needs of children and adolescents and many recognize the need to improve learning opportunities while also reducing inequalities in access to and quality of education.

In recent national reports on the status of EFA (UNESCO, 2010b), Asia-Pacific countries identified the following areas that need to be strengthened or work that needs to be undertaken (pertaining to the three main domains covered by Goal 3):

Secondary education:

- Secondary education curriculum reform (e.g. Mongolia and Japan [UNESCO, 2009b; 2011g]);
- Equitable opportunities to access upper secondary education (e.g. Cambodia);
- Life skills in curriculum development (e.g. Fiji, India, Indonesia, Lao PDR, Myanmar, Nepal, and Sri Lanka).

TVET:

• New strategies in TVET (e.g. Bangladesh, Fiji, Indonesia, Lao PDR, Malaysia, Myanmar, and Thailand [UNESCO, 2008a]),

NFE:

- Meeting the learning needs of out-of-school and marginalized children (e.g. Lao PDR, India, Indonesia, and Nepal);
- Health promotion and HIV prevention education (e.g. Bangladesh and Cambodia).

Life skills

Numerous attempts have been made to define the term 'life skills', with results varying according to context.

The current UNICEF fact sheet on life skills contains the following definition:

"'Life skills' are defined as psychosocial abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life. They are loosely grouped into three broad categories of skills: cognitive skills for analyzing and using information, personal skills for developing personal agency and managing oneself, and inter-personal skills for communicating and interacting effectively with others"

(UNICEF, 2012).

Life skills represent a wide and multi-dimensional range of competencies and skills, including the possession of self-esteem and a sense of efficacy and aspirations – all of which are vital determinants of future outcomes. Research has shown that in childhood, the quality of relationships with others in school, both adults and peers, is one of the most important aspects of well-being (Camfield and Takafere, 2009). Moreover, psychosocial skills have been found to be positively related to success in school-leaving examinations and labour market outcomes (Krishnan and Krutikova, 2010). In a 2010 study, Flavio Cunha found that non-cognitive abilities have direct effects on schooling, achievement tests, wages, rates of teenage pregnancy, smoking and many other aspects of social and economic life. There are several terms which are used to label these psychosocial competencies to make them less technical for the non-specialist, including 'life skills', 'social emotional learning' and 'learning behaviour' (Cunha, 2010).

When we look at life skills-based education, we can identify two main influences: theories of heuristic learning that stress the importance of psychosocial competencies (life skills, social emotional learning and learning behaviour), and theories of HIV behaviour change and risk reduction, which view life skills as the key means of addressing the HIV/AIDS epidemic. In the former, LSE is an educational approach which involves the use of interactive and participatory teaching and learning methods and aims for the development of the learner's analytical thinking and problem-solving skills (ibid). Methods include experiential and activity-centred pedagogy.

A third common definition of life skills are those which also include technical, vocational and income-generating skills and those for gainful employment, in combination with interpersonal skills and knowledge about healthy behaviours (see country examples below).

The Collaborative for Academic, Social, and Emotional Learning (CASEL) identifies five core dimensions which education systems must address in order for students to acquire the skills to be able to handle themselves, their relationships, and their future work effectively and ethically. These dimensions are: Self-awareness; Self-management; Social Awareness; Relationship Skills; and Responsible Decision-making (CASEL, 2003). CASEL has developed tools and frameworks for assessing student 'connectedness to school' and to measure the social and emotional climate of learning environments.

Another theoretical basis for life skills education was provided by experts in HIV/AIDS education. UNAIDS identified life skills-based education for HIV prevention as a key component in the international response framework for HIV and AIDS (United Nations, 2001). Ensuing HIV LSE programmes delivered a mix of knowledge, behaviours, skills and values intended to reduce highrisk behaviour. Regular national reporting on progress in developing life skills HIV education has taken place through the biannual United Nations General Assembly Special Session (UNGASS) Country Progress Reports. Funding for HIV life skills education programmes was available outside the usual Education for All funding mechanisms. As a result, in the early 2000s, associations were made between HIV prevention and life skills – which in turn shaped interpretations on the focus of 'life skills' within EFA Goal 3 globally.

Countries in the region have developed their own definitions of life skills, as shown in Table 1:

Table 1: Selected country definitions of life skills education

Country	Definition of life skills education
Cambodia	Life skills are defined as: the intellectual, personal, interpersonal and vocational skills that enable informed decision-making, effective communication and coping and self-management skills that contribute to a healthy and productive life to ensure successfully solving daily problems. (Policy for Curriculum Development, 2005-2009).
	Two types of life skills are recognized (Policy for Life skills Education, 2006):
	Basic life skills. These include <i>general life skills</i> and <i>pre-vocational skills</i> . General life skills include personal hygiene, safety, planning for daily life, organization, relationships, morality and good citizenship. Pre-vocational skills include communication and mathematics skills, problem solving and team work.
	Career skills. These include simple career skills which depend on local needs and individual interests and vocational skills which require long training courses and technical capacity for professional development.
Indonesia	Life skills are defined in the EFA National Plan of Action as the skills or capability that must be owned by each individual in order that they can adapt, act positively and be able to face the various challenges of daily life.
	Life skills are subdivided into:
	Generic life skills. These are psychosocial skills for healthy life, cooperation, communication, critical thinking, values and attitudes (discipline, responsibility and respect towards other people).
	Specific skills. These are academic and vocational skills. Science skills are emphasized.
Lao PDR	Life skills are defined as:
	Knowledge and abilities needed by people to improve their quality of life, such as basic vocational skills, together with support activities such as improved technologies, product development and development of market linkages.
	Reproductive health and the environment are components of life skills.
Malaysia	Malaysia defines life skills as essentially those that encompass the following:
	Basic skills: literacy, numeracy and information and communication technology skills.
	Psychosocial skills: reflective, personal and interpersonal skills including problem-solving, critical thinking and communication.
	Practical or contextual skills: technical or vocational, income-generation, and those skills pertaining to health, gender, family, environment and civics.
	Living skills: manipulative skills, those relevant to orientation and mobility, behaviour management, self-management, self-care, home living and leisure.
Myanmar	The age-appropriate life skills ⁴ curriculum covers areas of personal health and hygiene, nutrition, physical growth and development, reproductive health, mental health, preventable diseases such as diarrhea, malaria, iodine deficiency, tuberculosis, hepatitis, HIV, alcohol and substance use and abuse, and environmental health and sanitation.
	Psychosocial skills include those relating to decision-making, communication, interpersonal relationships, empathy, critical and creative thinking, coping with emotions and stress and fostering self-esteem and self-expression, and these have been incorporated into lessons.
Philippines	Life skills are defined as abilities for positive and adaptive behaviour that enable individuals to deal effectively with the demands, challenges, experiences and situations of everyday life.
	The following life skills are considered to be of critical importance: self-awareness, empathy, effective communication, and interpersonal relationship skills, decision-making, problem-solving, creative thinking, and critical thinking skills, understanding one's emotions, coping with stress, and production and entrepreneurial skills.
Thailand	The Ministry of Education (MOE) defines life skills as characteristics or social and psychological capability enabling an individual to effectively cope with various situations in daily life. Topics within the life skills syllabus can cover health care, HIV prevention, substance abuse awareness, safety, the environment, morality and ethics, decision-making, problem solving, intellectual capacity, interpersonal and intrapersonal intelligence, understanding and sympathy for others, and management of emotions and stress.
	Four basic life skills are identified:
	Health care and disease prevention;
	Security in life and property, disaster relief and protection, keeping order and safety in society, traffic etc.;
	Preservation of the natural environment and environmental resources etc.; and
	Morality, ethics, and desirable values and characteristics.

Source: EFA Mid-Decade Assessment Regional Synthesis Reports (UNESCO 2008a-d).

⁴ Life skills have been mandatory at the primary level as a separate subject in the core curriculum since 1998 and at secondary level as a separate co-curriculum since 2001.

When analysing how life skills and life skills education have been defined in countries across Asia-Pacific, we can trace three distinct clusters and resulting approaches which have been prevalent in the region. These approaches are not mutually exclusive and can be categorized as:

- Focus on psychosocial skills, including social-emotional learning, leadership and self-regulation,
- Focus on income-generation skills and livelihoods development,
- Focus on healthy behaviours and risk reduction for HIV prevention.

These three approaches can serve as a basis for the formulation of a framework for reviewing progress in life skills education in the region and making recommendations for future action.

1.3 Sectoral focus of Goal 3 analysis

This Note will focus on identifying and analysing progress and trends in the region towards achieving Goal 3, looking at three sub-sectors: secondary education, TVET and NFE. Progress in life skills education will focus on how it has been implemented within these three domains using the three main approaches to life skills outlined above.

Given the paucity of data available for analysis, much of the report will centre on policy and programme initiatives undertaken by countries in the region. Comparing the relative success of these national initiatives is difficult, however, as each country has different interpretations of Goal 3. The aim of this Note is thus not to compare countries but rather present trends and recommendations on how to speed up progress in Asia and the Pacific towards EFA Goal 3 by 2015.

The subsequent chapters should be read as companion pieces to the other EDNs, which cover issues that could also have been addressed in this Note.

For example, transition to secondary education is described in EDN 2, and will therefore not be subject to analysis here. The quality of secondary education is detailed in EDN 6. Gender disparity is the theme of EDN 5 and will thus be touched upon only briefly. However, where relevant, short summaries, necessary links and references will be provided.

Status, Issues and Challenges

2.1 Secondary education

2.1.1 Definitions and context

Secondary education is a turning point in the education path, preparing young people for higher education, the workplace and participation in society as adults. The success of EFA, and the increasingly complex demands of globalization require governments to look beyond primary education to secondary and post-secondary. The extended commentary of EFA Goal 3, included in the Dakar Framework for Action, states: "No country can be expected to develop into a modern and open economy without a certain proportion of its work force having completed secondary education" (UNESCO, 2000, p. 16).

On average, enrolment in secondary education has been increasing in the Asia-Pacific region. As most Asia-Pacific countries have made substantial progress towards the goal of universalizing primary education and as the primary completion rate has increased, countries are now pursuing the reorientation and expansion of their secondary education systems (UNESCO, 2013). This greater attention to secondary education also stems from an increasing demand for skilled workers due to changing labour market requirements brought on by economic growth and national development. Countries have chosen different approaches to develop the structure of secondary education, including diversifying the curriculum, introducing innovative financing mechanisms and student support, and enhancing assessment of student learning outcomes. Efforts are being made by governments across the region to ensure that education at this level is appropriate to meet relevant labour force requirements.

Therefore, secondary education is an important vehicle for helping to deliver equitable access to appropriate learning as well as life skills programmes. To assess the progress delivered by secondary education against Goal 3, however, first requires a set of commonly used concepts pertaining to secondary education and its curriculum.

Secondary education is defined in different ways in countries across the region. On average it lasts six to seven years but can span four to seven years (UNESCO, 2011a). According to the 1997 International Standard Classification of Education (ISCED), it is typically divided into lower (or junior) secondary (ISCED 2) and upper (or senior) secondary (ISCED 3) levels (UNESCO, 1997). However, national classifications and realities are much more complex. For example in India, where lower secondary education is referred to as upper primary education, it is part of free and compulsory elementary education; secondary education includes only higher grades of lower secondary (Grades IX-X) and upper secondary (grades XI-XII) (NORRIC, 2006). In Bangladesh, secondary education is divided into three levels: junior secondary, secondary and upper secondary (BANBEIS, 2006). In the Philippines, there is no division of secondary education (Grades VII-XI) into lower and upper levels (CHED, 1998). To be consistent with the ISCED qualifications, this Note largely refers to lower secondary as ISCED 2 and upper secondary as ISCED 3.

Depending on the system, type and level of specialization, the curriculum offered in secondary education can be classified according to three types:

- General/academic: The curriculum is designed to develop academic skills, usually with considerable student choice in the upper grades. A common core set of subjects is usually required for certification.
- Diversified/comprehensive: The curriculum combines an academic course of study with one or more vocational fields.
- Vocational/technical: The curriculum typically provides for instruction in either pre-vocational or specific job-related skills.

In practice, classifying secondary curriculum is more difficult than is suggested by these three types of subject matter as the lines between the three can be blurred. The expansion of secondary education often involves diversification of curricula as countries pursue policies of open access and universal coverage. New programmes offer a broader range of options and stronger links to the labour market.

a. A framework for assessing progress

Having identified a common definition for secondary education and classified curricula into three broad types, it is possible to establish a framework for assessing progress against the Goal. This framework should be based upon the key components enshrined in the Goal itself (ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life skills programmes). Therefore:

- the learning needs of all young people and adults demand that progress in access (policies for expansion in enrolment) to secondary education must be measured;
- the clause of equitable access implies that the issue of equity, notably in terms of policies or reforms targeting disadvantaged groups, must also be examined;
- the relevance and quality of secondary education are important analytical dimensions since they target the provision of appropriate learning and life skills programmes; and
- adequate financing and prudent and transparent management of secondary schools are also underlying prerequisites for progress against the Goal.

2.1.2 Progress and trends

a. Regional overview

Almost all countries in the region registered substantial growth in total secondary school enrolment during the last decade. As of 2009, there were about 309.8 million students enrolled in secondary education in Asia and the Pacific, accounting for more than 58 per cent of the world total. Since 2000, when 248.6 million students were enrolled in the region, enrolment has increased at an average rate of 2.7 per cent per year. Global enrolment also increased, though at a lower rate of 2 per cent (see Statistical Annex).

This trend of increasing participation in secondary education is encouraging. However, enrolment rate indicators are needed to put absolute numbers in context and to answer questions such as how many children remain out of school and how well are national secondary education systems performing? To answer such questions, a pair of indicators is used to cross country comparisons: net enrolment rate (NER) and gross enrolment rate (GER). This analysis will investigate the secondary sector as a whole, examining both NER and GER depending on data availability.

Net enrolment rates in secondary education have risen across the region. As Figure 1 illustrates, between 2000 and 2009, countries such as Bhutan, Macao (China), Cook Islands, Indonesia, Mongolia, Myanmar, Solomon Islands and Tajikistan increased their secondary NER by over 10 percentage points. At the same time, countries starting from a very high base – Australia, Japan, Kazakhstan, and the Republic of Korea – have witnessed very slow growth, or even a decline in enrolment. Stagnation in high-enrolment countries should not be ignored, as an NER of over 90 per cent still represents a large number of school-aged children outside the system.

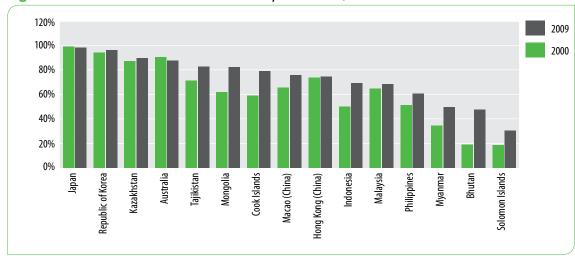


Figure 1: Net enrolment rates in secondary education, 2000 and 2009

Source: Statistical Annex, UIS, 2012.

Of the 49 countries within the Asia-Pacific categorization, NER data are only available for 15 (figure 1), or 30 per cent of all countries. However, data on gross enrolment rates are more widely available within the Asia-Pacific region, as well as worldwide.

Figure 2 indicates that many countries starting from low GERs saw steady improvements between 2000 and 2009. In Cambodia, for example, enrolment more than doubled during this period although the resultant GER of 46.2 per cent still indicates that a large number of students are still not attending secondary school. Countries such as China, India, and Indonesia also registered dramatic increases in their enrolment figures. Countries that recorded GERs of 80 per cent in 2000 have experienced slower growth – matching their experience with net enrolment rates. In several countries, there are still important gaps between NER and GER: Bhutan has an NER of 47 per cent, but a GER of over 60 per cent – the implication being that the education system is very inefficient, or that the school system is not educating children for whom curricula were designed.

According to the UIS, the GER is the number of pupils or students enrolled in a given level of education regardless of age and is expressed as a percentage of the official school-age population corresponding to the same level of education. The GER measures the general level of participation in a given level of education, indicating the capacity of the education system to enrol students of a particular age group. For the tertiary level, the population used is the 5-year age group starting from the official secondary school graduation age. The NER on the other hand, is the total number of pupils or students in the theoretical age group for a given level of education enrolled in that level. The NER shows the extent of coverage in a given level of education of children and youths belonging to the official age group corresponding to the given level of education.

140 2009 120 2000 100 80 60 40 20 Kazakhstan Japan Republic of Korea Mongolia Tajikistan **Philippines** Indonesia China Thailand Malaysia Bhutan imor-Leste Lao PDR Brunei Darussalam Hong Kong (China) Macao (China) New Zealand Myanmar

Figure 2: Gross enrolment rates in secondary education, 2000 and 2009

Source: Statistical Annex, UIS, 2012.

A further benefit of GER data is that they allow separate analysis of lower and upper secondary levels, whose successes and failures can be obscured by total enrolment figures. China, Indonesia, Malaysia, the Philippines and Thailand have a lower secondary GER of over 90 per cent – although each country's total secondary GER is 80 per cent or below (see Statistical Annex).

Data also show the uneven expansion of secondary education across the region, and different trends by sub-region. In Central Asia, the available statistical data (GER/NER) indicate that a rapid expansion in secondary education has occurred in most countries, with the regional secondary GER increasing from 86 per cent in 1999 to 97 per cent in 2008 (UNESCO, 2011d). Developed countries in East Asia such as Japan and the Republic of Korea have, and are maintaining, high levels of secondary enrolment, with the NER rate exceeding 90 per cent.

Secondary school participation in South-West Asia has expanded, but the level of unmet need is high. On average, only half the children in this sub-region attended secondary school in 2008 (UNESCO, 2011e).

b. Uneven expansion: Barriers to access

Only by identifying barriers to accessing education can policy makers reach children who are not enrolled in school. Even with the wide variation in participation levels across the Asia-Pacific region, including between lower and upper secondary, there are common barriers to enrolment, which affect marginalized groups the most. While less research has been conducted into access barriers in secondary education than for primary, there are ample sources of information for this Note to draw upon, including research from the World Bank, the UNICEF-UIS Out-of-School Children Global Initiative (OOSCI), and UNESCO's work on secondary education.

Gender inequality

Recognizing that gender inequality in education begins at the pre-primary or primary level and increases as children grow older, one of the objectives of the EFA movement and the Millennium Development Goals is to reach gender parity at all levels of education by 2012. For adolescent girls in particular, secondary education is critical to their empowerment, development and protection (UNESCO, 2011b). However, the reality is that girls are under-represented in secondary education in many countries in Asia and the Pacific.

Six out of nine South Asian countries have low enrolment rates for girls as well as low gender parity indexes at the secondary level. The gap is widest in Afghanistan and Pakistan but is also problematic

in India at the upper secondary level, particularly in the northern states. Of the countries in East Asia and the Pacific, Cambodia, Lao PDR, and the Solomon Islands all have low enrolment rates for girls (UNICEF, 2011b). Barriers to girls' education in these countries include socio-cultural factors and practices such as early marriage and pregnancy, poor maternal health, household financial constraints, the need for girls to do domestic work, and the perception that their education has less value. In addition, schooling conditions (distance to be travelled, lack of sanitary facilities) and a scarcity of female teachers may dissuade parents from sending their daughters to secondary school (ibid).

At the same time, gender parity has been achieved in secondary education in a number of countries, including in Central Asia, the Pacific sub-region (Papua New Guinea, Fiji, the Solomon Islands, Tonga and Kiribati) and Bangladesh (UNGEI, 2009). In some countries boys are under-represented in secondary education (e.g. Malaysia, Mongolia, Philippines and Thailand). This situation is most commonly explained by labour market-related 'pull' factors which call upon boys to work (particularly in periods and contexts of economic duress), a high percentage of female teachers, a lack of positive male role models and strict classroom conditions (UNGEI, 2011).

Governments in Asia and the Pacific have initiated various policy measures to address gender inequalities in secondary education. Cambodia, for example, formulated the Cambodian Gender Education Policy in 2003, followed by the Gender Mainstreaming Strategy in Education for 2006-2010 and the Quality Standards and Indicators for Gender Mainstreaming in Education in 2006. Undertaken in the context of a Sector Wide Approach (SWAp), these policies are closely linked to sector plans and budget review processes.

In some countries including China, Lao PDR, Mongolia, and Thailand, policy makers have mandated reviews of curricula and learning materials from a gender perspective in order to identify and eliminate gender stereotypes and bias. In other contexts (Indonesia, Cambodia, and Lao PDR), the government has established national mechanisms, structures and units within education ministries to ensure focus on gender issues (UNGEI, 2009). Incentive programmes are another common policy measure. This may explain the achievement of gender parity at the secondary level in Bangladesh (UNESCO, 2011b). For a detailed discussion on Gender see EDN 5.

Socio-economic inequality

Secondary students from families with low socio-economic status tend to be much more disadvantaged compared to students from upper economic quintiles. Various factors are responsible: both direct and indirect costs (school fees, transportation, uniforms, school supplies, projects, and other contributions), opportunity costs, perceptions by children/parents about the poor quality of education and low expectations on the part of teachers toward students from poor families.

