THE WORLD BANK

July 22, 2010

South Asia Regional Collaboration & Knowledge Sharing

The South Asia Regional Dialogue and Knowledge Sharing Series relied on close collaboration with the Global Development Learning Network (GDLN). This regional dialogue's purpose was to explore various areas of potential regional collaboration in South Asia. The program was structured as a way to initiate multi-sector collaboration programs through dialogue, sharing experiences and networking within as well as beyond South Asia - presently the least integrated region in the world.

Vision

South Asia Regional Collaboration and Knowledge Sharing for Equitable Growth and Prosperity

Mission

The intent of the program is to coordinate sector-specific dialogues focused on collaboration and knowledge sharing among the eight South Asian countries. The chosen sectors incorporate country perspectives and regional dimensions, sustainable growth and development, and advancement of innovative ideas within the region to promote intra-regional or inter-regional projects. The GDLN videoconferences and virtual knowledge platform (Wiki) work as collaborative tools, allowing the Community of Practice (CoP) to advance opportunities within each country and the region, promoting innovation and growth within each sector of focus.

BACKGROUND

South Asia is the least integrated region globally, with intra-regional trade accounting for 5% of total trade, compared with over 50% for East Asia. The South Asia Region (SAR) is a relatively small geographic region with a large population (1.5 billion people) consisting of eight diverse economies. However, there exists a dichotomy in the region; the first South Asia is dynamic, rapidly growing, highly urbanized and is benefiting from global integration. The second South Asia is increasingly lagging, largely agricultural, land-locked, suffers from many conflicts, and is afflicted with high levels of poverty. Poor governance, escalating conflict and poor regional integration continue to be obstacles to inclusive growth in South Asia. Consequently, market integration and regional cooperation are key elements of an inclusive strategy to growth. The region needs two types of market integration due to its unique geography - providing countries, especially the land-locked ones, with broader access to regional and global markets; and integrating the lagging regions within each country with the growth centers, both in-country and cross-border.[1] As a result, the Bank's ongoing strategy for South Asia is focused on: i) accelerating and sustaining growth; ii) making development inclusive, and strengthening human development. Promoting public accountability and good governance is a common foundation for these three pillars.

Coordinated by the World Bank, the Global Development Learning Network (GDLN) is a partnership of over 120 recognized global institutions in over 80 countries that collaborates in the design of customized learning solutions for individuals and organizations working in development. These learning sessions range from training courses and informal brainstorming sessions to multi-country dialogues and virtual conferences. This year's dialogue series chose to focus on two major themes that South Asian countries can rally around to spur growth in lagging areas and promote regional integration. These themes were chosen by the team as a building block for a more innovative, responsive, sustainable and growth-oriented private sector development program for the region. The two events focused on ***Regional Collaboration in IT Enabled Services (ITES)*** and ***Strategies for Building a SA Regional Innovation Ecosystem***. The two video conferences that were produced in coordination with GDLN were structured to inform the design of a regional project for the development of SAR ITES industries (Annex 1 - PCN) and the focus of a study on how to develop a regional innovation system in the SAR (Annex 2 - Outline).

The wiki for each sectoral theme has continued as a focal point for the "community of practice", serving as a platform for knowledge and information sharing as well as a virtual dialogue forum. This base is meant to work as a springboard for program development when the initiatives progress.

[1] Promoting Economic Cooperation in South Asia - Beyond SAFTA, 2010, the World Bank

ACTIVITIES & FINDINGS

Video Conference with Bangladesh, Bhutan, India, Nepal, Pakistan, & Sri Lanka

South Asia Regional Collaboration on ITES - A PCN Review with Stakeholders
March 10, 2010 (07:45 AM – 10:00 AM EST)

Background

Regional collaboration on ITES in the South Asia Region has the potential to keep costs down with economies of scale, leverage collective strengths, and create an enabling environment for private investment. The process in itself is rewarding such that it capitalizes on initiatives that have been undertaken by the private sector, is prioritized by public agencies, but has often been shackled in the SAR by geopolitical constraints. Collaborating on common elements of the value chain will expedite the growth of the ITES industry in a region previously partitioned, and has the potential to direct a policy framework that rewards regional collaboration.

The subject video-conference was designed to review the proposed Concept Note (Annex I) on Regional Collaboration in ITES, which was derived from the ideas and needs expressed by client countries in the SAR during our previous stakeholder consultation Video Conferences. The core objectives of this regional initiative are to develop knowledge partnerships, transfer best practices, enhance training and employment, promote business and industry enabling policies, and incentivize collaborative behavior in the ITES industry. Both private and public sector participants shared their collective program priorities, industry practices and lessons learned. The "Community of Practice (CoP)" proved to be successful in setting regional priorities, addressing common concerns, proposing win-win solutions, and owning the process. This dialogue will be taken further on the Wiki, which will be the common discussion platform to debate, refine and determine project-level activities.

The Community of Practice

The CoP responded to the Concept Note and the discussion questions to develop programmatic aspects of the proposed Regional Collaboration on ITES in South Asia.

Q1) *How can **ITES become a catalyst for regional cooperation and growth**, particularly for underserved regions and segments of the population?*
Accomplishing the aforementioned objectives of a regional initiative in the SAR is contingent upon successfully developing and implementing a ***roadmap*** of prioritized and time-bound activities focusing on synergies within the SAR. These activities will be designed to incentivize collaborative behavior by building on competitive business strategies within the ITES industry. Namely, the initiative will focus on areas within the ITES value chain which offer win-win collaborative solutions; such as common training and assessment standards, joint promotion, shared infrastructure and a policy framework which allows for the pursuit of regional business opportunities. Additionally, client countries will be offered the tools to highlight niche segments and areas of growth in the ITES industry. These strategies will be designed for a global

competitive market that is supply constrained, whereby experiences from more established countries within the SAR can lead the way in implementation while reducing the fear of "cannibalization" of the market. The World Bank will act as a facilitator in developing strategies that are unique to the region, and will incorporate lessons from other regions to accelerate the process.

