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Moving Forward

L'éducation ne devrait pas abandonner les individus au moment où ils sortent des écoles, elle devrait embrasser tous les âges . . . assurer aux hommes dans tous les âges de la vie la facilité de conserver leurs connaissances ou d'en acquérir de nouvelles.

[Education should not end when individuals leave school, it should embrace all ages . . . to ensure that men at each stage of their lives are able to maintain their knowledge or acquire new knowledge.]

Diderot, 1792

To participate in the emerging knowledge economy, people need to update their skills continuously. Lifelong learning will thus become a norm. Providing lifelong learning entails securing affordable access to a variety of learning opportunities, both formal and nonformal. This means that the learning system and its governance must change and that more resources will have to be allocated. Given limited public resources, relying on cost-sharing, involving private providers, and increasing the efficiency of the education system are critical. Creating a lifelong learning framework based on these principles requires complex changes in a country's entire learning system.

Developing countries and transition economies are at risk of being further marginalized in a competitive global knowledge economy because their education systems are not prepared to support the acquisition and application of knowledge. This lack of preparation stems from the low coverage and low quality of education and training, outdated curricula and the lack of feedback mechanisms, the overemphasis on rote learning and exam outcomes, the lack of institutional diversification of learning

providers, the inappropriate role of the state, and the lack of articulation between different aspects of the system.

Benchmarking National Systems of Lifelong Learning

One way countries could move forward would be by establishing national benchmarks for measuring lifelong learning outcomes. Such measures are underdeveloped. Traditional measures of educational progress, such as gross enrollment ratios and public spending as a proportion of GDP, do not capture important dimensions of lifelong learning. Gross enrollment ratios measure inputs rather than the achievement of core or other competencies; public spending does not include the substantial amount of private spending on training in most countries. Traditional indicators often fail to capture nonformal and informal learning, such as that which takes place in the workplace or outside the formal education and training system, activities that are becoming increasingly important.

Most developing countries will need to make many changes as they move toward a lifelong learning system in which people have access to many types of learning opportunities. It is unrealistic to embark on everything at once, however, and developing countries will need to develop realistic strategies with which to proceed. An important step is to identify the current situation, particularly with respect to systems of international peers.

Much international information is available that can help countries benchmark their performance, both in terms of inputs (unit costs of education and training, student-teacher ratio, teaching time in learning activities) and outputs (learner assessment). International assessments, such as the Third International Mathematics and Science Study (TIMSS), the International Association for Evaluation of Educational Achievement Citizenship and Education Study (CES), the Programme for International Student Assessment (PISA), the International Adult Literacy Study Survey (IALS), and the new Adult Literacy and Lifeskills Survey (ALL), can help countries identify their relative weaknesses and strengths within an internationally developed framework. In Chile, for example, poor performance on the IALS created an awareness of the need for more relevant policies and programs. These assessments focus increasingly on the key competencies for effective participation in the knowledge economy (table 5.1).

At the national level, school-level data are rarely collected and analyzed in most developing countries and transition economies. Case studies from six Central and Eastern European countries suggest that lack of

Table 5.1. Competencies Assessed by Various International Assessments

<i>Competency</i>	<i>TIMSS</i>	<i>PISA</i>	<i>IALS</i>	<i>ALL</i>	<i>CES</i>
Literacy		✓	✓	✓	
Numeracy	✓	✓	✓	✓	
Scientific literacy	✓	✓			
Problem solving		2003		✓	
Information and communication technologies		2006		✓	
Working with others				✓	✓
Tacit knowledge		✓			
Capacity to manage learning		✓			
Attitude toward learning	✓	✓			
Civics knowledge					✓

Notes: Different assessments often measure different aspects of the same competency (see chapter 2 for examples). PISA will measure competence in problem-solving in 2003 and adeptness with information and communication technologies in 2006.

Source: OECD 2001e, 2002c.

transparent, accurate, and timely information is an important barrier to improving access and quality of learning (World Bank Institute 2001b).

