

Key Points

- Jobs and skills are pressing development challenges; improved skills training, labor market, and social protection policies to increase employment are crucial.
- The skills mismatch with jobs requires not only upskilling but also “right skilling” that balances high, medium, and low skills.
- Aligning skills training policies with economic and industrial policies is a crucial aspect of creating the human resource base required for competitiveness.
- Industry-led skills training requires diverse policy provisions: conducive regulation, industry validation of competency standards, and employer representation in training institutions.
- Qualification frameworks are an important policy lever to increase relevance and recognition of skills, but also have limitations.
- The prestige of technical and vocational education and training (TVET) can be enhanced with associate degrees and seamless links with tertiary education systems.
- Strong foundational skills of literacy and numeracy are a prerequisite for effective advanced skills training.
- Soft skills such as critical thinking, communication, and collaboration facilitate more effective use of technical skills.
- Skills training needs to be complemented with employment services such as placements, internships, and apprenticeships to strengthen the link of training systems with the world of work.

Skills for Inclusive and Sustainable Growth in Developing Asia and the Pacific

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The growing prominence of Asian economies and corporations, against the backdrop of globalization and technological progress, is leading to long-term changes in trade, business, and labor markets. Asia’s economies have achieved remarkable growth rates. According to the ADB study *Asia 2050—Realizing the Asian Century*, if Asia continues to grow on its recent trajectory, it could account for 51% of world GDP by 2050 (compared with 27% in 2010).

Strengthening education and skills is an important policy lever for development. To quote Ho Chi Minh: “To reap a return in 10 years, plant trees. To reap a return in 100, cultivate the people.” Support to education is a key priority in enabling developing countries to become knowledge-based economies. Education and skills development are crucial to achieving inclusive growth and sustainable green growth. Governments are considering policy options to strengthen the human resource base required to serve the growth sectors of the economy, to avoid the “middle income trap,” and to increase employment.

Jobs and skills are pressing challenges for developing countries. Paradoxically, there is also a growing concern of skills mismatch. How do skills training systems support skills acquisition and continued upgrading? How does the education system interface and interact with labor markets and industries to coordinate skills development with changing industry needs? What are good practices and lessons from different countries and regions that can better inform skills development policy making? These are some of the questions that were addressed at the ADB-sponsored International Consultative Forum on Skills for Inclusive and Sustainable Growth in Developing Asia–Pacific in Manila, 12–13 December 2011. The event brought together diverse top-level professionals in government, the private sector, and academia. A range of issues on strengthening skills development systems and technical and vocational education and training (TVET) were discussed at the forum, particularly in the context of advancing inclusive growth and increasing employment. This brief has been prepared by drawing

on papers presented and key messages discussed at the forum (<http://www.adb.org/news/events/skills-inclusive-and-sustainable-growth-developing-asia-pacific>).

Skills for Growth and Competitiveness

Jobs and skills are pressing development challenges

Global unemployment stood at 200 million in 2011, almost half of that in Asia and the Pacific. In the People's Republic of China (PRC), 25 million people need to be employed in urban areas annually, while current annual job vacancies are only 12 million. India has a target of creating a pool of skilled workers of 500 million by 2022. Skills training systems are pressed to create “work ready” people to increase employment. It is acknowledged that growth alone is not enough. More jobs and greater inclusiveness help to redress poverty, inequality, and exclusion.

However, skills development and TVET are only part of the strategy for employment, particularly for youth and vulnerable groups. Table 1 shows that the global youth unemployment rate in 2011 was 12.7%, compared with 4.6% for adults. An estimated 6.4 million young people dropped out of the world labor market in 2011. Countries with a youthful demographic profile need to consider strategies that would improve job prospects for young adults. Of India's current population, 47.8% is below 29 years, which will further increase to 49.9% in 2021. The mean age in Indonesia is less than 29.

A large share of employment in developing Asia is found in the informal sector. Improved skills increase prospects of better-quality jobs. Specialized strategies for skills training for small and medium enterprises would help

their growth and increase employment prospects for workers in the informal sector. Skills training policies need to be augmented with labor market and social protection policies to redress the obstacles to workforce participation, increase employment, and reduce vulnerability of employment.

Addressing skills mismatch calls for not just upskilling but also “right skilling”

Emerging and modernizing economies are very much concerned with upskilling their workforce to meet the demands of knowledge-intensive and high-technology industries. Asian technology has reached or is close to the global cutting edge in many areas of electronics, computers, information technology, services, communications, pharmaceuticals, and biotechnology. Technology adoption in Asian countries has proceeded at a rapid pace, exerting pressure on the level of skills required in the workforce.

