

USAID Competitiveness Interventions Review
Draft Report, November 16, 2001

PRICEWATERHOUSECOOPERS 



November 19, 2001

Mr. Grant Morrill
USAID
Ronald Reagan Building
14th and Pennsylvania, NW
Washington DC 20523

**SUBJECT: Competitiveness Interventions, Review of Worldwide Experiences -
Draft Report, Contract No. PCE-I-00-98-00017-00, TO No. 16**

Dear Mr. Morrill:

On behalf of PricewaterhouseCoopers LLP (PwC), I am pleased to submit the above referenced report. The report was prepared jointly by PwC and SRI and covers projects in both economic competitiveness and workforce development. It provides an overview of our firms' experiences to date in these areas, the history of our practices, and descriptions of our projects worldwide, including the methodology used, results achieved, and constraints encountered. The report also includes an index to the e-library of project deliverables found on the accompanying CD-ROM, as well as a list of potentially useful web links. The accompanying CD-ROM contains this library of documents as well as an MS-Excel file with a table of PwC and SRI projects worldwide in competitiveness and workforce development.

We trust this information will serve as a basis for the review of competitiveness initiatives, and we anticipate receiving your feedback in the next few weeks in order to finalize the report. We appreciate the opportunity to work with you. If you have any questions regarding this deliverable you may contact me at (703) 741-1989, or at virginia.lambert@us.pwcglobal.com.

Sincerely,



Virginia Lambert,
Principal Consultant

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Executive Summary

PwC and SRI Experience in Competitiveness Interventions

Since the mid-1990s, *competitiveness* has become the watchword for countries and regions seeking economic growth, particularly through expanded trade and export earnings. USAID and other donors as well as private sector associations and local governments have funded various initiatives to develop competitive capacity. As part of the SEGIR/GBTI contract, USAID has asked contractors involved in this work to conduct self-assessments of the interventions they have undertaken. This report details the work of PricewaterhouseCoopers (PwC) and SRI International (SRI), with attention to the evolution of work in this field, detailed information on the methodology employed, and the effectiveness of the initiatives and the impacts realized.

While SRI has focused primarily on country and cluster competitiveness projects and on developing and refining competitiveness-related products, most of PwC's work in this area has dealt with workforce as a factor in competitiveness and strategies for workforce development. Both, country competitiveness and workforce development, are being addressed in this report. They are closely linked, with significant overlap. In several USAID Missions, including Egypt, Sri Lanka, and Lebanon, country competitiveness and workforce development projects have taken place either simultaneously or sequentially.

Competitiveness can be defined as continually sustained increases in productivity resulting in higher wages and living standards. It is also characterized by firm level agility, efficiency and increasing export market shares. True competitiveness is not based on cheap labor, special tax exemptions, or continual devaluation of currency. It is based on generating value through improved productivity, quality, service and innovation. Competitiveness also has been shown to be an intensely regional phenomenon, characterized by clusters of related and supporting enterprises. Increasingly, competitiveness analysis has been directed to industry or sector clusters of firms and supporting institutions.

Workforce development can be defined as sustained improvements in the competitiveness of the workforce in a particular industry, cluster, or region. Workforce development programs may include *demand-side initiatives*, with companies and employers, *supply-side initiatives*, with education and training institutions, and *linking initiatives*, to develop and sustain linkages between supply and demand.

Workforce plays a central role in the industry cluster development methodology used by SRI, and in the joint workforce/cluster development projects undertaken with PwC. Skilled human resources are one of the five key “foundation factors” that are sources of regional competitive advantage for industries. Typically, a well-functioning industry cluster is characterized by close and open communications between cluster companies and education providers within the region. Close relationships or “*Industry-University Partnerships*” between the companies and education providers enables companies to articulate their needs in qualitative and quantitative terms to the education providers.

Likewise, industry clusters are central to PwC's workforce development (WFD) methodology. The cluster is essentially the "unit of analysis" to tackle workforce constraints, providing a fairly straightforward breakdown or boundary by which to analyze which industries have the greatest potential for growth and job creation. Examining workforce development activities as part of a cluster places workforce issues in the dynamic context of an industry value chain, rather than as static goals, such as increasing employment or a particular skill set. In the cases of South Africa, Egypt, and Sri Lanka, the need to improve cluster competitiveness has been the primary driving force for building workforce skills. Increasingly, companies have found that improving the skill-sets of employees is critical to improving company competitiveness.

Report Organization

Given this clear link between cluster competitiveness analysis and workforce development, this report is organized as follows:

1. **Experience Table** - an MS Excel worksheet containing information on the competitiveness efforts of PwC and SRI is enclosed on the accompanying CD-ROM.
2. **History** - brief history outlining SRI's competitiveness practice and PwC's workforce development practice.
3. **Experience and Narrative Descriptions of Projects** - detailed narrative descriptions of each of the competitiveness and workforce projects where PwC and/or SRI have had a significant role and the results achieved.
4. **Methodology and State-of-the-Art Practices** - descriptions of the competitiveness methodology and the workforce diagnostic methodology as applied by SRI and PwC, and discussion of the state-of-the-art and best practices used in projects.
5. **Indicators for Measuring Performance** - long-term and short-term performance indicators to monitor and benchmark results and the impact of competitiveness and workforce interventions.
6. **Constraints to Competitiveness** - descriptions of constraints encountered in competitiveness and workforce development projects.
7. **The Competitiveness e-Library Index** - a listing of deliverables submitted in soft copy on the accompanying CD-ROM.
8. **Useful Links** - list of illustrative and informative website addresses relating to competitiveness.

Key Findings and Themes

In summary, while no two projects or country environments are alike and lessons learned vary widely by project, PwC and SRI have observed several major findings and key themes that apply broadly across the spectrum of projects in competitiveness and workforce development. These key points and major findings are:

- **Consultants can play a role as facilitators or "honest brokers"**. The cluster working groups often need an objective outside party to keep the group steered towards issues of common concern.

- ***The competitiveness methodology and the workforce development methodology are constantly evolving and are being refined with each project iteration.*** Both are flexible methodologies that are scalable and capable of being altered to suit differing country and cluster environments.
- ***Stakeholders are critical to the success of competitiveness and workforce development projects.*** The continuous involvement of all segments of stakeholders, and their buy-in to projects are vital to the long-term success and sustainability of projects. Competitiveness and workforce development efforts cannot be "forced" upon cluster stakeholders.
- ***The geographic or regional grounding to cluster initiatives can be useful for organizing cluster efforts.*** Organizing cluster initiatives on a regional or geographic basis is often advantageous, particularly when addressing issues on a national or industry basis is too large or too fragmented.
- ***Providing targeted technical assistance to improve specific aspects of cluster competitiveness can be vital, particularly during the implementation-phase of projects.*** Targeted TA to help a cluster overcome specific roadblocks and constraints to competitiveness is important and may serve as the initial "push" needed to build momentum towards competitiveness. The workforce development methodology is an outgrowth of technical assistance efforts aimed at improving human resources in a cluster.
- ***Public relations and media management, as well as the periodic, transparent assessment of achievements and milestones are important for maintaining the visibility and momentum of projects.***

1. Experience Table

An MS Excel file containing information on the competitiveness efforts that PwC and SRI have been involved in is enclosed on the accompanying CD-ROM. A printout of this worksheet is provided on the following pages.

EXPERIENCE TABLE: GLOBAL COUNTRY COMPETITIVENESS INTERVENTIONS

Country	Project Name	Commencement Date	Termination Date	Donor/Client	Local Government Sponsor or Private Sector Counterpart	Report Titles	CDIE Reference No	Cost	Implementing Organization (Contractor)	Experts Engaged/Team Members
California, USA	An Economic Strategy for Hollywood	10/24/96	10/24/97	The Office of the Mayor of Los Angeles	Hollywood Alliance	1) Hollywood Economic Alliance: Partnerships for Hollywood	n/a	\$92,000	SRI	Katherine Vickland, Ophelia Yeung, John Mathieson
Egypt	Egypt Growth through Globalization	01/15/99	12/31/01	USAID	None	1) Strengthening Business Associations, January 2000; 2) Egyptian Export Sector Review, May 1999; 3) Linking Employment Creation and Export Growth in Egypt, July 1999; 4) International Best Practice in Exporter Services, April 1999; 5) International Subcontracting: New Opportunities for Egyptian Exporters, February, 2001.	To be submitted to CDIE	\$3,253,166	PwC/SRI	Tessie San Martin, John Mathieson, Ophelia Yeung, local staff
Egypt	Workforce Development Strategies (SEGIR GBT1)	07/11/00	04/15/01	USAID	None	1) USAID Workforce Development Strategies (WDS): Findings, Recommendations, and Next Steps, July 14, 1999; 2) USAID WDS: The Workforce Diagnostic, Executive Summary, Draft, August 1999; 3) WDS: Methodology Guide, April 2000; 4) WDS: Cluster Background Report, Oct 3, 1999; 5) WDS: Agribusiness Cluster Report, January 12, 2000; 6) WDS: Cluster Report Executive Summary, January 12, 1999; 7) WDS: Information Technology Cluster Report, January 12, 1999; 8) WDS: Tourism Cluster Report, January 12, 1999; 9) Workforce Development: Strengthening the Egyptian Tourism Cluster Report, January 2001; 10) Workforce Development: Information Technology Cluster, Report on Phase III Activities and Proposed Future Activities, January 2001; 11) Information Technology cluster case studies on IT Worx and Raya Holding; 12) Tourism cluster case studies on Jolie Ville Movenpick Resort & Casino Sharm el-Sheikh, Emeco Travel, and Americana-Restaurants Division.	1) PN-ACK-003; 2) PN-ACK-008; 3) PN-ACK-007; 4) PN-ACK-002; 5) PN-ACK-001; 6) PN-ACK-006; 7) PN-ACK-005; 8) PN-ACK-004; Reports No. 9 to 12 are to be submitted to CDIE.	\$927,000	PwC/SRI	Tessie San Martin, Virginia Lambert, Laura Alonzo, Tammy Mank, Peter Boone, Kevin Murphy, Mark Frazier