Countries can gauge their progress toward creating lifelong learning opportunities based on a set of indicators (table 5.2). The list is not comprehensive, and not all of the measures are applicable to all countries. More refined ways of measuring progress are needed.

The Permanent Nature of Change

Continuous reform is needed not only to accelerate the pace of reform but also to deepen the extent to which fundamental transformations of learning are carried out (New Zealand, Information Technology Advisory Group 1999). Implementation of these strategies will, however, have to take into account the political aspects of reform. The traditional model of education reform is not amenable to constant change: a stream of initiatives and policy changes becomes overwhelming to education stakeholders, and reform fatigue and resistance set in. Institutions themselves must take responsibility for their own change, evolution, and improvement in response to learner demand and institutional performance. The incentive and regulatory frameworks must encourage them to do so.

Table 5.2. Measuring a Country's Advance toward Lifelong Learning

Lifelong learning concept	Measures/indicators	Examples from developing countries or transition economies
Transformation of learning	<ul style="list-style-type: none"> Adoption of national standards and accreditation systems Participation and improvement of learners Adult performance in assessments that measure new skills 	<ul style="list-style-type: none"> Romania Higher Education Project, Romania Education Reform Project, Chile Lifelong Learning Project (definition of standards, accreditation, assessment mechanisms) Participation in IALS: Chile, Czech Republic, Hungary, Poland, Slovenia Participation in PISA: Brazil, Czech Republic, Hungary, Latvia, Mexico, Poland, Russian Federation Participation in TIMSS: 17 developing countries in 1995, 22 developing countries in 1999
Change in learning process	<ul style="list-style-type: none"> Adoption of learner-centered education practices Alignment of quality control mechanisms (curriculum, learning materials, and assessment) to implement learner-centered pedagogy Changes in teacher education and training focusing on learner-centered pedagogical practice 	<ul style="list-style-type: none"> Active learning and learner-centered pedagogy: Guatemala Use of ICT as levers for change in the learning process: Chile, Costa Rica Reform of secondary education: Jamaica Teacher training for learner-centered pedagogy: Jamaica's Reform of Secondary Education

- Increase in flexible delivery of learning opportunities (for example, distance education, use of ICTs)
- Interactive radio instruction for primary education: Bolivia, Kenya, Nicaragua, South Africa, Thailand
- Distance teacher training program: Botswana, Kenya, Malawi, Swaziland, Uganda
- Joint degree programs: Singapore
- Telecenters: Benin, India, Mali, Mozambique, Pakistan, Philippines, Senegal
- National evaluation or independent accreditation agencies for higher education: Argentina, Chile, Colombia, El Salvador, Ghana, Hungary, Indonesia, Jordan, Nigeria, Romania, Slovenia

Governance

- Outcome-driven governance
- Improvement in articulation between different types of learning and recognition of informal learning
 - Competency-based assessment and qualification
 - Policy deepening linkage between education and labor market

(continued)

Table 5.2. Measuring a Country's Advance toward Lifelong Learning (Continued)

Lifelong learning concept	Measures/indicators	Examples from developing countries or transition economies
Enabling governance	<ul style="list-style-type: none"> • Increase in degree of administrative and financial decentralization and participation of stakeholders in decision-making process • Increase in degree of openness within a country and toward international community 	<ul style="list-style-type: none"> • Increased enrollment, education coverage, and local capacity building as a result of decentralization: El Salvador, India, Nicaragua • Open investment policy for foreign direct investment: Costa Rica
Inclusive and effective governance	<ul style="list-style-type: none"> • Decline in inequity between and within countries through policy measures (for example, engagement of the poor, provision of information) • Adoption of sound education management system (for example, use of information in government operations, focus on outcomes) with monitoring and evaluation system 	<ul style="list-style-type: none"> • TV-based education expanding learning opportunities of remote areas: Brazil, Mexico • Cost-effective delivery of management control using an Integrated Financial Management System (IFMS): Tanzania • E-procurement: Chile, Mexico • E-citizens initiative: Brazil, South Africa • Information boutiques: Burkina Faso
Responsive governance	<ul style="list-style-type: none"> • Improvement in accountability and transparency (e-government and greater participatory approaches and openness about policy intentions, formulation, and implementation) • Creation of legal regulatory framework that creates level playing field between public and private providers and provides information about institutional performance 	<ul style="list-style-type: none"> • Implementation of diagnostic Public Expenditure Tracking Surveys (PETS): Ghana, Tanzania, Uganda • Strong legal basis to promote education and lifelong learning: Brazil (1996 Education Law) • Publication of institutional results: Chile

