

## The Knowledge for Development Program

# K4D Newsletter

The World Bank Institute

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### Welcome to the First Edition of the K4D Newsletter

The Knowledge for Development (K4D) Program is pleased to launch its quarterly newsletter. The K4D team hopes that the newsletter will serve to keep our colleagues at the World Bank, our country clients, partner institutions, and the general public updated on the latest developments with regard to the activities of the Program.

*In order to give the reader some context and background, this first edition of the newsletter is necessarily longer than will be the case in future editions.* We welcome any comments, suggestions or feedback you may have and invite you to contact us at [ke@worldbank.org](mailto:ke@worldbank.org).

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### Knowledge as the New Engine of Growth

Knowledge, and its application, is now widely acknowledged to be one of the key engines of economic growth. The increasing importance of knowledge has created both opportunities and challenges for developing countries. On one hand, the knowledge revolution presents significant opportunities for promoting economic and social development, thereby reducing poverty. On the other hand, it has become more crucial than ever for countries to position themselves so as to participate effectively in the knowledge-driven markets that now dominate the global economy. Failure to do so, could result in countries being left further behind.

Because of their limited awareness, poor economic incentive regimes, and weak institutions, many developing countries are still failing to capitalize on the vast and growing stock of knowledge available in the world today. An effective Knowledge Economy (KE) is one that uses knowledge an engine for economic growth across the four pillars of the knowledge economy: an educated and well-trained population; a dynamic innovation system; an established information and communication technologies (ICT) infrastructure; and an economic and institutional regime that is conducive to the creation and use of knowledge.

Countries must put in place appropriate arrangements to become more competitive. Initially this means understanding their strengths and weaknesses and then acting upon them to develop appropriate policies, institutions, investments, and coordination across all four pillars of the knowledge economy.

## **The Knowledge for Development (K4D) Program**

The main objective of the K4D Program is to help client countries make the transition to the Knowledge Economy. More specifically, the Program helps countries make more effective use of knowledge for their overall economic and social development, for example by building the capacity of clients to develop and implement plans to improve how the country accesses and uses knowledge. The K4D Program thus works with clients to develop concrete 'knowledge' strategies covering all four KE pillars, taking into account issues of political economy, governance and the need to build stakeholder ownership.

The K4D Program offers three main product areas: (1) Policy services; (2) Knowledge products and tools; and (3) Learning events. In terms of policy services, K4D provides knowledge economy assessments, policy reports, and policy consulting services for clients, that focus on the critical issues relating a country's transition to the Knowledge Economy and offering concrete recommendations on how to address these challenges. To support this work with clients, the Program also undertakes considerable research and development work to create appropriate knowledge products and tools, and undertakes learning events to support clients and World Bank colleagues.

## **Knowledge Economy Assessments**

The key goal of the assessments is to help countries identify their strengths and weakness as a knowledge economy and to develop the necessary strategies that need to be undertaken for the transition to a Knowledge Economy.

In order for the Program to be able to work with more countries, K4D has introduced three levels of policy service assistance with the

objective of creating a spectrum of products that will allow us to meet the needs of different countries.

### **1. Knowledge Economy Benchmarking Assessments**

KE Benchmark Assessments produce brief but intensive knowledge economy reports for client countries as a first contribution to their thinking on the knowledge economy. These assessments are based primarily on the analysis provided by K4D's Knowledge Assessment Methodology (KAM – see below), supplemented by available research and analysis and, in some cases, by a visit to the country by K4D for discussions with country and Bank officials, and for verification and testing of the issues arising from the KAM analysis. To date in FY04, the Program has undertaken 6 benchmark assessments, including:

#### **El Salvador**

The main findings of the benchmark assessment for El Salvador were presented by Robert Whyte at a jointly-organized K4D/LCR conference "*The Role of Knowledge and Innovation in Improving Competitiveness in El Salvador*", held in San Salvador on November 24th and 25th, 2003. The main conclusion was that, despite the progress made by El Salvador's government in terms of liberalizing and opening up the economy, other areas such as enterprise development and innovation, linkages between industry and the academic sector, and the attraction of FDI, have been rather disappointing, and growth rates over the past five years have been poor. The presentation concluded that building El Salvador's capacity to generate, access and use knowledge would be one of the keys to turning this progress into better economic performance.