There is tremendous potential for using ITES as a platform for regional cooperation and growth. Progress through collaboration will bring forth economic development, prosperity, and sustainability. The initiative is as timely as it has immense potential for promoting ITES development in the region, especially for smaller countries such as Bhutan, which are in their nascent stages of the developing their ITES industry. The initiative is also able to support complementary activities by development partners active in the region to increase the footprint of expected benefits such as the Asian Development Bank's work on connecting the region with a fiber-optic backbone. It should also be noted that ongoing and proposed World Bank projects in SAR PSD, or are related to ITES industry development, were fully incorporated in the design of this regional initiative.

Needs and Resource Assessment

Standardized training, accreditation, and assessment

Enabling policies built on "lessons learned"

Niche segment development targeting unique areas of growth

Shared infrastructure

A clear message from this ongoing dialogue is that building a common knowledge platform through knowledge partnerships can accommodate inclusive growth in all SAR countries, whether nascent or established. There was consensus amongst the stakeholders present on the need to prioritize standardization in training, accreditation and assessment in academic centers within the region. This combined with a favorable policy framework will allow for increased labor mobility and cross border investment in ITES. An example of how this can help even established countries within the region is India's lapse in achieving inclusive growth through ITES. ITES' contribution to export growth and job creation in India is sizeable, however, a large portion of the domestic population has hitherto not benefited in proportion to this growth and prosperity due to its concentration in primarily urban areas. Nevertheless, ITES has proven to be a tool that can enable poverty alleviation efforts for the rural populations in the SAR that need it the most, an initiative exemplified in case studies on rural BPOs from Sri Lanka, Bangladesh, and India. This is an opportunity to engage in activities of corporate social responsibility that are integral to a business venture's strategy, a stronger motivator than philanthropic arguments, with resource sharing partnerships across borders involving both government and private stakeholders.

Q2) *What are the* ***3 top priority market responsive areas of collaboration*** *we should forge in the proposed regional initiative?*

Countries in the SAR are at different stages of development in their ITES industry, but a common thread amongst them is a need and desire to **develop local skill sets and standardize industry training** within the region. The growth of the industry, even in niche segments, will increase labor mobility and develop human resources within the region; increasingly to the advantage of women and youth who provide for inclusive and sustainable job creation. The training, accreditation and assessment standards that have already been accepted

in foreign markets can be adapted to service the region and be more competitive in the global market. There was mutual stakeholder recognition that standardized curricula are beneficial to marketing and enhancing the quality of services needed to target export markets.

Sharing of academic knowledge bases and infrastructure prevents duplication of projects, stretching of scarce resources, and reduces the cost and time to delivery these services. Moreover, common policies, models and procedures would ease the SAR into a regional brand that would position it as the region of choice in the global market. Collaboration in these activities is two-fold: by determining the proper training and educational standards for the region each country is then subsequently able to identify niche growth segments, building on the core competencies previously identified. Addressing issues of **security and data protection**; of networks, data centers, and information, was cited as a priority avenue for cooperation. This is a strong motivator if linked to the proper training and accreditation as well as an agreement on globally accepted standards; it directly addresses problems that may arise from increased cross border investments in ITES.

Regional collaboration at a bi-lateral level in the SAR occurs within the private sector, and even at some level in the ITES industry. However, the challenge ahead is to shift towards a model based on multi-lateral arrangements; initial efforts can be directed towards deepening existing bi-lateral ties and developing new bi lateral initiatives. Stakeholders recognize that for a regional initiative to be market responsive it cannot be justified on public/social good alone. Government incentives and provision of public good elements are crucial to the growth of the industry. The World Bank may be well positioned to provide the seed funding for such interventions. Furthermore, the **CoP** discussed the benefits of having a Regional Venture Fund (RVF). Issues considered included; the objectives, design, and contours of such a fund and also the institutional arrangements required in managing such a fund and championing the cause of regional collaboration. The inputs received will inform the final concept note for the proposed regional project.

Q3) *How can the project components be refined - i.e.* ***SAR ITES venture fund, Policy imperatives and institutional capacity building?***

It was recognized that existing country programs to develop the ICT sector, such as those under the World Bank funded e-Sri Lanka initiative are material to understanding the ITES industry and how regional initiatives can be adapted to address its needs. One example given is the **ICT Capacity Building Fund (ICBF)** for Sri Lanka which has three major focus areas in capacity development: human resource development, creating an enabling environment, and industry promotion and development. In refining these components by building on SAR country experiences such as the ICBF, stakeholders stressed that institutional capacity building must be viewed as on-going, bridging all levels of the value chain. It must also extend beyond cost sharing and address quality and delivery of services. One recommended approach is a partnership among academic institutions on developing regional studies and strategies; providing an opportunity for students to be involved early in the SAR ITES collaboration efforts. Further, the proposed venture fund can be enhanced through a focus on ICT business incubation and a strong link to academia.

Furthermore, e-governance has been prioritized by most governments in the region, but the design and implementation so far has been challenging. E-Gov initiatives provide a great opportunity for outsourcing and thereby developing the local ITES industry in the process; PPP arrangements for public service delivery are an example of how this can be successful. Government is also a major user of ICT services and a captive client for the ITES industry in most developing countries including South Asia. Region stakeholders also recognize that e-infrastructure is needed to provide connectivity to inaccessible areas as a critical part of the interventions targeted towards alleviating poverty. There are lessons to be learned from neighboring countries with varying applications of infrastructure and poverty alleviation programs that can be replicated and adapted across the region.

Sub-Regional Projects & Lessons Learned

Promotional concepts such as Digital Bangladesh can be used as a pilot study in country branding efforts. Findings from a study cited from ITC Geneva 2007-08 on ITES in Bangladesh, using the value chain approach, showed:

- Initiative has to be private sector led;
- The benefits of ITES Regional cluster branding;
- The importance of thorough market research; and
- Talent development and capacity building should be prioritized.

The World Bank is currently involved with almost all SAR country's ICT initiatives. Sri Lanka has a mature and comprehensive program in place, India has one in the making, Bangladesh is developing its own Hi-Tech Park and Digital Bangladesh, Nepal and Pakistan have completed ITES Road Maps for their countries under Bank assistance and will be moving towards implementation assistance in the near future. These country specific initiatives will be complemented by the proposed regional project.