Financing options	
Increased spending on lifelong learning	<ul style="list-style-type: none"> • Increase in share of total education resources • Lifelong learning framework: Chile
Cost-sharing among stakeholders	<ul style="list-style-type: none"> • Use of traditional loans, human capital contracts, graduate tax, income-contingent repayment loans • Income-contingent loans: Chile (the University Credit), Ghana, Hungary, Namibia (use of social security system for cost recovery)
Targeted subsidization to promote equity	<ul style="list-style-type: none"> • Use of vouchers, entitlements, individual learning accounts, education savings accounts, learning tax credits • Vouchers: Bangladesh, Chile (indirect fiscal contribution contingent on the amount of the highest performance of first-year students enrolled), Guatemala, Pakistan
Changing roles of government	<ul style="list-style-type: none"> • Decrease in direct administration and increase in subsidies in certain types of learning • Subsidy/loan package to reduce child labor: Brazil (Bolsa Escola)

Another source of anxiety for policymakers is the lack of a blueprint for change. All countries—industrial and developing countries alike—are struggling to put the pieces together to make their education and training systems more responsive to the needs of today and tomorrow. As the traditional education and training institutions come under attack for being unresponsive and their services are delivered by an array of niche providers, institutions will have to examine what type of learning institutions will emerge as valuable and valued and how policymakers should support them.

The World Bank's Support for Lifelong Learning

The theme of lifelong learning has been embraced by the OECD, the European Union, the World Bank, and other international organizations. In 1999 World Bank President James Wolfensohn referred explicitly to lifelong learning as a component of what education means for poverty alleviation (World Bank 1999d).

The World Bank has developed strategies for traditional education, but its involvement is still at an early stage and it has not yet fully explored the implications of lifelong learning. Some work has been done, however (table 5.3). *Priorities and Strategies for Education* (World Bank 1995) emphasized lifelong learning and private provision of education. Also notable was the attention to nonpublic provision in *Higher Education: The Lessons of Experience* (World Bank 1994). The regional strategy for transition economies of Europe (World Bank 2000a) was the strongest in terms of lifelong learning concepts and nonpublic provision. Cross-sectoral strategies tackle private provision (IFC 2001) and some lifelong learning concepts (for example, World Bank 2002f). Three projects with lifelong learning components have been implemented (\$5.6 million in Romania, \$71 million in Chile, and \$150 million in Hungary) (box 5.1), and the World Bank is working with the government of Jordan to develop an e-learning strategy for the knowledge economy (box 5.2). Most of these strategies, however, have looked at individual elements of the lifelong learning system rather than seeing the overall framework and connections between these elements.

As lifelong learning becomes a priority in more and more countries, the World Bank will need to articulate a comprehensive strategy for education and the knowledge economy. That strategy will then need to be translated into concrete operations in specific countries. The World Bank will continue to work on this important question by disseminating its strategies, developing diagnostic tools, and undertaking studies on particular countries.