#### **Slovakia**

A benchmark assessment for Slovakia was completed by Aimilios Chatzinikolaou and the report was circulated as a background paper at a Knowledge Economy conference held in Bratislava in late January, 2004. The paper entitled "*Benchmarking Slovakia's Readiness for the Knowledge Economy*" revealed that Slovakia has made some progress in the development of its

innovation base, and also in improving access and penetration rates of ICTs, however, it has seen some deterioration in its relative position in terms of the economic incentive regime and in education, a traditionally strong pillar for countries in the region. Overall, Slovakia's performance is not as competitive as that many of the other EU Accession countries. This presents a significant challenge and signals a sense of urgency for Slovakia, since it will soon be competing with the more advanced EU economies.

## **2. Knowledge Economy Enhanced or Sector Assessments**

The Enhanced or Sector Assessment offers a more sophisticated level of analysis of a country's position vis-à-vis the knowledge economy. Enhanced assessments generally tend to be built on the analysis of the benchmark assessments, using a more extensive range of existing materials, and involving a couple of visits to the country by K4D. Since the beginning of fiscal year 2004, the Program has completed four enhanced assessments:

### **Turkey**

Jean-Eric Aubert prepared an assessment of Turkey's innovation system as part of a wider knowledge economy assessment undertaken by ECA Region. The results were presented at a seminar in Ankara in November 2003. Following on from this analysis, Robert Whyte has become a member of the team that is designing the enterprise innovation component of a US\$100 million investment lending operation that will address the key recommendations of the assessment. The innovation component will seek to pilot new and scaled up ways of stimulating innovative behaviors in small and medium enterprises (SMEs).

### **Morocco**

At the request of the World Bank office in Morocco, Jean-Eric Aubert worked with Ifrane University's Institute of Economic Analysis and Prospective Studies to produce KE assessments both for the country as a whole and for several key cities. The national KE assessment has been completed and presented to the government, while local KE assessments for the cities of Safi and

Essaouira will be completed soon. The project is being financed by a World Bank Institutional Development Grant.

### **Tunisia**

At the request of the World Bank country team, an assessment of current knowledge economy trends in Tunisia, and policy recommendations, was prepared by Jean-Eric Aubert (K4D) and Jean-Louis Reiffers (Institut de la Méditerranée). Following a presentation of this report to the Tunisian government, it was decided that the report would be included as a separate knowledge economy chapter in the Development Policy Report being prepared for Tunisia. Moreover, the key elements in this chapter are feeding into the design of the Country Assistance Strategy for Tunisia.

### **India**

The K4D program prepared an enhanced KE assessment for India. This AAA report, entitled, *"India and the Knowledge Economy: Leveraging Strengths and Opportunities"* was developed by Anuja Utz and Carl Dahlman. It drew on analytical work that has been done on India in recent years by the World Bank and other organizations and included a benchmarking assessment for India, comparing its current position with competitors such as Brazil and China, as well as with South Korea, Russia, and Poland. It identified some of the key challenges and opportunities that India faces on the four pillars of the knowledge economy and concluded that, to create and sustain an effective knowledge economy, India must undertake systemic integration of reforms in these four domains to create competitive advantage. It is planned to launch the report at a consultative workshop of policy makers, private sector and civil society representatives to be held in India in the near future.

## **3. Comprehensive Knowledge Economy Assessments**

K4D Comprehensive Assessments offer a deep and substantial analysis of a country's position vis-à-vis all four pillars of the knowledge economy, and a full set of detailed policy and project recommendations. They are designed in partnership between the main stakeholders in the

country, K4D and the World Bank, and almost always include substantial consultation and dialogue in country.

Given that comprehensive assessments require a very significant commitment and resources from both the country and the World Bank, they are most suitable for countries for which an emphasis on developing a knowledge-based economy offers clear potential for growth and improvement to competitiveness, and where there is strong demand from the country and a clear commitment from the government to take forward the proposed work, including a capacity to take the necessary steps to pursue the recommendations.