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Egypt	US-Egyptian President's Council	07/01/98	05/31/99	USAID	None	1) Morocco's Strategic Development Plan for the Electronics and Information Technology Sector: A Case Study as a Possible Model for Egypt's High Technology Cluster Development	1) To be submitted to CDIE	\$249,475	PwC	Robert Krause, Maria Aronson, Eric Zheng
Florida, USA	Palm Beach Strategy	05/27/97	11/27/97	Business Development Board	Palm Beach County	1) Cooperating to Compete in the 21st Century: An Industry Cluster Development Strategy for Palm Beach County	n/a	\$100,000	SRI	Peter Boone, Ophelia Yeung, Katherine Vickland
Global	Implementing the EGAD Training Vision Workshop	08/10/00	01/15/02	USAID	n/a	n/a	n/a	\$488,889	USAID/PwC/SRI	Tessie San Martin, John Mathiesen, Peter Boone, Ophelia Yeung, Ken Lanza, David Cowles
Global	Developing Web Model: Comprehensive Development Measurements (PEDS III, C11)	01/01/96	12/31/96	USAID	None	1) Developing the Web Model: Presentation; 2) Developing the Web Model - Report	1) Not submitted to CDIE; 2) PN-ACA-171	\$118,378	Coopers & Lybrand/SRI	John Mathiesen, Ophelia Yeung, Peter Boone, Ophelia Yeung, Santiago Sedaca
Global	Commercial Policy Toolkit	04/13/98	12/31/98	USAID	None	1) Commercial Policy Toolkit	1) PN-ACN-129	\$40,000	Coopers & Lybrand/SRI	John Mathiesen, Ophelia Yeung, Peter Boone, Ophelia Yeung, Santiago Sedaca
Global	Commercial Policy Model	11/01/91	09/30/94	USAID	None	1) Global Growth Through Global Competition: Linking Commercial Policies, Economic Performance, and USAID Performance	1) Not submitted to CDIE	\$380,203	Coopers & Lybrand/SRI	John Mathiesen, Ophelia Yeung
Greater Horn of Africa	Commercial Policy Assessments	09/29/95	12/31/95	USAID	None	1) Commercial Policy Assessment of the Greater Horn of Africa Region	1) PN-ACC-945	\$14,316	Coopers & Lybrand/SRI	
Hong Kong	Hong Kong Economic Survey	02/01/88	02/01/89	Hong Kong Economic Survey Ltd.	n/a	1) 5-Part Economic Strategy for Hong Kong's Future	n/a	Client Private	SRI	James Gollub
Illinois, USA	Illinois Model of Technomic Development	08/01/00	08/31/01	US Department of Commerce	Illinois Dept. of Commerce	1) Designing & Applying the "Illinois Model" of Technology Driven Economic Development	n/a	\$439,988	SRI	John Mathiesen, Ophelia Yeung, Katherine Johnston, Farida Lim
Jordan	Commercial Policy Benchmarking	11/11/97	10/15/98	USAID	None	1) Jordan Commercial Policy Assessment	1) PN-ACN-128	\$79,531	Coopers & Lybrand/SRI	John Mathiesen, Ophelia Yeung
Lebanon	Lebanon Growth Initiatives	02/01/98	03/31/98	USAID	None	1) Economic Growth Initiative in Lebanon	1) PN-ACN-123	\$52,347	Coopers & Lybrand/SRI	John Mathiesen, Peter Boone, Ophelia Yeung
Lebanon	Lebanon Growth Initiatives	08/16/98	01/27/99	USAID	None	1) Industry Growth Partnerships-Achieving Lebanon's True Economic Potential	1) PN-ACN-122	\$531,956	Coopers & Lybrand/SRI	John Mathiesen, Peter Boone, Ophelia Yeung
Lebanon	Lebanese Industry Growth Partnerships I & II	07/01/99	09/30/00	USAID	None	1) Achieving Global Competitiveness in Lebanese Agro-Industrial Sector; 2) Tourism Workforce Development For Cluster Competitiveness; 3) Lebanon Economic Growth Initiatives - Regional Business Services Sector.	1) PN-ACN-124; 2) PN-ACN-125; 3) PN-ACN-127	\$2,755,762	PwC/SRI	John Mathiesen, Peter Boone, Ophelia Yeung, Katherine Johnston, Santiago Sedaca, Monty Palmer
Lebanon	Catalyzing Lebanon's Industrial Growth	10/01/00	09/30/01	USAID	None	1) Middle Metn Tourism Assessment & Strategic Plan; 2) Agro Industry Marketing Presentation	1) PN-ACN-126	\$476,217	PwC/SRI	John Mathiesen, Peter Boone, Ophelia Yeung, Katherine Johnston, Santiago Sedaca
Malaysia	Technology Assessment, Development and Management Project, Malaysia	12/14/88	08/14/89	Asian Development Bank	None	1) Malaysia: A Preliminary Technology Assessment	n/a	Client Private	SRI	Steve Waldhorn, James Gollub, Thomas Chmura

Silicon Valley	Joint Venture Silicon Valley	03/01/92	03/01/93	Silicon Valley Joint Venture Consortium	n/a	1) Blueprint for a 21st Century Community	n/a	Client Private	SRI	James Gollub, Douglas Henton
South Africa	Workforce Development Strategies & Action Planning Tool (PEDS III, C45)	09/01/98	07/31/99	USAID	South Africa Dept of Labor	1) Deliverable 1: Existing Assessment Tools, Oct 29, 1998; 2) Deliverable II: South Africa Field Report, January 12, 1999;	1) not submitted 2) PN- ACK-010;	\$275,719	PwC/JAA	Tessie San Martin, Roberto Cordon, Tammy Mank, Kevin Murphy
South Africa	Capacity Strengthening in South Africa	08/21/99	10/12/99	USAID	South Africa Dept of Labor	1) Deliverable III: SETA Strategic Planning Methodology, August 25, 1999	1) PN-ACK-009	\$48,176	PwC/JAA	Tessie San Martin, Tammy Mank, Kevin Murphy
South Africa	South Africa Labor- Intensive Growth Project	10/15/97	04/15/98	Industrial Development Corporation- South Africa	n/a	1) South Africa Labor Intensive Growth Project - Report & Presentation	n/a	\$80,000	SRI	Ophelia Yeung, Peter Boone
South Africa, Haiti, Cambodia	Applying PEDS Commercial Policy Matrix	10/01/94	06/30/95	USAID	None	1) Commercial Policy Model Application: Cambodia; 2) Commercial Policy Model Application: Haiti; 3) Commercial Policy Model Application: Southern Africa	1) PN-ABW-758; 2) PN- ABW-759; 3) PN-ABW- 760	\$9,985	Coopers & Lybrand/SRI	John Mathieson
Sri Lanka	Workforce Development Strategies Sri Lanka	04/14/00	06/30/00	USAID	None	1) Deliverable 1: Cluster Background Report	1) Not submitted to CDIE	\$109,512	PwC	Leslie Flinn, Tammy Mank, Niro Rasanayagam
Sri Lanka	Competitiveness Benchmarking Study	04/15/01	9/30/98	USAID	None	1) Sri Lankan Competitiveness Study	1) PN-ACD-575	\$202,952	SRI/JAA	Kevin Murphy, Martin Webber, John Mathieson
Uganda	Competitiveness		05/31/98	USAID		1) Uganda Country Competitiveness Analysis: Final Report, May 1998;	1) PN-ACD-574	\$150,000	JAA	Kevin Murphy, Martin Webber

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n/a Not applicable
PwC PricewaterhouseCoopers
SRI SRI International
JAA J.E. Austin Associates
Coopers & Lybrand Predecessor firm of PwC

2. History

This section outlines the history of SRI's competitiveness practice and PwC's workforce development practice.

2.1 SRI International's Competitiveness Practice – A Brief History

The competitiveness approach currently practiced by SRI International has been developed and refined through a collective body of research and project experiences carried out over the course of the past two decades. In the early 1980s, SRI began advising U.S. states and regions on means to improve their competitiveness, and almost simultaneously started to assist developing countries to stimulate and nurture private enterprise. Many of these latter activities were supported by USAID.

The analytical tools applied and approaches adopted in these competitiveness projects stemmed in large part from the intellectual interest of the SRI team in the subject. But these tools and approaches were also driven by the needs of clients and the realities of the market. This section traces the origins of SRI's Competitiveness Practice and its subsequent evolution to the form that has been successfully applied in several USAID-assisted countries in recent years.

The Origins of SRI's Non-USAID Competitiveness Work

Different levels of the U.S. government began taking competitiveness in earnest in the early 1980s. This represented a shift from the "Great Society" orientation (urban development domestically, basic needs fulfillment internationally) that dominated the post-Vietnam war era of the 1970s.

One of SRI's earliest activities was to assist a national task force under the President's Commission on Industrial Competitiveness in 1983-1984 to assess innovations adopted at the state level to enhance industrial competitiveness. The Commission was established by President Reagan at a time when U.S. productivity growth had slowed and the national economy was facing the challenges of international competition, accelerating technological changes and demanding consumer markets. For that project, SRI developed a framework that focused on four "foundations" of competitiveness on the state level: *technological development, human resources, capital resources, and institutional infrastructures supporting exporting companies.*

Economic Development Strategies. As a consequence of this new interest in private enterprise development, SRI inaugurated a practice that has assisted over 60 U.S. states, cities and regions and a number of industrial and developing countries to craft economic development strategies that incorporated competitiveness as a key element. All of the strategies were based on an objective assessment of the fundamental components of long-term competitiveness in those regions.

In 1985, for example, SRI worked with Austin Chamber of Commerce to design a blueprint for regional development of high-tech industry clusters. The strategic plan SRI developed was used

by the Austin Chamber to guide its activities for the next five years. In 1987, SRI was commissioned by the Michigan State Department of Commerce to develop a vision and strategy for regional industry development in the Saginaw area. Internationally, SRI was commissioned in 1989 by a coalition of business people in Hong Kong to design a strategy to move up the “technology ladder” by undertaking more sophisticated industrial activities as the city-state moved toward its handover to China. Similar projects were carried out in Jena, a state in former East Germany, and Maribor, a state in the former Yugoslavia, and in Malaysia.

Competitiveness Foundations. Over these early years, SRI refined its competitiveness foundation framework to develop an integrated approach that includes: *human resources, financial resources, physical infrastructure, technology infrastructure, quality of life, costs of doing business, regulatory environment, and business dynamism*. In order to provide objective analysis, SRI adopted indicators in each foundation category and conducted *competitor benchmarking* using those indicators. SRI has found *benchmarking* to be a very useful tool to facilitate consensus among stakeholders and policymakers on the state of the region’s competitiveness, and the actions needed to move forward.

In a number of economic development projects, SRI identified high-growth industries and best-prospect segments for clients, employing tools such as *labor concentration coefficients*, and industry cluster analysis that includes *cluster mapping* and *cluster linkages assessments* (see section on competitiveness methodologies). Regional economic development organizations often expressed an interest in identifying *clusters* to which scarce resources would be targeted for investment or export promotion.

For example, the Australian Trade Commission contracted with SRI in 1991 to prepare a comprehensive national strategy to increase competitiveness and promote investment and trade in three sectors: food processing, minerals processing, and automotive components. In 1994, SRI assessed selected *industry clusters* and the *foundations for competitiveness* in Greater Philadelphia for a public-private coalition, and designed a blueprint for accelerating development of high-growth industry clusters in the region. U.S. states and regions in particular lend themselves to this type of analysis because of the wealth of industry and employment data available on the state and country levels.

Industry Cluster Strategies. Increasingly, U.S. and international clients have become interested in developing strategies to enhance competitiveness in specific industry clusters. Tourism, for example, is an industry that lends itself easily to the development of a cluster strategy because it is a well-defined and organized industry. Throughout the 1990s, SRI developed cluster-based strategies for the tourism sector for more than a dozen clients, including the states of Pennsylvania and Connecticut, the City of Hollywood, Palm Beach County, and the Czech and Slovak Republics, among others.

In response to clients’ changing needs, much of the U.S.-based work conducted by SRI since 1990 has focused on enhancing regions’ competitiveness in developing technology-intensive industries, and the *foundation* and *specialized “hard” and “soft” infrastructure* that support these industries. Many state and city governments in the United States are aware that technology-intensive industries offer the best prospects of new jobs and higher living standards

for their residents. In response to clients' needs, SRI has assessed the *competitiveness drivers* of a number of industries, including information technology, communications, biotechnology, advanced materials, advanced manufacturing, transportation and logistics, and financial services, among others. By matching these competitiveness drivers with a region's economic characteristics, SRI has helped many clients identify the industry clusters and segments that offer them the best prospect for investment attraction and retention. SRI has also assessed the supporting roles of incubators, technology parks, university research parks, and state research centers on technology-led economic development, and how they would fit into a broader technology-based development strategy.

By the mid-1990s, SRI adapted its original competitiveness framework to assist clients to develop strategies for particular target industries, or regional enterprise clusters. For example, SRI worked with Native American groups to explore how Native American small businesses could take advantage of opportunities arising from NAFTA. In a similar initiative, SRI collaborated with the Ford Foundation to identify means to improve financing and business support to small businesses in disadvantaged areas.

For each industry examined, SRI developed a "*cluster pyramid*" that summarizes the cluster's structure. Each industry cluster typically includes a bottom layer of "*foundation factors*" that provide the building blocks of the cluster. "*Supplier firms*" to the cluster constitute the second layer of the pyramid. The top tier represents the "*core cluster firms*" that export goods or services to other states, regions, or countries.

Process and Implementation Methods. The *process* component typically involves identifying and working closely with key stakeholders who would become "*champions*" of the competitiveness and cluster initiatives developed by stakeholder groups. The initiatives aim at capitalizing on advantages and addressing disadvantages. Ultimately, the commitment of initiative champions to the long-term success of the region and its industries is a key determinant of project success. Therefore, achieving stakeholder buy-in and support is critical.

Over time, the collaborative process carried out between SRI teams and stakeholders has become more refined and sophisticated. In 1992, SRI adopted an interactive stakeholder approach in developing comprehensive tourism development strategies for the Czech and Slovak Republics. As part of the strategy, SRI developed a detailed community-based plan for product development and investment attraction in the two Republics. In a 1992-1993 project to help revitalize the economy and industries in Silicon Valley, SRI worked with stakeholders in eight industry clusters to develop working groups to implement initiatives. As a result of the project, a permanent umbrella organization, Joint Venture: Silicon Valley, has been created and still remains a champion for industry and economic development initiatives in the region. More recently in 1997, SRI helped organize stakeholders in Palm Beach County into Cluster Working Groups to implement both industry cluster and cross-cutting initiatives. Those working groups have played a key role in developing the region into a successful high-tech corridor known as the "Internet Gold Coast" over the past few years.