The themes the World Bank will address include changing learning paradigms brought about by the knowledge economy, resources for lifelong

Table 5.3. Lifelong Learning in World Bank Documents

<i>Type</i>	<i>Document Title</i>
Education sector policy papers	<ul style="list-style-type: none"> • Priorities and Strategies for Education (World Bank 1995) • Education Sector Strategy (World Bank 1999b) • Vocational and Technical Education and Training (World Bank 1991b) • Higher Education: The Lessons of Experience (World Bank 1994) • Constructing Knowledge Societies: New Challenges for Tertiary Education (World Bank 2002c)
Regional strategies	<ul style="list-style-type: none"> • Education and Training in the East Asia and Pacific Region (World Bank 1998b) • Education in the Middle East and North Africa (World Bank 1999a) • Educational Change in Latin America and the Caribbean (World Bank 1999c) • A Chance to Learn: Knowledge and Finance for Education in Sub-Saharan Africa (World Bank 2001d) • Hidden Challenges to Education Systems in Transition Economies (World Bank 2000a)
Cross-sectoral strategies	<ul style="list-style-type: none"> • Social Protection Sector Strategy: From Safety Net to Springboard (World Bank 2001h) • World Bank Strategy for Science and Technology in Development (World Bank 2002h) • Information and Communication Technologies (World Bank 2002f) • Rural Strategy: Reaching the Poor (World Bank 2002g) • Investing in Private Education (IFC 2001)
Projects	<ul style="list-style-type: none"> • Hungary: Human Resources Project (World Bank 1991a) • Romania: Reform of Higher Education and Research Project (World Bank 1996) • Chile: Lifelong Learning and Training Project (World Bank 2002b)

learning, governance and management challenges for the new learning system, and the equity aspects of lifelong learning. An assessment toolkit will measure a country's progress toward lifelong learning. Research and pilot studies, conducted in collaboration with development partners, will focus on distance learning, ICTs, knowledge and skills, lifelong learning and training policies, knowledge transfer, rural women's knowledge, capacity building, and career development and guidance. Case studies

Box 5.1. Hungary's Strategy for Lifelong Learning

A \$150 million project, successfully completed in 1997, was initiated by the Hungarian government immediately after the move to a democratic market economy. The primary goals of the project were to adapt human resources institutions to emerging economic and social demand and to facilitate lifelong learning for a developing knowledge economy. The project was comprehensive and included employment and training, higher education, and research components.

The employment and training component developed career guidance and information services to promote labor mobility; improved occupational training and continuing education for adults by providing support for labor market-based training, including a regional network of Human Resource Development Centers with strong links to private and public employers; and initiated reform of secondary schooling by developing new curricula with more general education and broader training to replace the outdated and narrow curricula that had been used in vocational schools.

The higher education and research components supported the introduction of competition-based grant funding for higher education programs based on criteria that emphasized greater collaboration and resource sharing among institutions of higher education and research as well as new interdisciplinary programs. It developed a program of practically oriented foreign language training. It also supported the development of human resources for science and technology by earmarking a portion of the competition-based National Scientific Research Fund (OTKA) for younger researchers, improving the management of and refurbishing the centers of scientific instrumentation financed by OTKA, and upgrading the national research and development computer network used by academic and industrial researchers.

Source: World Bank 1991a, 1998c.

Box 5.2. Developing an Education Strategy for the Knowledge Economy in Jordan

Under the leadership of King Abdullah, Jordan is establishing a national education and training strategy to help Jordan compete in the global economy. The E-Learning Strategic Framework is a comprehensive strategy for incorporating ICT in the learning process. More work is required to increase affordable access to lifelong learning opportunities, discussed during the Vision Forum held in Amman in September 2002.

will cover evaluation of possible mechanisms for financing lifelong learning, cost-effectiveness of different models of learning, teacher policies, multinational corporations and education, assessment of soft skills, indicators of lifelong learning, spending on lifelong learning, returns to lifelong learning, lifelong learning as a strategic economic strategy, and analysis of the PISA and TIMSS.

There is a need to engage national policymakers and stakeholders worldwide in a dialogue on lifelong learning, helping governments formulate visions and concrete action plans for establishing both lifelong learning and innovation frameworks appropriate to their country contexts. The World Bank can assist in this effort by helping deepen the understanding of the implications of the knowledge economy for education and training systems and by disseminating analytic documents on education for the knowledge economy.