In Lao PDR, only 11 to 25 per cent of children from the country's seven poorest provinces are expected to reach and complete grade 11 (figure 3). In Myanmar, only 28 per cent of children from the poorest households are in secondary school, compared to 86 per cent for the richest households (UNICEF, forthcoming). Sub-regional analysis in UNICEF's State of the World's Children 2011 report corroborates these findings. According to the report, across South Asia as a whole, children living in the poorest households are three times less likely to receive a secondary education as those living in the richest households (UNICEF, 2011b).

100
80
80
20
Wongolia Mongolia Mongolia

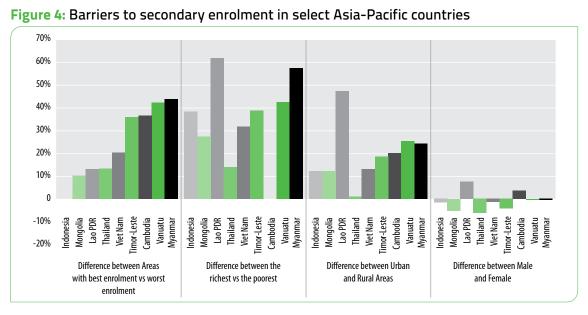
Figure 3: Lower secondary school attendance by economic quintile, East Asia and the Pacific

Source: MICS and DHS data analyzed in the Global Initiative on Out-of-School Children: East Asia and the Pacific Regional Study 2012 (UNICEF, forthcoming).

The mother's education, which bears heavily on the family's socio-economic status, is strongly correlated with a child's attendance at secondary school. For example in Myanmar, while 84 per cent of children whose mothers have secondary or higher education attend secondary school, only 54 per cent of children whose mothers attended only primary school do so. Where the mother has no education, the rate is 31 per cent (UNICEF, forthcoming).

Geographic and urban-rural disparities

Regional disparities in access to secondary education at provincial, state and district levels are particularly pronounced in large, multi-jurisdictional countries such as India and Indonesia. A common challenge to equitable access is geography. In Indonesia, access is more difficult in remote areas and dispersed island communities in locations such as Papua and Sulawesi, where secondary schools are often located some distance away from villages. In such contexts, children often drop out at the end of primary school. Remote and less-populated geographic regions are also under-resourced, with limited local revenues and greater difficulties in influencing national funding formulas in their favour (UNICEF, forthcoming). Figure 4 summarizes the economic and regional sources of disparity in secondary enrolment within the Asia-Pacific region.



Source: MICS and DHS data analyzed in the Global Initiative on Out-of-School Children: East Asia and the Pacific Regional Study 2012 (UNICEF, forthcoming).

Policy measures taken to address inequities are varied. In some countries, school grants provide resources directly to local school committees, with financing formulas that favour small and disadvantaged schools. Other governments provide inter-governmental transfers, and specialized policies and interventions such as boarding facilities and hostels aimed at eliminating the distance factor which keeps many rural children or children living in remote communities from attending secondary school. Some countries provide assistance with transport, as in the case of Thailand where the government introduced a bicycle-lending scheme to help rural children access secondary schools (UNESCO, 2011a).

Socio-cultural inequality

Ingrained socio-cultural definitions of identity such as the caste system in South Asia have had an inter-generational impact on secondary participation. In India and Nepal for example, Dalits and other groups have historically faced discrimination in education, a phenomenon that persists at secondary levels despite affirmative action to eliminate it. In many countries, 'children of migrants' represent a specific identity with clear educational disadvantages at the secondary level. In Myanmar and China, children from families who have to migrate to find work are clearly disadvantaged in terms of attendance and learning outcomes. In Sri Lanka, vulnerable children include those from the plantation community, street children and children affected by conflict (UNESCO, 2011a).

Ethnic minority groups also tend to be under-represented in secondary education. In Viet Nam, while participation of ethnic minority groups in lower secondary education reached 15 per cent of total students in 2007, the proportion in upper secondary was only 10 per cent (UNICEF, 2010). In the Philippines, Nepal and Cambodia, recent changes to national education policies, along with innovative investments in mother tongue-based education materials and teacher training, have resulted in higher primary completion and learning outcomes (UNESCO 2007).

Disabilities and special needs

Data are meager on the experience of children with disabilities in Asia and the Pacific. In Thailand, the number of students with disabilities integrated into secondary education is reported to be very small. In Viet Nam, as part of the plan to implement a national policy on education for children with disabilities, a national survey was conducted to look at enrolment of children with disabilities in schools. The results show that 46 per cent of children with disabilities are illiterate; one-third never attended school, and 85 per cent did not finish primary school (UNESCO, 2009c). Barriers to the education of children with disabilities include insufficient resources, physical inaccessibility, a lack of coordination and communication between departments, and negative cultural attitudes towards disability issues.

Raising and educating a child with a disability requires additional family resources. A study in Bangladesh found that the parents of children with disabilities faced additional costs for household amenities and health care which were three times the average household budget for raising children (UNESCO, 2010a). In many cases, these additional costs make education, particularly secondary education, prohibitively expensive for children with special needs from poorer families. Education ministries will need to develop policies, guidelines and necessary support to ensure that all secondary schools are disability-friendly and that secondary education for all is a reality for children with disabilities.

It is important to emphasize that raising and educating a child with a disability requires additional family resources. A study in Bangladesh found that the parents of children with disabilities faced additional costs for household amenities and health care which were three times the average household budget for raising children (UNESCO, 2010a). In many cases, these additional costs make education, particularly secondary education, prohibitively expensive for children with special needs from poorer families.

2.1.3 Quality of secondary education

The acquisition of knowledge, skills and competencies through secondary education is dependent on the quality of education that students receive. Furthermore, education must be relevant to meet the needs of both learners and potential employers in the private sector. Ensuring the quality of secondary education in Asia and the Pacific is therefore a priority of policy makers.

Broadly speaking, education quality has several key components: teachers, curriculum and pedagogical approaches, and learning assessment and evaluation. Ongoing research in this area, discussed in the End of Decade Note on EFA Goal 6, has examined learning needs and assessment, including the Programme for International Student Assessment (PISA) results and learning outcomes (UNESCO, 2012b). For the purposes of Goal 3, we will limit our focus to how education systems have been promoting the acquisition of knowledge, skills and competencies from the perspective of teachers and curriculum.

a. Teacher qualifications and pre-service training

Teachers play a vital role in providing quality secondary education and yet, it is considered to be more difficult to attract teachers to, and educate and retain teachers, in secondary schools than in other levels and types of education (Gannicott, 2009).

In many countries of the region, concerns are continually expressed about the quality of secondary teachers. Despite the mixed findings in regards to the contribution of teachers to student achievement, their role is nonetheless seen as critical. What remains difficult is defining and measuring the characteristics which constitute a quality teacher (Gannicott, 2009).

Over the past decade, most Asia-Pacific countries have worked on improving the skills of secondary teachers and ensuring that they receive a formal period of pre-service training. Japan and the Republic of Korea report that almost all of their secondary teachers are fully qualified, while similar patterns can be seen even in lesser-developed countries.

Completion of Grade 12 is the average minimum qualification for entrance to teacher-training colleges in all ASEAN (Association of Southeast Asian Nations) +6 countries except in Brunei Darussalam, India, Lao PDR and Myanmar, where the entrance level is Grade 10 or 11 (figure 5). This lower requirement coupled with the shorter duration of the teacher-training course (two years for primary school teachers and three to four years for secondary school teachers) could negatively affect teacher quality.

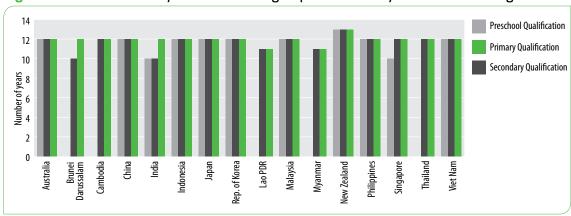


Figure 5: Total number of years of schooling required for entry to teacher training

Source: Compiled by UNESCO Bangkok from different sources.

In some countries (e.g. Singapore, Japan and the Republic of Korea), the duration of pre-service training is four years, which means that these teachers tend to be better qualified, and therefore more able to achieve learning outcomes.

From a comparative perspective, it is interesting to examine the different minimum qualifications required to become either a lower or upper secondary teacher. Eight countries in the ASEAN+6 group require only an ISCED level-4 qualification in order to become a lower secondary teacher, as illustrated in Table 3 below. However, the same number of countries, including the regional Organisation for Economic Co-operation and Development (OECD) countries, require a higher qualification, notably one at the tertiary level (a four-year degree in most cases). For upper education, almost all countries require teachers to have a tertiary (ISCED 5) qualification. The only exception is Lao PDR, which requires the same qualification as for lower secondary teachers (11 years of formal schooling plus three years of pre-service teacher training) (UNESCO, 2013).

Table 3: Overview of teacher management policies

	Qualifications (Minimum years of study)/			Teacher Standards			raining	Teacher Salary and Other Benefits	
		ool + Years in Tead		Entrance Examination/Test	Probationary Period	Licensure Renewal/ Sustaining			Evaluation and Rewards (i)
	Preschool	Primary	Secondary						
Australia			12+4	No	Yes	Yes; 5 years	Yes	-	No
Brunei Darussalam	-	10 + 3	12 + 4	No	No	No	Yes	No	-
Cambodia	-	12 + 1	LS: 12 + 2 US:12 + 4	-	-	-	Yes	Yes	-
China	12	12	LS: 12 + 2 US: 12 + 4	Yes	No	No	Yes	No	Yes
India	10 + 1	10 + 1 or 12 + 1 (ii)	12 + 4	-	-	-	Yes	Yes	-
Indonesia	12 + 2	12 + 2	12 + 2	Yes	Yes	Yes	Yes	Yes	Yes
Japan		12 + 1	12 + 4	Yes	Yes	No	Yes	Yes	Yes
Republic of Korea	12 + 2		12 + 4	Yes	No	No	Yes	-	Yes
Lao PDR	-	5(+4); 8(+3); 11(+1)	LS: 11 (+3) US: 11 + 4	-	-	-	Yes	Yes	-
Malaysia			12+3 or 4	No	Yes	No	Yes	Yes	Yes
Myanmar	-	11 + 2	11 + 3	-	-	-	Yes	Yes	-
New Zealand		13 + 3	13 + 4	No	Yes	Yes; 2 years	Yes	Yes	Yes
Philippines			12 + 4	No	No	Yes; 1 year	Yes	Yes	-
Singapore	10 + 2		12 + 2	No	Yes	No	Yes	Yes	Yes
Thailand	-	12 + 2	LS: 12 + 2 US: 12 + 4	No	Yes	Yes; 5 years	Yes	Yes	-
Viet Nam		12	LS: 12 + 3 US: 12 + 4	-	-	-	Yes	Yes	-

Notes: i: Measures for evaluation and rewards in place

ii: Varied across states depending on the degree of teacher shortage

Source: Compiled from various sources by UNESCO staff.

However, increased qualifications and academic requirements for teachers do not necessarily quarantee a higher-quality teacher workforce. Furthermore, studies have yet to convincingly show that teacher qualifications are positively associated with improved student learning (Gannicott 2009). Although ensuring teachers are adequately qualified remains as a priority for many governments in the region (as evidenced by the large number of policy documents and research papers on the topic), some governments are also beginning to recognize other teacher attributes that are important for student learning outcomes.

Enhancing pre-service and in-service training for teachers

The skills of teachers need to be developed, and professional motivation improved to meet the changing demands of secondary education. This will require a balanced combination of highquality pre-service training and school-based in-service training. Policies to attract and retain highquality teachers are also needed, along with accountability mechanisms for teachers and school administrators to improve school-based management (Bruns, 2011). Information and communication technologies must also be integrated into teacher training and classrooms without triggering new forms of inequality between urban and rural schools.

In line with McKinsey and Company (2007) recommendations, several countries in the region, including Japan, the Republic of Korea and Singapore, are now focusing on attracting the right people into the teaching profession by, for example, targeting the top cohort of secondary graduates and limiting enrolment in teacher training to those with a genuine aptitude or motivation to teach. A bellwether example is Singapore, which implements a selection process run jointly by the Ministry of Education and the principal teacher training body. This process reviews not only the academic ability of candidates but also their motivation and aptitude for teaching. Similarly, Taiwan Province of China conducts an extensive screening of candidates and accepts only a small number (Gannicott, 2009).

Another essential measure to raise the quality of teaching is ongoing professional support, including in-service advisors and inspectors, study opportunities for teachers, training workshops, interschool visits and peer consultation in teacher clusters. This is most important for new teachers in their first few years of service, and has been shown to positively affect teacher retention. According to practitioners, training and support within the first five years of teaching in the teacher's own classroom environment is one of the most effective strategies to foster professional growth. Policies for in-service training and continuous professional development of secondary teachers exist in most ASEAN+6 countries, except in Lao PDR, where training for secondary school teachers is organized on an ad-hoc basis (UNESCO, 2013).

b. Curriculum

A relevant curriculum is a prerequisite for the provision of quality education and as such, is a critical area of education policy (Gauthier, 2006). Lower secondary generally has the function of consolidating the knowledge and skills acquired in primary school, particularly with regards to literacy and numeracy. The curriculum typically includes core subjects such as mathematics, natural and social sciences, health education, foreign languages and citizenship education. It is undifferentiated in terms of subject specialization between different learning streams such as science and arts (UNESCO, 2011a). Specialization takes place at upper secondary level and varies according to socio-economic context.

Many governments explicitly state that the secondary curriculum should be relevant for students entering higher education or the labour market and should equip students with sufficient knowledge, life skills and/or practical skills needed for life after school. However, many countries lack the required human and financial resources to make this a reality (UNESCO, 2013). Table 4 below sets forth the curricular aims of several Asia-Pacific countries.

Table 4: Examples of curricular aims from select Asia-Pacific countries

Australia	The Australian curriculum will equip all young Australians with the essential skills, knowledge and capabilities they need to thrive and compete in information-rich workplaces and a globalized world.
Brunei Darussalam	The new education plan, SPN 21 (Sistem Pendidikan Negara Abad Ke-21), takes into consideration key aspects of quality education for nation building and human capital development. It aims to achieve quality education through the provision of a balanced curriculum which is benchmarked against creditable quality assurance or international- standard assessment systems.
Cambodia	The aim of the school curriculum is to develop fully the talents and capacities of all students in order that they become able people, with parallel and balanced intellectual, spiritual, mental and physical development.
China	The school curriculum serves the aims of basic education, as defined in the 2001 State Council Resolution on the Reform and Development of Basic Education:
	Enable the development of a new, well-educated, idealistic, moral and patriotic generation with a love for socialism, who will inherit the fine traditions of the Chinese nation;
	Develop an awareness of socialist democracy and law as well as respect for state laws and social norms;
	Develop an appropriate world outlook, life outlook and values;
	Develop a sense of social responsibility;
	Develop an innovative spirit, practical skills, a knowledge base of sciences and humanities, and an awareness of environmental protection issues;
	Develop good physical health and psychological qualities, healthy aesthetical tastes and lifestyles.
Japan	In Japan, the standard nationwide curriculum known as the 'Course of Study' aims to strengthen the teaching of basic content and to develop education based on individual students' needs and abilities.
New Zealand	The New Zealand curriculum aims to foster in all students a strong foundation in knowledge, high levels of achievement, and a lifelong engagement with learning.
Philippines	The secondary education curriculum aims to raise the quality of Filipino students and empower them for lifelong learning through the attainment of functional literacy.
Singapore	Singapore's national curriculum aims to nurture each child to their full potential, to discover their talents and to develop a passion for lifelong learning. Students go through a broad range of experiences to develop the skills and values that they will need for life.

Source: Compiled by UNESCO staff based on different sources.

All Asia-Pacific countries have secondary education curriculum frameworks in place. Some of these frameworks have existed for a considerable period of time (e.g. since 1990 in Nepal for upper secondary), and there is a risk of them becoming ossified and increasingly irrelevant, or expanded to breaking point as a result of incremental additions made to address specific emerging issues (e.g. HIV and AIDS, disaster preparedness, climate change, peace education). There are also examples of on-going systematic changes to learning objectives and content, such as in Lao PDR, where reforms have been undertaken progressively for grades 6-12.

In some countries, the development and revision of secondary curricula has been split between levels of government or different government department. For example, in Viet Nam, following the revision of the lower secondary curriculum in 2006-2007, it was decided that some history and geography content could be localised at the provincial level in line with appropriate regulations (UNESCO, 2011a).

In many countries of the region, curriculum development is now at the forefront of educational change. This commonly involves harnessing new information-age technologies, changing the content of outdated curricula and addressing the need to equip learners with new skills and knowledge for the world of work in an increasingly competitive environment. In reforming education for economic competitiveness, many education ministries have realized the importance of curricula that emphasize the development of life skills such as critical thinking, interpersonal skills and creativity in addition to mastering knowledge.

Education ministries also need to invest in alternative delivery schemes that provide quality learning in non-traditional ways, such as through information and communication technologies (ICT), multigrade community secondary schools, summer learning camps, and independent modular learning. Working with older adolescents and adults allows for more independent learning approaches and innovative methods for achieving secondary equivalence – or for acquiring specific livelihood skills. In Bangladesh, for example, the Bangladesh Rural Advancement Committee (BRAC) offers

alternative education opportunities for young people in remote rural areas and in urban slums, encouraging them to transfer to the formal sector afterwards (UNESCO, 2008c).

c. Learning assessment

Student assessment is an integral part of the education process as it provides vital information on the quality of learning. Although there are many modalities of student assessment, only exams feature prominently in countries' education policy documents.

Throughout Asia and the Pacific, national secondary exams determine access to the next level of schooling, to higher education and to better life opportunities (UNESCO, 2011a).

The importance of exam results for students' progression means there is pressure on governments to ensure the integrity of examination systems and the accuracy of the results. Australia, Bangladesh, India and Pakistan have eliminated primary school exams, in line with shifts to compulsory basic education and as a means of increasing access to secondary education. A smaller set of countries - Australia, New Zealand and Hong Kong (China) - have additionally eliminated the exams taken at the end of lower secondary (ibid).

Child-Friendly School frameworks, which emphasize community participation in schools and school-based assessments (SBAs), are common across the region. SBAs are a more flexible exam model, focusing on critical thinking rather than rote learning. Countries have developed their own SBA systems, and there is little cross-country sharing of research or experience. Some – notably Australia, New Zealand and Hong Kong (China) – have been using school-based assessments for a long time as part of assessment reform, while others such as Malaysia have only recently introduced them. SBAs are associated with a number of educational benefits, including a reduction in exam pressure, greater autonomy and flexibility for teachers, and a greater likelihood that students will acquire important skills such as critical thinking, creativity and entrepreneurship. Recent experiences with SBAs in the region have, however, highlighted the importance of ensuring the integrity and comparability of SBAs in such a way as to ensure that all student learning achievements can be effectively captured and measured (UNESCO, 2011a).

In addition, there is growing interest in Asia and the Pacific in international assessments such as the OECD's PISA and the International Association for the Evaluation of Educational Achievement's (IEA) Trends in International Mathematics and Science Study (TIMSS). This is likely to continue as more countries view international tests as a means to develop more comprehensive and advanced educational monitoring systems and to compare the knowledge and skills of their students with counterparts across the globe. These assessments also allow countries to examine trends in student performance over time and to network and exchange information with other countries on these issues. Given that PISA assesses 15 year olds in reading, mathematics and science, it is seen as a key indicator of quality at the secondary level. Several East Asian countries ranked among the highest global performers in the 2009 PISA, including Shanghai-China, the Republic of Korea, Hong Kong (China) and Singapore (OECD, 2010). For more detailed information on learning assessment, see EDN 6.

d. Financing secondary education

The challenge of extending access to, and increasing the quality of, secondary education cannot be addressed without adequate resource mobilization and allocation. The expansion of secondary education necessitates huge financial resources, particularly because of subject specialization.

Central Asia and East Asia each allocate around 3 per cent of their gross domestic product (GDP) to education, and South and West Asia just under 4 per cent. The share of education as a percentage of total government expenditure (considered a better measure of education spending) varies widely across the region, ranging from 9 per cent in Japan to 28 per cent in Vanuatu. While Central Asia

registered a steep decline in education's share of total government expenditure between 1990 and 2008, most other countries reported a rise. National public expenditure on secondary education in Asia and the Pacific accounted for a little over 1 per cent of GDP and about 5 per cent of all government expenditure (Tilak, forthcoming).

While data are limited, the available information suggests that households and other private sources do not contribute greatly to secondary education as a proportion of total funding, although households do generally pay school fees (particularly at upper secondary level).

Measures to make secondary education more accessible to marginalized groups include waiving tuition fees. Cambodia, Lao PDR, Malaysia, Mongolia and Thailand have eliminated tuition fees at lower and, in some cases, upper secondary level. Indonesia has a national scheme to provide monthly stipends to poor families whose children regularly attend junior secondary schools. In Malaysia, the Poor Students Trust Fund (KWAPM) was established to assist families living below the poverty line to put their children through secondary school (UNESCO, 2008b). In Bangladesh, a female stipend programme for lower secondary education provides monthly allowances for most girls outside of metropolitan areas. Those who reach Class 9 and 10 receive additional payments for new books and exam fees. Groups marginalized by the caste system in India have also benefitted from such schemes, including through scholarships for matriculation and post-matriculation studies (UNESCO, 2008c).