Evolution of SRI's Competitiveness Work for USAID

Parallel to evolution of SRI's competitiveness work in the United States and elsewhere, SRI has conducted a host of private sector oriented projects under funding from USAID. Through the USAID-funded work, SRI has developed a set of tools and methodologies that have evolved into the current competitiveness approach, which represents a fusion of analytical frameworks, incorporating USAID project experiences and successful competitiveness strategies practiced in industrialized and newly industrialized nations.

Private Enterprise, Investment, and Export Development. The earliest USAID-funded work conducted by SRI was under the auspices of the then Bureau for Private Enterprise (PRE). Beginning in 1983, SRI provided PRE with an assessment of the "state-of-the-art" of investment promotion, as well as a template for developing countries to follow. Subsequently, SRI worked in dozens of USAID-assisted countries, first focusing on private enterprise development, investment promotion and investment climate assessments, and later on non-traditional export development. While the initiatives were not titled as "competitiveness" initiatives *per se*, they involved the design and application of analytical tools that were later incorporated into a broader competitiveness assessment framework.

Economic and Policy Audits. Among the techniques employed by SRI in the 1980s and the early 1990s were the "*economic policy audit*," often conducted as part of investment climate assessments. Economic foundation audits explored the developing countries' "*assets*" and "*liabilities*" associated with key inputs such as labor, capital, natural resources, and physical infrastructure. Policy audits represented comprehensive looks at the different policy aspects that affect investment climate, or that directly or indirectly influence investors' decision to locate their businesses in particular countries.

Benchmarking. Another tool that was developed was *benchmarking for cost competitiveness*. To assist in the development of the Jamaican Free Zones, in 1991, SRI conducted a comprehensive cost benchmarking of Jamaican Free Zones against their competitors in the Caribbean, Central America, and Asia, in factors such as labor costs, utility and rental costs, shipping costs, taxation, incentives, etc. By the early 1990s, many investment or export development projects supported by USAID included some elements of benchmarking or competitor assessment, in order to provide a more comprehensive picture of a country's position as well as to guide USAID assistance programs.

Similar to other SRI projects conducted in the United States, in a number of USAID-funded investment promotion and export diversification projects SRI was asked to identify emerging industries that merit special attention for export and investment promotion. SRI also conducted a cluster-based backward linkage assessment for the tourism industry in the Dominican Republic, as part of a broader economic development strategy funded by the USAID Mission. While these projects did not focus on competitiveness or use the industry cluster approach in its entirety, they were implemented with many of the tools and methodologies developed in SRI's competitiveness and cluster work elsewhere.

These earlier analytical exercises that were conducted as part of USAID-funded projects shared many common elements with current competitiveness initiatives, in that they always looked at the business and policy environment from the perspective of private sector firms – what made them profitable, viable, and competitive in a globalized marketplace. The competitive factors that were assessed and benchmarked were later incorporated systematically in a competitiveness or cluster framework.

Commercial Policy Model. Recognizing the need for the systematic assessment of the policy environment that supports private enterprise development, the Office of Emerging Markets within the Economic Growth Center in the USAID Global Bureau became a strong proponent for SRI to develop the *Commercial Policy Model* in 1991. The model systematically scores countries on the “market friendliness” of their economic and commercial policy environment, using 36 policy variables in nine categories: *tax, import, export, investment incentives, foreign investment, business start-up, labor, foreign exchange, and pricing and interest policies*. The model essentially provides a competitiveness benchmarking across countries on their commercial policy environment.

Over 1991-1995, SRI developed, refined, and applied the Commercial Policy Model in over a dozen USAID countries, mostly under funding through the Private Enterprise Development Support Project. The model was first applied in Guatemala, where it identified business start-up and investment approval procedures as the main policy constraints in the country. It was used to rally policymakers and the business community to focus on the policy environment in Egypt. The model has also been proven to be a useful tool for targeting USAID resources in the Horn of Africa, Southern Africa, Cambodia, Haiti, Jordan, and other countries. The benchmarking aspect of the model has been an especially powerful tool in finding out where countries stand vis-à-vis their regional peers and global competitors.

With the support of the Office of Emerging Markets, SRI took the Commercial Policy Model a step further and developed the *Commercial Policy Tool Kit*, which offers a menu of diagnostic and reform tools to support USAID mission efforts in commercial policy reform. The tool kit, which represents a drill-down of the Commercial Policy Model, was developed in 1998. It provides a systematic framework for delivering technical assistance in key commercial policy areas, and assisting with implementation of policy reform solutions.

Global Benchmarking. The experience of rolling out the Commercial Policy Model in USAID-assisted countries in the early 1990s yielded two important findings for the Office of Emerging Markets and the SRI team: (1) quantitative scoring and international benchmarking are powerful analytical and policy reform tools; and (2) there was a need for more comprehensive assessment across countries in different aspects of development. The result was the research and design of the *Development Web Model* by SRI in 1996, also funded by the Office of Emerging Markets through the Private Enterprise Development Support Project.

The Development Web Model was the first of its kind – a comprehensive measurement system that could be used to score any individual country in their development status and depict the results in a multi-dimensional form. The six vectors of the model represent six key areas of development progress: *Economic Growth, Competitiveness Foundations, Health, Education,*

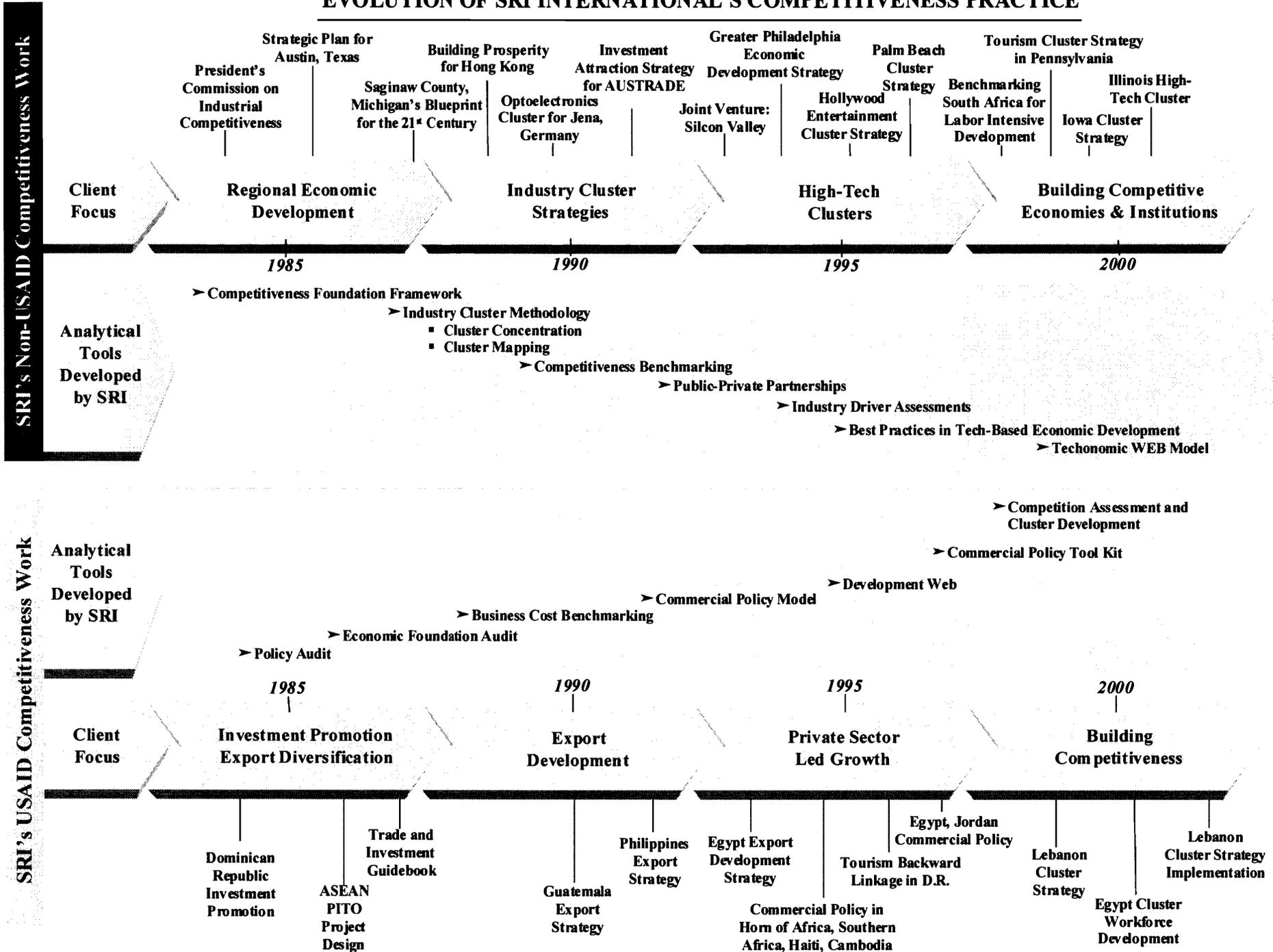
Environment, and Democracy and Freedom. The Competitiveness Foundations vector consists of ten variables that measure an economy's competitiveness in terms of economic capacity and stability. The model, research findings, and country analysis have been compiled into a book, *Global Benchmarking: Comprehensive Measures of Development*, that was jointly published by the Brookings Institution and SRI in 1998.

Comprehensive Implementation. Key elements of SRI's competitiveness approach have been applied in many countries, states and communities. The first comprehensive competitiveness initiative conducted by SRI under USAID funding was a series of technical assistance projects for the USAID Mission in Lebanon, through a task order within the SEGIR GBTI contract. The ongoing assistance to Lebanon began in early 1998 when an SRI team conducted both competitiveness and macroeconomic assessments of Lebanon, using the Commercial Policy Model and supplemented by detailed research and data analysis. The assessments were followed by the development of a comprehensive strategy that includes an Industry Cluster Development component. A group of over 100 government and private sector stakeholders met in a series of facilitated focus group meetings to work through the diagnostic and prescriptive process. This yielded a series of specific industry cluster initiatives designed to establish or strengthen collaborative action and stimulate productive investment in key Lebanese industry clusters – regional financial and business services, tourism, and agribusiness.

An SRI-PwC team is currently implementing a series of cluster-based initiatives in Lebanon, working with industry stakeholders, training institutions, and policymakers. The project has been highly visible in the country and has been considered a successful collaborative initiative by major Lebanese stakeholders. In this project, SRI has been able to apply a broad range of its analytical tools and competitiveness framework developed in some of the U.S.-based projects. Collaborative efforts have led to fundamental policy reform, joint marketing activities, human resource development, and institution building. A current emphasis is being placed on integrating Lebanon's core industry clusters, mostly located in the greater Beirut/Mount Lebanon region, with outlying regional areas in need of productive employment and income generating activities.

In summary, SRI's competitiveness practice has advanced as the sum of evolving theory and practice in the field of economic development. New knowledge on and understanding of economic interactions and dynamics have been established. New quantitative and qualitative data have become available, allowing for comparative benchmarking and best practice analysis. A sufficient number of actual projects has provided an experiential basis for fine tuning methods of approach.

EVOLUTION OF SRI INTERNATIONAL'S COMPETITIVENESS PRACTICE



2.2 PricewaterhouseCoopers' Workforce Development Practice

USAID has had a long history of involvement with job training, based on traditional vocational training models. The current approach to workforce development, grounded conceptually in the cluster-approach to competitiveness, began with a questioning at USAID of the effect of economic globalization on the nature of employment, and consequently on job training. In 1998, a USAID task force, with representation from several Centers of the former Global Bureau (Human Capacity Development, Economic Growth, Democracy and Governance, and Women in Development), was formed to explore the implications of globalization for USAID programming in workforce development and training. PwC was asked by the task force, under a SEGIR task order, to compile information on existing models for skills training and related issues, and to develop a model for workforce development in the context of global markets, to be applied by USAID missions. PwC used the concept of competitiveness and cluster development to organize its response to USAID. The impact of globalization for a particular country is understood in terms of country and cluster competitiveness. The human resource capacity and skills available in the workforce is often a fundamental and constraining factor in a country's success in global markets. USAID support for workforce development therefore needs to identify critical skills deficits *vis a vis* global standards and expectations. The proposed methodology for the process of identifying and filling the skills gaps mirrored the stages of the cluster-approach to competitiveness.