In the PRC, technological progress and industrial restructuring and upgrading are leading to a shortage of skilled workers. The PRC's National Medium- and Long-term Talent Development Plan (2010–2020) addresses vocational training and employment promotion. In the Philippines, a priority is to increase the number of qualified technicians at higher levels of national certification of the Technical Education and Skills Development Authority. The Council of Australian Governments has supported reform targets that include doubling the number of higher-level (diploma and advanced diploma) qualification completions by 2020. This is exerting pressure to increase the number of people with higher educational qualifications.

Table 1 State of Unemployment and Employment in Asia

	2011 Adult unemployment rate (%)	2011 Youth unemployment rate (%)	2011 Adult labor force participation rate (%)	2011 Youth labor force participation rate (%)	2011 Share of vulnerable employment ^a (%)	2011 Share of employed poor ^b (%)
World	4.6	12.7	68.9	48.7	49.1	14.8
East Asia	3.2	8.8	76.5	60.2	48.7	7.8
Southeast Asia and Pacific	2.7	13.4	76.0	52.3	61.6	11.1
South Asia	2.3	9.9	63.4	41.2	77.7	35.9

^a Vulnerable employment: share of workers who are self-employed, employed in the informal sector, or unpaid family workers. Vulnerable jobs tend to be noncontractual and do not have social protection.

^b Employed poor: share of workers in employment earning less than \$1.25 a day.

Source: International Labour Organization. *Global Employment Trends 2012*.

However, recent trends point to the growing problem of skills mismatch with labor markets. The 2011 Manpower Global Talent Mismatch Survey points out that 41% of employers surveyed in Asia (compared with 28% in 2006) reported difficulty in filling positions due to lack of suitable talent in their markets, compared with a global average of 31%. With a growing incidence of graduate unemployment in Asia’s advanced and emerging economies, focus needs to shift to “right skilling” of the workforce.

Aligning skills training policies with economic and industrial policies

As Asian economies move away from low-cost labor advantages in manufacturing toward knowledge- and technology-intensive industries, the quality of the human resource base is crucial for competitive strength. An appropriate skills strategy is a key component of a successful economic and industrial policy. However, a number of countries, despite prioritizing skills development for economic growth, are yet to ensure adequate harmonization of skills and training policies with economic and industrial policies. The experience of countries like the Republic of Korea, Singapore, and Hong Kong, China demonstrate a strong case for successfully integrating education and policies for skills development into nations’ overriding frameworks for economic development. Countries need forward-looking skills policies so that appropriate occupational skills are available to fast-growing and emerging sectors of the economy as shown in Box 1.

Ensuring industry-led systems for skills training with a conducive regulatory framework

There is widespread acknowledgement that the private sector is a critical partner for increasing cost efficiency, quality, and relevance in skills training. Although there is concern about the profit-driven nature of private provision, it is recognized that the private sector can also serve the poor and disadvantaged through voucher schemes and contracted training. Academy–industry partnerships, internships, and placement programs are mechanisms by which the matching of skills with jobs can be strengthened.

However, ensuring congruency of skills with the needs of employers through institution–industry partnerships is easier said than done effectively. On the one hand, a conducive regulatory environment is needed for private sector players to occupy a legitimate space for financing and providing skills training. On the other hand, several supportive measures are required to build a culture of partnership—for example, training institutions could be required to ensure employer representation on the governing boards and to establish employer advisory committees for each program so that updating and renewal of the curriculum reflect employer expectations. The private sector can also provide ancillary services such as supplies, publishing, and facilities management. Alternative funding mechanisms are needed to ensure that poorly performing public systems are not the only options available to the most disadvantaged. Public funding to training institutions could be linked

Box 1 Leveraging Skills Training for Competitiveness

Common components of growth led by skills development

- Government and employers in strategic economic sectors are committed to skills development at all levels including high-level technology skills.
- Skills strategies are supportive of the transition to higher-value-added products and services and priority sectors (for example, plans for skills development in 20 high-growth sectors in India).
- The qualification framework supports development of competency-based skills and standards required by industry.
- Labor market information and skills forecasting is available and used for skills and training.
- A sustainable system of funding for higher-level skills development is available with flexible approaches to skills training delivery.

Examples of a skills training system that supports economic strength

- Institutions, processes, and resources are effective at three levels:
 - *Immediate*: Matching skills to jobs and effectively connecting supply of skilled people to available jobs
 - *Medium term*: Repairing talent mismatches in the economy through effectively shaping supply to meet demand-side forces
 - *Long term*: Preparing a pipeline of skilled, semiskilled, and highly skilled workers aligned to needs of priority sectors of economic and industrial importance, harmonized with investment, financing, and other policy provisions.