Expenditure on private tutoring is also an important phenomenon in the region, driven by highstakes exams and socio-cultural traditions that place great importance on education. In Uzbekistan, for example, private tutoring is the second largest category of household expenditure. In the Republic of Korea, nearly three-fifths of lower secondary students and more than one-half of upper secondary students attend private tutoring (Bray, 2007).

e. Life skills and secondary school curricula

Life skills education as advocated by EFA Goal 3 is currently being integrated into national secondary school curricula in many countries in the region. A UNICEF report identified three ways in which this is occurring: i) as a stand-alone subject; ii) inserted into a main carrier subject and iii) infused into several subjects across the curriculum. This pattern reflects a dichotomy in life skills education, where there are essentially two modalities of delivery: the first applies life skills to a particular thematic issue or discipline, e.g. health education or HIV prevention; and the second integrates life skills as a broad approach to education. The former utilises a specific set of life skills identified with the particular issues to be addressed; the latter involves the teaching and learning of a set of generic life skills which are applicable in a multiplicity of social contexts, including the school itself (UNICEF, 2007a).

f. Life skills education strategies

Life skills education programmes vary by programme content and delivery method, depending on the target group. Content may include health education, HIV prevention, vocational or income generation training. Programmes may feature in secondary school curricula or be delivered in nonformal, out-of-school settings. Life skills education is also usually integrated into the CFS model. Table 5 displays LSE target groups and delivery methods in seven countries of the region:

Table 5: Selected LSE priorities in seven Asia-Pacific countries

Country	School-based education	Out-of-school target group
Bangladesh	Review secondary curriculum.	LSE in NFE curriculum for urban working children.
	Organize LSE working group.	Develop life skills strategy for working adolescents on HIV
	Develop outline of LSE curriculum (grades 6-10).	prevention.
Cambodia	LSE in grades 8 and 11.	HIV prevention for out-of-school children aged 13-18.
Nepal	Organize LSE working group.	LSE material for peer educators.
	Integrate LSE in national curriculum for health education.	LSE for vulnerable out-of-school young people.
Pakistan	Develop generic LSE package for MOE Curriculum Wing.	Pilot LSE packages for out-of-school adolescents, including those most at risk.
		Develop national HIV prevention strategy for adolescents and young people.
Philippines	Strengthen reproductive health education promoting the use of the United Nations Population Fund (UNFPA) modules.	Strengthen reproductive health education promoting the use of UNFPA modules in NFE.
Thailand	LSE for HIV prevention.	Life skills in NFE classes for migrant children and their families.
Viet Nam	Mainstream LSE into curriculum.	Community-based LSE for out-of- school children.

Source: UNICEF, 2003, 2005.

Some countries, such as Sri Lanka, have a fully developed life skills curriculum for formal education. Nepal has revised its curriculum and introduced life skills, which are also part of the secondary school curriculum in the Maldives. Bangladesh and Bhutan include life skills education in both formal and NFE (UNESCO, 2008a).

All countries in the Mekong sub-region have national policy and legislation for life skills, but their definitions of the term, strategies and programmes vary widely. The EFA Mid-Decade Assessment (MDA) report on the sub-region notes that progress has been slow in the development of life skills and lifelong learning (UNESCO, 2008a).

g. Health promotion and HIV/AIDS prevention

The importance of life skills-based education in HIV prevention is recognized in the UNGASS Declaration of Commitment on HIV/AIDS (United Nations, 2001). It specifically notes the importance of ensuring that young people develop the life skills required to reduce their vulnerability to HIV infection.

Many countries in Asia and the Pacific have submitted reports on the implementation of national HIV programmes in response to the UNGASS Declaration of Commitment for 2010.

Figure 6 presents, for a selection of countries, the most recent UNGASS/UNAIDS data for Indicator 13, which reports the percentage of women and men aged 15-24 in the region who are knowledgeable about HIV transmission and prevention.

45% 40% 35% 30% 25% 20% 15% 10% 5% Indonesia Malaysia Mongolia Myanmar Papua New Guinea **Tajikistan** Viet Nam Marshall Islands Palau Thailand Cambodia slamic Rep. of Iran Kazakhstan Kyrgyzstan Nepal

Figure 6: UNGASS/UNAIDS Indicator 13: Percentage of population aged 15-24 who are knowledgeable about HIV transmission and prevention

Source: UNAIDS Database, available at: http://data.un.org/Data.aspx?d=UNAIDS&f=inID%3a5

The data presented for Indicator 13 show that few countries in the region have made significant progress educating their populations about HIV transmission and prevention. While many countries were unable to provide data, those that were able reported low levels of knowledge among their young people. Apart from Cambodia, Myanmar and Tuvalu, the majority of countries reported that significantly less than half the youth population possess knowledge about HIV transmission and prevention. The UNGASS/UNAIDS data seem to indicate that in many Asia-Pacific countries, life skills education on HIV and AIDS has only just begun.

Box 1: Cambodia case study

In 2005, the Life Skills for HIV Education (LSHE) programme was introduced into Cambodian primary and secondary schools and into communities to reach out-of-school youth as a means of contributing to the national HIV response in 14 provinces. The LSHE programme has been very successful at improving the level of comprehensive HIV, AIDS, and sexual and reproductive health knowledge among grade 6 students. These were assessed by the school Knowledge-Attitudes-Behaviour Survey. Students in the project schools had significantly higher scores than those from non-project schools on knowledge of LSHE content, attitudes (towards hypothetical situations involving persons with HIV) and familiarity with skills, such as refusal, delay and negotiation. Individual interviews and focus group discussions confirmed that boys and girls from the project districts were knowledgeable, communicative and confident about what they had learned, but the study was unable to demonstrate changes in behaviour beyond the reported familiarity with skills (World Education, 2012).

2.1.4 Key issues and remaining challenges

Though many efforts have been made to improve secondary education in Asia and the Pacific, progress has been rather slow and uneven. Without a major push forward, many of the efforts and gains made are likely to be undermined. Old and new challenges threaten to further slow progress in some areas or even undo successes achieved so far. Some of the key challenges identified are described below.

Uneven regional expansion of enrolment

Despite the substantial growth in total secondary school enrolment in the region, there are wide variations in lower and upper secondary attendance. Many children in South-West Asia remain out of school or are not enrolled in the appropriate grade for their age. Within countries, disparities in access to secondary education are particularly pronounced for the lowest economic quintiles; for certain remote and less-populated areas; for specific ethnic minorities; for children with disabilities and special needs; and between boys and girls, depending on the social and cultural context.

Providing appropriate learning and life skills

Ministries of education are challenged to build education systems that provide students with the necessary knowledge, skills and competencies to function in society and enter the labour market. Life skills education can help to equip young people and adolescents with the competencies they need as well as respond to the learning needs of diverse student populations. A well-planned introduction of life skills-based education using participatory techniques can also help to lead to a 'learning for life' teaching approach and impact on the quality of secondary education.

Need for better teacher training and teacher management

Ensuring the quality of secondary school teachers is a continuing concern. More attention needs to be paid to the required minimum number of years of study to qualify for entrance into teachertraining colleges as well as to the duration of pre-service training. Lower-level requirements coupled with a shorter duration of the teacher-training course can negatively affect teacher quality.

Need to reform learning assessment practices

In general throughout the region, students, parents and teachers place great emphasis on exams that give rise to the phenomenon of 'teaching to the test', rote learning, and private tutoring, particularly in countries where exams are the sole determinant of selection to higher levels of learning. There is a disconnect between what is envisioned as the role of education in shaping future generations, and the means by which success in learning is measured. This has resulted in classroom practices that do not foster cooperative learning, critical thinking or child-centred approaches.

Transition from school to work

Linkages between school and the labour market require further consideration, and coordination between schools and employers are needed to ensure there is an appropriate mix in the curriculum of general and specific vocational skills to meet workplace demands.

Adequate financing needs to be ensured

The high costs of secondary schooling in many countries act as a barrier for the poor. The direct costs of secondary education that have to be borne by learners and their families are one major constraint while another is indirect costs that exclude specific sectors of society from quality secondary education. Ensuring that secondary education is made more accessible for marginalized groups will require adequate financing. A range of policy measures have been employed in the region to address financial barriers to access. However, large numbers of children and young people from these groups still remain excluded from the school system.

2.1.5. Priority areas for action and potential strategies

Greater equity in access

A clearer understanding is needed of why young people are not attending secondary school. This calls for increased investment in research on the scope and nature of exclusion. To reach hardto-reach groups, innovative approaches to delivery and support are required, including social protection measures such as providing families with incentives and financial support that are linked to school attendance and children's educational performance.

Strengthened monitoring systems are also required, with countries to date investing more in primary EMIS than in secondary. Effective monitoring systems can help education ministries identify the adolescents who are not enrolled in secondary school, and then design targeted policies.

Quality relevant curricula, including life skills education

Countries in the region need to prioritize the development and implementation of secondary school curricula (that correspond to the learning needs of young people) and appropriate pedagogical approaches. Life skills education should be mainstreamed throughout the curriculum, and include vocational subjects that are similar to those offered at TVET schools. There needs to be sustained attention in the curriculum and co-curricular activities to HIV education among adolescents specifically on modes of transmission and prevention. This should be delivered as part of a more comprehensive syllabus.

Reforming secondary school exams

Secondary-level assessment reforms are considered long overdue and education ministries should shift attention from teaching geared solely to passing academic tests to assessing outcomes that include employability, livelihoods and life skills.

Providing adequate financing

The success of any reform depends on funding. Finance ministries need to increase funding for secondary education, as well as protect investments made to provide quality basic education to all. The need for investments in school infrastructure to accommodate growing numbers of students cannot be ignored – innovative partnerships with non-state partners might be able to help.

2.2 TVET: Education for the world of work

2.2.1 Definitions and context

Technical and vocational education and training (TVET) is relevant to the life skills component of Goal 3. TVET, or education for the world of work, helps foster career pathways for young people and adults. With growing numbers attending and completing basic education, TVET and skills training are now more than ever playing a vital role in enabling people to work in dignity, support themselves and their families and gain respect as effective members of society. Given its practical orientation, TVET has attracted considerable interest from governments and is increasingly viewed as a major instrument to boost socio-economic development, reduce poverty and promote labour market inclusion. A conceptual framework is provided below to aid in our understanding of TVET and guide our analysis.

The purpose of TVET is to provide participants with the practical knowledge and skills they need to enter the workforce. Technical education includes, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors. By contrast, vocational training is often used to describe short-term training in specific occupationally related skills.

The scope and delivery systems of TVET tend to vary from country to country to reflect specific national contexts and socio-economic situations. TVET may be delivered at different levels for different target groups and age cohorts in different types of institutions, including technical and vocational schools (public and private), non-governmental organizations (NGOs), private enterprises, and apprenticeship training centres through formal, informal and non-formal learning arrangements.

Various terms in the past have been used to describe certain elements of the sector that now constitute TVET. In 1999, participants at the Second International Congress on TVET in Seoul agreed 'technical and vocational education and training' was the most appropriate and comprehensive term to use. TVET continues to be widely used to refer to the acquisition of knowledge and skills relevant to the world of work (UNESCO, 1999).

Areas of analysis

This chapter examines trends in TVET development and different types of TVET provision in the Asia-Pacific region. It should be noted, however, that the statistics found in this section are limited to formal TVET programmes delivered by governments and employers, as data on non-formal and informal TVET are not readily available. This section will cover the issues of access, equity, relevance and quality, supported by country-specific examples. General TVET financing and the incorporation of life skills approaches will also be briefly analyzed.

2.2.2 Progress and trends

The Asia-Pacific regional background paper for the Third International Congress on TVET prepared by UNESCO Bangkok in 2011 served as the primary reference material for this report. This section also draws on various other sources, including reports, studies and data from the UNESCO Institute for Statistics (UNESCO-UIS), the International Labour Organization (ILO), the Asian Development Bank (ADB), the World Bank, the Colombo Plan Staff College and the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). All of these international organizations define the Asia-Pacific region differently; but despite the variations in country groupings, the overall statistical data are consistent and present general patterns observed in the region.

a. Regional overview

Asia and the Pacific is a region with large economic disparities whose countries are at different stages of economic development. This is evident in the 2010-2011 Global Competitiveness Index, where Singapore places 3rd and Timor-Leste 133rd among 136 countries globally (World Economic Forum, 2011). Each country's TVET system, therefore, must adapt to the unique needs of its economy.

Although most countries in the region have very similar overall aspirations regarding TVET, their immediate goals and strategies distinctly differ. Some are suffering from a shortage of skills in particular areas, while others are not able to generate enough jobs to accommodate labour market entrants. Although Central Asian countries, for example, share many similar features, including almost-identical TVET systems due to their shared Soviet past, they pursue divergent strategies to achieve systematic improvements in skills development. Kazakhstan provided 4.9 billion Tenge (approximately US\$33 million) to TVET institutions to upgrade their facilities, equipment and resource base between 2007 and 2009. Tajikistan, on the other hand, could only provide salaries for TVET teachers and these are still below the national average (UNESCO, 2011c).

Improvements have been made to TVET programmes specifically in the areas of organizational and management structures, the development of occupational standards, the establishment of financial incentives, the accountability of results, and the collaboration with industry (UNESCO, 2011c).

There are also several common trends. Most apparent is that participation in secondary-level TVET is largely dominated by males. Sub-regional figures underscore this point: In East Asia and the Pacific and Central Asia, 48 per cent of participants are female, and in South and West Asia the corresponding figure is only 30 per cent. At the national level, females make up only 30 per cent of the secondary-level TVET population in Fiji, India, Islamic Republic of Iran, Kazakhstan, Kyrgyzstan and Tajikistan, and only 10 per cent in Hong Kong (China). Exceptions to this trend are Viet Nam, where girls outnumber boys, albeit with low participation rates overall, and China, which has achieved gender parity (see Statistical Annex).

b. TVET at the secondary level

The relative size of formal TVET in the context of secondary education can be seen in figure 7, which charts the share of TVET students in upper secondary in 2000 and 2009. In 2009, the Asia-Pacific countries with the highest share of upper secondary TVET students as a percentage of all upper secondary students were Uzbekistan (88 per cent), Australia (47 per cent), Indonesia (39 per cent), Thailand (37 per cent) and Mongolia (25 per cent). It should be noted that the high level of TVET enrolment at upper secondary in Uzbekistan is due to the government policy of promoting and encouraging students to enrol in the TVET stream and the fact that education through the upper secondary level is compulsory (UNESCO, 2012a).

Uzbekistan and Kazakhstan posted the highest growth rates in secondary TVET in the nine-year period, at 29 per cent and 8 per cent respectively (figure 7). Meanwhile, Australia, Hong Kong (China), Indonesia, Japan, the Republic of Korea and Tajikistan all registered a decline in enrolment growth. Such discrepancies in enrolment and growth rates over the years highlights how participation in TVET is determined by the domestic context.

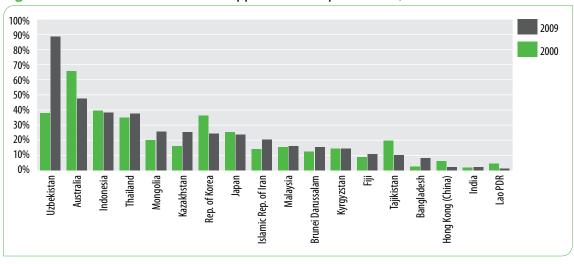


Figure 7: Share of TVET students in upper secondary education, 2000 and 2009

Source: Statistical Annex, UIS, 2012.

Simply put, changes in TVET enrolment are a reflection of the evolving skill demands in each country. The share of TVET has fallen in the Republic of Korea, which reflects the rapid expansion of its technology and knowledge-intensive sectors, resulting in a lower demand for traditional TVET graduates. Japan faced a similar situation, which also resulted in a fall in TVET enrolment at the upper secondary and tertiary levels. In Viet Nam, in contrast, the increase in TVET enrolment is due to the rapid industrialization of the economy (UNESCO, 2011c).

Nonetheless, low enrolment levels and decreasing enrolment over time do not necessarily signify a decrease in the importance of TVET. A case in point is Lao PDR, which has the lowest share of TVET students at the upper secondary level due to resource limitations and the lack of employment opportunities for TVET graduates. The Lao Government has set an ambitious target to increase

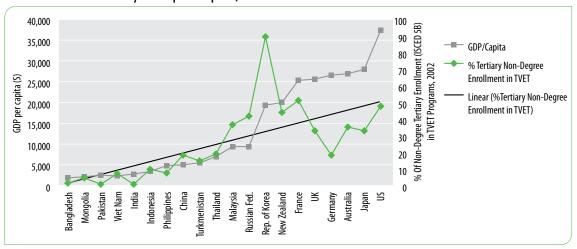
enrolment of upper secondary students in the TVET stream to 25 per cent of all secondary students by 2015 (ADB, 2011).

c. Vocationalization of secondary education

The vocationalization of secondary education is of particular interest to many countries in the region as a way to provide graduates with the necessary skills and knowledge for employability. While this approach has been hotly debated and its validity questioned, it does have some solid political support. Lao PDR and Bangladesh are considering introducing a vocational stream into general secondary schools while a number of middle-income countries have already moved forward on this (UNESCO, 2011c). Malaysia, for example, has a multi-stream delivery system at the secondary level, which offers TVET at both general education and specialized schools. The latter provide a more in-depth TVET curriculum separated into three different streams: technical, vocational and skills. At Malaysia's upper secondary general-education schools, vocational subjects cover a range, including construction, home economics and agricultural sciences. Malaysia's multi-stream system ultimately allows for more diversity, focuses on students' interests and supplies the country with a skilled and knowledgeable workforce (Ministry of Human Resources of Malaysia, 2011).

At the post-secondary level, qualifications at ISCED 4 (non-tertiary post-secondary) and 5b (first stage of tertiary 'practically oriented/occupationally specific') are designed for employment in technical, managerial and professional occupations. UNESCO statistics indicate that at least half of all countries in Asia and the Pacific have no enrolment in vocational programmes at level 4, although at level 5b, Asia has the third highest median enrolment compared to Africa, North America, South America, Europe and Oceania (UIS-UNEVOC, 2006). Given the strong correlation between the proportion of TVET students at the post-secondary level (tertiary, non-degree, ISCED 5b) and per capita income in the region, many countries have taken steps to improve higher vocational education to create more options for young people and meet an ever-increasing demand for skills and knowledge (figure 8).

Figure 8: Percentage of tertiary, non-degree enrolment (ISCED 5B) in TVET programmes in selected countries by GDP per capita, 2002



Source: Education and Skills: Strategies for Accelerated Development in Asia and the Pacific, ADB, 2009.

d. Employment of formal TVET graduates

How successful initial vocational education and training (IVET) graduates have been in finding jobs varies throughout the Asia-Pacific region, with employability also depending on wider macroeconomic factors such as the size of the labour force, salary levels and rates of job creation (UNESCO, 2011c).

In Kazakhstan, their employment rate in the year following graduation was 82 per cent in 2009, although only about a third of employees hired met skills requirements. In Kyrgyzstan and Tajikistan, job fairs for graduates, the unemployed and students working during the holidays are organized. However, these are not particularly effective because they usually just steer young people towards vacancies for low-wage jobs (CPSC, 2011). The end of the civil war in Sri Lanka created a strong demand for skilled workers amid a construction boom, which raised capacity in masonry, carpentry and plumbing. China has reported a 95 per cent employment rate for secondary TVET graduates over the past several years, while demand for such graduates and high employment rates can be observed in Malaysia, the Republic of Korea and Taiwan Province of China (UNESCO, 2011c).

Not all Asia-Pacific countries have been able to consistently place their TVET graduates in jobs, however, where the situation is particularly critical in Central and South Asia. In Pakistan, employment rates are low for polytechnic graduates. The results of a World Bank study in Bangladesh indicated that only 10 per cent of TVET graduates were employed, of whom only 5 per cent were female. Around 45 per cent of graduates were unemployed and the same percentage was pursuing further education. Those with vocational qualifications who were employed received lower wages than graduates of the general education system. This suggests a possible mismatch between supply and demand, demand for general skills or the lack of employment vacancies (World Bank, 2007).

e. Progress on apprenticeships

Apprenticeships have long been a tool to provide young people with work experience, an opportunity to learn on the job and pathways to employment. Two types of apprenticeships exist in the region: structured, under the direction of employers and labour organizations; and traditional, which allow out-of-school young people to work with master craftspeople in the informal economy.

Structured apprenticeships provide students with vocational training and supervised work experience. Formal contracts between employers and the training organization often link the two elements of the internship. Such arrangements are common in Australia, New Zealand and Singapore. Creative Industry (CI) Apprenticeships in Singapore, for example, are available in the performing arts, design, public relations, publishing and music, and consist of two components: on-the-job training and the compulsory CI Workforce Skills Qualification training programme. The apprenticeships are organized by employers with a duration of between three and 12 months (WDA, 2010).

For countries with high levels of informal employment, traditional apprenticeships may be the main source of skills development. This type of training has several advantages, including a focus on practical skills such as financing. It is also inclusive, catering to people who do not meet requirements for formal apprenticeships, or who live in geographically isolated areas. However, the programmes have a limited capacity to support a country's or sub-region's move from factor-driven to efficiencydriven economies (UNESCO, 2011c). Countries can augment traditional apprenticeships by coupling them with other initiatives such as micro-financing. In India, this approach was used to increase the financial security and well-being of women in rural areas of Tamil Nadu. Similarly, in Tajikistan, sewing and food preservation courses, organized through women's centres in the rural regions, together with micro-loans, increased the employability of women (ILO, 2011).

f. Employer-led training

Employer-led training brings the benefits of self-regulation and self-financing; however, it is selective, with low access for workers in small and medium-sized enterprises and low levels of formal training. Usually, training is not provided on the grounds of equity, and public interventions could help to broaden access. South Asian enterprises tend to pay less attention to the skills development of their workers compared to their counterparts in East Asia where fast-growing economies require highly skilled human resources.