The proposed initiative must incentivize businesses to invest in regional projects. The industry should seek out success stories which can be showcased to motivate new collaborative efforts. The Royal Government of Bhutan is a prime example of the benefits a country can derive from bi-lateral cooperation, which has created the basic building blocks and enablers for a nascent ITES industry in this small landlocked country. The Indian government, NASSCOM and its prominent member companies, and the GoSL among others have played a pivotal role in Bhutan's short journey in ITES development. NASSCOM held its 2008 annual executive council retreat in Thimphu, Bhutan. The retreat attracted 20 leading CEOs of global IT companies to visit Bhutan. The visit opened up new opportunities for the country, including:

- Infosys offered to train 100 Bhutanese nationals in BPO and infrastructure services which paved the way for leading BPO companies such as GenTech to sign an MOU with the Royal Government to begin to train individuals in BPO services for the IT Park.
- Many CEOs expressed interest in Bhutan as a potential BPO and Data Center.
- ADB Regional Internet Exchange was received as a good growth strategy for cooperation.

This experience can be replicated by other countries and expanded to a multi-country collaboration.

Learning Points

Promotion of IT in developing countries is essential in progressing in education, health care and governance programs. One of the reasons for advancing collaboration has been to mitigate conflict is by having powerful commercial imperatives bridge physical borders. Grass root organizations that operate at the rural BPO end can help with inclusiveness at the bottom of the pyramid, developing ownership and empowering stakeholders; which can mitigate conflict.

Smaller nations expressed concern that knowledge from natural monopolies may not necessarily be helpful for collaboration between countries which are not on an equal footing. These nations do not want to be treated as potential markets only, but are seeking access to larger markets as participants at all levels of the value chain. BRAC University from Bangladesh emphasized the need to develop stronger linkages between academia and the industry which can also contribute to developing more market driven curricula projects training programs for their emerging talent pool. Moreover, it was suggested that Bank initiated community service projects for students could be utilized in enhancing these linkages by reaching out to the portion of the population most significant to the ITES industry.

Finally, stakeholder coordination through any organizational body must not be an obstacle towards a timely and cost effective implementation of the project. Namely, the CoP recommended utilizing existing institutions such as the SAARC Chamber, developing a virtual platform with a stakeholder committee and rotating leadership roles, or a combination of both an existing physical institution and a virtual platform.

Next Steps

The World Bank team will share the program components and design internally to ensure full support within the Bank. Upon clarification of the budget and refinement of the project components, the design will be shared with the group and other Bank officials. Feedback will be solicited from all parties involved to assure that the design is responsive to the client and the private sector. As a first step towards this, lessons learned from experiences within the SAR as well as related Bank projects and analytical studies will be shared with the CoP to further guide the consultative process.

Video Conference with Bangladesh, India, Nepal, Pakistan, and Sri Lanka

Strategies for Building Innovation Ecosystems in South Asia -"More with Less for More"
June 9, 2010 (08:00AM – 10:00AM EST)

Background

A regional videoconference was held on Technology Diffusion for Development and Industrial Competitiveness on May 21, 2009. The discussion among stakeholders in the preliminary videoconference stressed the untapped potential in the region, public and private driven interests, and the urgent need for inter-regional knowledge sharing to capitalize on the region's unique strengths. Stakeholder consultation among key policy makers and industry associations focused on the need to develop more coherent strategy for South Asia that would enable innovation to increase the region's competitiveness as a whole. The consultation held on June 9, 2010 revolved around an outline of a study on Strategies for Building Innovation Ecosystems in South Asia (Annex II) by Dr. Mashelkar[2]. The underpinning is a CoP that actively contributes to shaping the agenda on innovation within-country and can identify the assets and initiatives needed for South Asia to increase its competitiveness through a strong innovation system that is regionally built.

The conference agenda was designed to identify the necessary components that need to be addressed to build an innovation ecosystem across South Asia. This discussion will be taken further on the Wiki, which will be a common knowledge platform to explore potential programs and resources. The purpose is to identify and materialize the ideas provided during these consultations and create a strategy that will continue to engage development agencies, policy makers and private sector representatives in South Asia.

South Asian Region's Experience in Innovation

The focal point of the discussion among the CoP was how to design, manage and implement a strategy for South Asia whereby each country can increase their global competitive advantage through a regional approach. Dr. Mashelkar highlighted that intra-regional trade has been following a downward trend post World War II, with the reduction of import substituting industrialization. In 1948, 19% of regional trade was intra-regional, subsequently down to 5% today, after a dip in the curve to 4% in the 1960s. The posited challenge is determining how to accelerate the process influencing the current upward trend to increase the establishment of innovation-enabling partnerships which offer sustainable growth alternative, in particular for lagging regions and smaller land-locked countries.

Based on case studies of leading national innovation programs Dr. Mashelkar stressed that the four main contributors to creating an ecosystem that enables innovation are democracy, diversity, demographics (capturing the power of youth) and Diaspora. South Asia boasts a large, youthful and relatively well educated population and a large cadre of highly educated and well-

[2] Dr. Mashelkar, is a renowned innovation leader who has consulted with government agencies and corporations, globally, on national and institutional transformations.

positioned Diaspora that requires leadership and mobilization. Dr. Mashelkar also stressed that lessons from previous collaborative ventures in South Asia can be incorporated into new initiatives led by the Bank and other development partners. A reference to these can be found in the Asia Research Centre paper on ***South Asian Free Trade Agreement: Prospects for Shallow Regional Integration***. The paper also emphasizes that in order to achieve the objective of intra-regional trade and regional integration it is important to go beyond past failures and learn from them as there is enormous potential to move forward.

Defining Innovation

Innovation, defined as the successful exploitation of a new idea, can be extremely effective in sustainably capturing the market, from mind to industry. Partnerships in science and technology, and research and development, often translate into investment that is converted into knowledge and stop at this point, particularly in developing countries. In contrast innovation is the application of this knowledge into a profitable venture. Regional partnerships can build on niche advantages through cooperation to build stronger regional capabilities and a common brand. Where there is competition the industry should seek out opportunities for partnerships with win-win results.