The USAID Mission in South Africa provided the first opportunity for field-testing the initial model. In collaboration with the South African Department of Labor (DOL), the PwC Team identified the tourism cluster as the pilot for developing the process of identifying skills gaps, engaging stakeholders in strategic planning for correcting these deficits, and developing a plan for specific actions to implement the plan. As a result of its fieldwork with tourism stakeholders in South Africa, PwC presented the DOL with a prototype methodology to be applied to other clusters for a workforce diagnostic and a strategic planning process.

Working with the USAID task force, PwC then used the South Africa experience to refine a basic methodology for the cluster-based approach to workforce development that has subsequently been used with USAID missions in Egypt and Sri Lanka. In each country, the concerns that initiate the call for workforce development have been different. The workforce diagnostic and stakeholder planning process have proved to be flexible and robust but they continue to be refined. The workforce development program in Egypt has been particularly important because it has carried the workforce competitiveness process through to actual program implementation. At the request of the USAID task force, PwC also has applied the workforce diagnostic conceptually as a design tool for dealing with issues related to the impact of the HIV/AIDS pandemic on workforce, and to problems of youth unemployment in the E&E region.

3. Experience and Narrative Descriptions of Projects

This experience section describes the country competitiveness and workforce competitiveness projects undertaken by PwC and SRI under the SEGIR contract. PwC and SRI's projects in this area have included both short-term analytical projects as well as projects involving long-term implementation. Short-term analytical projects, where PwC and SRI have provided technical assistance targeting specific analytical issues, are the South Africa Workforce Development Strategies project, the Jordan Commercial Policy Assessment and Agenda for "Next Generation" Improvements, and the Sri Lanka Competitiveness Study and Workforce Development Strategies projects. PwC and SRI's involvement on these projects in South Africa, Jordan, and Sri Lanka took place over a relatively short time, mainly to conduct specific assessments, and implementation activities did not take place.

PwC and SRI projects that have included long-term implementation activities are the Comprehensive Competitive Initiative in Lebanon and the Egypt Workforce Development program. The experience sections describing these two projects in this report are also richer in details on project outcomes, results, and lessons learned, mainly because the projects have evolved over a longer period of time.

Also described in this section are three PwC/SRI activities that have included aspects of competitiveness within their workplans: the Egypt Growth Through Globalization project, the U.S.-Egypt Presidents' Council project, and the Implementing the EGAD Training Vision workshop.

3.1 Lebanon: Comprehensive Competitiveness Initiative

The first comprehensive *Competitiveness Initiative* conducted by SRI under USAID funding is comprised of a series of technical assistance projects for the USAID Mission in Lebanon, through a task order within the SEGIR GBTI contract. SRI's assistance to Lebanon began in early 1998 and has continued to this day. In this ongoing project, SRI applied a wide range of tools and analytical techniques drawn from its collective body of experience in assisting industrialized, newly industrializing, and developing countries and regions.

This initiative has achieved considerable success and has delivered results at many levels. The case study will take the reader through the process of this comprehensive competitiveness initiative and highlight the methodologies used, the results achieved, and lessons learned.

Country Background

When SRI began working in Lebanon in 1998, Lebanon was emerging from a prolonged period of war lasting almost 20 years from 1973 to 1993. Following that terrible period of destruction, the first five years from 1994-1998 were spent mainly on rebuilding the country's demolished infrastructure, and beginning to mend the country's major differences between the different ethnic, political, and religious groups.

Following the period of rebuilding and the restoration of a certain level of political and economic stability, the country was ripe in many ways for outside advice from USAID funded sources.

There are several key reasons for the particular receptivity found in Lebanon to advice from outside consultants:

- The Lebanese have historically been a very open, well-traveled, multi-lingual people. The country traditionally played an important role serving as a crossroads for commerce and cultural exchange between Europe and the Middle East.
- During the Civil War years (1973-1993) the country lived in an isolated, survival mode, and therefore remained very much insulated from outside “best practices” with respect to business practices, competitiveness, and global integration strategies.
- Despite going through a major prolonged period of trauma and devastation, on the one hand, Lebanon was considered by many donor countries to be too advanced to receive much foreign aid assistance, but, on the other hand, private companies and the government were too poor to pay for private consulting advice from industrialized countries. As a result, the country essentially “fell between the cracks” and received very little economic development and business competitiveness advice from outside consultants and foreign aid agencies for a 25-year period (1973-1998). To some degree, Lebanon’s situation in the late 1990’s was analogous to Rip Van Winkle waking up from a long sleep!
- Coalitions of different religious, ethnic, and political groups have been carefully assembled in nearly all of the government and private sector institutions in the country. Since no one party or group has absolute majority, and there remains a fair amount of mutual distrust and suspicion, the need for an independent outside party to play the role of “honest broker” on economic development issues emerged.
- The confluence of all of these factors made Lebanon very ripe and open to the advice of outside consultants from SRI International under USAID funding.

Introduction

The ongoing assistance to Lebanon began in early 1998 when an SRI team was requested by the Lebanon Mission Director to help develop an economic development strategy for the country. Until then, the USAID Lebanon portfolio had concentrated on non-government organizations mostly directed at micro-enterprises or cooperatives. For this initiative, the USAID objective was to plan and deliver the most effective technical assistance to help the economy of Lebanon recover from a devastating 20-year civil war. Thus began a long-term collaboration between SRI and USAID to undertake a comprehensive competitiveness initiative in Lebanon that would enter

its fifth year in 2002. The initiative has progressed from an initial *Diagnostic Phase*, to the *Cluster Initiative Development Phase*, to the current *Initiative Implementation Phase*.

Diagnostic Phase. This phase began in 1998 with a detailed diagnostic assessment of Lebanon's economic conditions, constraints, and opportunities, with the objective of identifying the most effective means to stimulate sustainable economic growth in Lebanon. The *Diagnostic Phase* included both a competitiveness and macroeconomic assessment of the country. In addition, SRI prepared a detailed scoring of Lebanon's commercial policy climate, using the *Commercial Policy Model* and supplemented by detailed research and data analysis.

The diagnostic phases lasted about three months. On the basis of these assessments, SRI developed a detailed strategy for USAID assistance to Lebanon. This strategy includes, at the *macro level*, providing technical assistance on macroeconomic modeling, and assessing alternative fiscal policy measures to stimulate greater government revenues. SRI's counterparts for the two macro-level initiatives were high-level officials at the Ministry of Finance. At the *competitiveness level*, SRI recommended that USAID support an *Industry Cluster Development* strategy in Lebanon, focusing on three clusters that SRI identified as offering the highest potential for economic growth:

- Tourism
- Agro-industry
- Regional Business Services.

Some of the results achieved as part of the diagnostic phase were:

- The scoring of Lebanon's commercial policy climate, using the *Commercial Policy Model*, led to considerable media coverage and debate about Lebanon's international competitiveness.
- The macroeconomic model developed by the SRI team was incorporated into the Finance Ministry's macro planning model in 1999.
- The SRI team also assessed the merit of introducing a value-added tax (VAT) to reduce the government's chronic budget shortfalls. This assessment provided the earliest analytical underpinnings and positive rationale for a highly politicized adoption of a VAT in Lebanon that is now moving forward.
- At the *competitiveness level*, the strategy called for the establishment of industry cluster working groups to prepare growth plans in the three clusters. This strategy was adopted and funded by USAID Lebanon in the following months.

Cluster Initiative Development Phase. Following SRI's initial macroeconomic and commercial policy assessment, the first full set of activities was directed toward engaging stakeholders from each of the industry clusters to diagnose their industry's current conditions and needs, and to craft and prioritize a set of initiatives aimed at stimulating cluster growth and competitiveness. SRI partnered with the Lebanese American University (LAU) to facilitate this phase of the initiative.

SRI conducted an intensive set of focus groups, interviews, and meetings with more than 100 stakeholders to craft growth strategies for the agro-industry, tourism, and regional business services clusters. A key goal during this phase was to galvanize the collaboration of stakeholders (mostly private sector) and to ensure local buy-in for “turnkey” operations. The focus groups with industry stakeholders typically included the following:

- Present SRI’s industry cluster framework
- Conduct a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis of the cluster, based on a preliminary assessment prepared by SRI
- Jointly craft a vision for the cluster
- Develop long-term and short-term action plans
- Identify partners who are willing and committed to champion the initiatives

Some of the results achieved as part of the cluster initiative development phase were:

- The initiation of the three core clusters was a great success in Lebanon. USAID and the SRI team obtained full endorsement from the highest levels of the Lebanese Government, including the Minister of Economy, Mr. Nasser Saidi, to move forward on the strategies for the three clusters.
- The SRI team also obtained strong support and commitment from key private sector leaders to collaborate on the implementation of the short-term and long-term action plans.
- A total of 26 high-priority initiatives were developed with individual and institutional champions taking responsibility for their implementation.
- More importantly, the efforts of USAID and SRI helped forge a *public-private partnership* that had never existed before within this country’s highly fractured political environment. The team was told that industry leaders and government representatives in Lebanon had never before sat down and worked together in such a concerted fashion.
- USAID and SRI’s industry cluster initiative brought together a diverse group of leaders representing *different constituencies to work toward the common goal of improving Lebanon’s competitiveness* in the three key industry clusters.

Initiative Implementation Phase. The SRI team recently began the third year of the current Initiative Implementation Phase of the cluster initiatives. Since the beginning of this phase, SRI has collaborated closely with a team of management consultants and survey experts from the Lebanon-based firm, Information International. This ongoing activity is devoted to implementing initiatives in the three clusters, building upon previous progress in a more detailed fashion:

- ***Tourism Cluster:*** Once the “Monte Carlo of the Middle East,” Lebanon’s tourism sector has been devastated by 20 years of civil war. The cluster faces enormous potential, but also significant constraints. Some of the key initiatives to expand the cluster’s capacity and capitalize on its assets include:

- Establishing a world class tourism promotion board
 - Updating the hotel classification system
 - Improving the quality of human resources
 - Identifying and enhancing tourism attractions
 - Preparing regional tourism strategies.
- **Agro-Industry Cluster:** Lebanon was formerly the source of considerable exports of food (both fresh and processed), but now imports of food products dramatically outpace exports. Lebanon has the potential to reduce imports by sourcing locally, and to raise exports of high quality processed food products. Cluster initiatives in this area include:
 - Identifying and developing high-value export opportunities
 - Promoting local sources of supply
 - Enhancing the vocational education system for agro-industry
 - Improving food quality standards
 - **Business Services Cluster:** Lebanon used to serve as the major hub for financial, business, advertising, and educational services in the Middle East. The nation's strong economic foundations (e.g., banking expertise, high quality education, etc.) offer strong prospects for restoring Lebanon's role as a regional business center. Cluster action initiatives include:
 - Catalyzing the business contacts among the Lebanese Diaspora
 - Improving financial and business service competitiveness
 - Inaugurating efforts to re-establish regional management training activities
 - Introducing collaboration among the research universities

The methodology for implementing the initiatives within each cluster entails a diverse set of activities and approaches. Below is a representative summary of the approach employed by SRI on this project:

- **Demand-Driven Approach:** Overall, the USAID and SRI team has adopted a demand-driven approach to all the initiatives.
 - Moving forward only on the initiatives solicited by Lebanese stakeholders succeeded in building trust and support, and in ensuring the relevance and effectiveness of the actions.
 - The demand-driven approach has been maintained by continuous consultation with industry leaders, government counterparts, and USAID.
 - Over time, initiatives have been modified, added, expanded, or scaled back, based on feedback and on the evolving needs and priorities as expressed by Lebanese stakeholders.
 - This flexible approach of adjusting the program to what is needed at the time has been highly effective.
- **Data Collection (surveys and inventories):** Objective data helps build the case and the foundation for specific cluster interventions. With help from Information

International, the SRI team has conducted a number of first-time surveys in Lebanon, covering a diverse set of topics including:

- Tourist preferences and spending patterns in Lebanon
- Potential for eco-tourism development
- Tourism workforce needs
- Exportation and import substitution opportunities in agro-industry
- Workforce needs in the business services cluster

SRI also took stock of the clusters' skills development capacity by conducting a number of inventories including:

- Inventory of Lebanon's Tourism Education and Training Programs
 - Inventory of Lebanon's Light Manufacturing and Agro-Industry Quality Training Programs
 - Inventory of Lebanese Training Institutions in Management and Finance.
- **Analytical Assessments:** In a number of initiative areas, SRI conducted analytical assessments in order to make specific recommendations and initiate activities.
 - For the tourism cluster, one of the analytical assessments was a detailed analysis of the existing hotel classification system in Lebanon and recommendations for an improved and more market-competitive system.
 - Another analytical exercise in the tourism cluster was the tourism workforce needs assessment and workforce strategy development.
 - In the agro-industry cluster, SRI designed a Lebanon Agribusiness Import Substitution Initiative based on the opportunities identified in the field survey and consultation with industry leaders.
 - **Targeted Technical Assistance:** Where necessary, SRI provided targeted technical assistance that helped inform Lebanese businesses of best practices, and move forward individual initiatives.
 - In the business service cluster, SRI provided technical assistance to the Indevco Foundation to launch LINBusiness, a business opportunity matching service for Lebanese entrepreneurs at home and abroad. This service helps attract Lebanese Diaspora investment in Lebanon.
 - SRI surveyed worldwide best practices in hotel classification systems, and recommended a market-competitive system to the Lebanon hotel sector.
 - In the Agro-industry cluster, SRI led a series of workshops that presented international marketing best practices to food industry firms.
 - SRI provided technical assistance to upgrade the website of the Lebanese Syndicate of Food Industries.
 - SRI also helped Lebanese exporters make new market connections and exports by helping them display and make contacts at the Fancy Food Show in New York.
 - **Industry-University Partnerships:** Partnership across constituencies is a defining characteristic of successful industry clusters. Acting collectively, cluster stakeholders always find that a united cluster is greater than the sum of its parts.