An important trend in employer-led training over the past few years is an increased interest in 'the learning organization', which stems from multinational companies using economies of scale in skills development. Commonly, a leading firm develops standards and programmes for skills development and sometimes even provides facilities and personnel to deliver training. Two companies in the Asia-Pacific region exemplify this trend: Thailand's Siam Cement Group, which has established a knowledge management database system to update training programmes in accordance with new practices; and Japan-based Toyota. Its T3 programme targets students in years 11 and 12, providing them with the opportunity of one day's paid work at Toyota, half a day at a Technical and Further Education institution and three and one-half days at school (UNESCO, 2011c).

Research from the CASS Institute of Population and Labor Economics underscores the link between worker education and company performance. According to a study conducted in China, manufacturing productivity improves by 17 per cent when workers' education increases by the equivalent of one year (UNESCO, 2011c).

2.2.3 Meeting learning needs

a. General subjects within TVET curricula

A shift in training from a 'lifelong career' to a 'no life-time job security' approach is a new challenge in the region. Countries are trying to balance the development of general and specific skills to ensure students can adapt to the changing labour market. Technological change has increased the importance of general education in TVET as a way to broaden students' occupational focus and to develop their abilities to adapt and diffuse new technologies. Depending on their stage of development, countries are encouraging exposure to both general and specific skills. More emphasis on a general component of education, particularly in developed countries, has contributed to effective performance within high-productivity sectors. In some secondary schools in the Republic of Korea, academic and vocational students share almost 75 per cent of the curriculum, which gives TVET students new pathways to higher education (UNESCO, 2005).

The increasing convergence of academic and vocational education at upper secondary schools and TVET colleges works well for countries at the innovation-driven stage of economic development. In Central Asia, TVET curricula have traditionally retained general studies, including foreign languages, mathematics and science, mainly for educational rather than employment-related purposes. Currently, general studies remain a part of formal TVET. Some countries such as India are readjusting Level 3 vocational programmes to contain a larger element of general education and more generic forms of vocational preparation (UNESCO, 2005).

b. Life skills and core working skills

The inclusion of life skills and core working skills in both formal and non-formal TVET is another trend. In 2006, the Singapore Workforce Development Agency identified ten foundational skills that are applicable across all industries.⁵ Since then, courses are offered in these areas, particularly for

Workplace literacy and numeracy; information and communication technologies; problem solving and decision making; initiative and enterprise; communications and relationship management; lifelong learning; global mindset; self-management; work-related life skills; health and workplace safety.

those who do not have any formal qualifications, to provide an alternative entrance credential for National Innovation and Technology Certificate courses. Since 2001, qualifications in the Philippines have been based on three types of competencies: basic (generic work skills), common (industryspecific) and core (occupation-specific). Some examples of basic competencies are: leading workplace communication, leading small teams, developing and practicing negotiation skills, and solving problems related to work activities. In the Philippines, life skills were integrated into Start and Improve Your Business competency standards.

c. Implementation of competency-based learning

Structural economic changes, and in particular the fast pace of technological change, provide a powerful stimulus for many countries in the ASEAN+6 group to undertake TVET curriculum reforms. Many have introduced competency-based training to ensure appropriate adaptation to evolving business needs. Competency-based training focuses on the outcome – in other words, the attained competencies. It uses industry competency standards as the basis for TVET curriculum development. The curriculum is often modular in structure to provide more flexibility, and includes both on- and off-the-job components. This reform is geared towards developing skills of comparable standards that employers will recognize. Among ASEAN+6 countries, Australia, Indonesia, Japan, the Republic of Korea, Lao PDR, Viet Nam and Singapore have introduced competency-based training standards (UNESCO, 2013).

d. Demand-driven TVET

Evidence in the region suggests that demand-driven TVET is an important factor in economic development as it responds to market demands for specific competencies. It also ensures higher employability of TVET graduates. The profile and characteristics of a country's economy shape its workforce requirements which, in turn, should be reflected in the type of TVET provided. A demand-responsive training system should address labour market needs, including incentives for training providers, as well as flexible training delivery. Involvement of employers at all stages of TVET roll out and in governance structures is equally important to ensure demand-driven TVET.

India's national skills policy, developed in 2009, focuses on the restructuring of TVET into a demanddriven system guided by labour market needs. In Viet Nam, the TVET system is directed by labour market demands, with courses delivered flexibly. Specifically, the General Department of Vocational Training undertook the development of a new national competency-based curriculum which is relevant to industry requirements (Ministry of Education and Training of Viet Nam, 2006). Australia emphasizes strong engagement of industry and employers. Its National Qualifications Framework is bringing together the major players in TVET – industry, unions, governments, equity groups and practitioners – to oversee quality assurance and ensure consistency of TVET across Australia. The Philippines Development Plan (2011-2016) includes a strategy to improve demand-supply matches for critical skills and high-level professions through tighter industry-academic links and better dissemination of labour market information and career guidance (National Economic and Development Authority of the Philippines, 2011).

e. Strengthened TVET information systems and improved guidance services

Comprehensive labour market information and analysis are required for the introduction of demand-driven TVET. Data should be reliable and up to date to provide the basis for TVET policy evaluation and programme development. Household labour force surveys are the main sources of such information although some countries have implemented other special surveys. Bangladesh, for example, has conducted a national occupational wage survey of companies, and in Viet Nam, the Chamber of Commerce and Industry has conducted a survey on minimum wages (ILO, 2011).

Some Asia-Pacific countries have only recently embarked on labour market analysis. Indonesia, Nepal, Sri Lanka and Viet Nam began publishing labour market reports in 2008. Kazakhstan and Mongolia have also recently started reporting while Cambodia aimed to produce regular labour force surveys by 2011. Sri Lanka is in the process of developing a labour market information system for the TVET sector. Pakistan's Ministry of Labour and Manpower has demonstrated its commitment by establishing a labour market information analysis unit to support programme design, employment policies and human resource development. In Viet Nam, a new Labour Market Information Centre was established to support labour market analysis (ILO, 2011).

In fast-changing work environments, people need to be sufficiently flexible to acquire, adapt, apply and transfer their knowledge to different contexts as well as to respond independently and creatively. In Indonesia and Viet Nam, career counselling and life skills were integrated into TVET programmes targeted at young people in some of the most disadvantaged provinces (ILO, 2011).

All these initiatives aim to prepare women and men to enter the workplace with the relevant skills and to benefit from workplace learning activities. Blending the general and specific in initial vocational training and in other training programmes lays the foundation for further learning and a greater flexibility to adapt to changing labour market conditions.

f. Comprehensive and coherent qualifications systems

To standardize qualifications, Asia-Pacific countries have begun introducing National Qualification Frameworks (NQFs). NQFs are instruments for classifying qualifications according to a set of criteria for different levels of learning outcomes achieved.

In establishing NQFs, Bhutan and Sri Lanka emphasized the utilization of competency standards specified by the industry as the basis for benchmarking. In Pakistan, the National Vocational and Technical Training Commission was established to strengthen the quality of TVET by facilitating, regulating and providing policy direction. The Commission also ensures that both the public and private sectors deliver skills training. It is currently working on the development of national occupational skills standards, curricula, trade testing certification and accreditation systems for all sectors in which TVET graduates work.

Central Asian countries do not have NQFs; however, they all have educational standards (most of which need to be updated and related to professional industrial standards). India oversees the standardization of competencies through Industry Endorsed National Occupation Standards (CPSC, 2011).

In addition to NQFs, Asia-Pacific countries are developing Regional Qualification Frameworks. Bangladesh, Indonesia, Lao PDR, and Thailand have developed Regional Model Competency Standards to foster mutual recognition of skills and qualifications. A number of countries have used Regional Model Competency Standards in key sectors such as manufacturing, tourism, construction and agriculture (ILO, 2011).

g. Establishment of TVET quality assurance systems

Quality assurance of TVET institutions through accreditation plays an important role in improving TVET quality. The Asia-Pacific Accreditation and Certification Commission (APACC) is an accepted regional accreditation body for the certification of TVET institutions. APACC facilitates the crossborder mobility of human resources in the region. Several institutions in Pakistan, Mongolia and Bangladesh have been certified through APACC. In the Philippines, APACC has been appointed the 'third party' accreditation body for all 126 TVET institutions administered by the Technical Education and Skills Development Authority (UNESCO, 2011c).

Different government agencies have been established for accreditation purposes. In Kazakhstan, a national accreditation centre is responsible for the accreditation of Higher Education and TVET programmes. In Malaysia, a qualifications agency was set up to accredit academic programmes at post-secondary or higher education levels (polytechnics and community colleges) and facilitate the recognition and articulation of qualifications focused on industry demands. In Lao PDR, the Ministry of Education's Educational Standards and Quality Assurance Centre developed a TVET Quality Assurance Manual in 2011 (UNESCO, 2011c).

Along with the development of broad quality assurance systems, there have been policy attempts to improve specific aspects of TVET. In 2011, the Philippines TVET Trainers/Assessors Qualification Framework was approved to ensure consistent delivery of TVET through the qualification of a pool of technical trainers-assessors. The Framework consists of four levels: level I qualifications for Trainers/ Assessors; level II for Training Designers/Developers; level III for Training Supervisors and Mentors; and level IV for Master Trainers (UNESCO, 2011c).

2.2.4 Key issues and remaining challenges

Participation in TVET is uneven across the region

Despite the recognition that TVET is important for economic growth, enrolment rates vary widely across the region and TVET continues to be an unpopular choice in some countries. Many countries have taken steps to promote secondary vocational education with higher education training to create more options for students and to meet labour market demands. For countries with knowledge-intensive sectors such as Japan and the Republic of Korea, demand for TVET is low. It is increasing, however, in emerging industrializing economies. Overall, participation rates in TVET have tended to fall over the past decade and the sector continues to receive relatively little government investment.

Decreased demarcation between TVET and general education

A trend towards the 'vocationalization' of general education and the 'generalization' of vocational education can be noted. The dividing line between general and vocational education is blurring. As the ASEAN+6 economies become increasingly knowledge-based, vocational students need an allround grounding to accompany their specific vocational education. Generic skills are increasingly important given today's ever-changing skills requirements. Technology, life skills and core working competencies are components of general subjects taught within the TVET curricula while life skills and core working skills in general education are becoming increasingly vocationalized.

Comprehensive and coherent qualifications systems

In recent years, due to economic globalization, there has been growing policy interest at both national and regional levels to establish qualifications frameworks. Governments are acknowledging the importance of these mechanisms to ensure that all academic degrees and vocational qualifications and standards are consistent at the national level. This, in turn, has created the need for governments to develop common and transparent standards as an important step towards enhancing student and labour mobility and facilitating the integration of domestic and international labour markets.

Need for TVET quality assurance systems

Quality assurance initiatives are on the rise not only for TVET institutions but also for teaching staff through accreditation processes. Different agencies, both national and regional, have been established for accreditation purposes.

Lack of opportunities for workplace training

An alarming reality is that many employers in developing countries in the region fail to invest in staff training, which could have serious implications for economic growth.

Need to strengthen monitoring and evaluation of TVET programmes through regular and detailed data collection

Comprehensive labour market information (LMI) and analysis are essential tools for monitoring skill requirements and are thus important for the introduction of demand-driven TVET. Data should be reliable and up to date to provide the basis for TVET policy evaluation and programme development. Household labour force surveys are the main sources of information while nationwide employer surveys on the demand for specific skills are rare, or are carried out only in certain provinces or sectors. There is limited awareness among policy makers of the importance of collecting more detailed data on job skill requirements. Most countries have only recently started data collection and some have yet to conduct labour force surveys on a regular basis.

Monitoring and evaluation of graduate participation in the labour market

Graduate tracer studies are not widely conducted in most developing countries, which hinders governments' ability to make evidence-based policy decisions.

2.2.5 Priority areas for action and potential strategies

Encourage participation in TVET

Many governments have invested considerable effort and resources to increase access to TVET through a range of channels such as community learning and other non-formal training centres. While it is clear that such initiatives should be sustained, developing further policy measures to attract more people to TVET is becoming increasingly necessary.

To encourage participation, two kinds of strategies can be effective. The first is financial support for TVET students. Some examples include training allowances (provision of a daily stipend during the learning period), loans and microcredit to assist the start-up of new businesses. Rigorous means tests must be considered to determine whether applicants are in need of financial support. If resources allow, a reliable information system on the financial situation of beneficiaries would be very useful to TVET policy and decision makers. Secondly, counselling and guidance services would be highly beneficial to young people and adults interested in enrolling in TVET. To attract more people to TVET, nationwide counselling and guidance services should be accessible to all young people and adults. Civil society organizations can become involved in these programmes and assist in managing support systems for TVET participants.

Improve governance system to ensure the relevance of TVET

It is imperative that TVET policies are aligned with other factors determining labour and skill demands. In particular, the increasing need for generic skills as a result of rapid technological advancements requires approaches that go beyond the narrow confines of TVET policy. To ensure the relevance of TVET, a more comprehensive perspective on human resource development is needed that takes into consideration important education policies, especially those on secondary and higher education.

A comprehensive TVET strategy must involve all ministries responsible for economic and industrial policy, as well as those managing and providing education and social protection. Decentralisation of TVET governance systems might be appropriate in order to make TVET policy more relevant to local needs and contexts, however, nationally consistent standards and qualifications should be maintained. A careful review of the historical background of TVET policy development and the capacity of local governments for policy formulation and implementation is necessary to objectively assess the feasibility of achieving intended results. Without detailed planning and analysis based on these aspects, the decentralization of TVET governance may have only a limited impact, or result in policy failure.

Strengthen alignment of TVET policies with socio-economic development strategies

All governments acknowledge the importance of aligning TVET policy with national economic development strategies, and this is evident in the actual inclusion of TVET in many such plans. However, these do not always translate into reality as intended. The implementation of TVET policies according to development agendas must be improved. For example, in some countries, industrial policies are being formulated with little or no policy coordination and without clear consideration of how the required workforce will be secured. While this type of policy making could dampen economic growth, it could also lessen the contribution of TVET to development.

Although it is important to address imminent skill gaps or shortages faced by the business sector, TVET policy makers should also consider the long-term direction of skills development and endeavour to formulate forward-looking policies that look beyond short-term labour demands.

Enhance participation of employers in TVET policy making and implementation

Involving employers in TVET policy making and roll out is crucial as countries transition to demand-driven TVET. An Asian Development Bank study found that among employers surveyed, less than 7 per cent advised on TVET through national bodies and advisory committees (ADB, 2009). Industry involvement in curriculum, programme design and the development of standards was particularly low in Nepal, Sri Lanka, Kyrgyzstan and Tajikistan. The challenge of engaging small and medium-sized enterprises and employers from the informal sector persists, particularly in developing countries. Governments need to continue their efforts to involve employers in shaping TVET policy in a systematic manner.

2.3 Non-formal education

2.3.1 Definition and context

The Dakar Framework expanded commentary on Goal 3 states that all young people should be given the opportunity for education, especially those who drop out of school. The most common approach for addressing the learning needs of dropouts, hard-to-reach populations and older learners has been NFE – an approach that is well known in the Asia-Pacific region. The 2011 EFA Global Monitoring Report describes NFE as:

"Learning activities typically organized outside the formal education system. The term is generally contrasted with formal and informal education. In different contexts, non-formal education covers educational activities aimed at imparting adult literacy, basic education for out-of-school children and youth, life skills, work skills, and general culture. Such activities usually have clear learning objectives, but vary in duration, in conferring certification for acquired learning, and in organizational structure"

(UNESCO, 2011f, p.361).

NFE is characterized by a diversity and flexibility of content and learning/teaching methods, and thus can respond to the specific needs of learners. While NFE targets learners of all ages, and is offered in a lifelong learning perspective, its main target groups are out-of-school children, adolescents, youth and adults. Key programmes include: youth and adult basic and post-literacy programmes; equivalency programmes at primary, secondary and tertiary levels; livelihood and income-generation programmes; and life skills and entrepreneurial skills training programmes (UNESCO, 2000).

NFE is also characterized by its multitude of diverse actors and stakeholders. While ministries of education usually have a Non-Formal Education Department or Division, which is responsible for designing NFE policies and programmes, other ministries such as social affairs, labour, women's affairs, health, and agriculture also carry out their own NFE extension programmes. However, in most countries, the role of government in NFE is limited in terms of funding and government prioritisation. Often, it is civil society organizations which sponsor and carry out most programmes (Fleming, et al., 2008).

Aspects to be reviewed

The End of Decade Note on Goal 4 makes extensive reference to the challenges of youth and adult illiteracy, thus this area will not be covered in the Note on Goal 3. NFE in this Note will focus on:

- Equivalency programmes
- Livelihood and income-generation skills training.

In addition, a section on how life skills education features within NFE will be included.

2.3.2 Progress and trends

a. Overview of NFE policies and strategies

This section features a selective overview of country policies and strategies on NFE and lifelong learning as they relate to EFA Goal 3.

In 2006, Bangladesh adopted a forward-looking NFE policy framework which embraces a large part of the non-formal learning needs covered by Goal 3. It is anchored in the recognition that NFE can equip people, especially from disadvantaged groups, with the knowledge and skills they need to improve their life and livelihoods (Ministry of Primary and Mass Education of Bangladesh, 2006). The framework aims to provide second-chance opportunities for 16-24 year olds and for the 25+ age group who never enrolled in or dropped out of primary school. It also aims to promote non-formal channels for the development of vocational, entrepreneurship and employment-related skills together with support for access to microcredit or microfinance (ibid). Lastly, it strives to establish equivalency between formal and non-formal qualifications (Manzoor, 2009).

The National Policy on NFE of Cambodia (2002/2003) accords NFE the same official status as the formal education system, underpinned by the country's constitution which enshrines citizens' right to quality education at all levels. The main NFE programmes are: literacy, post-literacy, re-entry, equivalency and complementary education as well as skills and vocational training programmes. The policy states that the NFE curriculum should include quality of life improvements, especially with regards to hygiene, HIV/AIDS prevention, gender, culture, peace, morality and civics in everyday life [Ministry of Education, Youth and Sport (MoEYS) of Cambodia, 2002, 2008, 2010].

Nepal's NFE policy includes the provision of training and support to out-of-school youth for developing technical and vocational skills useful for livelihoods at the local level. In response to Goal 3, Nepal's NFE policy includes the development of life skills education in a broader context. National development plans put emphasis on skills-based training and life skills, but there are no quantifiable targets (Government of Nepal, 2007). Strategies for the provision of appropriate learning and life skills include curricular reforms for the formal sector to include such skills at primary and secondary levels as well as making adult literacy programmes relevant in the context of life skills. However, efforts to reform NFE are hampered by a lack of data. In order to address this problem, Nepal's Policy 9 calls for the development of a common database (Non-Formal Education Management Information System) that will be shared amongst the agencies involved in NFE programmes (ibid).

Indonesia's Law 20/2003 (Article 26) defines NFE as learning that replaces, complements and/ or supplements formal education within the context of lifelong education (Government of Indonesia, 2003). NFE comprises education for life skills, literacy, vocational training and equivalency programmes, among others. Indonesia's policy for Non Formal and Informal Education (2009–2015) includes capacity building in life skills education for youth and adults to foster employment as part of its poverty alleviation strategy. The policy also includes literacy and equivalency programmes for adults with a life skills orientation (UNESCO, 2008b).

In the Philippines, life skills programmes are provided through the Alternative Learning System (ALS). RA 9155 stipulates that the State shall also include alternative learning systems for out-of school youth and adult learners and that the goal of basic education is to provide them with the skills, knowledge and values needed to become a caring, self-reliant, productive and patriotic citizen through informal and NFE. While policies and strategies to expand life skills development to all Filipinos, especially those outside the formal system, are in place, these need to be accompanied by financial prioritization. Less than 1 per cent of the education budget was allocated to ALS in 2007 (UNESCO, 2008b).

Thailand aims to create a 'learning society' and NFE plays an important role in helping the country achieve its EFA goals. The core NFE categories for out-of-school youth and adults in Thailand include literacy and numeracy, equivalency and life-skills training programmes, and income generation/ non-formal vocational training (Sitragool, 2007). Thailand's policy to make NFE more inclusive and to integrate it within lifelong education has three major themes: a) life skills, b) lifelong learning, and c) TVET. The target groups for life skills and lifelong learning include all population groups, including those who had no access to formal schooling and the disadvantaged. An interesting element of the Thai approach is the provision of vouchers or credits, especially for the disadvantaged, to give them access to education and training as appropriate through private providers (UNESCO, 2008a).

Lao PDR's Education Sector Development Framework (2009–2015) calls for increasing enrolment in NFE programmes. In 2010, a revision of NFE policy was undertaken by the Ministry of Education's Department of Non-Formal Education to create opportunities for out-of school children, youth and dropouts at all levels to receive NFE on a basis equivalent to formal education. The revised NFE policy is also designed to create opportunities for persons who lack sufficient learning and skills and to empower citizens through income-generation and life skills activities (Ministry of Education, Lao PDR, 2010). This new policy is linked to the National Growth and Poverty Eradication Strategy, which includes NFE targets for providing literacy, continuing education, vocational skills training and lifelong learning opportunities (dvv international, 2011).