Proposed Regional Fundamental Themes

- Accelerated sustainable growth to reach poverty reduction targets;
- Addressing conflict, particularly in border regions, through increase regional cooperation; and
- Mitigate the impacts of climate change which disproportionately impact the poor in South Asia.

These themes expressed by the CoP need to be supported by changing the way South Asian countries have addressed intra-regional collaboration given the leap-frogging some countries need to reach a level necessary for a strong regional innovation ecosystem. Stakeholders highlighted that capitalizing on the SAARC development fund can provide fiscal backing and leverage an existing regional legislative agenda. Additionally, involving academia in training students across borders will increase the mobility of skilled labor and increase specialization within each country.

"The three pillars for innovation are prosperity, peace, and planet."

Human Resources

Innovation begins with invention, which is developed from a new idea, born of a human mind. It is necessary to create a curious and creative human capital, and build upon existing resources, by identifying specialized attributes in the SAR countries. Creating a platform to actively share the practices and lessons across borders through a network of human resource managers, academia, researchers and other skilled professionals is one step in achieving this goal. Developing a SAR Network and web-based exchange of young innovators by crowd sourcing (e.g. open-source) drug delivery is another option given.

Investments in Science & Technology

In response to stakeholders voicing their country's challenges in providing market responsive training to mobilize a consistent flow of quality labor, Dr. Mashelkar brought attention to the

need for irreverence in pursuing innovative solutions to solve difficult problems.[3] In South Asia this is especially true for education where there is a need for comprehensive educational approaches, inclusive of a wider demographic of students, and incorporation of risk-taking measures. Another strongly supported proposal is to create a risk-fund for piloting commercialization of innovations through a programmatic approache, where failure can become a part of process adaptation, an innovation in itself.

Inventions in the region have often not exited the laboratories. The strength of the innovative ideas is only as strong as the power of executing those innovations. As such, the essential components of any strategy aimed at increasing the competiveness of the private sector are:

- Speed - quick market capture;
- Scaling - to reach a large market; and
- Sustainability.

Incorporating Climate Change Technology

Climate Change is an overarching issue that has the potential to derail progress in South Asian countries. Nevertheless, it presents an opportunity for collaboration across borders to address cross-border issues as well as to develop technologies which can be marketed globally. At this time there is an ongoing dialogue and political support on the potential for regional collaboration on adaptation to and mitigation of climate change impacts. It is viewed as an imperative that the region creates centers to develop and share effective and sustainable technologies. Western technologies are unlikely to be transferred to mitigate climate change to developing countries in the immediate future. Grassroots innovations are a prime example of where these innovations have developed in the past and can be nurtured in the future through a comprehensive system to promote innovation in those rural areas most impacted by natural disasters caused by climate change.

High Technology Industries

High technology industries in South Asia through the promotion of high technology as a vertical; i.e. used in the process of developing products and service in existing well-established industries. In South Asian countries this would effectively provide a large existing market while providing the environment for these industries to develop overtime as a standalone sector further diversifying their economies. Nevertheless, the development of these capabilities requires a comprehensive approach to building an innovation ecosystem for the SAR focusing on people (education and training), commercialization (incubators and financing) and knowledge sharing (more cooperation and collaboration).

Next Steps

Dr. Mashelkar will draft a study based on the recommendations put forward by the CoP with the aim to provide a framework of action for government, private sector and development organization in progressing with the South Asian innovation agenda. This will further inform the PSD team in developing their PS strategies in their dialogue with the eight South Asian countries for the upcoming year.

[3] Mashelkar, Raghunath A. "Irreverence and Indian Science" Science 30 April 2010: Vol. 328. no. 5978, p. 547

Annex I - SA Regional Collaboration in ITES (Project Concept)

Key development issues and rationale for Bank involvement

1. **South Asia is the least integrated region globally, with intra-regional trade accounting for 5% of total trade, compared with over 50% for East Asia.** The South Asia Region (SAR) is a relatively small geographic region with a large population (1.5 billion people) consisting of eight diverse economies. Economic growth in the SAR accelerated in 2000-2007, at an average of 6.5% a year, and reached a peak of approximately 8.8% in 2006/07; making South Asia the second-fastest-growing developing region after East Asia. The region's growth was reduced from 8.8% in 2007 to 6.2% in 2009 due to the global financial crisis; nevertheless it has fared relatively better than other regions. Nonetheless, South Asia represents large and growing contrasts that have resulted in an average per capita Gross National Income (GNI) of US$963 in 2008.[4] Approximately 80% of the region's GDP originates in India, the SAR's fastest-growing and largest economy, with Pakistan and Bangladesh accounting for another 10% and 7% percent respectively. Two of the poorest countries in the region, Afghanistan and Nepal are land locked. In addition, several lagging regions in the larger South Asian countries of Bangladesh, India and Pakistan are located in the border areas and suffer from lack of market integration. This highlights the dichotomy which exist in the region; the first South Asia is dynamic, rapidly growing, highly urbanized and is benefiting from global integration. The second South Asia is increasingly lagging, largely agricultural, land-locked, suffers from many conflicts, and is afflicted with high levels of poverty.

2. **Poor governance, escalating conflict and poor regional integration continue to be obstacles to inclusive growth in South Asia.** Capital flows through legal channels are negligible, transit arrangements are cumbersome and expensive, and physical connectivity is limited and restrictive. Market integration and regional cooperation are key elements of an inclusive strategy to growth. After Europe, South Asia has the second largest number of cities in the border region, and most of its countries share a common border with India. It also has a number of small land-locked countries which would benefit from the scale economies better integration would provide. Consequently, the region needs two types of market integration due to its unique geography - providing countries, especially the land-locked ones, with broader access to regional and global markets; and integrating the lagging regions within each country with the growth centers, both in-country and cross-border.[5] As a result, the Bank's ongoing strategy for South Asia is focused on: i) accelerating and sustaining growth; ii) making development inclusive, and strengthening human

[4] South Asia Economic Update 2010 - South Asia: Moving Up Looking East, the World Bank
[5] Promoting Economic Cooperation in South Asia - Beyond SAFTA, 2010, the World Bank

development. Promoting public accountability and good governance is a common foundation for these three pillars.