- In all its initiatives, the SRI team tried to forge partnerships across constituencies within the cluster, and where appropriate between the public, private and academic sectors.
- One example is the tourism workforce initiative, where SRI has gathered employers (hotels, restaurants), training institutions, and Ministry of Education representatives to craft a strategy that improves the flow of information across trainers, prospective employers and employees, to assure that hospitality training is based on market demand, and that employees find more rewarding career paths.
- **High-level Consultations and Presentations:** SRI has engaged government and private sector leaders since the beginning of the project, and unanimously, they have been highly supportive.
 - USAID-sponsored cluster activities were elevated to the highest policy level when USAID and the SRI team met with Prime Minister Hariri in June 2001 to provide a briefing on export development and competitiveness issues in Lebanon, as well as the ongoing USAID initiatives in the three clusters.
 - In addition, SRI has made numerous presentations in Lebanon on a variety of competitiveness and industry cluster issues to gain confidence and visibility within the Lebanese business community.
 - These activities have built a solid, ongoing working relationship and a considerable amount of trust and credibility for USAID and the SRI team in Lebanon.
- **The Use of Media.** As part of the strategy to use the media effectively, SRI ensured that much of the USAID-sponsored industry cluster work was covered by the Lebanese media.
 - The media played an important advocacy and public relations role for the cluster initiatives. They include the print media ranging from daily newspapers to industry publications, radio, and local network news channels.
 - The cluster activities have been covered in a substantial number of media productions and publications. The cluster activities in Lebanon have been covered in 4 television news programs, 18 radio news programs, 47 newspaper articles, and at least 19 magazine articles.
 - The media helped to disseminate news of the cluster activities and achievements broadly among the Lebanese business community and the public, elevating the visibility as well as effectiveness of USAID and the SRI team.

Results, Success Factors, and Lessons Learned

Some of the results of the initiative implementation phase in Lebanon include:

1. **Three cluster working groups were created with over 100 stakeholders and 26 different high priority cluster development initiatives**

2. **A new collaborative spirit within the Lebanese private sector, and between the public and private sector and USAID.** USAID-SRI industry activities have provided a much-needed push for Lebanon's public and private sector stakeholders to work together to address many of the country's competitiveness issues. Previously, these public/private sector and private/private sector relationships were limited, and were constrained by mutual suspicion across different constituencies.
3. **Key macro reform initiatives were built into the process.** The macroeconomic model developed by the SRI team was incorporated into the Ministry of Finance's macro planning model in 1999. The VAT assessment provided the earliest analytical underpinnings and positive rationale for the adoption of a VAT in Lebanon that is now moving forward.
4. **Institutional development initiatives helped with cluster implementation.** At the recommendation of SRI, the government of Lebanon created a public-private Tourism Promotion Council in 1999. The promotion council was designed on the basis of best practices from world-class promotion councils from around the world. This research was provided by SRI.
5. **Policy/regulatory change, a new tourism classification system.** On the policy level, USAID/SRI's work in the tourism cluster directly led to the Decrees that apply new standards for classification of hotels in Lebanon (Official Gazette – Decree #425 and Decree #4221). This was the result of a rigorous analytical assessment that identified the flaws of the previous classification system, as well as collaborative efforts with tourism industry leaders to lobby for the policy change.
6. **Export Development.** In the agro-business cluster, new export orders totaling \$2.4 million dollars have been achieved by Lebanese exporters through participation at trade shows with assistance from USAID funded consultants from SRI.
7. **Joint Branding.** Following the advice of SRI consultants, at the Fancy Food Show in New York in July 2001, for the first time ever, five companies from the Lebanese agro-industry sector displayed their products together, under one Lebanese banner called "Lebanese Food." This was no small achievement in a country characterized by fractured groups of constituencies.
8. **Investment Attraction.** A significant number of new investments and other leads and business are being generated among the Lebanese Diaspora through the LINBusiness web site and referral network. This referral network was formed as a project initiative in the Business Services Cluster.

Some of the success factors of the Lebanon competitiveness project follow below.

1. **Several unique Lebanon country factors contributed to the success of the project** including the country's open attitude about outsiders, and its thirst for outside advice on competitiveness issues -- following two decades of isolation.
2. **The internal differences between local factions also elevated the importance of having outside consultants from USAID/SRI play a "neutral role"** that could facilitate action strategies and coordinate among various cluster stakeholder groups.
3. **The flexible, demand driven approach taken by USAID, the cluster working groups, and the international consultants contributed significantly to the project's success.**
4. **Active involvement from all stakeholders (government, business, academic and community leaders) was critical.** Stakeholders were able to make decisions and contribute their time (*pro bono*) to the cluster development process.
5. **Stakeholders were willing to focus on areas of common concern, and decided to "cooperate to compete."**

Lessons learned on the Lebanon competitiveness project include the following:

1. **Macroeconomic competitiveness is a necessary, but not sufficient, pre- condition for industry-level competitiveness.** The cluster initiative in Lebanon addressed a very important unmet need – the need for actions to assist industries and firms to better compete. Without this cluster development initiative, firms would have been left on their own to deal with the enormous challenges facing their industries.
2. **A portfolio of clusters is desirable.** Some clusters will perform more effectively than others. In the Lebanon case, the tourism and agro-industry clusters achieved the most success. One of the reasons for the success of these two clusters is that they are more organic in their structure (tied by buyer-supplier relationships, common customer bases, common workforce and regulatory issues) than the more amorphous business services cluster.
3. **The Lebanese firms benefited from the cluster development process by finding out how to collaborate on common problems.** The benefits to cooperation have been "economies of collaboration" including joint-product branding, and better articulation of industry needs.
4. **The cluster program led to improved working relationships within the cluster and a strong competitive platform** in terms of skills, information, and infrastructure to meet the needs of cluster industries.

3.2 Egypt: Workforce Development Project

Strategic Objective 17 (SO17) of the FY2000-2009 Strategic Plan for USAID/Egypt, “Skills for Competitiveness Developed,” clearly asserts the strategic relationship between workforce development and competitiveness. The PwC Workforce Development Strategies (WDS) team began working with the mission on the strategy process in July 1999, at the same time that the focus in the strategy shifted from “aid” to “trade.” The Mission Goal is, “A Globally Competitive Economy Benefiting Egyptians Equitably.”

Human Resource Development was one of three areas for US assistance identified in the Gore/Mubarak agreements, but the process of defining the strategic objective was complex. For one thing, workforce development incorporates elements from two existing offices, namely, economic growth and education and training. The Growth through Globalization (GTG) project of the economic growth office already had broached the issues of cluster competitiveness in Egypt but it had not dealt with human resource constraints directly. The Mission supported a large training program, but the training was not linked to employers and employer-defined demand. After trying various “sub-objective” relationships, the decision was made to create a new objective to link economic reform and growth directly to human resource management and workforce development.

The primary, although not exclusive, focus of skills development under SO 17 is management. The first two of the three intermediate results for SO 17 are “Business skills strengthened” and “Private Sector Capacity to Provide Business Skills Improved.” The third, “Workforce Development Strengthened in Selected Industry Clusters,” uses the PwC workforce development methodology based on the cluster competitiveness model and has been implemented by the PwC/SRI team under SEGIR/GBTI.

Phase 1

Phase 1 of the PwC/SRI program focused on selection of three clusters for workforce development. The PwC team drew up a preliminary list of recommended clusters based on desk review of recent studies of the Egyptian private sector, and interviews with USAID technical officers. The primary criteria in the recommendations were potential for growth and global competitiveness, the centrality of skills development as a constraint to competitiveness, and USAID involvement in the cluster. The inclusion of the IT cluster in the final list also was affected by the political priority given to this cluster by both the U.S. Government and the Government of Egypt. The following three clusters were selected by USAID for further demarcation and for development of Phase 2 stakeholder workshops:

- Agri-business
- IT
- Tourism

The demarcation process involved first, identifying all segments within the cluster supply chain, and then determining which segments should be the principal focus for workforce development. The selection of priority segments was based on the following criteria:

1. Significant potential for employment growth/large workforce requirement
2. Workforce skills enhancement critical to cluster growth, and not currently adequately addressed
3. Strong private sector interests
4. High value added
5. High growth potential
6. Strong export potential.

The cluster demarcation and segment selection process was based on desk research, stakeholder focus groups, and interviews with cluster leaders and associations. Key final product producers and input providers were selected from the "cluster supply chain". In addition, key foundation stakeholders were included in the cluster, including education providers, research institutes, and financial service providers.

As a part of this process, the team also interviewed training providers (the supply side of the workforce development equation), to identify existing capacity, the extent of linkages with private sector employers, and curricula.

The result of this phase of the process was a "mapping" of workforce development issues within the cluster, including a workforce SWOT analysis (i.e., strengths, weaknesses, opportunities, threats), a demand and supply view of the cluster, gender assessment, and an overview assessment of the linkages in each cluster. This "map" served as the starting point for the cluster stakeholder workshops held under Phase 2. The results of Phase 1 are found in the *Cluster Background Report* (October 3, 1999).

Phase 2

The second stage in the process involved the active engagement of key stakeholders. A one-day stakeholder workshop, attended by between 30 and 50 people, was held in Cairo in November and December 1999, for each of the three clusters. The participants represented a cross-section of the stakeholder groups including government officials, educators and trainers, and business owners. The agenda for each meeting was built around the Phase 1 cluster mapping, including an introduction to the global trends in the industry cluster, a description of the competitiveness of the Egyptian cluster, and a presentation of the workforce implications of these analyses. The stakeholders themselves then worked together to draw up a series of initiatives to meet these challenges. They also identified "champions" for the particular activities. Ideally, this "action plan" would serve as the basis for the next step in the process, actually carrying out the actions, which ideally would have been stakeholder driven. In fact, at least in Egypt, the action plan served primarily as the base for the concept paper for Phase 3 of the USAID supported activity. Independent stakeholder initiative at this point in the process was minimal except for the formation of a human resources committee in the tourism cluster.

Several points should be made about the action plans that emerged from Phase 2. To some extent the recommendations were unique to each cluster, reflecting the industry's internal resource management, but cross-cluster similarities also were clear. Under each cluster the initiatives fall into one of three broad categories:

- **Cluster-wide forums to facilitate dialogue on responses to workforce development problems.** An important issue across workshops was the need to build recognition that the competitiveness of each firm depends on the capacity of the cluster as a whole to address workforce issues. Proposed actions included formation of a joint human resource committee, and development of a skills gap analysis and demand assessment.
- **Internal Human Resource Management Activities.** The workshops identified a need to convince owners and top management of the importance of human resource management as a business investment rather than a cost. Dissemination of case studies of human resource practices in successful Egyptian companies, and development of skills standards, recognized and used throughout the industry, were the proposed actions.
- **Educator/Industry Linkage Programs.** Across clusters, the absence of interaction between those training the workforce (supply-side) and those hiring the workforce (demand-side) is a major problem. In particular, employers expressed frustration with both the lack of relevant skills among new labor market entrants and the need for “just in time training” to respond to shifting markets. Industry-sponsored sabbaticals in the private sector for professors from training institutions and universities were proposed as well as various other means to open the dialogue between educators and employers.