Manzoor (2009) cites the Republic of Korea's development of adult education and lifelong learning as a possible blueprint for other Asia-Pacific countries to follow. The Republic of Korea's lifelong learning strategy aims to build "a learning society where all citizens can find adequate learning opportunities at any place and time of their choice" (Manzoor, 2009, p.27). To this end, a comprehensive legislative framework has been established: The Lifelong Education Act of 2007 conceptualizes lifelong learning as all types of systemic education other than regular school education, including equivalency education, vocational capacity building education, and education on civic participation (ibid).

The strength of this model is its legally binding nature. This is demonstrated by the fact that under the Act, the Ministry of Education, Science and Technology is required to establish a national lifelong education promotion plan every five years. Local governments in the Republic of Korea are also required to establish similar plans and to form regional committees for their implementation. Manzoor (2009) cites the National Report of the Republic of Korea, which declares that "the policy objectives of the Secondary National Lifelong Learning Promotion Plan (2008–2012) are to provide tailored learning programmes at each stage of human life, offer appropriate lifelong learning schemes tuned to changes occurring on an individual's vocational cycle, and to extend opportunities for underprivileged groups to take part in lifelong learning activities" (p. 28).

b. Equivalency Programmes

Defining equivalency programmes

Non-formal equivalency education programmes are commonly designed for out-of-school children, adolescents and youth. Typically, NFE equivalency programmes are organized for children and youth who do not have access to, or drop out of formal basic education. These programmes aim to provide alternative education that is equivalent to formal education, with the potential for mainstreaming the graduates into the formal system upon successful completion of the programme. The scope and duration of the programmes vary widely across the region. Some countries provide equivalency programmes either at primary or secondary level, and others at both. The main providers of equivalency programmes also vary. Equivalency programmes in Thailand, Indonesia, India, and Philippines are provided by the government while those in Bangladesh are offered mainly by non-governmental organizations (NGOs) (Fleming, et al., 2008).

Regional Overview

Throughout the region, more and more countries have realized the need for NFE and alternative delivery approaches to provide basic education to the large populations of adolescents and youth who have not completed their schooling. While some countries have offered equivalency programmes for decades (for example, Thailand, Philippines, Indonesia and India), other countries have only established equivalency programme policies and systems over the past few years. This section will examine equivalency programmes in selected countries (UNESCO, 2006).

In countries where equivalency programmes are mature, the programmes are fully supported by policy and legislation and their accreditation and certification are widely recognized by governments, communities, families and learners (UNESCO, 2006). Conversely, in countries where equivalency programmes are relatively new, they are often provided by NGOs with limited policy support. In some cases, even when directly supported by government, the qualifications gained through equivalency programmes are not recognized by employers or communities due to the fact that NFE programmes have still to gain full recognition as a valid form of education. In most of the countries reviewed, the curriculum featured predominantly academic subjects, with most also including life skills – the proportion allotted to each area differing (Fleming, et al., 2008).

There is considerable variation within the region regarding equivalency programme policies and legislation. While some countries have both general constitutional provisions, which recognise rights to education, and specific legislation for the provision of equivalency programmes, others have only the latter. Some countries provide equivalency programmes under the umbrella of general education laws, and others have yet to place equivalency programmes within a constitutional or legislative framework. Profiles of select Asia-Pacific countries are displayed in Table 6.

Table 6: Equivalency programme profiles in select Asia-Pacific countries

Country	EP Levels	EP Providers	EP Scale - number of learners annually
Thailand	Primary, Lower Secondary, Upper Secondary	Government	Large scale – over 200,000
Indonesia	Primary, Lower Secondary, Upper Secondary	Government (including via internet)	Large scale – over 200,000
Cambodia	Primary, Lower Secondary, Upper Secondary	Government and NGOs	Small scale – less than 3,000
Myanmar	Primary	Municipalities	Small scale – less than 5,000
Mongolia	Primary, Lower Secondary	Government	Small scale – less than 5,000
Lao PDR	Primary, Lower Secondary, Upper Secondary	Government	Small scale – less than 3,000
Philippines	Primary, Secondary	Government NGOs and faith-based organizations	Large scale – over 200,000
Viet Nam	Primary, Lower Secondary, Upper Secondary	Government	Medium scale – less than 10,000

Source: Fleming, et al., 2008.

There is also variation in the breadth of equivalency programmes offered throughout the region. In Myanmar, the first level of the equivalency programme is equivalent to grade 3 of formal basic education and the second level equivalent to grade 5. The equivalency curriculum is in accordance with the formal primary curriculum. It includes Myanmar language, English, mathematics, and general studies, which cover life skills and natural and social environments (Government of Myanmar, 2012).

Thailand has enacted a series of legislative measures on NFE. The 1999 Education Act established three levels of equivalency education for youth and adults: primary school equivalency (grade 6); lower secondary school equivalency (grade 9), and upper secondary school equivalency (grade 12). Each level consists of four 20-week semesters completed over two years. In 2003, Thailand's Ministry of Education began regulating NFE, drawing on the national basic education curriculum for support. Formal education standards were adapted to non-formal course length, instruction, and assessment. The newly adopted equivalency curriculum includes four subjects: Thai, mathematics, science and foreign language, and four additional concentrations: social, commercial, development and life skills development (Fleming, et al., 2008).

In Indonesia, three equivalency programme levels are offered. Package A specifically caters to learners who have dropped out during grades 4-6. Package B replicates skills taught in lower secondary, and Package C replicates those skills taught in upper secondary. The government has prioritized Packages A and B, and learners have been most receptive to Package B. As with Thailand, the Indonesian equivalency curriculum is based on the country's formal education curriculum. The equivalency curriculum addresses religion, citizenship and social sciences, Indonesian language and literature, English, mathematics, and physics. In addition to academic competence, it includes life skills – which includes topics such as livelihood skills, home management, local economics, and work ethics (Fleming et al., 2008).

Nepal has instituted a new policy on equivalency education as a component of its overall NFE policy. Policy 2 states that NFE equivalent to formal education will be provided to those who are deprived of educational opportunity or who dropped out of education. The NFE Department, through district officials, NGOs and faith-based organizations, implements the programme (Government of Nepal, 2007).

The quantity and quality of data on equivalency programmes vary widely across the region. Some countries collect enrolment and completion rates, while others also collect dropout rates and disaggregate data by gender. Across the region, more students enrol in secondary equivalency programmes than in primary ones, however, total enrolment is small in absolute terms. There are limited available data on enrolment in, and successful completion of equivalency programmes in the region. What information there is, however, suggests that equivalency programmes do not have high rates of successful completion. In countries that publish statistics, only 30 per cent of students on average pass the final exams; another third fail the exams and the final third do not complete the course. This sobering finding translates into nearly 70 per cent of students who enrol in 'second chance' EPs failing a second time (Fleming, et al., 2008).

In Thailand, between 2003 and 2006, there were a total of 1,970,376 equivalency learners (1,097,722 males and 872,654 females). Of those enrolled, 35 per cent graduated. Of the 35 per cent who graduated, 23 per cent completed elementary equivalency, 31 per cent completed lower secondary, and 40 per cent completed upper secondary. The total dropout rate was 37 per cent, broken down into 53 per cent for elementary equivalency, 42 per cent for lower secondary, and 31 per cent for upper secondary (Fleming et al., 2008).

In Mongolia, 3,899 learners were enrolled in non-formal equivalency programmes in 2006, including 2,608 primary education and 1,291 basic education equivalency learners. In 2008, 2,089 learners (1,985 in primary education and 1,104 in basic education) were enrolled in non-formal equivalency programmes, representing a drop between 2006 and 2008 of more than 46 per cent. Interestingly, the Government of Mongolia expects these numbers to fall further by 2015. (Fleming et al., 2008).

In the Philippines, 51,979 learners took equivalency exams in 2007 (5,688 for elementary equivalency and 46,291 for secondary). Of these, only 12,425 or 24 per cent passed the exam (1,538 for elementary and 10,887 for secondary equivalency). In 2008, 69,784 learners took equivalency exams (6,581 for elementary equivalency and 62,933 for secondary), with just 20,542, or 29 per cent passing (Fleming et al., 2008).

Delivery mechanisms

Management systems for equivalency programmes vary depending on the policies of those providing them. Equivalency courses may, for instance, be offered in school settings by formal teachers working overtime. In India, equivalency programmes are implemented by governments and NGOs, which can be more flexible in their delivery. There have been examples of governmentmanaged equivalency programmes becoming embroiled in the politics of resource allocation and facing issues relating to efficient communication and effective disbursement of funds. Generally, evidence in the region suggests that equivalency programmes managed by NGOs, faith-based organizations and the private sector have greater flexibility and stronger internal controls.

In the Philippines, the Alternative Learning System has government support but is largely independent in terms of management. Equivalency programme projects of this type are often supported by NGOs or communities, with authority to manage the courses residing in local groups, boards or committees (Fleming, et al., 2008). One disadvantage of NGO and donor support is that donors cannot fund equivalency programmes indefinitely, which affects the sustainability of such programmes if government resources remain limited. Family and community ownership of equivalency programmes is important to the success of such programmes although their main contribution is often not financial, but in the form of locally relevant and indigenous knowledge that constitutes part of the learning.

Providers of equivalency programmes in the region have different levels of transparency and oversight in managing the programmes. Monitoring tends to be weak and technical and financial oversight is generally poorly funded. While government resources for equivalency programmes are often quite limited, in NGO-supported equivalency programmes, various mechanisms exist for ensuring transparency and efficiency, including the development of codes of conduct for teachers and administrative managers. Regular reporting processes and paying teachers extra based on the final exam results of their students are examples of initiatives to promote further transparency in the management and delivery of equivalency programmes in the region (Fleming et al., 2008).

Country reports from India, Indonesia, Philippines and Thailand indicated that equivalency programmes are not keeping pace with learner demand due to a lack of resources. Assessing the cost efficacy of equivalency programmes is a complex process because of the various sources and forms of funding and the different costs involved, however, reports from the four countries did find that equivalency programmes were cost effective. When governments are the main providers and cover a significant proportion of programme costs, as in Thailand, equivalency programmes can be very cost effective as such programmes are relatively cheap compared to the formal education system (UNESCO, 2006).

Certification

On completion of an equivalency programme, learners are awarded certificates based upon national exam scores with assorted tests and assessments built into the actual courses. In Indonesia, for example, there are two kinds of evaluations, namely individual self-assessment and the final examination. Individual self-assessment is integrated into each module. National equivalency programme exams are organized by the Assessment Centre of the Department of National Education twice a year to ensure quality control and to officially recognise those who have completed the programmes. It is interesting to note that Indonesia has developed online modules for the equivalency programme courses as well as an online exam, which is also offered twice a year. Several high-profile equivalency programme students, including the daughter of a minister, made the news after completing the course, which is part of general advocacy efforts to raise the status of equivalency programmes (Fleming, et al., 2008).

In order for equivalency programmes to have the same value and credibility as the formal education system, both their evaluation and certification need to be recognized as equivalent - by the government, institutions of higher learning, the labour market, industry and society at large. This requires not just policy, but also strategic public advocacy efforts to raise the status of equivalency programmes far beyond target group members.

Finance

A country's commitment to NFE is reflected in the amount of financial resources it dedicates to equivalency programmes. While sources of funding equivalency programmes vary, for those countries that implement equivalency programmes under NFE Departments, financing is certain to be more limited than in those that offer equivalency courses as 'alternative delivery' within the formal system, which has greater resources at its disposal. In the Philippines, for example, just 1 per cent of the education budget is allocated to NFE. To reach the large number of children out of school, equivalency programmes have been adopted by the Basic Education Department as part of the Alternative Delivery System (UNESCO, 2008b).

Evidence in the region suggests that government support of equivalency programmes is generally directed to the provision of learning for school-aged, out-of-school populations to meet national objectives for extending education to all children. Governments tend to support equivalency programmes that target other groups of learners in order to promote national employment and development goals. The most supportive governments provide not only financial support to local institutions or recognized equivalency programme providers, but also allow use of government buildings, supply materials, support accreditation of programmes and teachers, and give recognition to qualifications gained through equivalency programmes (UNESCO, 2008b).

c. Livelihood and income-generation skills programmes (IGPs)

Definition and context

TVET is recognized as important for the development of appropriate market-oriented skills for youth and adults and is seen as a key component of Goal 3 (see this Note's section on TVET). However, we need to differentiate between formal and non-formal TVET.

Formal TVET caters to those who have successfully completed formal education and who meet the admission requirements of specialized TVET institutions. Because many adolescents and youth do not finish school they do not meet these criteria. To make a living, many work in informal economic sectors, which can be vast, and in some cases even exceed the formal economy in some countries. In South Asia, for example, the informal sector is said to provide about 70 per cent of all employment (dvv international, 2011).

Skills needed for the informal sector are acquired not in schools or through formal TVET, but largely in a non-regulated way. In this case non-formal TVET, which does not require formal certificates, is effective in providing training for practical skills through, for example, traditional apprenticeships and short-term training courses for out-of school youth and adults.

In many countries, TVET policies include both formal and non-formal channels and the responsibility for implementation lies with various ministries, including labour and education. At the same time, provision of non-formal TVET is often provided by a number of different stakeholders, in particular NGOs and community organizations.

Mention should also be made of the rural sector, particularly in developing countries, where skills are usually passed on from one generation to another, supported by rural extension work. Since there is little formal training for this sector, it is vital to professionalize and strengthen existing traditional knowledge and skills. This is important not only for better crop production, animal husbandry and water management, but also for disaster mitigation as well as ecological protection (dvv international, 2011).

Non-formal technical and vocational skills training includes livelihood and income-generation programmes (IGP), which are provided through short courses. Such programmes aim to help learners acquire or upgrade their technical and vocational skills which in turn, may lead them to change their vocation, improve their current career prospects or set up a small business in the community. Strengthening income generation is one of the most effective approaches to poverty alleviation.

To help learners become self-employed, IGPs also teach entrepreneurial skills, including how to conduct a market survey, plan a small business, and handle marketing and accounting. Facilitators can include local traditional craftsmen, experts from schools or technical colleges and rural extension workers. There are many innovative income-generation training programmes, as discussed below. Evidence on the region suggests that IGPs are most successful when combined with literacy training and microcredit schemes. However, IGPs are very diverse and implemented by a wide array of actors. In most countries, there is no comprehensive planning of IGPs, nor are there standardized norms regarding quality or expected learning outcomes. Clear policies and standards regarding non-formal vocational skills training do not exist.

Regional overview

Due to the difficulty of providing comprehensive information or comparative data on progress and trends in these areas, some examples of approaches and programmes undertaken in selected countries will be given.

Skills development in Afghanistan has been recognized as a key factor for development at the policy level. The National Literacy Action Plan (NLAP) provides both opportunities for comprehensive literacy education and vocational skills with business, agriculture and health components. NLAP commits to providing vocational productive skills training to at least 360,000 adults (Government of Afghanistan, 2009). One project which is implemented by UNESCO in Afghanistan in the framework of NLAP is LEARN (Literacy and Education in Afghanistan: Right Now!). LEARN aims to improve the quality of literacy programmes by demonstrating an integrated approach, combining literacy, livelihoods and life skills in different communities by. The program targeted fifteen thousand villagers (60 per cent female) and 258 national/district-level government officials in 2011. However, while the NLAP aimed at training 10 per cent of the adults in vocational skills, their acquired skills were not recognized by the formal TVET system (dvv international, 2011).

The Afghanistan Skills Development Project under the National Skills Development Programme of the Ministry of Labour, Social Affairs, Martyrs and Disabled also offers a wide range of skills development in the context of literacy programmes in Afghanistan. However, this programme is not considered to be contributing to the national EFA Goal 3, which focuses on TVET and skills training in partnership with the private sector.

In Bangladesh, there are many programmes in the area of non-formal, income-generation skills training which are usually provided by civil society. One example is an innovative programme for youth and adolescents run by the national NGO, BRAC. The BRAC Adolescent Development Programme includes life skills, courses on social issues such as dowry, child marriage, birth and marriage registration, gender and child rights, abuse, sexual and reproductive health issues such as HIV and AIDS, and livelihoods training (Manzoor, 2009). Another example from Bangladesh is the programme under the Centre for Mass Education in Science, which successfully combines literacy with income-generation training in rural areas with the aim of poverty alleviation. The programme caters to children and adolescents who do not have access to education or drop out early, and for adolescents who are interested in acquiring livelihood education (Islam and Ahmadullah, 2007).

Cambodia has been cited by UNESCO as an example of good practice in the provision of life skills and lifelong learning. Since 2000, the Cambodian Government has implemented the multi-donor Priority Action Programme (PAP), which has supported the operation of 42 skills training institutions, 30 community learning centres (CLCs) and CLC-based training programmes. The PAP sought to improve efficiency through better inter-ministerial coordination and coordination with NGOs, which are key partners in the provision of vocational training (UNESCO, 2008a).

In Lao PDR, numerous projects in this area are provided by a variety of stakeholders, including ministries, UN organizations, international development agencies and civil society. A project in NFE vocational skills training was launched in 2010 by Welthungerhilfe, NORMAI, Lao Development and Cooperation Association (LADCA) and dvv international in one of the poorest districts of the country and provided some interesting insights into needs and challenges. A survey on training requirements revealed a need for non-formal technical and vocational training with a high percentage of requests for rural skills development and farm-related skills. Rural vocational skills development was considered crucial in light of high dropout rates and youth migration from rural to urban areas. While more research on training needs is required, it is clear from the study that nonformal vocational and technical training in Lao PDR has to be highly flexible and contextualized in order to respond to the needs of the rural population (dvv international, 2011).

The Philippines is home to large government-sponsored NFE programmes, as well as many NGOs actively working to provide incoming-generation programmes to marginalized groups. The functional literacy, education and mass media survey (FLEMMS), conducted in 2003, revealed that livelihood training was the most popular among the adult literacy and livelihoods programmes that are provided for out-of-school children and youth, and adult learners. (UNESCO, 2008b).

In a case study on Central Asia, Jiyankhodjaev argues that the main difficulties of the current education system in Tajikistan and Kyrgyzstan are related to low and limited levels of TVET. To solve this problem, alternative ways of providing training to disadvantaged segments of the population are needed. In 2002, dvv international, a German development organization, began implementing in Uzbekistan and Kyrgyzstan non-formal Adult Learning and Education professional training programmes for the unemployed and socially disadvantaged. In Uzbekistan, professional vocational education and training colleges are being used for non-formal skills training. Following a labour market survey, 10 pilot training modules including sewing, welding, metal works and office administration were identified, developed into courses and offered to unemployed people. Currently, however, colleges allocate little time and attention to adult courses (dvv international, 2011).

Similar models are being applied in Kyrgyzstan and Tajikistan. In Tajikistan, national efforts are being supported by projects such as Poverty Alleviation through Education and NFE, which focusses on the development of initial TVET for youth and professional education for adults. Other examples are a non-formal skills training project in rural areas of Kyrgyzstan. In each of these countries, the new skills acquired have allowed formerly unemployed participants to find new jobs, demonstrating that non-formal technical and vocational training can contribute to poverty alleviation (ibid).

Many initiatives created as anti-poverty measures are in place in the Asia-Pacific region. Sri Lanka, for example, has the Training for Rural Economic Empowerment (TREE), which has been integrated into national anti-poverty programmes. In Pakistan, TREE was mainstreamed into TVET (through the Prime Minister's Programme on Skills Development) with a high rate of success: some 91 per cent of young women and 76 per cent of young men entered into either waged or self-employment after training.

In China, tailor-made vocational skills training programmes for young rural women and men and urban migrant workers have been implemented thanks to the support of local authorities, employers and training providers. Government agencies in Cambodia working with civil society groups have increased entrepreneurship training for women which, in turn, raised the share of businesses registered by women from 6 per cent in 2006 to 11 per cent in 2009 (ILO, 2011).

So-called TVET adult training programmes also fall into the NFE category. These focus on poverty reduction and are usually run through a network of adult learning centres supervised by the ministry responsible for labour and/or social protection. They offer short courses, mainly to unemployed or disadvantaged groups. These centres are funded by governments or private providers. Regionwide experience demonstrates that the majority of private TVET providers tend to concentrate on 'soft' sectors, to economize on workshops and other facilities required for training in manufacturing.

In Tajikistan, 21 adult centres provided training for 8,815 unemployed people in 2009. Adult education is a relatively new concept in Tajikistan and is viewed as a tool to fight poverty and adapt skills development to labour market needs. The adult centres can provide small loans for business-course graduates to set up their own businesses and increase self-employment levels in the country. Another structure that provides skills learning for youth in Tajikistan is a network of youth centres that offers short courses for skills development (ADB, 2009).

Training programmes for the unemployed in developed Asia-Pacific countries generated work in only 38 per cent of cases and raised the incomes of the unemployed in only 23 per cent of the programmes. Within these totals, however, better results were reported for women in general and for training programmes that started before mass layoffs (ADB, 2009).