Sector Background

3. **McKinsey estimated the annual addressable market for IT services and ITES was approximately US$500 billion in 2008.** Less than 15% of that market, however, is being exploited.[6] The offshore ITES Business Process Outsourcing (ITES-BPO) industry has spurred development in several emerging countries across Asia, Latin America, and Eastern Europe in recent years. The ITES industry involves a wide range of services delivered over electronic networks (see Table 1). Emerging markets were able to provide these services to more developed countries by leveraging their cost advantages. However, over time, factors such as access to quality talent, achieving operational excellence, and increasing productivity have become essential to increasing market penetration. According to NASSCOM, IT services is expected to grow by 2.4% in 2010, and 4.2% in 2011 as companies coming out of the recession harness the need for information technology to create competitive advantage. Government IT spending continues to rise globally, focusing on infrastructure, and security. Other areas of spending include BPM, data management, on demand ERP, virtualization, and efforts to increase and deliver enterprise managed services on IP networks. Growth in outsourcing is expected to supersede overall IT spend while within outsourcing, off shoring will see increased acceptance as offshore based providers grow and traditional service providers ramp up offshore delivery capabilities.

Table 1. ITES Business Process Services

Horizontal Processes	***Vertical Processes***	***Knowledge Process Outsourcing***
• Customer interaction and support (including call centers) • Human resource management • Finance and administration • Supply chain (procurement logistics management)	• Banking • Insurance • Travel • Manufacturing • Telecommunications • Pharmaceuticals	• Business and financial research • Animation • Data analytics • Legal process and patent research • Other high-end processes

[6] Realizing the Opportunities Presented by the Global Trade in IT-Based Services, June 2009, the World Bank

4. **For governments of emerging economies, especially those targeting the development of services industries, ITES has emerged as a key growth industry.** This is especially true for South Asia where labor-intensive manufactured export sectors such as ready-made garments and textiles has played an important role in the region's growth. However, bigger gains were achieved through modern service industries, especially telecommunications, information technology (IT), tourism, transport, retail, and finance. The ITES industry's appeal is driven by several unique socio-economic benefits it provides. Primarily, it is an excellent source of export revenues. This provides several related benefits as well, including higher wages and upgrading of skills. Moreover, the industry is highly people intensive whereby scale is achieved by high deployment of people, unlike traditional manufacturing industries where growth and development does not necessarily imply an increase in the number of jobs. It also encourages greater female participation in the workforce; it is estimated that women make up 60% of the employee pool, on average, in ITES-BPO firms. Another significant benefit that has arisen from the growth of ITES is the creation of ancillary service sectors; it is estimated that for every direct job created in the industry, four additional jobs are created in the economy. Finally, positive spillover effects also include improvements in ICT infrastructure and business services, which further lead to increased efficiencies within the domestic economy.

5. **South Asian countries have developed their ITES industry to varying degrees and each possesses unique advantages driving ITES growth.** There are four main drivers that determine the success or failure of a location to become an investment destination for the ITES industry: talent, infrastructure, environment, and clusters. However, the presence of these drivers is not sufficient to ensure long-term growth. Governments must create the right kind of policy framework around each of the four drivers to sustain the growth. ITES is a relatively nascent industry in **Bangladesh**. The software and ITES-BPO industry in Bangladesh comprises around 500 companies[7] and employs approximately 5,000 people, generating total revenue of more than US$44 million[8]. These are mainly located in Dhaka and the surrounding areas with Chittagong identified as a potential location for development. However, the Government has been targeting the industry as driver for growth through infrastructure and business environment reforms. In **Bhutan**, the ITES industry only began developing in 2006 but the government has identified ICT as one of its three primary segments for development. There are currently only three companies operating in the industry, located in the capital city of Thimphu and Paro, with an estimated total employment of 225.[9] The government of **Nepal** has also identified IT and

[7] Bangladesh Computer Samity (BCS). "Bangladesh: Your Newest IT Destination." http://www.bcscomputershow.com/bangladesh_ict.htm#. Accessed September 2008.
[8] International Trade Centre & European Union. "ITES Sector Value Chain Analysis." In A Strategy for Developing the ITES Sector of Bangladesh. Bangladesh Quality Support Programme Publication. European Commission.
[9] Interview with Bhutan Business Solutions, Bhutan TST Solutions, and Drukonnet, May 2008