Source: Presentations by Dilip Chenoy, Marcus Powell, and Manish Sabharwal at the International Skills Forum at ADB headquarters, December 2011.

Box 2: Private–Public Partnerships in Skills Training: Example of India

The unique private–public partnership for skills development in India	Possible contributions from private sector
<p>National Skills Development Corporation</p> <ul style="list-style-type: none"> • (51% private and 49% government stake; endowed with a corpus) <p>Objectives:</p> <ul style="list-style-type: none"> • Nurture development with long-term capital • Improve returns by providing viability gap funding <p>Viable skills ecosystem</p> <ul style="list-style-type: none"> • Support systems required for skills development • Sector skills councils • Quality assurance mechanisms • Information systems • Train-the-trainer programs • Skills standards and competency mapping 	<ul style="list-style-type: none"> • Supporting sector skills councils for assuring talent needed in industry • Setting up standards and quality assurance to ensure use of global best practices • Modernizing labor market information for accurate and real-time inputs • Supporting industry-relevant training • Demanding and absorbing “ready to work” and “certified” employees • Supporting internships and placements • Supporting employee cadres to act as trainers and assessors of competencies • Promoting and rewarding lifelong learning

Source: Presentation by Dilip Chenoy, National Skills Development Corporation (India), at International Skills Forum at ADB headquarters, December 2011.

to accountability for performance, such as percentage of graduates employed and employer and employee satisfaction rates from training.

Industry support is required in the design and delivery of a responsive and diversified skills training program that focuses on applied learning. Industry participation is particularly crucial in the context of bodies such as sector skills councils to determine competencies and occupational standards needed in the workforce and to ensure that assessment and certification are acceptable to employers.

Supporting qualification frameworks and quality assurance

Qualification frameworks can strengthen links between education, training, and the labor market. They are a means by which industry, government, and training institutions agree on standards for qualifications and learning outcomes. Qualification frameworks can also help to move the workforce toward meeting the economic goals of countries.

Countries need to consider establishing an appropriate “qualification corridor” that allows workers to move up the skills ladder over time.

However, it is important to underscore their limitations, as they cannot by themselves make TVET more successful. While the introduction of a qualification framework usually has high levels of commitment from governments, it is more difficult to ensure continued arrangements for quality assurance, certification and accreditation systems, well-conceived learning pathways across different levels of education and training, and regular updating of standards and qualifications. By far the most crucial aspect of a qualification framework’s effectiveness is to ensure adequate support from industry and employers. Countries need to consider establishing an appropriate “qualification corridor” that allows workers to move up the skills ladder over time. Industry and employers need to support government initiatives for qualification frameworks by giving preferential treatment to certified persons and favoring the hiring of only skilled people to promote the “skills ecosystem.”

Strengthening the Skills and Workforce Development System

Increasing the prestige of skills training and rebranding TVET

Many education systems fragment and split vocational training from academic degrees with no bridge between the two. This often results in TVET being perceived as less prestigious than academic streams. Pathways from TVET to bachelor’s and master’s degrees are crucial so

that students have options for moving from one stream to the other. A more integrated secondary, postsecondary, TVET, and higher education system enables acquisition of qualifications and certification in a flexible and non-hierarchical learning pathway. For higher-order and knowledge-intensive skills, interface with higher education is essential.

The qualifications obtained through TVET could merit reconsideration. TVET is associated with diplomas and certificates whereas academic streams grant degrees with higher signaling value. In Canada, for example, the 150 colleges, institutes, polytechnics, and universities with a college mandate initially offered 2–3 year technician/technologist diploma programs. In response to demand in recent times, colleges now offer 4-year applied bachelor's degree programs and 1-year postgraduate certificates that target students seeking more practical skills to improve job prospects. Course offerings in Australia start from certificate level going all the way up to doctoral degree. Sri Lanka's qualification system recognizes competencies at different levels, starting from entry level to advanced level. Vocational/technological competencies at level 7 are equivalent to a bachelor's degree. A policy framework that blends skills training with higher education opportunities would help enhance the prestige of TVET and prevent it from being a dead-end learning pathway.