The PwC/SRI team used the action plans produced by the cluster workshops to develop its proposal to USAID for Phase 3 of the activity, selecting actions that had a strong private sector buy-in and were expected to have a high impact in the cluster. A “Cluster Report” was prepared for each of the three clusters (dated January 12, 2000) giving detailed information on the workshops and the action plans.

Phase 3

An unfortunate gap of about six months occurred between funding for Phases 2 and 3, and the enthusiasm and understanding generated by the workshops, as well as the credibility of the WDS team, suffered. The start up for Phase 3 involved some retracing of steps with key stakeholders. In the interim, however, the Egyptian Federation of Tourism Chambers (“Tourism Federation”) had convened and staffed a Human Resources (HR) Committee, and had begun work with advisors from the European Union on a skills standards project supported by the Social Fund for Development.

Phase 3 of the PwC/SRI program focused on initial implementation of the action plans in the IT and tourism clusters.¹ Phase 3 was funded for six months with the intent of piloting activities from the action plans, building private sector buy-in to the programs, and having the human resources committees for each cluster agree to a workplan for full implementation.

¹ Due to budget constraints only two of the three clusters could be included in Phase 3. USAID’s portfolio in agribusiness was much larger and longer term than in the other two, and already included substantial work with the industry associations. The workforce development agenda could more easily be incorporated into on-going programs in agribusiness than in the other two clusters.

The work in the tourism cluster was more straightforward than in the IT cluster because of the presence of the Egyptian Tourism Federation, a relatively strong and fully staffed industry association, and its new HR Committee. In addition, there was growing awareness of the importance of workforce development because of the strong demand for new employees to staff the expansion of the cluster through construction of new facilities. Employers in the cluster continue, however, to assign a low priority to training and human resource management, and there are few if any specialized training providers. Secondary and university level tourism programs have no links to the private sector employers, and no skills standards for hiring or performance.

During Phase 3, the PwC/SRI team worked with the Federation and its HR committee on four discrete activities, with the underlying aim throughout being the development of a working relationship to carry forward into full implementation. With the Federation, the team implemented a successful three-day training program for travel agents, indicating a strong latent demand for training among employers, and the ability of the Federation and the PwC/SRI team to collaborate to produce a quality program. The team also set up and conducted training for six Federation employees in web site development. Working with the HR Committee, the team tested a format for a survey to gauge private sector occupational and skills demand in the hotel segment of the cluster. Surveys in Egypt are difficult and the utility of this type of information is not clear to hotel owners. Accordingly, the recommendation was made to use focus groups to gather the baseline information for the survey.

Finally, the team produced case studies of how three firms in Egypt, a hotel, a restaurant chain, and a travel agency, faced and overcame HR challenges. At the end of the pilot period, the team and the HR committee agreed to a workplan for the future and a concept paper to be presented to USAID for continued activities in workforce development.

The results of Phase 3 were the outputs produced in terms of training and case studies, but more importantly, they involved the development of the relationship with the Federation as the counterpart for the program and through the Federation, the engagement of the private sector in a progressive program to pursue workforce issues in the tourism cluster, working toward an increase in Egypt's piece of the global tourism market. Both the three case studies and the final report and concept paper (*Workforce Development: Strengthening the Egyptian Tourism Cluster's Capacity to Implement Training Activities*) are available for this part of the Egypt activity.

Phase 4 will involve full implementation of the action plan, with the emphasis on building the capacity of the Federation to provide short-term, demand driven training for current employees and new entrants. The program will begin with direct certified training of line employees in two- to four-star hotels, but more importantly it will include training-of-trainers to build a cadre of certified trainers in Egypt and a financial and management plan for scaled up private sector training throughout the cluster. In Phase 4 the survey of employer demand will be implemented, analyzed, and updated annually. The intent will be to have this task completely assumed by the Federation by the end of the second year. The results of Phase 4 will be measured in upgrading of skills in the workforce, and certification based on industry standards, as well as articulation of the industry demand for particular skill sets and increased capacity for demand-based training.

The impact ultimately will be reflected in improved customer service and satisfaction in the Egyptian tourism cluster, contributing to an increased Egyptian share of the global tourism market.

The IT cluster in Egypt is very different from tourism. It is a young and relatively small cluster, with multiple constraints in addition to workforce development. The demand for skilled professionals is large but training, including certified training, is widely available. International skills standards exist and are applied nationally. In Egypt, as in many other nascent IT clusters, the labor market is international, and Egyptian companies compete not only with each other for scarce skills but also with multinational firms in Egypt, Europe, and the U.S. There is no clear private sector counterpart organization to build a workforce development strategy for the cluster. Multiple small associations are vying with each other to represent private sector interests. The single most important result of Phase 3 of the program was to bring representatives of six associations together to form a Human Resources Committee, a move toward recognition of themselves as a cluster with common interests for expanding the skilled workforce.

Several pilot activities were initiated. The joint HR Committee polled its members and developed a prioritised list of training for association members. Three initial short courses in IT project management have been contracted with UCLA. The first of these courses was delivered this month and was very well received. If the experience with the three courses is successful, an on-going series of short courses may be established under the auspices of the HR Committee. Second, an IT Opportunities Portal was created, as a prototype for a potential innovative learning platform and tool for identifying U.S. clients for outsourcing work. The initial reception of the pilot version was positive and plans have been drafted for taking it to scale under Phase 4. A third pilot activity attempted to bring private employers together with university professors and computer science departments to collaborate in advising graduating seniors on their senior projects. Five joint projects were completed during the pilot phase but the lack of experience and distrust in this type of relationship were readily apparent and clear procedures to legally define the terms of the coordination will be required to take this activity to scale. Finally, we completed case studies of two Egyptian IT firms, a young software firm and an emerging IT holding company, focusing on their resolution of human resource challenges.

In the IT cluster, the results of Phase 3 were nebulous. People who had never worked together began talking with each other. Several potential activities were introduced. They appear promising, but none was brought to the point during the pilot phase that the long-term results are clear. In addition to the case studies and the prototype of the IT Opportunities Portal, the team produced a report and concept paper entitled, *Workforce Development: Information Technology Cluster, Report on Phase III Activities and proposed Future Activities* (January 2001).

USAID has asked that these activities be developed during Phase 4, in tandem with other workforce development activities in the IT cluster. In particular, potential links to the formation of a new Egyptian Technology University, built on public/private collaboration with a strong mandate for community outreach, have been cited. The key result expected from Phase 4 is to build the capacity of the indigenous private sector IT firms, most of which are small and medium size firms, to participate in the global IT market and to have a voice in the direction of IT cluster

development in Egypt. In addition, the program will focus on meeting the specific and evolving training requirements of this segment of the cluster.

3.3 South Africa: Workforce Development Strategies Project

The PwC methodology for workforce development was piloted in South Africa in late 1998, through a USAID mission activity with the South African Department of Labour, Directorate of Human Resources and Employment Services. PwC consultants had developed the methodology earlier that year with the USAID Global Workforce Development Team in Washington, based on a desk review of existing assessment tools in workforce development and competitiveness. The USAID/Washington team was seeking a Mission to work with them and PwC in field testing and refining this methodology.

At the same time, the government of South Africa was focusing on workforce and skills development as a tool for dealing with a growing crisis in unemployment, particularly among youth, and the USAID Mission was interested in supporting them in this task. The South African Department of Labor was in the initial steps of implementing the new Skills Development Act (SDA), intended to provide a framework for national, sectoral, and workplace strategies to improve skills. The SDA created the National Skills Authority (NSA) and Sector Education and Training Authorities (SETA) for each of the major industries in South Africa. The SETAs were to serve as intermediaries between government and industry players (unions, industry, and training providers) in the area of workforce preparation.

In support of this process, the USAID Mission and the South African Department of Labor (DOL) agreed to a scope of work for the PwC team, focused on (1) design of a methodology for a skills needs assessment, and (2) establishment of a framework for the SETAs to use this assessment in their annual planning exercises. The Scope of Work included the following five elements:

1. Identify a sector or sub-sector to include in the analysis;
2. Conduct primary and secondary research in that sector;
3. Design a survey instrument that would inform the Skills Needs Assessment;
4. Discuss the survey results in contact groups and a strategic retreat; and
5. Outline lessons learned from the process in order to apply to other industries.

In collaboration with the DOL, the decision was made to focus the analysis on the tourism industry. The reasons for this choice included:

- In tourism, unlike other industries, the leadership of the SETA was clear, namely, the Hospitality Industry Training Board (HITB)
- Tourism had recently been identified at the Presidential Jobs Summit as having strong potential for growth and employment creation
- Considerable background research on the sector had been done by government, NGOs, and consultants and was available to the team
- Although critical gaps remained, the industry already had established significant formal and informal linkages among stakeholders.

The research phase involved review of previous studies of the tourism industry as well as interviews with stakeholders, including both general "skills development" professionals and stakeholders specific to the tourism industry. The local Business Marketing Intelligence Consulting Group (BMI), through a subcontract with PwC, designed and piloted a skills needs assessment sample survey in the tourism industry.

Following the analysis of the survey results, the PwC team held four contact group meetings and two strategic retreats with a range of stakeholders in the tourism sector. The objective of these workshops was to probe further into the meaning of survey responses and to gauge the validity and usefulness of survey questions. The retreats also involved a presentation and discussion of the skills-needs data that had been collected, followed by stakeholder development of and commitment to specific action plans for the SETA. The report prepared by the PwC team at the conclusion of these sessions included an outline of lessons learned from the process to be applied to other industries and SETAs. (see *South Africa Field Report I*, January 12, 1999.)

In the Field Report, the PwC team identified various constraints to tourism growth in South Africa, many of which were unrelated to workforce development (e.g., perceptions of cost, crime and violence, and ineffective marketing). At the same time, standards of service and inadequate training for staff also were cited. The report noted that the directors of the Hospitality Industry Training Board and of the Tourism Directorate of the Department of Environmental Affairs and Tourism had been instrumental in leading the industry debate and in linking disparate groups. Nonetheless, some important gaps remained in leadership and in connections among critical stakeholders. Training providers had received relatively little direction and no one had emerged to lead in the development of new training programs for industry workers. Notably, the universities (with one exception) had completely ignored the industry. Similarly, the unions had chosen to focus exclusively on collective bargaining and membership issues, largely bypassing the skills development debate. In general, however, the tourism industry had evolved over the years to develop many of the necessary linkages that were still lacking in other industries.

The final product of the South Africa workforce development activity was *the SETA Planning Methodology Report* (August 25, 1999), which outlined the 1) PwC team's workforce diagnostic methodology, 2) a SETA Strategic Planning Process methodology, and 3) results achieved in the tourism industry pilot.

As noted earlier, part of the purpose of the work in South Africa was to refine the general methodology elaborated by the PwC and USAID/Washington teams for workforce development. The "workforce diagnostic" described in the South Africa report is the outline for the methodologies applied later in Egypt and Sri Lanka.

The SETA Strategic Planning Process methodology recommended the following steps:

- Pre-requisite step: Sector demarcation
- Step 1: Identify issues and players
- Step 2: Analyze current environment
- Step 3: Create stakeholder dialogue
- Step 4: Define strategic priorities
- Step 5: Identify actions

- Step 6: Get commitment
- Step 7: Measure performance

The PwC team recommended that the steps be repeated annually (see diagram), based on an intense strategic planning process by the SETA during its first year of existence to ensure that the initial skills plan for the industry accurately reflects the newly demarcated industry. In the next three years, the SETA could apply a modified version to “update” its plan and measure progress toward its annual priorities. Finally, in year five, the SETA would repeat the review of the sector demarcation and then implement the complete strategic planning process outlined for year one.

The survey tool developed by the PwC team for the training needs assessment collects data on employer characteristics (e.g., size of business, type of economic activity), and on skills gaps. The survey provides a picture of current skills shortages, by job category, industry sector, location, and employer characteristics. It is a useful tool for both establishing a baseline and for tracking progress in addressing critical gaps. It also shows how employer characteristics are related to differences in attitudes towards training, training expenditures, and reliance on external vs. in-house training.