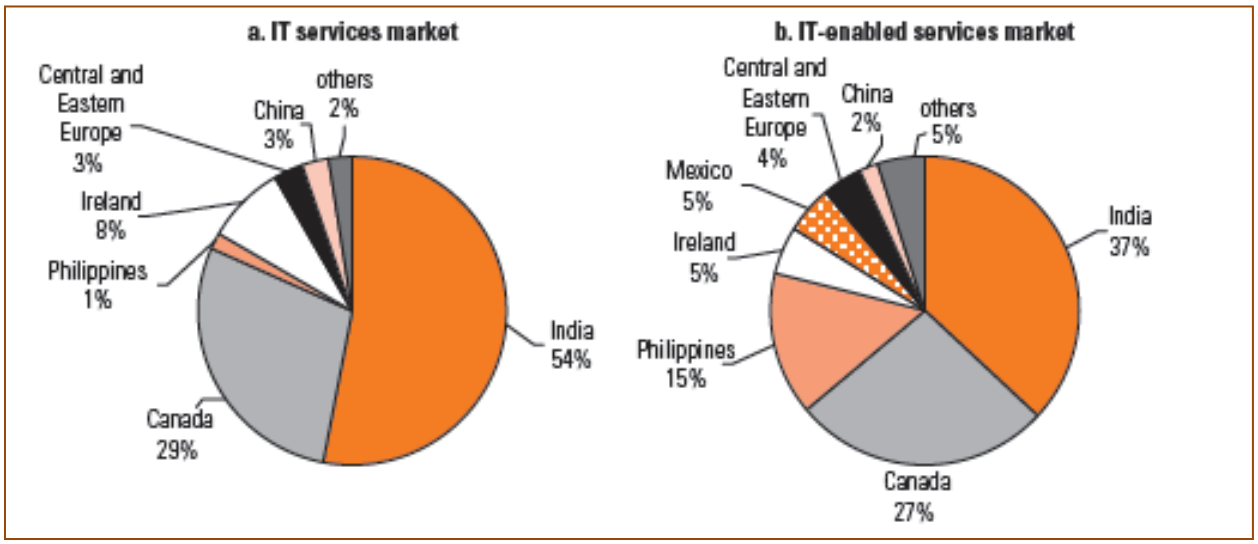
ITES-BPO as one of the priority industries for development. ITES is an emerging industry in Nepal. Medical transcription services were initially introduced in 1995, but there has been very limited development since then. According to industry incumbents and experts, the IT and ITES-BPO industries employ approximately 3,000 people and generate total revenues of more than US$40 million. At present, there are around 40 IT-related companies in Nepal.[10] Although all ITES activity in Nepal is focused in Kathmandu, there is potential for development in areas such as Pokhara as well as the new IT park area located in the outskirts of Kathmandu city. In the **Maldives** ITES is also at a formative stage. The country currently serves primarily as a market for IT hardware products. The two leading telecom operators, Watanya and Dhiraagu, and the Bank of Maldives handle some back-office processing and customer service call center activity for domestic operations.[11] The government is looking to diversify its economy and encourage the penetration of IT within the country as a whole. Moreover, the government is developing new industrial cities to take some pressure off Male, the capital. Hulhumale and Guhlifahlu are new industrial sites that will emerge over the next two to three years. The government of **Pakistan** has been very proactive in promoting ITES-BPO industry growth by providing incentives to both domestic and international players. Most of ITES-BPO companies in the country are based out of Lahore, Islamabad, and Karachi. Overall, software and ITES-BPO exports are estimated at US$116 million.[12] Domestic call centers are the most popular subsector. Processes such as medical transcription, legal transcription, data capture and forms processing have yet to achieve similar levels of acceptance due to the political turmoil within Pakistan and perceived investor risk as a location for doing business. **Sri Lanka** has a relatively mature ITES industry, which has witnessed significant growth over recent years. The country has already begun to develop a domestic vision and roadmap for the industry. The most prominent ITES-BPO segments in Sri Lanka are finance and accounting. The key target markets for Sri Lankan ITES-BPO companies for exporting services include Australia and the United Kingdom. According to industry professionals, Sri Lankan companies deliberately are not focusing on other prominent ITES-BPO markets such as the United States to avoid direct competition with India and the Philippines. Currently most of the ITES-BPO industry in the country is concentrated in Colombo. According to industry professionals, Kandy is a potential second location for the industry in the long term.

6. **India has emerged as the global leader in the provision of both IT services and ITES (Figure 1).** Canada and Ireland have also done particularly well in the industry, as have a few developing countries, notably China, Mexico, and the Philippines. Several countries in Central and Eastern Europe (the Czech Republic, Hungary, Poland, Romania, and Russia) have also developed their capacity in IT services and ITES, though on a much

[10] Interview with an employee of HLC-IT, who wishes to remain anonymous, Kathmandu, May 2008
[11] Interview with Maldives National Chamber of Commerce and Industry, Male, May 2008
[12] Pakistan Software Houses Association (PASHA) 2007. "Composition of the Industry." http://www.pasha.org.pk/show_page.htm?input=page_120220081605. Accessed November 2008.

smaller scale. The expansion of IT services and ITES has provided these countries with a wide range of economic and social benefits. In India, the Philippines, and Ireland, for example, the industry has created jobs, raised incomes, and increased exports and GDP.[13] In India, IT services and ITES sector revenues, as a proportion of overall GDP, have grown from 1.2% in FY1998 to an estimated 6.1% in FY2010. Their share of total Indian exports (merchandise plus services) increased from less than 4% in FY1998 to almost 26% in FY2010.[14] India also claims 51% of the global offshoring market. The experience of India has shown that in essence, the ITES industry is: i) highly people intensive; ii) supplies foreign exchange earnings, which provide several related benefits, including better wages and upgrading of skills; (ii) spurs investment in ICT infrastructure, which in turn leads to higher efficiencies within the domestic economy; (iii) affords increased participation of women in the workforce, where it is estimated that women make up 60% of the employee pool, on average, in ITES organizations; and (iv) creates cluster industries and spillover benefits to other sectors. It is estimated that for every direct job created in the ITES-BPO sector, four additional jobs are created in the economy.

Figure 1. Global Distribution of Offshore IT Services and ITES Markets



Source: McKinsey & Co 2008; NASSCOM-Everest 2008; Tholons 2006.

7. As highlighted above, South Asian countries are all working toward development of their individual ITES industries. **Nevertheless, a study of the needs of the industries, the potential areas of development, and the markets that the countries wish to tap reveals that there are several similarities among the countries**. These include a relatively young population with more than 60% of the population in most of the countries falling in the employable age bracket of 15–64 years. The talent pool recruited by the

[13] Realizing the Opportunities Presented by the Global Trade in IT-Based Services, June 2009, the World Bank
[14] IT-BPO Sector in India: Strategic Review 2010 , NASSCOM

industry at the entry level is often students who have completed their secondary education, so these countries collectively provide a significant volume of employable talent. Moreover, all of the countries of the region have a fair understanding of English, the primary language for most outsourced ITES work, which is commonly understood and spoken by the urban and semi-urban population. Additionally, the talent in many South Asian countries is strong in quantitative skills and finance-related subjects. More importantly, there are significant overlaps in the niche areas identified for the individual countries. Therefore, the countries could collaborate in developing select niche segments in the region through knowledge sharing and regional training initiatives. Similarly, there are complementary areas among the countries where development is needed - in areas such as training, infrastructure, and investment promotion. However, no concerted efforts to collaborate and develop the region as a single market for offshoring and outsourcing have been undertaken so far. Thus, the region is still seen as a collection of individual countries rather than as a common unit. Collective collaboration toward some forms of standardization - in service delivery, quality levels, and human resource development, would benefit the entire region.