K4D is currently working on two comprehensive assessments:

### **China Lifelong Learning Project**

This project was requested by the Chinese central government as a follow-up of the report on *China and the Knowledge Economy: Seizing the 21<sup>st</sup> Century*<sup>1</sup>, which was completed in 2001. The project is being jointly financed by the World Bank's China country office, the K4D Program, and the United Kingdom's Department for International Development (DFID). The project has brought together the different stakeholders in China (including State Development and Reform Commission, the Ministry of Education, the Ministry of Labor, and several sector ministries) as well as foreign experts who will contribute the experience of different countries in dealing with these issues. Carl Dahlman and Douglas Zhihua Zeng are the co-task managers, while other members of the team include Lei Liu (K4D) and experts from the World Bank's Research Group (DEC) and the Human Development anchor unit (HDN).

The study focuses on the challenges that China is facing with regard to the education and skills of its population that has resulted from China's rapid economic structural change and opening up to international competition. The study will offer policy recommendations for

building a life-long learning system and will address various critical issues such as the roles of government and the private sector, quality and accreditation systems, and large-scale retraining. To date, the consultation process with the key stakeholders has been completed, and 13 background papers have been commissioned. The final report is expected to be delivered in November 2004.

### **Mexico**

The project, requested by the Bank's Mexico country department, began in September 2002. Carl Dahlman and Yevgeny Kuznetsov (K4D) are co-task managers, supported by Aimilios Chatzinikolaou and members from the Bank's Mexico country department, Telecom Group, and the International Finance Corporation (IFC). Presentations of preliminary results were well received by high-level policy makers and the final report is expected to produce a major impact on the formulation of policy in Mexico. The project is due to be completed by August 2004, with the assessment being published as a WBI book titled '*Mexico: Challenge of Knowledge-based Competitiveness*'.

## **Knowledge Products and Tools**

### **Knowledge Assessment Methodology (KAM)**

The Knowledge Assessment Methodology (KAM – [www.worldbank.org/kam](http://www.worldbank.org/kam)) is a diagnostic and benchmarking tool that provides a preliminary assessment of countries' and regions' readiness for the knowledge economy. The KAM is managed by Aimilios Chatzinikolaou. Arseny Malov (WBI Knowledge and Learning Services) provides crucial technical support. The KAM assists countries to benchmark themselves with neighbors, competitors, or other countries they wish to emulate on the four pillars of the knowledge economy, offering insight into the challenges and opportunities that a country faces, and where it may need to focus policy attention or future investments.

The most recent version of the KAM – KAM 2004 was launched by Frannie Léautier, Vice President of the World Bank Institute, in February, 2004. Jean-Francois Rischar, Vice President of External Affairs, also endorsed the usefulness of the KAM via videoconference from

<sup>1</sup> Dahlman, Carl and Jean-Eric Aubert (2001). *China and the Knowledge Economy: Seizing the 21st Century*. World Bank Institute Development Studies, The World Bank.

Paris. The launch, which was well attended by colleagues from across the World Bank, as well as by participants from other organizations such as the Inter-American Development Bank and the National Academy of Sciences, included a hands-on demonstration. The [KAM launch](#) was video-recorded and this is now available on the World Bank's B-span network.

KAM 2004 can facilitate comparison of a particular country with the overall position for all countries (121), for all countries in its region, for all countries within its range of human development (HDI, based on UNDP classifications), and for all countries within its income level (based on the 2003 World Development Indicator categories). In addition, the KAM includes several new features:

- Expanded coverage of variables (76 in total);
- Time comparison for 1995 and the most recent available year;
- Enhanced number of modes: Basic Scorecard, Create your own scorecard, Cross-country comparison, Global KE comparisons over time and World Map;
- Variety of presentational tools: KE scorecards, diamonds and bar charts ; and
- Users' Guide and Technical Notes on the variables used and on methodology.

### **Knowledge Economy Policy Studies**

Knowledge Economy policy studies are research-based products that analyze issues that are related to making the transition to the knowledge economy, for example case studies bring together lessons and experience from countries that have successfully made the transition, and policy study reports pertaining to specific aspects of using knowledge to generate economic growth, such as emigration or the promotion of innovation within SMEs. Current studies include:

#### **1. Knowledge and Economic Development**

This project investigates, using econometric techniques, the effects of knowledge - defined here as human capital, technological innovation and adaptation, and ICT infrastructure - on economic growth. Derek Chen and Carl Dahlman are leading this research effort, which is being partially financed by a World Bank

Development Economics (DEC) research grant. Early results based on analysis of data from 92 countries indicate that all three forms of knowledge exert statistically significant effects on long-term economic growth. The results of this analysis have been written up in a report, which will be published as a World Bank *Policy Research Working Paper* in the coming months.