Policies

There are no policies in the region exclusively dedicated to non-formal technical and vocational skills training and IGPs. Where non-formal TVET policies do exist, they are usually part of broader NFE policies or else appear as one strategy amongst others to provide training to out-of-school learners. TVET policies, which are usually developed by the ministry of labour, often include non-formal components and countries have developed strategies to reach disadvantaged groups through non-formal vocational and technical training activities. Implementation of NFE policies remains a challenge; while some policies do express the importance of non-formal technical and vocational skills training, this is not necessarily translated into action, and programmes are implemented in an unplanned and un-coordinated manner (Fleming, et al., 2008).

Access and participation

There are no comprehensive national or sub-national data on enrolment and participation in nonformal skills training and IGPs, but there is some anecdotal evidence. Many IGPs are offered only at the community level in the form of small projects. Efforts must be made to sustain and scale up effective projects to large-scale programmes, whose importance needs to be conveyed to decision makers and other stakeholders such as formal technical and vocational training institutions. It is essential for programme-awareness campaigns to be supported by evidence. Like all elements of EFA Goal 3, improvements to non-formal TVET data are sorely needed.

Delivery mechanisms

Various ministries provide IGPs in some form, the main ones being the ministries of education, labour, and in some instances, women's affairs and youth and sports. In many countries, such training is also offered by development agencies and civil society. In most cases, these actors do not coordinate their activities and often, there is no information on who is undertaking what, which can lead to overlap and resource waste (UNESCO, 2005b).

Equity

As a rule, non-formal TVET and IGPs target disadvantaged groups and are considered part of a poverty-reduction strategy, which is spelt out in respective NFE policies (e.g. Cambodia, see NFE policy). In general, particular attention is given to women and girls in these policies. For some countries, a greater gender-sensitive approach is required as regards vocational training. Some types of training are typically more popular among men (for example, car repair, carpentry, welding, etc.) and others among women (weaving, sewing, etc.). Certain courses are of equal relevance to both men and women, such as rural development training courses, although even so, more men tend to attend these than women (Ministry of Education of Bhutan, 2011). This poses a challenge because many agricultural tasks are undertaken by women or else shared equally between both sexes. Sensitisation and awareness-raising among both men and women and measures to enable women and girls to attend such training are needed.

Relevance

As shown by many studies on the non-formal sector, the needs of target populations are extremely diverse and therefore programmes need to be highly contextualized, gender-sensitive and responsive to learner requirements. One way to ensure the relevance of programmes is through the conduct of market surveys to identify specific skills crucial to employability after training, and to gauge the current skills, knowledge and needs of learners. A key issue here is the recognition of former traditional learning and knowledge and skills acquired through non-formal technical and vocational courses (dvv international, 2011).

d. Life skills in NFE

Defining life skills education in NFE

As previously articulated, the definition of life skills varies greatly across the region. All countries have national policy and legislation that includes references to life skills in the context of NFE. Countries use the term to refer to the processes and methods employed within NFE programmes as well as to the content included in the courses. However, there is no clear regional definition of NFE life skills, nor a common understanding of what should be included as examples of NFE life skills programmes (UNESCO, 2008a).

Regional overview

Progress in incorporating life skills education into NFE has been mixed, with challenges including limited funding, a lack of sufficient human resources and low prioritization for NFE. Table 7 provides a brief overview of the various delivery approaches taken by nine countries in the region for life skills education through NFE channels.

Table 7: Selected LSE delivered through non-formal channels in Asia

Country	Type of LSE	
Bangladesh	LSE in NFE curriculum for urban working children.	
	Development of strategy for life skills for working adolescents for HIV prevention.	
Cambodia	HIV prevention for out-of-school children aged 13-18.	
Nepal	LSE material for peer educators.	
	LSE for vulnerable out-of-school young people.	
Kazakhstan	HIV and drug prevention education for most vulnerable young people.	
Pakistan	Piloting of LSE packages for out-of-school adolescents, including those most at risk.	
	Development of national HIV prevention strategy for adolescents and young people.	
Philippines	Strengthen reproductive health education promoting the use of UNFPA modules in NFE.	
Thailand	Life skills in NFE classes for migrant children and their families.	
Turkmenistan	LSE for safe behaviour of most-at-risk adolescents and young people.	
Viet Nam	Community-based LSE for out-of-school children.	

Source: UNESCO, 2008a-d.

For the purposes of this End-of-Decade Note, we will use the framework for life skills introduced earlier to analyze: NFE life skills with a psychosocial focus and NFE life skills for health, HIV/AIDS and behaviour change (NFE life skills for income generation was discussed in the previous section on livelihoods and income-generation skills training).

e. Psychosocial skills

As with secondary education, most NFE programmes that have mainstreamed life skills have done so in conjunction with a broad array of content. Methodologically, NFE programmes are well situated to complement the behaviourist models of life skills education and the principles of self-regulation, decision-making and communication.

Myanmar, for example, is implementing the Expanded and Continuous Education and Learning (EXCEL) programme for out-of-school children which uses a three-pronged strategy: i) capacity building, ii) advocacy, and iii) participation. It builds the institutional and programmatic capacities of selected NGOs in NFE to increase life skills-based education for the most vulnerable children. The EXCEL goals are:

- To provide life skills learning opportunities for children with limited or no access to education (i.e. out-of-school, street, working and other vulnerable children);
- ii. To support and facilitate the reintegration of out-of-school and working children by equipping them with the necessary life skills;
- iii. To increase the participation of children in their own communities.

The content covers a range of topics including livelihood skills, HIV prevention, personal safety, drug abuse, reproductive health and health promotion, with the focus on learners acquiring and practicing core life skills – such as critical thinking, leadership, self-efficacy and problem solving. The UNICEF Education Programme for 2006-2010 set a target for EXCEL to reach more than 70,000 children (UNICEF, 2011a). It has now been revised and expanded as a national programme.

f. Health, HIV/AIDS and behaviour change

As life skills have been mainstreamed into NFE programmes, the content is complemented by methodologies that promote behaviour change related to specific health topics, including sanitation/hygiene education, smoking and alcohol prevention, and/or specific skills acquisition related to jobs and livelihoods. As the term 'life skills' becomes more commonly used and the interpretation broader, we can find numerous examples in the literature of NFE being used for HIV education and life skills.

In many cases, although this is hard to discern from the research, standard NFE courses have been modified to include content on leadership, critical thinking and communication skills that are pivotal to reducing risky behaviour. In other cases, they have been adapted to include specific information on modes of HIV transmission and prevention, although such content tended not to be too graphic or illustrated (Fleming et al., 2008).

2.3.3 Key Issues and remaining challenges

While there is a crucial need for NFE in the region, in particular due to its role in poverty reduction, the reality is that it lacks sufficient recognition and support. This needs to be urgently addressed if marginalized segments of the population are to be reached and provided with relevant quality education in a lifelong learning perspective. The main areas of concern are detailed below:

Uneven participation

NFE is of low priority in many countries. Whether it is through non-formal TVET, income-generation skills training or equivalency programmes, NFE is often regarded as inferior to general schooling. Participation in equivalency programmes is uneven in Asia and the Pacific, with some countries reporting high enrolment levels and others low levels. Access to non-formal TVET remains an issue for vulnerable groups such as the unemployed, rural workers and those in the informal economy, women, people with disabilities, and members of poor families.

Inadequate policies and planning

While NFE policies exist in most Asia-Pacific countries, they are not always adequate, nor are they translated into clear plans, strategies and programmes with adequate funding or placed within enforceable legal frameworks. Thus, NFE programmes are often implemented in an unplanned and un-coordinated manner. In most cases, equivalency programmes, non-formal TVET and IGPs are embedded in overall NFE policies, with a few exceptions such as Cambodia, which has a specific equivalency programme policy (MoEYS of Cambodia, 2008).

Inadequate coordination and lack of partnerships

In addition to the ministry of education, NFE is implemented by various other stakeholders, including other ministries, civil society and the private sector. In most countries, there is neither comprehensive information on the activities the various stakeholders are undertaking nor coordination among them.

Curriculum reform

Equivalency programmes, non-formal TVET and income-generation skills training are often of low quality, as a result of unsuitable learning content that does not correspond to the needs of the learner, coupled with inappropriate teaching methodologies. The needs of NFE learners are diverse, therefore programme content for life skills and income-generation skills training needs to be strongly contextualized. Also, the knowledge that youth and adults have already amassed is often not taken into consideration.

Teacher quality

NFE teachers often suffer from poor training, and low salaries and status. Pre-service training can be as short as two weeks and in most cases there is no in-service training. These factors have a significant impact on the quality of NFE programmes.

Lack of accreditation and quality assurance

In many countries, there are no standardized quality frameworks or quality assurance mechanisms in place for NFE. A professional approach at all levels is required to address this challenge. Some Asia-Pacific countries still put a low value on all types of NFE, with certificates and diplomas not always recognized by the formal education system and the labour market.

Absence of data

There are no comprehensive data on NFE provision, participation and outcomes, including skills training programmes and IGPs. This impacts on planning and quality assurance and leads to difficulties in monitoring progress towards policy goals. Moreover, there is little documentation or sharing of knowledge on good practices to inform policy makers and practitioners. Both are areas where better data are urgently needed.

Lack of monitoring and evaluation

There is little systematic and institutionalized monitoring and evaluation and few countries have monitoring systems for NFE which could provide data on a regular basis.

Inadequate funding

There is insufficient funding for NFE training in most countries.

2.3.4 Priority areas for action and potential strategies

Improve access and strengthen policies and implementation

Policies on non-formal technical and vocational training and equivalency programmes should be strengthened, and clear strategies, linkages and action plans formulated and translated into systematic programmes, such as IGPs. Policies for NFE should be based on a sector-wide perspective, with a clear link to overall national development plans. They should also be mainstreamed within education ministries beyond NFE departments. Policies governing the role of the private sector, NGOs and other non-state providers also need attention. Partnerships can help governments reach the hardest-to-reach groups. Improving planning, implementation and monitoring of programmes requires better collaboration and coordination between the various stakeholders. To enable greater access to NFE, funding needs to be increased at both government and international levels.

Enhance the quality and relevance of non-formal TVET, equivalency programmes and life skills

While programmes need to be contextualized to respond to learners' needs, national standards and norms should be developed by countries to ensure that the quality of training is maintained. Skills training must be linked more closely to labour market demands, possibly based on surveys.

Strengthen life skills and income-generation skills training in NFE

Life skills education is likely to play an important role in equipping young people and adolescents with the competencies they need. Given that NFE often benefits the most marginalized populations, ensuring that life skills education is incorporated into NFE curricula is particularly important. Efforts should be made to sustain and expand successful and effective programmes.

In general, a stronger focus should be put on life skills and income-generation skills training within NFE, an area that has traditionally concentrated mainly on adult literacy. The right balance between technical, vocational, literacy and life skills needs to be provided to learners in a given programme. At the same time, knowledge and skills obtained through non-formal TVET and IGPs have to be recognized by the formal labour market to ensure NFE participants can effectively access this market.

Research to develop comprehensive data

Research on non-formal technical skills training must be undertaken to understand the economic and social impact it has on participants, and what constitutes effective programmes. Systematic data collection on non-formal TVET programmes and equivalency programmes through research and documentation, and dissemination of knowledge about effective practices can provide useful information for planning, implementation and monitoring.

This section will provide a short overview of the main findings in the areas of secondary education, TVET, and NFE and life skills programmes.

A. Secondary education

Substantial growth but uneven regional expansion of enrolment

During the last decade, almost all countries in Asia and the Pacific experienced substantial growth in total secondary school enrolment, with the rate of growth in the region generally higher than the global rate. However, region-wide expansion of lower and upper secondary education has been uneven, with substantial sub-regional and in-country disparities.

Efforts to improve quality through curricula reforms and better teacher training

In order to improve the relevance of the secondary curriculum, many countries have embarked on an overhaul of teaching and learning processes by introducing or expanding the use of ICT in the classroom, strengthening science and technology education, and focusing on the teaching of a wide range of cognitive, social and working skills to develop the capacity for problem solving, creativity, initiative and global integration.

Some countries have a fully developed life skills curriculum for formal secondary education while others include life skills in NFE. The key issue in curriculum reform is to ensure there is an appropriate mix of general and specific vocational skills to match labour market demands. In general, progress on the development of life skills for youth and adults has been slow.

To improve teacher quality, several countries have focused on attracting the 'right people' – those with the motivation and aptitude for teaching – and have strengthened the requirements of formal pre-service training. In addition, policies to improve school-based management are needed, including professional support mechanisms for teachers and school administrators.

Need to reform secondary school assessment practices

The deeply rooted phenomenon of 'teaching to the test' and rote learning, as well as the flourishing of private tutoring, particularly in countries where exams determine selection to higher levels of education, can only hinder meaningful learning. Until significant reforms are introduced at the secondary stage, schools will likely continue to teach to the test, and children's learning will focus on copying from the blackboard and reciting passages from core textbooks. From this perspective, reform of exams in secondary education is considered long overdue.

Addressing the issue of secondary education financing

The expansion of secondary education necessitates huge financial resources, particularly because of subject specialization. While the Asia-Pacific region is less dependent on external aid for secondary education, countries in general are pursuing strategies to increase funding, including the development of public-private partnerships and financial decentralization, although the latter, if not carried out carefully, could result in greater sub-regional disparities. Asia-Pacific countries are increasingly experimenting with different models of financing and governance with a view to expanding secondary education efficiently, whilst the main objective remains to improve access for marginalized groups.

B. Technical and Vocational Education and **Training**

Participation in TVET varies widely across the region

Trends in TVET enrolment vary across the region and TVET continues to be unpopular in many countries. Changes in TVET enrolment are a reflection of evolving skill demands in each country. In Japan, the Republic of Korea and other countries with rapidly expanding technology and knowledge-intensive sectors, there seems to be a lower demand for traditional TVET graduates, whereas demand for these tends to be increasing in developing countries and those with a growing industrial base.

TVET curricula reform includes development of general, specific and life skills

Many training policies include initial and continuous TVET to meet the needs of the labour market and enhance economic growth. This requires information about labour market needs, incentives for training providers, as well as flexible training methods. Involvement of employers at all stages of delivery and in governance structures is equally important to ensure demand-driven TVET. The inclusion of life skills and core working skills in TVET, both formal and non-formal, is notable. These skills are playing a significant role in ensuring that young people have the necessary core competencies to enter and participate in the workforce.

Comprehensive and coherent qualifications systems

To standardize qualifications, Asia-Pacific countries have begun introducing NQFs. NQFs are instruments for classifying qualifications according to a set of criteria for different levels of learning outcomes. These can ensure that there are common standards in place to facilitate harmonization of national and international labour markets and enhance the mobility of students and graduates.

C. Non-formal education

Improving participation in non-formal TVET

Improving access to non-formal TVET, livelihood and income-generation programmes for the most vulnerable and difficult-to-reach populations such as the unemployed, rural and informal-economy workers remains a challenge. There are no comprehensive data on enrolment and participation at national or sub-national levels as regards non-formal skills training and IGPs, but there is some anecdotal evidence. Many IGPs are offered only at the community level in the form of small projects.

Participation in equivalency programmes varies widely in the region. Some countries report high levels and others low. As equivalency programmes have proven to be a cost-efficient means of providing second-chance education to dropouts and out-of-school children and youth, efforts should be undertaken to increase participation.

Need for strengthened NFE policies, strategies, governance, and financing

Throughout the region, more and more countries have realized the need for NFE and alternative delivery approaches to provide basic education to the large numbers of adolescents and youth who have not completed their education. However, NFE is plagued by low recognition, inadequate policies, and insufficient funding. It also suffers from low-quality programmes, poorly trained teachers, a lack of coordination between numerous providers, and the absence of data and monitoring. Thus, implementation of NFE policies remains a challenge. Countries must develop appropriate policies and legislation to institutionalize equivalency programmes and ensure quality.

Life skills are an important component of NFE programmes

Most NFE programmes that have mainstreamed life skills have done so in conjunction with a broad array of content, including livelihood skills, HIV prevention, personal safety, drug abuse, reproductive health and health promotion, and with a focus on acquisition of core competencies such as critical thinking, leadership, self-reliance and problem solving. The content is complemented by methodologies that promote behaviour change related to specific health topics, including sanitation/hygiene education, smoking and alcohol prevention, and/or specific skills related to jobs and livelihoods.

Conclusions and Recommendations

The absence of clear objectives and indicators, and the multiple understandings and interpretations of Goal 3 in Asia and the Pacific have made measuring its progress very difficult. Despite these challenges, what emerges most clearly from this review is the importance of Goal 3, and the increased attention that countries in the region have been paying to its various components in the past decade. Goal 3 touches upon several areas which are prominent in EFA debates; namely that countries are focusing on increasing access to secondary education, as well as responding to the higher demand for skilled labour for rapidly growing economies through the expansion of TVET. Crucially, the Goal also recognises the learning needs of marginalized and vulnerable populations and thus the importance of alternative learning opportunities (e.g. equivalency programmes), which are provided by both the formal and non-formal sectors. Moreover, the guestion of learning is now very much at the heart of reflections around the post-2015 education road map and the acquisition of 21st century skills to keep economies competitive. Goal 3 should receive growing attention and greater clarity in definition and scope as a key element in the post-2015 education agenda.

Recommendations

The following strategies and priority actions are recommended to enhance progress towards Goal 3 within the three domains discussed (secondary education, TVET, and NFE and life skills):

Strategy 1: Strengthen the information base

Improve statistical and qualitative data collection to track progress in secondary education; this requires the development or strengthening of education management information systems and the undertaking of regular quantitative and qualitative analysis and research.

- Broaden analysis to underpin the development of equitable and relevant secondary education. In particular, this should attempt to assess the different forms and causes of educational exclusion, including gender analysis.
- Strengthen the tracking of progress in secondary education reform, particularly with regards to governance, curriculum development, use of ICTs, teacher education and assessment of learning outcomes.
- Increase research on labour market skill demands to enable effective comparisons with skills offered by TVET. Documentation and analysis should be regularly updated to provide planning for, and evaluation of TVET programmes in terms of relevance. Graduates should be surveyed regularly to assess employment outcomes and to evaluate the effectiveness of TVET programmes.
- Improve empirical data collection to provide information about NFE programmes, practices, participation and outcomes. Such data are critical for proper monitoring and evaluation of the efficiency and effectiveness of NFE programmes, and for helping organizations, stakeholders and partners implement quality assurance practices and set appropriate targets for funding.
- Agree on a framework to measure progress on life skills education which includes indicators, the setting of baselines and targets, and reporting, assessment and methodology criteria to track learning processes and outcomes.

Strategy 2: Strengthen policies, strategies and implementation frameworks

- Reform secondary school exams where required. Changes should go hand in hand with reform of curricula content and teaching methods.
- Make TVET policies and programmes responsive to rapidly changing labour markets. These should be demand-driven based on labour market surveys and should take into account important education policies, including for secondary and higher education.
- Strengthen the alignment of TVET policies with socio-economic development plans. To maximize TVET's contribution to growth, it is important that governments address imminent skill gaps as well as consider long-term skills development.
- Increase integration of TVET with social and labour market policies. Policy measures that attract more people to TVET and help them continue their learning are increasingly necessary. These measures can be in the form of counselling and guidance services at schools, and training allowances, loans and microcredit to assist graduates with employment and entrepreneurship.
- Increase public-private partnerships and stimulate closer collaboration between employers and industry in TVET. Greater government intervention in fostering public-private partnerships and industry participation in TVET policy making are two strategies that can be effective in this regard.
- Make NFE an integral part of education sector plans and national development strategies, backed by appropriate legislation and resources. NFE should be recognized as one pathway to achieve a right to education from a lifelong learning perspective. Funding for NFE and alternative delivery programmes should be increased, both from governments and the international donor community.
- Where possible, promote synergies between formal and NFE. This is particularly important for equivalency programmes, which should be incorporated into primary and secondary education departments, and seen as formal approaches based on alternative delivery methods. Standards and certificates obtained through NFE and equivalency programmes need to be recognized by formal education systems and labour markets. Social media campaigns that promote the value and relevance of alternative delivery and equivalency programmes should also be considered as a means of shifting public opinion.
- Strengthen national institutions responsible for NFE programmes. This requires targeted capacity development, improved monitoring and data and the strengthening of institutional collaboration between the different actors. All involved parties (e.g. universities, research institutions, the private sector and the media) should work according to common policy and strategy frameworks.
- Engage with non-state providers to develop specific policies, programmes and measures that address the rights, needs and concerns of young people and adolescents, particularly adolescent girls and other marginalized groups. This requires policy frameworks for governments to work with non-state providers, including through partnerships and the use of sub-contractors, not only for TVET but also for secondary, equivalency programmes and NFE.

Strategy 3: Increase education relevance and mainstream life skills

- Undertake secondary education curricula reform. Curricula need to be relevant to the learning requirements of the 21st century. Countries should undertake a review of their present curricula and launch reforms where required, possibly in combination with changes to their school assessment and examination systems. Best practices and lessons learned in secondary education reform need to be better documented and disseminated.
- Mainstream life skills education into formal and non-formal secondary curricula and learning using a learn-for-life approach. Life skills education should also form part of assessment programmes. It is important to teach LSE to NFE students, who are often the most marginalized

and lack opportunities to develop personal and social competencies. TVET students need general life skills to accompany their specialised learning.