8. **The basis for most modern economic clusters is the ability to achieve universal economic gain by leveraging collective strengths.** Companies involved in the core industry of the cluster have easy access to raw materials and collective bargaining power relative to suppliers. They also benefit from the quality of the talent available to them because clusters lead to labor market pooling and skills specialization. The ready availability of multiple job opportunities acts as a key attraction for the talent. A regional collaborative cluster depends on the relations between countries, socio-cultural ties, and policy which play a major role in deciding the success or failure such a cooperation. When the ITES-BPO industry in South Asia is viewed in this light, the argument for developing a regional collaborative cluster is very strong. Countries in the region have complementary needs in areas such as training as well as complementary offerings in terms of their specific strengths and competencies. The socioeconomic benefits of the ITES-BPO industry are immense, providing a strong case for the development of this industry in each of the South Asian countries. Although the countries have individually taken steps to develop the industry, there have been very few attempts to develop a regional network for sharing information and best practices. In fact, at present most of the countries in the region compete with each other for business, with lower cost of operations compared with neighboring countries as the prime selling point. This is not sustainable in the long run.

9. **With new locations, both countries and regions, emerging on the global stage for ITES, South Asian countries would need to develop a strong value advantage or proposition to attract investment over other locations.** Given that the countries are at different stages of development with respect to the ITES-BPO industry, the countries can explore the possibility of developing a regional value proposition as an

outsourcing/Offshoring hub, leveraging each others' strengths. As mentioned above, India has emerged as a dominant location within the industry. However, there has been limited effort to leverage the success and experience of Indian companies in developing the industry in neighboring South Asian countries. The countries can consider introducing initiatives and developing platforms that foster growth of the industry in the region as a whole. Such a regional network would ensure coordinated efforts toward knowledge sharing, resource utilization, human capital development, and infrastructure investment—increasing the ability of the region to compete against other locations through united efforts.

Proposed project development objective(s)

10. The primary purpose in developing a regional ITES project for the SAR is to accelerate growth in the region and create employment opportunities, focusing on lagging areas and opportunities for woman and youth. *The Project Development Objective (PDO) is to grow the share of ITES in the GDP of those countries targeted in the project through cross-border collaboration between ITES firms and institutions (public and private) in the SAR.* The project aims to achieve this through the promotion of an enabling policy framework and the financing of regional initiatives focused on infrastructure sharing, joint promotion and skills development (at the firm level).

11. The monitoring and evaluation framework will include: i) growth in ITES industry exports; ii) the number of SMEs financed under the project; iii) employment by SMEs financed and percentage female; iv) the number trained under the project and the percentage female; and v) increased regional trade in ITES.

Preliminary project description

12. The proposed US$40 million regional loan is expected to be a 4 year Specific Investment Loan (SIL) consisting of a grant facility to private firms and capacity building of government institutions that develop policies directly affecting the ITES industry. The project will first develop knowledge partnerships with the industry associations of each country, regional bodies such as the SAARC chamber and local public and private institutions to champion regional collaboration. In addition, it will provide targeted grants and technical assistance to develop enterprises offering sustainable and well paid employment in the SAR through regional collaboration.

13. The project team had a number of consultations with key actors in government, facilitating ITES industry development as well as the key trade associations in each country representing the industry. The report which provides the intellectual underpinning for this project was produced after the Bank ascertained strong client demand from SAR

counterparts and key stakeholders.[15] Recent VCs to disseminate the report also confirmed a strong desire to progress these recommendations into tangible action based on a few key areas for collaboration summarized in Figure 2 below.

Figure 2. Benefits of Collaboration

Business Growth

- Exploring common business opportunities for **work to be delivered from multiple countries**
- **Subcontracting** of work from one country to another
- **Joint business promotion**
- Tapping the **Regional & Domestic** ITES **markets**
- Arriving at a set of **Common business delivery standards** for the region
- Exploring business opportunities within region for **development of cluster services** for ITES including telecom, real estate infrastructure, and training

Supply-side Growth

- **SAR Venture Fund with SAARC FUND -** incentives for entrepreneurs to pursue multi-country business opportunities
- Development of **common regional standards** for
  - Curricula
  - Training
  - Assessment/Accreditation
- Development of **shared infrastructure** such as telecom, data centers & real estate
- Development of **regional infrastructure**
- **Enabling policy framework** that facilitates free movement of ITES-BPO personnel in the region

14. Given the complexity that the regional dimension of the project poses, it would be prudent to keep the design and the project components simple. The following components are proposed:

1. **SAR ITES Facility -** a facility for regional JVs/partnerships, intra-regional infrastructure, standard skills assessment, common accreditation process, joint promotional activity, etc.
   a. *SME regional innovation grants [US$XX million]* - to incentivize collaborative efforts in starting, expanding or venturing into new lines of business related to ITES between two or more countries.
   b. *Training grants [US$XX million]* - for skills development which would include developing and promoting common training curricula to global standards, assessment and accreditation. The main criteria would be that a group of firms (3 or more) develop these programs in 2 or more countries.
   c. *Joint promotion grants [US$XX million]* - for networking events, joint trade shows, business linkage tours and regional branding plans. The main criteria would be that a group of firms (3 or more) develop these programs in 2 or more countries.
   d. *Infrastructure sharing grants [US$XX million]* - for the development of data centers, high bandwidth data cables, and common support services (i.e. incubators, R&D facilities, etc.).

[15] Regional Collaboration on IT Enabled Services - *Smart Strategies for Jobs & Growth in South Asia*, 2009

2. **Institutional Capacity Building -** *to champion the regional cause, for enabling policies (model frameworks, Intellectual Property Rights (IPR), and e-transaction Act, etc.) [US$XX million]* - This component would also address the formation and development of a small regional secretariat, possibly under the SAARC chamber, which would support a regional body as the main champion for regional ITES integration. Initially such a body could be formed by bringing together each of the ITES trade associations currently active in their respective countries. The Chairman or CEO can be chosen from the ex-officio members in such a virtual organization, rather than form another new entity.