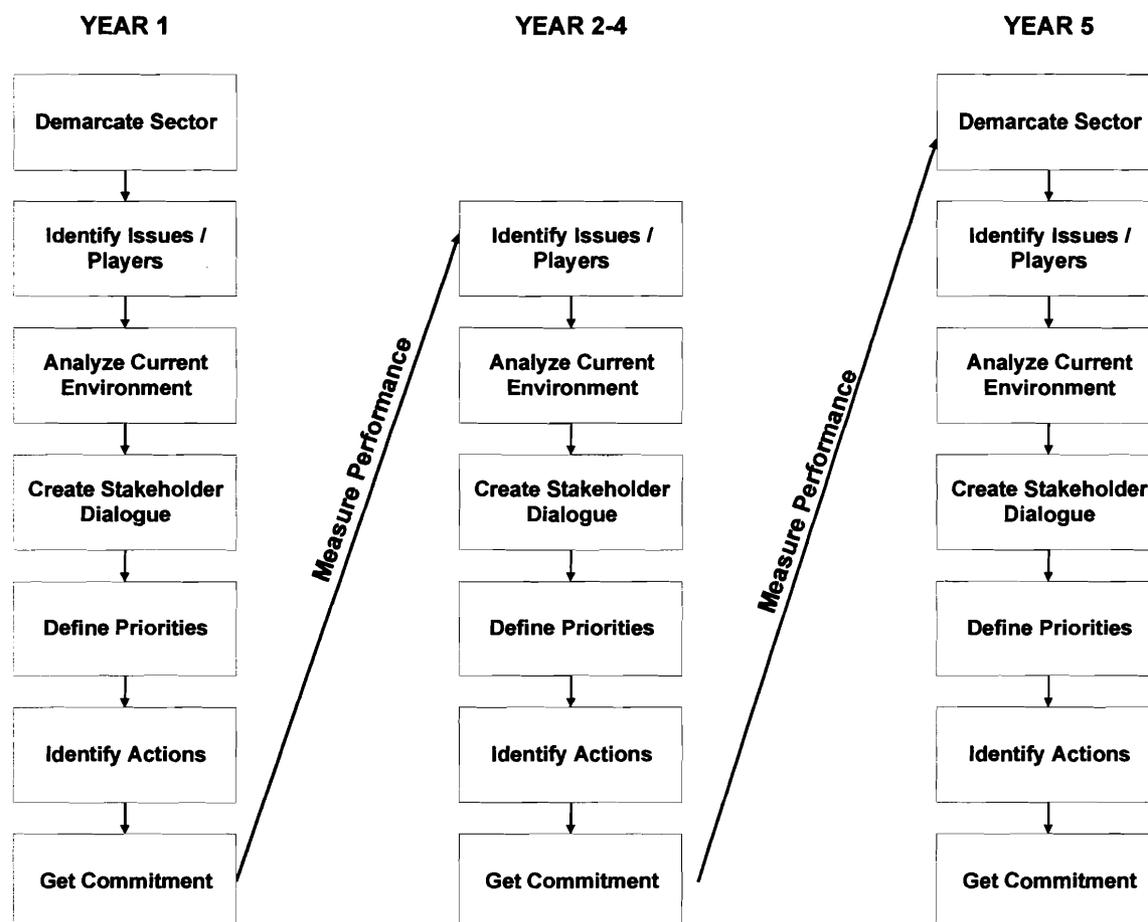
The third part of the PwC final South Africa report included specific recommendations for the South African tourism industry, which focused on building a pro-active approach to developing an appropriately skilled workforce. As a result of the pilot activity with the tourism SETA, the PwC team made the following specific recommendations to the industry:

- Include a Human Resources and Training Chapter in an Annual State of South African Tourism Yearbook, incorporating data on the number of jobs created, estimates of industry training expenditures, estimated labor demand by labor category, and the annual numbers of graduates from the major tourism training organizations.
- Publish and continually update an on-line Directory of Tourism Organizations, including a section on “Training Providers.”
- Conduct an annual Tourism Industry Strategic Planning Conference for the entire industry.
- Use various mechanisms to analyze these questions and assess the competitiveness of training providers.

The following recommendations were directed to tourism training providers:

- Publish and annually update a directory of tourism training providers.
- Improve job placement mechanisms for students.
- Create participatory curriculum and standards development processes, which include industry members.
- Create evaluation mechanisms for student feedback.
- Pursue technology upgrading
- Expand the teaching curriculum to emphasize customer relations, “high touch” service and the judgment skills.
- Conduct an annual survey of users, and include a training and human resource section in the Annual Competitiveness Survey of the South African Tourism Industry.
- Improve industry-trainer dialogue.

Potential SETA Strategic Planning Process - Five Year Cycle



Conclusions

Following the initial analysis of the tourism industry, the PwC team had planned to return to South Africa to work with the Tourism SETA on implementation of the workforce recommendations and to begin developing SETA strategies for other industries. At that time, however, a previously contracted European Union program for similar activities with the DOL and the SETAs came on line, and USAID-funded workforce-related activities with the SETAs were discontinued.

3.4 Jordan: Commercial Policy Assessment and Agenda for "Next Generation" Improvements

Like its surrounding neighbors, Jordan faces the challenge of stimulating new income and employment generating activities. Jordan's policy community and the USAID mission recognized the need for a sound commercial and economic policy environment that maximizes competitiveness, efficiency and the creation of productive employment. This led Jordan to embark on a restructuring of its economy to attain long-term sustainable growth through macroeconomic reforms and measures to improve private sector performance. A quantifiable framework of assessment was needed to measure Jordan's progress and evaluate the strengths and weaknesses in its commercial policy.

Methodology

SRI's *Commercial Policy Framework* provided such a tool to assess Jordan's policy climate. Under an initiative sponsored by USAID/Jordan, SRI International carried out an analytically grounded assessment of Jordan's commercial policy environment. The team applied SRI's *Commercial Policy Framework* methodology and database to identify, quantify and compare Jordan's commercial policies with competitor countries in the Middle Eastern region, including Lebanon, Bahrain, Cyprus, Israel, Morocco, Tunisia, and Egypt. Jordan's commercial policy scores were benchmarked against international best practices of nations in other regions as well.

The scope of work called for three phases. Phase I involved scoring the Jordanian investment climate according to available information and data. Most of the information gathering activity took place in Washington, D.C. The model systematically scored countries on the "market friendliness" of their economic and commercial policy environment, using 36 policy variables in nine categories that included: *tax, import, export, investment incentives, foreign investment, business start-up, labor, foreign exchange, and pricing and interest policies.*

In Phase II, SRI team members conducted detailed interviews with Jordanian government and private sector leaders not only to gather information on current policies, but also to elicit opinions on critical areas for additional reforms. The interviews were used to verify the scoring as well as to develop additional analysis to interpret high or low scores. SRI team members also collected views on specific measures that could be taken to improve Jordan's commercial policy in areas where problems were identified.

During Phase III, the team provided a comprehensive two volume detailed report on project findings. The first volume consisted of the analytical diagnosis of Jordan's policy framework. The second volume presented a prescription for tackling reform issues.

Results Achieved

Finally, the SRI team conducted a high level symposium, attended by approximately 200 leaders from the government and the private sector. At this symposium, the SRI team members presented the results highlighting key strengths and weaknesses of Jordan's investment climate. One senior government participant comments that this event was "the best seminar on the

economy” that she had ever attended. The symposium, and the report that accompanied it, received a great deal of coverage in the national and international press. The USAID mission and the Jordanian government used the report and SRI’s findings to guide future commercial policy reform initiatives.

3.5 Sri Lanka: Competitiveness Study and Workforce Development Strategies Projects

In mid-1998, USAID/Sri Lanka contracted with PricewaterhouseCoopers, and its subcontractors J.E. Austin Associates (JAA) and SRI International, to conduct a country competitiveness benchmarking study to assess Sri Lanka's competitiveness *vis-à-vis* similar economies.

Sri Lanka Competitiveness Study

Working in collaboration with JAA, SRI prepared an economic competitiveness analysis of Sri Lanka. The SRI team conducted an assessment of Sri Lanka’s macroeconomic and commercial policy competitiveness to determine the extent to which these policies affected, either positively or negatively, the competitiveness of key industries. On the basis of the analysis the SRI team made recommendations regarding the Mission’s strategy development and program planning.

Methodology for the Competitiveness Study Activity. At the macroeconomic level, the team examined Sri Lanka’s major monetary and fiscal policies to determine whether private enterprises were adversely affected by such policies. Policies reviewed included *interest rates and money supply growth policies, directed lending requirements, government expenditure patterns, and corporate and personal taxation*. The team also drew upon the *Economic Performance and Competitiveness Foundations* included in SRI’s Development Web Model. The information was used to highlight macroeconomic variables with material impacts on Sri Lanka’s competitiveness and prospects.

The team also employed *SRI’s Commercial Policy Framework* to explore Sri Lanka’s commercial policy structure. Using the matrix, the team evaluated and scored Sri Lanka on its commercial policies with regard to *imports, exports, taxation, foreign exchange, investment incentives, foreign investment, labor, pricing and interest rates, and business start-up procedures*. The team then determined Sri Lanka’s strengths and weaknesses in these policy areas, benchmarked Sri Lanka against its regional competitors and international best practices, and identified and prioritized the critical areas for policy dialogue and reform initiatives to be considered under potential Mission policy initiatives.

Results of the Competitiveness Study Activity. As a result of this activity USAID/Sri Lanka transformed a significant portion of its portfolio to carry out the recommendations that SRI and J.E. Austin had prepared. The information and analysis included in the report formed the basis for the design of USAID Sri Lanka’s comprehensive Competitiveness Initiative (TCI), designed to promote increased competitiveness for selected industry clusters. JAA (as a subcontractor to

Nathan/MSI) is now implementing the TCI project.² The project's goal is to help industry clusters develop strategies focused on higher-end value propositions, greater market orientation, increased productivity and improved international competitiveness rather than on natural – or comparative - advantage.

The process of improving industry competitiveness necessarily requires the examination of critical workforce issues. Actions that support the development of an adaptable workforce, one with the skills necessary to support the dynamic requirements of a competitive economy, are critical to a cluster's ability to build and sustain competitiveness in the global marketplace. Thus, in the spring of 2000, USAID Sri Lanka contracted PwC's Workforce Development Strategies (WDS) team to conduct a workforce diagnostic of selected Sri Lankan industries. The goal of the task order was to identify and address critical workforce issues that have a significant impact on overall cluster and country competitiveness.

Description of the Work for the Workforce Development Activity

The TCI team had already selected and begun work with six clusters by the time the PwC WDS Team arrived in Colombo, and it anticipated eventually increasing that number to twelve. The WDS team's first task was to select three initial industry clusters for in-depth analysis during Phase 1, or the Exploration/Examination stage of the workforce development project. This selection took place in April 2000. Through a cluster screening process, which was developed for the work in Sri Lanka in consultation with the USAID Workforce Development team in Washington, the PwC team set out to find those clusters where workforce development initiatives could be quickly designed and implemented. The selection process looked for those industries with the greatest stakeholder buy-in, and emphasized the need to demonstrate immediate impact. The evidence of results was seen as critical not only in maintaining the support of the selected clusters, but also in ensuring the buy-in of additional industry clusters later in the process.

During the cluster screening process, the PwC team prioritized the half dozen or so clusters using five distinct evaluation screens:

1. Timing with the TCI project;
2. Stakeholder interest in competitiveness and workforce issues;
3. Robust long-term market potential;
4. Long-term employment growth potential; and,
5. Available capacity of workforce development elements.

Specific indicators were developed for each of these screens to evaluate the cluster's readiness for implementing workforce development strategies. It should be noted that although many of the screens and indicators used discrete quantitative analysis, the measurement also relied

² Because JAA will likely be providing an assessment of the Sri Lanka Competitiveness Initiative project as part of the Nathan/MSI deliverable for this exercise, PwC and SRI will discuss only those areas of the TCI project in which we were directly involved.

heavily on qualitative information. Moreover, in case of Sri Lanka, more emphasis was placed on *Screen 1- Timing of the Competitiveness Initiative* than on market and employment growth potential, since the TCI project already had laid the groundwork for workforce development activities there.

As a result of the cluster screening process, the PwC team selected the Jewelry Manufacturing, Tea Manufacturing, and Information Technology (IT) industries for exploratory study during Phase 1 of the project. At the beginning of PwC's involvement in Sri Lanka, the team assumed that the remaining clusters would be selected through a phased-in process, during Phases 2 and 3 while the first three clusters moved to full-scale implementation.

Findings of the Workforce Development Activity

The PwC team successfully completed its first deliverable, the *Sri Lanka Cluster Background Report* (June 2000). The team's report outlined the current workforce development configuration of the selected clusters, and analyzed the ways that the clusters' workforce development strategies improved or constrained their competitiveness. The overwhelming finding was that the competitiveness of these clusters depends, in great part, on how individual firms manage the process of technological and managerial development.