Strengthening foundational skills and direct measurement of skills

As countries move up the value-added chain of production, employment shifts away from jobs involving routine cognitive and manual tasks toward jobs requiring tasks such as critical thinking and complex communication. However, measurement of skills largely focuses on proxies such as years of education or qualifications. More years of education does not necessarily mean higher skills. Qualification-based measures also ignore the fact that skills can be acquired informally and outside the education and training system through work experience. A recently developed instrument by the Organisation for Economic Co-operation and Development, the Program for International Assessment of Adult Competencies, aims to provide internationally comparable direct assessment of foundational skills of the adult population (ages 16–65) in literacy, numeracy, and problem solving.

There is a growing demand for cognitive skills involving understanding, interpretation, analysis, and communication. Figure 1 shows a steep decline in the

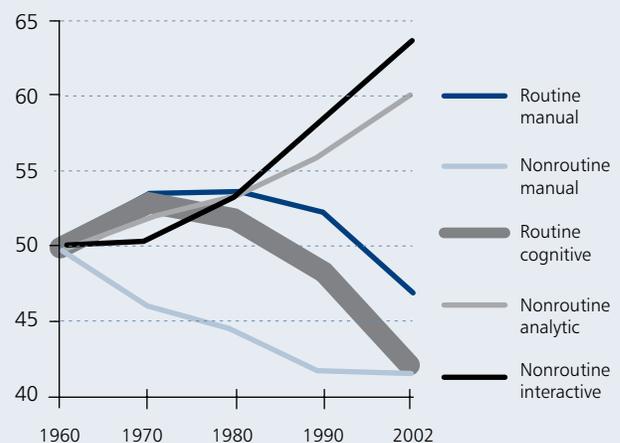
A policy framework that blends skills training with higher education opportunities would help enhance the prestige of TVET and prevent it from being a dead-end learning pathway.

demand for routine cognitive skills and a sharp increase in the demand for nonroutine interactive skills. While skills training systems need a base of strong foundational skills, they also must adapt rapidly to changing market requirements. This has implications for the design of curriculum and its delivery, the type of courses on offer, and their regular renewal. While routine skills are easiest to teach and test, they are also the ones that are easiest to digitize, automate, and outsource.

Mainstreaming soft skills into TVET for improved productivity

The combination of foundational skills, soft skills, and technical skills contribute to successful performance in the workplace. Employers are increasingly stressing the importance of soft skills to enhance effectiveness of technical skills. Attributes such as critical thinking, communication, collaboration, creativity, and problem solving enhance application of technical skills. Countries

Figure 1 Demand for Skills (US)



Source: Frank Levy and Richard Murnane, presented by Richard Desjardins, Organisation for Economic Co-operation and Development, at the International Skills Forum at ADB headquarters, December 2011.

Box 3: Examples of Employment Services

Australian Employment Services	Jobstreet.com, Philippines
<ul style="list-style-type: none"> • Work placement with post-placement support and/or workplace mentors • Intensive pre-vocational training targeted at basic technical and employability skills • Workforce diversity and inclusion strategies for a supportive environment for the disadvantaged • Reverse marketing or “supply push” models to negotiate vacancies to suit specific job seekers • Job redesign for people with disabilities • Labour Market Information Portal website with a wide range of data for skills forecasting 	<ul style="list-style-type: none"> • Mediator/bridge between employee and employer • Career Congress series bringing together 150 university representatives with 100 employers, government, and media • Sharing of best practices • National Internship Movement • Support to job seekers in critical thinking, communication skills, and other soft skills

Source: Presentations from Sally Sinclair, National Employment Services Association (Australia), and Grace Colet, Jobstreet.com (Philippines), at the International Skills Forum at ADB headquarters, December 2011.

such as Canada are looking into mainstreaming soft skills into technical training programs. Soft skills or employability skills are sometimes considered even more important than technical skills for performance in the workplace.

The focus of skills training is often restricted to increasing enrollments without adequate attention to outcomes from training. Output per worker in developed economies and the European Union was \$72,900 in 2011 versus an average of \$13,600 in developing regions (International Labour Organization 2012). Despite increased productivity levels in Asia over the last decade, more attention to output per worker and higher productivity returns from skills training is needed. In addition to expanding access to opportunities for skills training to a

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large proportion of the population, outcomes from training need to be commensurate with the investments made. Skills utilization is just as valuable to productivity as skills acquisition.

Integrating employment services into skills training

The design and delivery of skills training have been undergoing rapid change. Traditional institution-based training delivery is giving way to multimode delivery mechanisms. Employment services such as career guidance and placement have become crucial to ease obstacles and constraints to workforce entry. Advocacy and support systems for vulnerable groups to participate in labor markets is a valuable ancillary service demonstrated in countries such as Australia and Canada. Apprenticeships and internships are assuming even more prominent roles in strengthening the link between training institutions and employers. Apprenticeship schemes need to be redesigned and modernized so that they are not discredited as a source of cheap labor to employers. On-the-job training is also crucial for improved skills match. There is need to consider modular approaches to skills training and skills updating given the rapid pace of change and transformation in the market place. Lifelong learning and training are crucial for continued workforce participation.