Potential risks and mitigation

Risk	**Mitigating Measures**
Generic Risk (To Project Development Objective)	
Macroeconomic framework The fallout from the global financial crisis may lead to a reduction demand from major export markets, particularly for niche areas targeted by smaller countries.	Worldwide hardware markets were hit worse than software or service markets as a result of the changing economic outlook due to the crisis. However global corporations leveraged IT to drive organization wide efficiencies, transformation and new business models. While BPO growth moderated on account of lower transaction volumes, overall IT spend was largely driven by a revival in North America and financial services, along with increased adoption in emerging markets. *The risk is low*
Conflict: Increased conflict in border regions would hinder progress in cross-border collaboration as it would limit the potential for infrastructure sharing and constrict the flow of people.	Regional cooperation in South Asia if it enables equitable and sustainable economic growth and involves new initiatives for restructuring the growth process to make it pro-poor would accelerate the process of peace though economic cooperation. The project does not directly address conflict sources; however by using ITES as a horizontal it can target sectors that lend themselves to cooperation more easily (e.g. health services, water resource management, etc.). *The risk is moderate*
Project-Specific	

Lack of uptake from the private sector for the proposed grants due to: 1. Lack of interest in the size and related requirements of the grants.	1. The project would find it difficult to attract quality proposals from the private sector if most firms believe the advantage in regional collaboration is outweighed by the danger in collaborating ith perceived competitors. The project could mitigate this by building on existing regional agreements. *This risk low.*
Political instability Could impede partnerships in the ITES industry, which is viewed as a "mission critical" industry.	A well-planned public awareness campaign that would disseminate the benefits of a regional versus country-level strategy should be put in place. In addition, strong involvement by the private sector is necessary in close collaboration with the relevant public institutions. *This risk is moderate.*
Critical Knowledge Sharing Given the strategic importance of ITES related industries, governments and even private firms might hesitate to share critical knowledge.	A collaboration framework which ensures confidentiality, integrity of electronic data and its IPR is essential. Much of this can be addressed by adopting a model e-Transaction code of practice or an Act which can be implemented region-wide. *This risk is moderate.*

Issues on which the team seeks guidance

15. **Country focus:** Given the expressed demand by a few South Asian countries and their varying degrees in maturity, should the project be implemented in phases or as a programmatic loan involving different countries at different stages?

16. **Regional Body:** Should there be a "physical" regional body (existing or created) which would take on the main coordination/supervisory role or should this body only exist in as a "virtual" organization?

17. **Innovation Grant:** Given the lack of VC funding in lagging SAR countries, would the project better address this funding gap through a "seed capital" type of fund?

18. **Regional Examples:** Are there regional models that have implemented an IT related strategy to growth which could be implemented in a SAR context?

Annex II - Strategies for Building Innovation Ecosystems in South Asia - Outline

The next step is to develop this strategy note along the lines of the following Draft outline (which will continue to evolve), taking on board salient comments received during the internal & client review process. The stakeholders will continue to play a part in shaping its final contours & we intend to have 3 or 4 practical initiatives/actions for SAR, which can form the basis for a regional investment project in the near future.

Proposed Outline

Acknowledgements
Acronyms and Abbreviations
EXECUTIVE SUMMARY

PART I Terms of Reference

1. Background
2. Objectives and Rationale
3. Scope of the study
4. Suggested methodology

PART II Drivers for a Regional Approach to Building Innovation Ecosystems

1. Prosperity for All - Sustainable and inclusive growth
2. Peaceful Stability - geopolitically stable and secure environment
3. Preserving the Planet - Sustainable use of scarce shared resources

PART III Building Innovation Ecosystems: An Overview

1. Global Scenario
2. South Asia Region (SAR)

PART IV Building Regional Innovation Ecosystems for the SAR: Assessing Current Status & Key Challenges Going Forward

1. General overview
2. Assessment of current initiatives (e.g. SAFTA, SDF, Food Bank, SATIS, SAU)
3. Higher education and human resource development
4. Investments in R&D: Institutional and Firm-level
5. Enabling S&T policies and infrastructure
    a. Public R&D institutions
    b. Private sector enterprises
    c. Public-Private-Partnerships

6. Technology/venture financing initiatives
7. IP systems and enabling regulatory structures
8. Key challenges in establishing a regional innovation ecosystem the SAR
9. India's Role: Leveraging Indian strengths in science, technology and innovation

PART V Case Studies: Good Practices in Innovation Ecosystems

1. National Innovation Ecosystem – This will include a representative study of prominent national innovation ecosystems that have been particularly successful. Typical cases will be drawn from countries at different stages of development.

2. Regional Networks – Study will attempt a deep understanding of successful regional innovation partnership initiatives such as:

    a. Programs that seek to complement national innovation programs with activities that have a "regional added value". For example, GEANT, FP7 program of the European Union, etc.

    b. Networks and collaborations of producers of innovations from developing and middle income countries. For example, Africa Network for Drugs and Diagnostics Innovation (ANDI), Developing Country Vaccines Manufacturers Network (DVCMN), ISHReCA, Bio-Innovate, AfricaConnect Initiative, etc.

3. Global – A study of the strategic alliances that harness the capabilities, infrastructure and competencies of diverse and globally dispersed research and innovation institutions. e.g. Global Research Alliance (GRA).

4. Lessons for the SAR (*may evolve into a chapter of its own)*

PART VI Strategies for Establishing a Regional Innovation Ecosystem for the SAR

1. Assessment of the competitive advantage of building regional innovation clusters in countries that do not have any geographical proximity.
2. Regional funding: incentives and programs tailored to promote ICT, trade, FDI and Diaspora / talent flows.
3. Creating firm-level incentives that lead to inclusive innovation through regional collaboration (with a particular focus on SMEs
4. Building Traditional Knowledge Innovation Networks
5. Grassroots Innovation Networks – scouting, documenting and valorizing.
6. Sensitive Areas (Potential for collaborative networks in sensitive areas such as Water, Security, etc.)
7. Building Higher Education capacity in the SAR for growth and competitiveness – identifying opportunities for regional co-operation in Higher Education

PART VII Risks and Challenges
PART VIII Conclusions and Recommendations