#### **2. Knowledge Divide Assessment**

To raise awareness and assist policy-makers in defining knowledge strategies, the Program has been assessing knowledge capabilities and the knowledge divide across countries. An preliminary analytical framework has been developed by Shinok Park and Carl Dahlman, encompassing aspects of knowledge creation, acquisition, diffusion and use, as well as education and skills. The framework has been tested out on a pilot assessment of 16 large countries, covering more than 60 percent of world's population. The results of the pilot show that, despite the fact that developing countries are rapidly narrowing the gap with the developed world in terms of ICT penetration, the gap is actually widening, with poorer countries lagging behind, when education, knowledge creation and use are considered. Although preliminary, the assessment highlights the importance of taking a comprehensive and integrated approach to efforts to narrow the knowledge divide, arguing that, although important, the development of ICT infrastructure alone may not be a sufficient policy response, with additional measures needed to enhance human capital accumulation, and organizational and institutional capabilities in developing countries.

#### **Recent Publications**

*Knowledge Economies in the Middle-East and North Africa: Toward New Development Strategies.* Jean-Eric Aubert and Jean-Louis Reiffers (eds.), WBI Learning Resources Series, The World Bank, December 2003.

This volume is based on background reports and participants' contributions for the conference "*Knowledge for Development: A Forum for Middle-East and North Africa*", which was held in September, 2002, in Marseilles. The book provides quantitative analysis to help benchmark the countries of the region against

worldwide knowledge economy trends, identifying key implementation issues and presenting relevant policy experiences and recommendations. It outlines policy strategies for tapping into growth opportunities offered by the knowledge economy and examines national case studies in key sectors such as education, science and technology, and information infrastructure that may hold promise for the MENA region.

## **Learning and Knowledge Exchange Events**

The K4D Program offers various skills building activities for client countries, consisting of structured learning offerings (workshops, courses) to build clients' knowledge and skills in the four main pillars of the Knowledge Economy. In addition, the Program also hosts knowledge exchange activities (conferences and policy dialogues) to facilitate exchange of knowledge, information, experience, and good/best practice among interested client countries. K4D has been involved in five recent events:

### **China and the Knowledge Economy**

K4D, in partnership with the Global Distance Learning Network (GDLN), and with the support of the China Country Office, delivered a four-day distance-learning course focusing on "*China and the Knowledge Economy*" via videoconference. Over 200 participants from Beijing, Ningxia and Guizhou took part in the course. Participants rated the course highly, stating that it helped them to understand the concept of knowledge economy and its relevance in their policies for economic and social development. The event received high evaluation scores: for "usefulness of the information acquired" the average score was 4.2, while for "overall usefulness of the activity" the average score was 4.1 (on a scale of 1-5).

### **Marseille Conference on Trade, Competitiveness and the Knowledge Economy**

Jean-Eric Aubert contributed to the design and facilitation of a conference on "[\*Trade, Competitiveness and the Knowledge Economy\*](#)", organized by MNA Region and held in Marseille in March 2004. The conference, which attracted over 200 participants from government, development agencies, local authorities, private

sector, NGOs and academia, focused on themes such as 'Moving up the Value Chain', 'Accessing Global Markets', and 'Trade Facilitation and Logistics'. Breakout sessions were held on topics such as national and local development strategies, and gender issues. The conference presented many interesting case study examples of reforms and developments underway in countries across the region, such as Jordan, Tunisia, Morocco and Dubai, as well as case studies from Malaysia and Ireland.

### **ECA Knowledge Economy Forum**

The third ECA Knowledge Economy Forum was held in Budapest on 23-26 April 2004, attracting a wide range of representatives from countries in Central and Eastern Europe, the Caucasus and Central Asia. The Forum focused on the themes of innovation and education. Over 200 participants attended the successful Forum. K4D contributions included a keynote presentation by Carl Dahlman, giving a global perspective on critical KE issues for ECA countries, and discussant and moderator inputs from Jean-Eric Aubert at a conference workshop on research/market interactions.