Box 4 ADB Support for Strengthening Policies and Practices in Skills Development: An Emerging Framework

Issues for consideration	Possible policy levers	Possible benefits
Addressing the pressing challenges of jobs and skills for development in Asia	Skills policies linked with labor market and social protection policies. Affirmative action to overcome obstacles to workforce participation.	Increased training opportunities and improved employment prospects Reduced vulnerability and informality of employment
Addressing the paradox of skills mismatch with employer needs	Training courses based on an assessment of “right skills” required for the workforce, with a mix of high, medium, and basic skill levels. Incentives for skills development for high-technology industry employers.	Reduced skills mismatches to jobs and reduced graduate unemployment A highly skilled workforce supports technology absorption and moving up the value chain
Leveraging skills training to improve competitiveness	Matching skills development priorities with economic and industrial priorities (e.g., skills training for pillar industries in the PRC; skills development in the economic master plan of Indonesia; skills development for 20 high-growth industries in India).	Well-conceived and systematic skills training frameworks can support the overall economic growth aspirations and global competitiveness of nations.
Ensuring industry-led systems for skills training	Conducive regulatory framework for the private sector. Employer representation on governing boards of training institutions and employer program advisory committees. Industry representation in sector skills councils and in accreditation of skills.	Availability of “work ready” human resources and “certified” employees. A responsive and diversified skills training system aligned to industry needs and focused on applied learning
Ensuring recognition of skills training and certification but setting realistic expectations from national qualification frameworks	Developing national qualification frameworks. Industry-led occupational standards and their use in training. Establishment of a “qualification corridor.”	Certification, accreditation, and recognition of qualifications and training improve market orientation and confidence in learning outcomes.
Increasing the prestige of skills training and re-branding TVET	Policy framework blending skills training with higher education. Introduction of associate degrees for TVET and applied bachelor’s degree programs.	Horizontal and vertical mobility in learning without dead ends Increased opportunities to upgrade skills and improve education qualifications
Strengthening foundational skills	Using tools for direct measurement of skills such as the Program for International Assessment of Adult Competencies in Asia. Strengthening nonroutine cognitive skills.	Better assessment of actual skills Improved foundational skills that help advanced skills development
Mainstreaming soft skills into technical skills training systems	Incorporation of soft skills development, particularly critical thinking, communication, and collaboration, into training programs.	Application of technical skills at the workplace is improved with good soft skills and productivity is increased.
Complementing skills training with employment services	Linking employment services such as career guidance, placement services, internships, and apprenticeship programs with training programs.	Training leads to jobs; workforce participation is improved. There is better utilization of skills.

Way Forward: Setting Priorities for ADB in Supporting Skills Development in Asia

The International Skills Forum at ADB headquarters in December 2011 began developing forward-looking approaches and strategies to support skills development in ADB developing member countries. The key issues for consideration are summarized in Box 4 for discussions with international agencies and ADB developing member countries. The deliberations at the forum will be advanced through the following:

- *Think tank approach:* ADB will remain connected with the eminent group of individuals who participated in the forum. A possible online dialogue (blog) will be pursued to continue discussions on crucial skills development themes of concern to the region. This could lead to the potential establishment of an Asia–Pacific skills development forum as an ongoing platform to exchange knowledge and experiences and deliberate upon policy options relevant to the region.
- *Research and knowledge work:* The skills forum was held as part of the implementation of a research and

development technical assistance project, Education and Skills for Inclusive Growth and Green Jobs. This regional study (<http://www2.adb.org/projects/project.asp?id=45103>) will cover India, Indonesia, Sri Lanka, and Viet Nam and aims to advance further thinking on policy options and strategic choices to improve the quality, relevance, and outcomes from skills for inclusive growth.

- *Operations support:* ADB regional departments will continue to advance discussions and operational approaches for ADB partnerships and financing of skills development initiatives in developing member countries.

ADB will host the second International Skills Forum for Inclusive and Sustainable Growth in 2012. This is expected to be held at the ADB headquarters in the last quarter of 2012 and will take forward the discourse on skills development and TVET from the first forum held in December 2011. The 2012 forum aims to present preliminary findings from the ADB research and development technical assistance project, Education and Skills for Inclusive Growth and Green Jobs, and other relevant research studies in the region.

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