- Make health and HIV education part of curricula and co-curricular activities. HIV education on modes of transmission and prevention should be delivered as part of a more comprehensive syllabus. Efforts to reach young people with age-specific information to support good sexualhealth decision-making need to be stepped up. Innovative and tailor-made approaches can include information and communications technology (e.g., mobile phones, social media).
- Improve pre- and in-service secondary teacher training. In addition to filling the critical 'teacher gap'in both quantitative and qualitative terms, the teaching workforce is required to acquire new technologies and the methodologies for their use in classrooms. There is also a need to apply innovative teacher training systems that train secondary school students from disadvantaged groups to become teachers' assistants, with pathways for full teacher accreditation over time.
- Undertake a needs and situation analysis for NFE target groups. All activities designed under Goal 3 should be preceded by a situation analysis which maps the composition and characteristics of NFE target groups. Such information will make it possible to understand where disparities lie, and what responses are required in terms of resources and services.
- Improve the quality of NFE programme delivery. To this end, NFE facilitators need to be better trained, with an improvement in status and salary. NFE programmes need to be modular and flexible, context-specific, gender-sensitive, and if possible, delivered in the language of the learner. The use of ICT, including mobile technologies, DVDs and internet should be expanded. NFE vocational training programmes need to be designed based on existing knowledge and skills, and traditional skills need to be professionalized, including in the agricultural sector.

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Statistical annex

Annex 1: Subregions and countries covered by the End of Decade Notes on Education for All

• Central Asia (6 countries):

Kazakhstan, Kyrgyzstan, Mongolia, Tajikistan, Turkmenistan, Uzbekistan

• East Asia (17 countries/territories):

Brunei Darussalam, Cambodia, China, Democratic People's Republic of Korea, Hong Kong (China), Indonesia, Japan, Lao PDR, Macao (China), Malaysia, Myanmar, Philippines, Republic of Korea, Singapore, Thailand, Timor-Leste, Viet Nam

• Pacific (17 countries/territories):

Australia, Cook Islands, Fiji, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, Papua New Guinea, New Zealand, Niue, Palau, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu

• South and West Asia (9 countries):

Afghanistan, Bangladesh, Bhutan, India, Islamic Republic of Iran, Maldives, Nepal, Pakistan, Sri Lanka

EFA Goal 3: Life Skills and Lifelong Learning

Annex 2: Goal 3: Enrolment in secondary education

Region		En	rolment		Enrol	ment in te	chnical and	vocational	programm	es (%)		Net enro	lment rate	
	Reference year	Total secon all pr	dary (ISCED ogrammes	2-3)	Total se (ISCE	condary D 2-3)	Lower se			econdary ED 3)			ary (ISCED 2-3 grammes	
Country	Ref	MF (000)	% F	% Private	MF	% F	MF	% F	MF	% F	MF	М	F	GPI
or territory		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Central Asia														1
Kazakhstan	2009	1,714+1	48+1	1+1	7+1	30 ⁺¹	.+1	.+1	25 ⁺¹	30 ⁺¹	90+1	90+1	89+1	0.99+1
	2005	2,040	49	1	5	34			18	34	89	89	89	0.99
	2000	2,003	50	1	4	36			16	36	87**	86**	88**	1.02**
	1990	2,187			11									
Kyrgyzstan	2009	679*	49*	1*	3*	30*			14*	30*	79*	79*	80*	1.01*
	2005	721	49	1	4	36			16	36	81	80	81	1.01
	2000	659	50	-	4	36			14	36				
	1990	656	50		8	50								
Mongolia	2009	306	51	7	9	45			26	45	82	79	85	1.07
	2005	339	52	4	6	50			20	50	84	80	89	1.12
	2000	226	55	-	4	51			20	51	62	56	68	1.22
	1990	301+1	53 ⁺¹		9+1	49+1								
Tajikistan	2009	1,019-1	46-1	-1	2-1	30-1	-1	-1	10-1	30 ⁻¹	83-1	88-1	77-1	0.88-1
.,	2005	984	45		2	27			13	27	80	87	73	0.85
	2000	795	46		3	32			20	32	71**	76**	66**	0.87**
	1990	829+1			5 5+1		•							
Turkmenistan	2009				,									
Turkinenistan	2009													
	2000						•••		***					
11.1.1	1990													
Uzbekistan	2009	4,506	49		31	49	•	٠	88	49	92	93	91	0.98
	2005	4,516	48		17	47			57	47				
	2000	3,566	49		11	44			38	44				
	1990	3,186			8									
East Asia				I		ı		1		ı		I	I	
Brunei Darussalam	2009	48	49	13	8	39			16	39	89	88	91	1.03
Daiussalaili	2005	44	49	13	7	41			15	41	87	85	90	1.05
	2000	35	50	11	5	36			12	36				
	1990	26+1	50 ⁺¹		5+1	36+1								
Cambodia	2009													
	2005	812+1	43+1	1+1	2+1	39 ⁺¹	.+1	.+1	6+1	39 ⁺¹	31 ⁺¹	33+1	28+1	0.86+1
	2000	351	35	1	2	39			7	39	16	21	12	0.56
	1990	264+1			3+1	17+1								
China	2009	100,392	48	10	20	50	-	47	44	50				
	2005	101,195 ⁺¹	48+1	7+1	15 ⁺¹	51 ⁺¹	0.69+1	46+1	38+1	51 ⁺¹				
	2000	86,517+1	47**,+1				.+1	.+1						
	1990	51,799	41		11	36								
Democratic	2009													
People's	2005													
Republic of Korea	2000													
	1990													
Hong Kong	2009	512	49	16	1	10	***	***	2	10	75*	73*	76*	1.03*
(China)	2009	498	49	12	2						75*	74*	76*	1.03
		498 490 ⁺¹	49		2 3 ⁺¹	15 10 ⁺¹	.+1	.+1	4 6 ⁺¹	15	75 74*,+1	74 74*,+1	75 73*,+1	0.98*,+1
	2000		48*		3.1	10**				10+1		/4,**	/3 /**	0.98
	1990													

Region		En	rolment		Enrol	ment in te	chnical and	vocational	programm	es (%)		Net enro	lment rate	
	Reference year	Total secon all pro	dary (ISCED ogrammes	2-3)	Total se (ISCE)	condary D 2-3)	Lower se (ISCE			econdary ED 3)			ary (ISCED 2-3 grammes	
Country	Refe ye	MF (000)	% F	% Private		% F	MF	% F	MF	% F	MF	М	F	GPI
or territory		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Indonesia	2009	19,521	49	43	16	41			38	41	69	69	68	0.98
	2005	15,993	49**	44	14	42			34	42	59**	60**	59**	0.99**
	2000	14,264**	48**	43**	14**	43**	**	**	39**	43**	50**	51**	48**	0.95**
	1990	10,965+1	45 ⁺¹		13 ⁺¹	39 ⁺¹					40+1	42+1	37+1	0.88+1
 Japan	2009	7,300	49	19	12	43			24	43	98	98	99	1.00
Japan	2005	7,561 ⁺¹	49+1	19+1	13+1	43+1	+1	+1	25+1	43+1	98+1	98+1	98+1	1.00+1
	2000	8,782	49	18	13	45			25	45	99**	99**	100**	1.01**
	1990	11,144	49		13	47								
Lao People's	2009	412-1	44-1	 2 ⁻¹	1-1	40-1	1	40-1	1-1	40-1				
Democratic														
Republic	2005	394	42	2	1	37	-	62	3	34	36	39	33	0.85
	2000	265	41	1	1	36	-	21	5	36	28	31	24	0.78
	1990	138	40		3	33								
Macao (China)	2009	39	49	95	3	45			6	45	76	76	76	1.00
	2005	47	49	94	5	46	5	41	6	51	76	75	78	1.04
	2000	35	50	93	6	45	7	44	5	48	66	63	68	1.08
	1990	17	52		4	5					47	44	51	1.15
Malaysia	2009	2,537-1	51 ⁻¹	4-1	7-1	43-1	1	1	16 ⁻¹	43-1	68**,-1	66**,-1	71**,-1	1.07**,
	2005	2,489	51	3	6	43			14	43	69	66	72	1.10
	2000	2,205	51	6	6	41			15	41	65	62	68	1.09
	1990	1,456	51		4	49								
Myanmar	2009	2,813	50	3	-				-		50	49	50	1.02
	2005	2,589	49		-				-		43	43	42	0.97
	2000	2,268	51		-				-		34	33	35	1.05
	1990	1,139	48		-	-								
Philippines	2009	6,509-1	51 ⁻¹	20-1	-1	-1	-1	-1	-1	-1	61 ⁻¹	55 ⁻¹	66 ⁻¹	1.19-1
	2005	6,352	52	20							59	54	65	1.20
	2000	5,386 ⁺¹	51 ⁺¹	23+1	+1	+1	+1	+1	+1	+1	51+1	47+1	56 ⁺¹	1.18+1
	1990	3,962	50		_									
Republic of	2009	3,986	47	32	12	45			24	45	96**	98**	94**	0.96**
Korea	2005	3,786	47	33	13	46		·	28	46	95	96	94	0.98
	2000	3,959	48	40	19	49	•		36	49	94	94	93	0.99
	1990	4,560 ⁺¹	48+1		18+1	53+1					87+1	89+1	86+1	0.97+1
Cinggnorg							12	2.4	11			09	00	0.97
Singapore	2009	232	48	6	12	35	12	34	11	36				
	2005					•••								
	2000													
	1990	221	47		13	24								
Thailand	2009	4,807+1	51+1	16+1	16+1	43+1	+1	+1	37+1	43+1				
	2005	4,530+1	51 ⁺¹	15 ⁺¹	16+1	45+1	+1	.+1	40+1	45+1	66+1	63 ⁺¹	70+1	1.11+1
	2000	4,072+1	49**,+1	9+1	15+1	48+1	.+1	.+1	35+1	48+1				
	1990	2,118	50		16	48								
Timor-Leste	2009	84		22	5				13					
	2005	75	49		4	40								
	2000	40**,+1			_**,+1	.+1	.**,+1	.+1	_**,+1	.+1	23**,+1			
	1990													
Viet Nam	2009													
	2005	9,939	49	10**	5	55			14	55				
	2005	9,939	72	10		55				55				
	2005	7,926	47	11	2	51			8	51	61**			

Region		Eni	rolment		Enro	lment in te	chnical and	vocational	programm	es (%)		Net enro	lment rate	
	Reference year	Total secon	dary (ISCED ogrammes	2-3)		condary D 2-3)	Lower se			econdary ED 3)			ary (ISCED 2-3 grammes	;)
Country	Ref	MF (000)	% F	% Private	MF	% F	MF	% F	MF	% F	MF	М	F	GPI
or territory		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Pacific														
Australia	2009	2,255	48	33	32	43	21	47	47	41	88	87	88	1.02
	2005	2,497	48	27	41	44	22	48	61	42	86	86	87	1.02
	2000	2,589	49	24	47	47	27	49	66	47	90**	89**	91**	1.02**
	1990													
Cook Islands	2009	1.9+1	50+1	14+1	.+1	.+1	.+1	.+1	.+1	.+1	79*,+1	76*,+1	82*,+1	1.08*,+1
	2005	1.9**,-1	49**,-1	19**,-1	.**,-1	. - 1	.**,-1	-1	.**,-1	-1				
	2000	1.8-1	50 ⁻¹	13 ⁻¹	1	1	-1	1	-1	1	59*,-1	57*,-1	61*,-1	1.07*,-1
	1990													
Fiji	2009	99-1	50 ⁻¹	92-1	3 ⁻¹	31-1	1	1	11-1	31 ⁻¹				
	2005	102-1	50 ⁻¹	92-1	3-1	28-1	-1	1	8-1	28-1	81**,-1	78**,-1	84**,-1	1.07**,-1
	2000	98	51		3	40			9	40	76**	73**	80**	1.10**
	1990	85+1	48+1		7+1	30+1								
Kiribati	2009	12-1	51 ⁻¹		1	1	-1	1	1	1	1	1	1	1
	2005	11	52		-		**	**	-**	**	67**	64**	71**	1.10**
	2000	12	61		-				-					
	1990	3.0	49		8	16								
Marshall	2009	5.2	50	21			**	**						
Islands	2005	5.3	49											
	2000	6.0-1	50 ⁻¹	35-1	-1	1	1	1	1	1				
	1990													
Micronesia	2009	15**,-2					2	-2						
(Federated States of)	2005	14	49											
States or)	2000													
	1990													
Nauru	2009	0.69-2	51 ⁻²	2	2	2	2	2	2	2				
	2005	0.60	51											
	2000	0.66	54											
	1990													
New Zealand	2009	543	49	23	21	49			40	49	96	95	97	1.02
	2005	526	50	22										
	2000	444	50	10										
	1990	341	49		3	49								
Niue	2009													
	2005	0.21	48											
	2000	0.27-1	54 ⁻¹	1 	-1	-1	-1	-1	-1 -	-1	93*,-1	91*,-1	96*,-1	1.05*,-1
	1990	0.30+1	53 ⁺¹		_+1	.+1								
Palau	2009	2.4 ⁻²	50**,-2	28-2	2	2	2	-2	-2	2				
	2005	2.3 ⁻¹	50 ⁻¹	28 ⁻¹	1	1	1	-1	1	1				
	2000	1.9	48	29										
	1990													
Papua New	2009													
Guinea	2005													
	2000													
	1990	66	38		12	35								
	. , , , ,	30												

Region		En	rolment		Enro	lment in te	chnical and	vocational	programm	es (%)		Net enrol	ment rate	
	Reference year	Total secon all pro	dary (ISCED ogrammes	2-3)		condary D 2-3)	Lower se		Upper se (ISCI				ary (ISCED 2-3 Irammes	
Country	Ref	MF (000)	% F	% Private	MF	% F	MF	% F	MF	% F	MF	М	F	GPI
or territory		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Samoa	2009	25	51											
	2005	24-1	51 ⁻¹	32-1	1	-1	1	1	1	-1	64**,-1	60**,-1	68**,-1	1.13**,-1
	2000	22	50	32							64	60	69	1.14
	1990													
Solomon	2009	27-2	44-2	27-2	2	-2	2	2	-2	2	30-2	32-2	29 ⁻²	0.90-2
Islands	2005	26+1	43+1	26+1	.+1	.+1	.+1	.+1	.+1	.+1	34+1	36+1	31+1	0.84+1
	2000	14	42								18	20	17	0.82
	1990	5.6	37		-	•								
Tokelau	2009													
	2005													
	2000	0.18	49				**		**					
	1990													
Tonga	2009													
	2005	14-1	49**,-1		8-1	32**,-1	3**,-1	38**,-1	18**,-1	31**,-1	71**,-1	64**,-1	79**,-1	1.22**,-1
	2000	15 ⁻¹	50-1	73-1	6 ⁻¹	41-1	2-1	49-1	16 ⁻¹	39-1	72-1	68-1	76-1	1.11-1
	1990	15	48		4	44								
Tuvalu	2009													
	2005													
	2000	0.91+1	46+1				.+1	.+1						
	1990	0.63	47		5	-								
Vanuatu	2009	18	50		-		-		-					
	2005	14-1	45-1		23-1	30-1					38**,-1	41**,-1	35**,-1	0.87**,-1
	2000	10	52	27	18	41	6	47	58	39	33**	31**	35**	1.14**
	1990	4.2+1	43+1		6+1	38+1								
South and West	Asia													
Afghanistan	2009	1,716	31		1	32			5	32				
	2005	651	23		1	10	-		5	10				
	2000	362+1	_+1		_+1	.+1	_+1	.+1	_+1	.+1				
	1990	282+1	32+1		_+1	.+1								
Bangladesh	2009						1	1	8-1	30 ⁻¹				
	2005	10,109	51	96	2	30			5	30	40	39	41	1.06
	2000	10,329	50	96	1	25			3	25	41	41	41	1.02
	1990	3,593	33		1	8								
Bhutan	2009	57	49	12	-				-	=	47	46	49	1.07
	2005	42	47	8	1	34			8	34	35**	35**	35**	1.00**
	2000	23	45		-				-		19	19	19	1.00
	1990													
India	2009	101,784-1	45-1		1-1	25-1	1	1	2-1	25-1				
	2005	89,462	43		1	15**			2	15**				
	2000	71,031	40	42	1	20			2	20				
	1990													
Iran (Islamic	2009	7,929	47		11	30			20	30				
Republic of)	2005	9,066	48	9**	10	38			19	38				
	2000	9,955	47		7	38			14	38				
	1990	4,697	40		5	20					47	53	40	0.75

Region		Enr	rolment		Enro	lment in te	chnical and	vocational	programme	es (%)		Net enro	lment rate	
	Reference year	Total second all pro	dary (ISCED ogrammes	2-3)		condary D 2-3)	Lower se (ISCE			condary ED 3)			ary (ISCED 2-3 grammes	3)
Country	Ref	MF (000)	% F	% Private	MF	% F	MF	% F	MF	% F	MF	М	F	GPI
or territory		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Maldives	2009													
	2005	29**,-1	52**,-1	11**,-1	4**,-1	30**,-1	1	1	41**,-1	30**,-1				
	2000	20	51	17	2	45			42	45	39**	36**	42**	1.17**
	1990													
Nepal	2009													
	2005	2,054	45**	27	1	22**			4	22**				
	2000	1,502+1	40+1	16 ⁺¹	1+1	20+1	.+1	.+1	4+1	20+1				
	1990	709	29											
Pakistan	2009	9,433	43	32	4*	41*			10*	41*	33*	36*	29*	0.79*
	2005	7,994**	42**	32**	3**	42**			7**	42**	28**	32**	25**	0.77**
	2000													
	1990	3,665	28		1	21								
Sri Lanka	2009													
	2005	2,332**,-1	49**,-1	2**,-1			.**,-1	1						
	2000						.+1	.+1						
	1990	2,082	51		-									
REGIONAL AVERA	AGES													
World	2009	531,248**	48**		11**	45	1**	45	24**	45	60**	65**	55**	0.85**
	2005	509,920	47		10	45	1		23	45	57**	61**	52**	0.86**
	2000	450,736	47		10	45**	1		26	45**	52**	56**	48**	0.85**
	1990	331,107	44		12	43								
Arab States	2009	29,611	47		9	39	3	22	20	44	59**	61**	57**	0.94**
	2005	28,140	47		13	42**	3	28	28	44**	57**	59**	55**	0.92**
	2000	23,398	46		14	43**	3	34**	34	45**	51**	53**	48**	0.91**
	1990	16,024	42		10	38								
Central and	2009	30,825**	48**		20**	40**	0.2**	45	47**	40**	81**	81**	80**	0.99**
Eastern	2005	36,027	48		18	40	0.2	44	44	40	81**	82**	80**	0.97**
Europe	2000	40,685	48		18	39	0.0	18	49	39	81**	81**	80**	0.99**
	1990	36,136	48**		23	42**								
Central Asia	2009	10,688	49		17	48	-		54	48	88	89	87	0.98
	2005	10,966	48		9	44	-		34	44	86**	87**	84**	0.97**
	2000	9,576	49		6	41	-		25	41	78**	79**	78**	0.99**
	1990	9,557			8									
East Asia and	2009	163,323	48		16	48	0.5	43	38	48				
the Pacific	2005	160,672**	48**		13**	48**	0.6**	37**	33**	48**	65**	64**	65**	1.02**
	2000	136,343	47**		14	47**	0.4	44	41	47**	59**	60**	57**	0.96**
	1990	96,025	44		11	41								
Latin America	2009	59,959**	51**		11**	54**	4**	57	21**	53**	73**	71**	76**	1.07**
and the	2005	58,435	51		10	53	4	57	19	51	69	67	72	1.08
Caribbean	2000	55,223	51		10	54	4	55	20	54	61	60	63	1.06
	1990	36,205**	51**		15**	52**					46**			
North America	2009	61,947	49		13	42	1	41	26	42	90	89	91	1.02
and Western	2009	62,850	49		15	44	2	41	30	44	90	89	91	1.02
Europe	2005	60,945	49		13	46	1	52	27	46	87	86	88	1.02
		·												
	1990	56,519	49		17	45								

Region		Eni	rolment		Enro	ment in te	chnical and	vocational	programm	es (%)		Net enro	lment rate	
	Reference year	Total secon all pro	dary (ISCEE ogrammes	2-3)		condary D 2-3)		econdary ED 2)		econdary ED 3)			ary (ISCED 2-3 grammes	
Country	- Ref	MF (000)	% F	% Private	MF	% F	MF	% F	MF	% F	MF	М	F	GPI
or territory		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
South and	2009	135,765**	45**		2**	30**	-		4**	30**				
West Asia	2005	121,701	44		2	29	-		4	29				
	2000	102,576	41		1	29	-		4	29				
	1990	65,608**	35**		2**	24**								
Sub-Saharan	2009	39,130	44		7	39	3	38**	16	40				
Africa	2005	31,131	44		7	39**	3	39**	13	39**	24**			
	2000	21,989	44		7	37**	4	37**	11	37**	19**	21**	17**	0.81**
	1990	15,033	43		5	37**								