### **Chile: Innovation Policies and Institutions**

A workshop on innovation policies and institutions, co-organized by K4D (Yevgeny Kutznetsov) and Foundation Chile, was held in Santiago, Chile in mid-March, 2004. The workshop brought together private and public sector leaders from Chile, Mexico, Argentina and Russia, along with experts from Israel, UK and the World Bank, to discuss policy issues relating to the institutional design of technology organizations. Both open and closed-door sessions were held with Fundacion Chile, CORFO and CONICYT. Around 220 private sector leaders and policy makers attended the Open session held on the first day. Partial funding for the workshop came from the Italian CTF.

### **Local Development and the Knowledge Economy**

K4D organized a series of five video conferences in February 2004 on "*Local Development, Knowledge and Innovation*", linking the WBI Paris office and the GDLN center of the city of Milan with three Mediterranean cities: Alexandria in Egypt

(though Senghor University), Amman in Jordan (through the ICT Ministry and the local GDLN center) and Istanbul in Turkey (through Bilgi University and the Technical University hosting the GDLN center). Specific initiatives from the participating countries were presented and discussed, for example, industrial districts and SME promotion in Italy/Lombardy, urban renovation in Alexandria, telecenters in Jordan and the role of universities in local development in Istanbul. About 20 policy makers, academics and other experts attended at each site.

### **The K4D Community of Practice**

The K4D Community, launched in October 2002, is a multi-sector community of practice and as a knowledge tool of the K4D Program - [www.K4Dcommunity.org](http://www.K4Dcommunity.org). The community, managed by Paula Middleton, who is on secondment from the British Council, consists of approximately 500 people, many of whom are World Bank staff. The main objective of the Community is to stimulate the sharing, support and cross-fertilization of the multi-sector theme of the knowledge economy across the World Bank's networks and regional teams. The Community also reaches out to the external community to bring together outside clients and partners to contribute to K4D Community particularly through the Knowledge Economy page on the Development Gateway.

The Community's brownbag seminars bring experts from the various fields related to the Knowledge Economy to make informal presentations at the Bank. So far in FY04, 10 such seminars have been held – see K4D Community website for a complete list.

### **The Brain Trust Program**

The Brain Trust Program, managed by Tsutomu Shibata, is a Trust Fund financed by the Government of Japan. The objective of the Program is to conduct studies on the Japanese and East Asian development experience and to disseminate the lessons to developing and transition economies. Recent publications have included *Small Firm Dynamism in East Asia*, and *Competitiveness, FDI and Technological Activity in East Asia*. Ongoing projects include *The Japanese Environment Policy* and *FDI and Economic Development: Lessons from East Asia*

(both to be published during 2004). A new project, *Japan as a Knowledge-Based Economy* (tentative title) is currently in the pipeline, in collaboration with distinguished Japanese academics.

Dissemination seminars have recently been held in Bangkok, Tokyo, and Moscow, and included dialogues with policy makers and practitioners. These provided very useful occasions for participants to obtain guidelines for their operations and economic management. Another seminar is scheduled in Kazakhstan on April 13 and 14, 2004 and is being organized jointly with the Kazakh government and ECA Region.

### **Recognition of K4D**

#### **ECA Knowledge Fair: Best Overall Study**

Yevgeny Kuznetsov (K4D) was one of the authors of *Armenia Growth Challenges and Government Policies*, which was awarded the best overall report at the recent ECA Knowledge Fair. The study focused on explaining Armenia's GDP poor growth during the 1994-2000 period. Largely as a result of this report, three Bank credits were quickly prepared, implementation of which led to improvements in the business climate. As a result, growth accelerated to an average of about 10 percent a year in 2001-03, showing a stronger impact on poverty reduction. The unique feature in the dissemination of the report was the intensive discussions of the findings with donors and Armenia Diaspora organizations, helping to expand donor support for SME development. Other authors included Lev Freinkman, Karen Grigorian, and Gohar Gyulumyan.

#### **Knowledge Sharing Award**

In February 2004, Paula Middleton was presented with the *Knowledge Sharing Award* by the Knowledge Sharing Team, WBI Knowledge and Learning Services. She was recognized for her ongoing efforts to build and sustain a community of practice on Knowledge for Development issues.

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### The K4D Team

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For profiles of the team members, please visit

<http://www.worldbank.org/wbi/knowledgefordevelopment/contactus.html>

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