Region							Gross en	rolment ratio					
	Reference year	ī	otal seconda all progi				Lower secon	dary (ISCED 2) grammes		ι	Jpper seconda all progra		1
Country	Ref	MF	М	F	GPI	MF	М		GPI	MF	М	F	GPI
or territory		(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
Central Asia													
Kazakhstan	2009	98+1	100+1	97+1	0.98+1	107+1	107+1	107+1	1.00+1	81+1	85+1	76+1	0.90+1
	2005	95	96	95	0.98	98	99	98	1.00	88	90	86	0.95
	2000	93	92	94	1.02	91	89	93	1.04	99	101	97	0.95
	1990	100											
Kyrgyzstan	2009	84*	84*	85*	1.01*	92	92	92	1.01	65*	64*	66*	1.03*
	2005	86	86	87	1.01	90	90	90	1.00	77	76	78	1.03
	2000	84	83	86	1.03	83	82	84	1.03	88	86	89	1.04
	1990	103	103	102	1.00								
Mongolia	2009	92	89	95	1.07	95	93	97	1.05	87	82	92	1.11
	2005	92	87	97	1.11	98	95	101	1.07	81	73	89	1.22
	2000	65	58	71	1.22	74	68	80	1.18	44	36	52	1.43
	1990	82+1	77+1	88+1	1.14+1								
Tajikistan	2009	84-1	90-1	78 ⁻¹	0.87-1	95 ⁻¹	99 ⁻¹	91 ⁻¹	0.92-1	59 ⁻¹	69 ⁻¹	48-1	0.70-1
	2005	82	90	75	0.83	93	98	88	0.89	55	68	41	0.61
	2000	74	80	68	0.86	84	88	79	0.90	45	55	35	0.64
	1990	102+1											
Turkmenistan	2009												
	2005												
	2000												
	1990												
Uzbekistan	2009	104	104	103	0.99	97	97	96	0.98	120	120	120	1.00
	2005	100	102	99	0.97	96	97	96	0.98	110	114	106	0.93
	2000	88	89	86	0.97	83	83	83	0.99	101	105	96	0.91
	1990	101											
East Asia													
Brunei	2009	98	97	99	1.02	116	119	113	0.95	85	81	89	1.09
Darussalam	2005	96	94	98	1.04	116	118	113	0.95	80	74	86	1.16
	2000	85	83	88	1.06	113	112	114	1.01	64	59	69	1.16
	1990	77+1	73 ⁺¹	80+1	1.09+1								

Region							Gross en	rolment ratio					
	Reference year	ī	otal secondar all progr		3)			dary (ISCED 2) grammes		١	Upper seconda all progr		
Country	Ref	MF	M	F	GPI	MF	М	F	GPI	MF	М	F	GPI
or territory		(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
Cambodia	2009	46 ⁺¹				56	58	54	0.93				
	2005	38 ⁺¹	42+1	33 ⁺¹	0.79+1	53 ⁺¹	57 ⁺¹	48+1	0.84+1	21+1	26+1	17+1	0.65+1
	2000	18	23	13	0.55	23	30	17	0.56	12	16	8	0.52
	1990	25 ⁺¹											
China	2009	78	76	81	1.07	92	90	95	1.05	66	63	69	1.09
	2005	72+1	71+1	73+1	1.03+1	94+1	93+1	96+1	1.03+1	52+1	51+1	53+1	1.03+1
	2000	63 ⁺¹	64**,+1	61**,+1	0.95**,+1	85 ⁺¹	86+1	83+1	0.97+1	37+1	39**,+1	36**,+1	0.92**,+1
	1990	38	44	33	0.74								
Democratic	2009												
People's Republic of	2005												
Korea	2000												
	1990												
Hong Kong	2009	82	81	83	1.03	96	96	96	1.01	72	70	74	1.05
(China)	2005	82	82	83	1.01	96	97	95	0.98	71	70	73	1.04
	2000	81+1	83+1	80+1	0.97+1	102+1	103+1	100+1	0.97+1	67+1	68+1	66+1	0.97+1
	1990												
Indonesia	2009	79	80	79	0.99	93	93	94	1.02	66	67	64	0.96
	2005	64	65**	64**	0.99**	78	77**	78**	1.02**	51	52**	49**	0.95**
	2000	56**	58**	55**	0.95**	71**	73**	70**	0.96**	41**	42**	40**	0.94**
	1990	46+1	50 ⁺¹	42+1	0.83+1								
 Japan	2009	101	101	101	1.00	102	102	101	1.00	101	100	101	1.00
	2005	101+1	101+1	101+1	1.00+1	100+1	100+1	100+1	1.00+1	102+1	101+1	102+1	1.00+1
	2000	101	101	102	1.01	103	103	103	1.00	100	99	101	1.02
	1990	96	95	97	1.02								
Lao People's	2009	44-1	48-1	39 ⁻¹	0.81-1	53 ⁻¹	58-1	47-1	0.82-1	34-1	38-1	30-1	0.78-1
Democratic	2005	45	51	39	0.76	54	60	47	0.79	36	41	30	0.71
Republic	2000	34	40	28	0.70	45	53	38	0.72	22	27	18	0.67
	1990	24	28	19	0.68								
Macao (China)	2009	92	94	90	0.96	111	114	107	0.94	77	77	76	0.99
Wacao (Crima)	2005	95	95	95	1.00	115	117	113	0.96	77	75	79	1.06
	2000	79	77	81	1.05	98	96	100	1.04	57	55	60	1.10
	1990	61	58	64	1.10								
Malaysia	2009	69-1	66 ⁻¹	71-1	1.07-1	94 ⁻¹	93 ⁻¹	 94 ⁻¹	1.01 ⁻¹	50 ⁻¹	46-1	54 ⁻¹	1.17-1
Malaysia	2009	69	66	72	1.10	90	89	91	1.02	53	48	58	1.22
	2003	65	62	68	1.08	91	89	93	1.04	45	41	48	1.16
	1990	56	54	58	1.06								
Myanmar	2009	53	53	54	1.00	61	61	61	1.00	38	36	40	1.09
iviyariiriai	2009	46	47	46	0.97	53	53	52	0.96	34	34	34	1.09
	2003	38	37	39	1.06	42	42	42	1.01	31	29		1.18
	1990			20	0.93							34	
Dhilippines		20	21 79 ⁻¹	20 86 ⁻¹	1.09-1	0.0-1	96-1	91 ⁻¹	1.07-1	65 ⁻¹	59 ⁻¹	71-1	1 20:1
Philippines	2009	82-1				88 ⁻¹	86-1		1.07-1				1.20-1
	2005	83	79	88	1.12	85	82	89	1.09	77	70	85	1.21
	2000	75 ⁺¹	72+1	79+1	1.10+1	79+1	76+1	82+1	1.07+1	64+1	58+1	69+1	1.19+1
	1990	71	70	72	1.03								

Region							Gross en	rolment ratio					
	Reference year		otal secondar all progr		3)			dary (ISCED 2) grammes		l	Jpper seconda all progra		
Country	Ref	MF	М	F	GPI	MF	М	F	GPI	MF	М	F	GPI
or territory		(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
Republic of	2009	97	99	95	0.96	99	101	97	0.96	95	97	94	0.97
Korea	2005	97	98	95	0.98	97	99	96	0.97	95	96	94	0.98
	2000	97	98	97	0.99	100	100	101	1.01	94	96	93	0.98
	1990	91 ⁺¹	93 ⁺¹	90 ⁺¹	0.96+1								
Singapore	2009												
	2005												
	2000												
	1990												
Thailand	2009	77+1	74+1	80+1	1.08+1	92+1	92+1	92+1	1.00+1	63 ⁺¹	57+1	68+1	1.19+1
	2005	70 ⁺¹	68 ⁺¹	73 ⁺¹	1.08+1	85 ⁺¹	85 ⁺¹	86+1	1.02+1	55 ⁺¹	51 ⁺¹	60 ⁺¹	1.18+1
	2000	63 ⁺¹	64**,+1	62**,+1	0.97**,+1	71+1	74+1	69+1	0.93+1	55 ⁺¹	54**,+1	56**,+1	1.04**,+1
	1990	29	28	30	1.06								
Timor-Leste	2009	51				60	59	60	1.01	41			
	2005	55	55	55	1.00								
	2000	35**,+1				42**,+1				27**,+1			
	1990												
Viet Nam	2009												
	2005												
	2000	65	68	62	0.91	79	83	76	0.92	43	45	41	0.91
	1990	35											
Pacific													
Australia	2009	133	135	130	0.96	115	116	115	0.99	166	173	160	0.92
	2005	148	152	145	0.96	113	113	113	1.00	219	230	208	0.91
	2000	162	162	162	1.00	119	118	120	1.01	247	248	246	0.99
	1990												
Cook Islands	2009	84*,+1	80*,+1	88*,+1	1.10*,+1	97*,+1	95*,+1	99*,+1	1.04*,+1	67*,+1	61*,+1	74*,+1	1.21*,+1
	2005	80**,-1	76**,-1	85**,-1	1.12**,-1	94**,-1	94**,-1	95**,-1	1.01**,-1	60**,-1	52**,-1	70**,-1	1.37**,-1
	2000	60*,-1	58*,-1	63*,-1	1.08*,-1	80*,-1	81*,-1	79*,-1	0.99*,-1	39*,-1	34*,-1	44*,-1	1.29*,-1
	1990	:											
Fiji	2009	81 ⁻¹	78-1	84-1	1.07-1	94-1	92 ⁻¹	96 ⁻¹	1.05-1	62-1	59 ⁻¹	66 ⁻¹	1.12-1
	2005	86-1	83-1	89-1	1.07-1	98-1	96-1	100-1	1.05-1	70-1	66-1	74-1	1.12-1
	2000	80	77	84	1.09	96	93	100	1.07	59	56	63	1.14
	1990	76 ⁺¹	78 ⁺¹	75 ⁺¹	0.97+1								
Kiribati	2009	85 ⁻¹	81 ⁻¹	89-1	1.11-1	98-1	96-1	100-1	1.04-1	71-1	65 ⁻¹	78 ⁻¹	1.21-1
	2005	87	82	92	1.13	106**	104**	108**	1.04**	67**	58**	76**	1.30**
	2000	100	76	125	1.64	69	67	70	1.04	135	86	185	2.15
	1990	38	39	36	0.94								
Marshall	2009	78	76	80	1.05	93	92	94	1.03	70	68	73	1.07
Islands	2005	69	69	69	1.01	98	100	96	0.96	57	56	58	1.04
	2000	66 ⁻¹	64-1	69-1	1.07 ⁻¹	91 ⁻¹	88-1	93-1	1.06-1	52-1	51 ⁻¹	54 ⁻¹	1.08-1
	1990												
Micronesia	2009	91**,-2				100-2	100-2	99-2	0.99-2				
(Federated States of)	2005	83	80	86	1.07	101	96	106	1.10	74	72	76	1.05
States Or)	2000												

Region							Gross en	rolment ratio					
	Reference year	Ī	otal secondar all progr		3)			dary (ISCED 2) grammes		l	Jpper seconda all progra		
Country	Ref	MF	М	F	GPI	MF	М	F	GPI	MF	М	F	GPI
or territory		(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
Nauru	2009	54*,-2	49*,-2	58*,-2	1.17*,-2	56*,-2	52*,-2	60*,-2	1.16*,-2	49*,-2	44*,-2	53*,-2	1.20*,-2
	2005	47*	44*	50*	1.13*								
	2000	47*	43*	51*	1.17*								
	1990												
New Zealand	2009	126	124	129	1.04	105	105	105	1.00	153	147	158	1.07
	2005	120	116	124	1.07	103	104	103	0.99	143	134	153	1.14
	2000	110	107	114	1.06	101	101	100	0.99	124	116	132	1.14
	1990	90	90	90	1.01								
Niue	2009												
	2005	105*	83*	148*	1.78*								
	2000	98*,-1	93*,-1	103*,-1	1.10*,-1	91*,-1	97*,-1	86*,-1	0.88*,-1	63*,-1	67*,-1	59*,-1	0.89*,-1
	1990												
Palau	2009	96*,-2	97**,-2	95**,-2	0.98**,-2	98*,-2				94*,-2	93*,-2	94*,-2	1.01*,-2
	2005	99*,-1	98*,-1	100*,-1	1.02*,-1	105*,-1	108*,-1	101*,-1	0.93*,-1	94*,-1	88*,-1	99*,-1	1.12*,-1
	2000	86*	85*	88*	1.03*	92*	89*	96*	1.08*	81*	81*	80*	0.99*
	1990												
Papua New	2009												
Guinea	2005												
	2000												
	1990	11	14	8	0.60								
Samoa	2009	76	72	81	1.13	96	95	97	1.02	67	61	74	1.21
	2005	78 ⁻¹	74 ⁻¹	83-1	1.12-1	97-1	97 ⁻¹	97-1	1.00-1	70-1	64-1	77-1	1.20-1
	2000	78	73	83	1.14	95	93	97	1.05	70	64	77	1.20
	1990												
Solomon	2009	35 ⁻²	38-2	32-2	0.84-2	54 ⁻²	56 ⁻²	51 ⁻²	0.90-2	19 ⁻²	22-2	16 ⁻²	0.72-2
Islands	2005	34 ⁺¹	37+1	31 ⁺¹	0.84+1	52 ⁺¹	55 ⁺¹	49 ⁺¹	0.89+1	20+1	23+1	17+1	0.75+1
	2000	20	22	18	0.79	34	37	31	0.83	9	10	7	0.70
	1990	14	17	11	0.64								
Tokelau	2009												
	2005												
	2000	92*	92*	93*	1.01*	102**	97**	107**	1.11**	78**	85**	72**	0.85**
	1990												
Tonga	2009												
	2005	103**,-1	99**,-1	107**,-1	1.08**,-1	99**,-1	100**,-1	97**,-1	0.97**,-1	111**,-1	96**,-1	128**,-1	1.32**,-1
	2000	101-1	96-1	107-1	1.11-1	106-1	103-1	110-1	1.06-1	92-1	82-1	102-1	1.24-1
	1990	97	97	97	1.00								
Tuvalu	2009												
	2005												
	2000	80*,+1	76*,+1	84*,+1	1.10*,+1	96*,+1	91*,+1	102*,+1	1.11*,+1	39*,+1	39*,+1	38*,+1	0.98*,+1
	1990												
Vanuatu	2009	47	45	49	1.09	48	46	51	1.11	46	44	47	1.07
	2005	40-1	43-1	37-1	0.86-1	46**,-1	46**,-1	47**,-1	1.04**,-1	31**,-1	39**,-1	23**,-1	0.58**,-1
	2000	34	32	36	1.14	43	39	48	1.23	20	21	18	0.87
	1990	18+1	20+1	16+1	0.80+1								

Region							Gross er	rolment ratio					
	Reference year	T	otal seconda all progr		3)			idary (ISCED 2) grammes)	ι	Jpper seconda all progra		
Country	Ref	MF	М		GPI	MF	М	F	GPI	MF	М	F	GPI
or territory		(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
South and West	Asia												
Afghanistan	2009	44	58	28	0.49	62	80	42	0.52	24	33	14	0.41
	2005	19	29	9	0.33	26	38	13	0.35	12	18	5	0.28
	2000	13+1	25+1	_+1	_+1	13 ⁺¹	26+1	_+1	_+1	12+1	23+1	_+1	_+1
	1990	16+1	21+1	11+1	0.51+1								
Bangladesh	2009					56 ⁻¹	51 ⁻¹	62-1	1.21-1	31 ⁻¹	31 ⁻¹	32 ⁻¹	1.01-1
	2005	43	42	44	1.06	61	58	65	1.12	29	29	28	0.97
	2000	44	44	44	1.02	60	57	64	1.13	32	34	29	0.88
	1990	18	24	12	0.51								
Bhutan	2009	62	62	61	0.99	74	73	75	1.04	38	42	35	0.84
	2005	46	48	43	0.88	54	56	53	0.95	28	33	22	0.65
	2000	41	45	37	0.82	49	53	45	0.86	33	37	28	0.76
	1990												
India	2009	60-1	64-1	56 ⁻¹	0.88-1	77-1	79-1	74-1	0.93-1	47-1	51 ⁻¹	42-1	0.82-1
	2005	54	59	49	0.82	71	75	66	0.87	41	47	35	0.75
	2000	46	54	38	0.71	62	71	52	0.73	34	40	27	0.68
	1990												
Iran (Islamic Republic of)	2009	83	85	81	0.95	100	102	97	0.95	73	76	71	0.94
ricpublic or)	2005	77	78	75	0.97	97	101	92	0.91	64	63	65	1.03
	2000	82	85	78	0.93	102	110	94	0.86	67	67	67	1.00
	1990	52	60	43	0.72								
Maldives	2009					122	120	125	1.03				
	2005	73**,-1	69**,-1	78**,-1	1.13***,-1	110-1	101-1	119-1	1.18-1	18**,-1	21**,-1	15**,-1	0.70**,-
	2000	54	52	56	1.09	83	79	88	1.11	8	8	7	0.80
	1990												
Nepal	2009												
	2005	46	49**	43**	0.86**	72	77	67	0.88	25	27**	22**	0.82**
	2000	38+1	44+1	32+1	0.72+1	54+1	61+1	46+1	0.76+1	25+1	30+1	20+1	0.65+1
	1990	32	44	19	0.44								
Pakistan	2009	33	37	29	0.79	44	49	38	0.78	25	28	22	0.80
	2005	29**	32**	25**	0.78**	38	43	32	0.73	22**	24**	20**	0.84**
	2000												
	1990	20	28	12	0.42								
Sri Lanka	2009				1.02** 1	104	103	105	1.03			71 ** 1	
	2005	87**,-1	86**,-1	88**,-1	1.02**,-1	104**,-1	101**,-1	106**,-1	1.05**,-1	72**,-1	73**,-1	71**,-1	0.97**,-
	2000					97+1	97+1	98+1	1.01+1				
DECIONAL AVED	1990	72	69	74	1.08								
REGIONAL AVER		60**	60**	€ ¬**	0.07**	00**	0.1**	70**	0.07**	F6**	F 7**		0.07**
World	2009	68**	69**	67**	0.97**	80**	81**	79**	0.97**	56**	57**	55**	0.97**
	2005	65	66	63	0.95	78	80	76	0.95	52	53	50	0.94
	2000	60	62	57	0.92	73	76	70	0.92	46	48	44	0.92
Augh Chui	1990	50	54	45	0.84								
Arab States	2009	68	71	65	0.92	87	91	82	0.90	48	49	47	0.95
	2005	66	69	64	0.92	80	84	75	0.89	52	53	51	0.97
	2000	59	62	55	0.89	73	78	69	0.88	44	46	41	0.91
	1990	52	59	44	0.75								

Region							Gross en	rolment ratio					
	Reference year	Ī	otal seconda all progr					dary (ISCED 2) grammes		l	Jpper seconda all progra		
Country	Ref	MF	М	F	GPI	MF	М	F	GPI	MF	М	F	GPI
or territory		(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
Central and	2009	88**	90**	87**	0.96**	92**	92**	91**	0.98**	84**	86**	81**	0.94**
Eastern Europe	2005	87	89	85	0.96	89	90	87	0.96	85	87	83	0.95
Larope	2000	88	90	86	0.96	93	94	92	0.97	80	83	77	0.93
	1990	85	87**	83**	0.95**								
Central Asia	2009	96	97	95	0.98	97	98	96	0.98	94	95	93	0.98
	2005	93	95	91	0.96	95	96	94	0.98	87	90	84	0.93
	2000	84	85	84	0.98	84	84	84	1.00	84	87	82	0.94
	1990	99											
East Asia and	2009	78	76	80	1.05	90	89	91	1.03	66	64	68	1.07
the Pacific	2005	71**	71**	72**	1.01**	89**	88**	89**	1.01**	54**	53**	54**	1.00**
	2000	63	65**	62**	0.96**	78	80**	77**	0.96**	45	46**	44**	0.96**
	1990	45	49	41	0.83								
Latin America	2009	90**	86**	93**	1.08**	102**	100**	104**	1.04**	75**	69**	80**	1.16**
and the Caribbean	2005	88	85	91	1.08	100	98	102	1.04	73	69	78	1.13
Caribbean	2000	83	81	86	1.07	99	98	101	1.03	65	60	69	1.14
	1990	61**	59**	63**	1.06**								
North America	2009	100	100	100	1.00	103	103	102	0.99	98	97	98	1.01
and Western Europe	2005	101	100	101	1.01	104	105	104	0.99	97	96	98	1.03
Luiope	2000	100	99	100	1.01	103	103	102	0.99	97	95	98	1.03
	1990	93	92	93	1.01								
South and	2009	56**	59**	52**	0.89**	71**	74**	69**	0.93**	44**	47**	40**	0.84**
West Asia	2005	51	55	47	0.84	67	71	63	0.88	38	43	34	0.80
	2000	46	52	39	0.76	62	69	54	0.77	33	38	28	0.74
	1990	36**	45**	26**	0.59**								
Sub-Saharan	2009	36	40	32	0.79	43	48	39	0.80	27	31	24	0.76
Africa	2005	31	35	27	0.78	37	41	32	0.78	25	28	22	0.78
	2000	25	28	22	0.80	29	32	26	0.80	20	22	18	0.82
	1990	23	26	19	0.75								

Note: Data extracted from the UIS database on October 2011.

Symbol:

- No data available
- For country data: UIS estimation

For regional averages: Partial imputation due to incomplete country coverage (between 25% to 75% of the population)

- National estimation
- For regional averages: substantial imputation due to incomplete country coverage (more tan 25% of the population)
- Magnitude nil
- Not applicable
- Data refer to the school or financial year n years after the reference year
- Data refer to the school or financial year n years prior the reference year





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