In Sri Lanka, workforce development initiatives can be classified as:

- **Demand-side initiatives** (skills development, implementing human resource management systems at the firm level)
- **Supply-side initiatives** (creating better teachers, improving curricula, building new institutes, strengthening functional associations); and
- **Linking Initiatives** (developing both the linkages between supply and demand, and the process for keeping those linkages going after program implementation).

The importance of the last element should not be underestimated. Linkages in Sri Lanka are generally weak or non-existent. The team noted a considerable "disconnect" among the skills supplied by training system, the orientation of the workforce participants (who seek careers in law and medicine, which are in oversupply), and the demands business leadership (who underinvest in skills development and rely on elements other than skills requirements and standards, such as family or community ties, to make hiring decisions).

The following additional constraints were identified as considerations in the design and implementation of workforce development strategies:

- **Laws.** Labor and wage laws introduce a number of distortions and rigidities into the labor market in Sri Lanka, which make operating in the formal sector difficult, and may retard the development of the private sector.
- **Culture.** Interviews suggest that technical jobs, at least in many service sector areas, tend to be undervalued. There is no pride in being a good technician; everyone wants to be a doctor or lawyer. Remnants of both the caste and the colonial systems serve to underscore these problems.

- **Tradition.** Most Sri Lankan firms and institutions continue to apply a hierarchical, top-down management system. In part a result of the old colonial structure, this system tends to undervalue investment in critical thinking and managerial decision-making skills. Further, perhaps as a result of the nation's socialist framework, most view workforce development as the purview of the state. As a result, most employers focus little attention on skills development or human resource management.
- **Other Factors.** Finally, the PwC team noted that a number of other factors that may inhibit workforce development, including a lack of availability of services for plantation employees, and a rigid union structure.

All these elements constrain the effectiveness of deploying trained and skilled managers and discourage investments in skill development by individuals or firms. They also constrain a firm's growth. If these issues are not addressed directly, the effectiveness of actions at the firm level, like management-technical or shop floor training, will be diminished and short-lived. Managers will neither value nor "apply" effectively these new skills. Likewise, what is done to improve the "supply side" of the equation, like improved teacher training or curricula, will not necessarily lead to productive jobs or growth.

Results and Recommendations of the Workforce Development Activity

Clearly, attention to policy issues and the policy environment is critical. To the extent that distortions in the marketplace are reduced, improved links between demand signals and supply response should occur. But working at the policy level will not be enough. Attitudinal barriers, on the side of providers and employers, must also be broken. One way to overcome these barriers is to improve communications and stimulate productive dialogue between those providing the training and those demanding the skills.

PwC's findings, recommendations and conclusions for each of the three clusters examined during Phase 1 were presented to USAID in *Workforce Development Strategies: Sri Lanka Cluster Background Report* (June 2000).

Key recommendations included:

- Facilitate cluster-specific Strategy Workshops; include stakeholders to inform the formulation of the strategies, and to ensure they take ownership of implementation
- Conduct industry-wide workforce competency assessments
- Conduct supply-chain skills gap analysis
- Develop human resource system case studies
- Improve association development services related to workforce
- Implement industry public awareness campaigns to attract and retain qualified workers
- Form industry workforce development advisory committees
- Improve standardization and accreditation processes of learning institutions
- Implement and/or improve train-the-trainer programs

- Strengthen the organizational capacity of targeted training institutions, including assisting in the organizational design.

Conclusion

When competitiveness work and workforce development activities are being managed concurrently, timing is critical. Poor timing led to a number of roadblocks to the successful inclusion workforce development as a component of The Competitiveness Initiative.

The PwC team went to Sri Lanka between TCI's initial process for strategic planning with cluster stakeholders, and the implementation of the cluster strategic plans. Although considerable research had been done on the clusters themselves, during both the benchmarking activity and the initial work with the selected clusters, little attention had been given to research and analysis of workforce development issues. As a result, the PwC team needed to collect new data from the same sources as the TCI group, creating confusion and in some cases, redundancy.

Further, as a result of the poor timing of the report's delivery, information from *Workforce Development Strategies: Sri Lanka Cluster Background Report* was not included in the cluster strategies developed by the TCI team. These strategies are now being reworked and workforce development issues may yet be included as a critical plank for the development of effective competitiveness strategies.

3.6 Other Competitiveness-Related Projects and Initiatives

In addition to the competitiveness projects described above, PwC and SRI have been involved in the following projects for USAID that had competitiveness-related components:

- Egypt Growth Through Globalization Project
- The U.S.-Egypt Presidents' Council
- Implementing the EGAD Training Vision

Brief project descriptions of these efforts are outlined in this section.

Egypt Growth Through Globalization Project

Since early 1999, PwC has been involved in the two-year USAID Egypt Growth Through Globalization (GTG) project. GTG is a cluster of activities that collectively seek to increase the private sector's capacity to expand Egyptian exports and strengthen a firm's or industry's competitiveness in global markets. The three-year project provides (1) overall GTG performance monitoring support services; (2) evaluation, assessments, and analytical support services; and (3) coordination, outreach and information dissemination.

Under evaluation, assessments, and analytical support services, PwC completed a number of studies that focused on topics relating to competitiveness:

- Strengthening Business Associations, January 2000
- Egyptian Export Sector Review, May 1999
- Linking Employment Creation and Export Growth in Egypt, July 1999
- International Best Practice in Exporter Services, April 1999
- International Subcontracting: New Opportunities for Egyptian Exporters, February 2001

The U.S.-Egypt Presidents' Council

The U.S.-Egypt Presidents' Council was established by Egyptian President Mubarak and U.S. Vice President Gore to support economic reform and promote private sector business development in Egypt. From July 1998 to May 1999, PwC provided professional staff and advisory support to the Council, which consists of senior executives of major U.S. and Egyptian companies, with respect to improving the commercial environment and promoting private sector development in Egypt. Examples of this analytical support include a survey of U.S. technology companies with regard to their strategies for investing in emerging markets; a case study on the electronics and information technology sector of Morocco's strategic development plan as a possible model for Egypt's ICT cluster development; and a comparative analysis of policy issues affecting foreign investment in emerging markets with a focus on dispute settlement, government procurement, intellectual property protection, and privatization.

Implementing the EGAD Training Vision

In November 2000, USAID, under the auspices of the Global Bureau's Center for Economic Growth and Agricultural Development (G/EGAD), launched a new training effort aimed at strengthening the skills of its economic growth (EG) staff. This course, the Economic Growth Officers' Training Course, is the key element of G/EGAD's Technical Training Plan and is being implemented by PwC under the SEGIR/GBTI contract. The training plan is currently in its second year of implementation and will include approximately two courses per year, over the next five years. The objective of the course is to provide core competence training for USAID's EG officers working in the seven economic growth areas of the EGAD portfolio: macroeconomic policy, financial sector development, privatization, legal and institutional reform, general business, trade and investment, agriculture, and microenterprise development.

The course runs a total duration of 5.5 days and includes 3-hour modules in both economic policy and competitiveness. Senior-level practitioners from PwC, SRI, and USAID serve as the primary trainers, facilitators, and speakers for these two modules. The economic policy module provides training in skills necessary to understand the economic framework of a country and the key components of economic policy. The competitiveness and enterprise development module provides an overview of the following topics: the role of firms as part of industries, national economies, and the world economy; competitive theory and industry clusters; creating the enabling environment for business; and, the role of the entrepreneur. As of mid-November 2001, the project had trained approximately 80 Economic Growth officers.

4. Methodology and State-of-the-Art Practices

4.1 SRI's Methodology for the Competitiveness Assessment of Commercial Policies

The Commercial Policy Model was developed by SRI in 1991 (see the section of this report on SRI's Competitiveness Practice History). It was the first of its kind to score countries systematically on the "market friendliness" of their economic and commercial policy environment in key policy areas.

Model Methodology

The Commercial Policy Model essentially provides a competitiveness benchmarking across countries on their commercial policy environment. The purpose of the model is to provide a mechanism to countries and USAID missions for an objective assessment of business and commercial policies, and compare these policies with those of other nations. The benchmarking aspect of the model has been an especially powerful tool in finding out where a country stands *vis-à-vis* its regional peers and global competitors, in its competitiveness for attracting international investment and trade.

With this model, over 80 countries have been scored and ranked using 36 policy variables in nine policy categories:

- Tax
- Import
- Export
- Investment incentives
- Foreign investment
- Business start-up
- Labor
- Foreign exchange
- Pricing and interest policies

Phase I. Phase I entails gathering data and information from publicly available sources in order to provide a preliminary scoring of the host country and its competitive or comparative peers.

Phase II. Phase II typically involves in-country interviews with government and private sector leaders. The purposes of these interviews are to verify the initial scoring, develop additional analysis to interpret the results of the high and low scores, and elicit opinions on critical areas for policy reforms, including specific reform measures that are feasible given political and other constraints.

Phase III. Phase III includes the drafting of the assessment and findings, and presenting the results and recommendations to relevant stakeholders in a high-profile public forum. The audience typically includes high-level government officials and influential private sector representatives. It is advisable to maximize press coverage of such an event to increase national awareness of the business and policy constraints that need to be addressed collectively.

Model Applications and Results

USAID has funded a number of Commercial Policy assessments over the past decade. Some of them were analytical “desk exercises” that involved data collection, country research, and updating of country scoring. The results and findings from the desk studies usually were used as input to programmatic planning by USAID missions.

In some countries, including Jordan, a more in-depth Commercial Policy assessment was conducted that led to recommendations on policy reform. In such cases, the objective of using the Commercial Policy Model has been to offer an efficient and effective diagnostic assessment of the policy environment, and to provide USAID with a forum to rally in-country stakeholders to initiate the needed reforms in key commercial policy areas. The full three-phase scope of work is used for this type of project.

When practiced as a discrete, one-time exercise, the application of the Commercial Policy Model often ends with a series of public forums that serve as catalysts for further actions on policy reform. Developed as an analytical tool, the model is inherently not a long-term, prescriptive, or implementation-based approach.

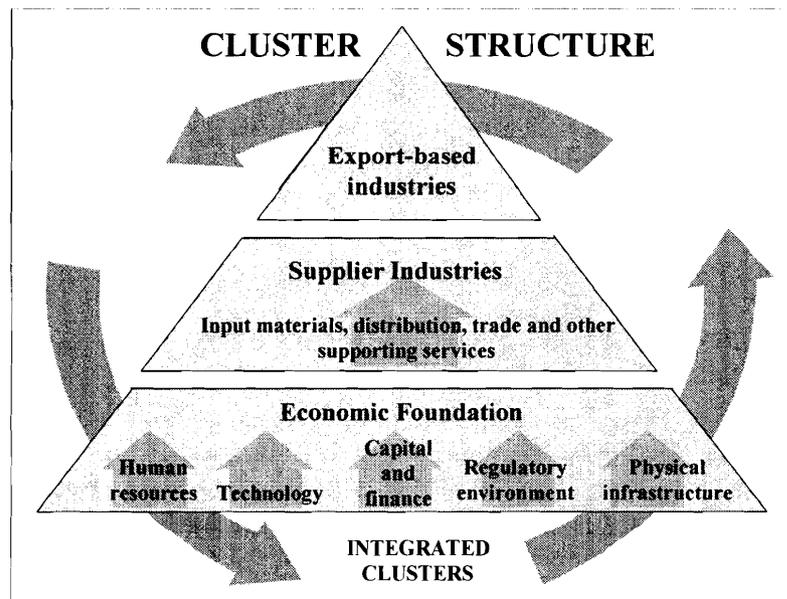
When the model was first developed, it was one of the only sources of objectively quantifiable competitiveness indicators for a large group of countries. Now however, there are a number of multi-client and mass-market publications by organizations such as the World Competitiveness Forum, the World Bank, The Heritage Foundation, Transparency International, The Economist Magazine, and others that make this product less unique.

The model usually has not been used as a stand-alone product, but has been effectively utilized as part of a larger competitiveness initiative. Two recent examples are the competitiveness initiatives in Lebanon and in Sri Lanka, where the policy category scoring and country comparisons enriched a broader competitiveness assessment, particularly during the diagnostic stage. In such cases, the use of the Commercial Policy Model followed the three phases described above, but was integrated into a more comprehensive competitiveness assessment that included non-policy factors.

4.2 SRI's Methodology and State-of-the-Art Practices for the Industry Clustering Approach to Competitiveness

What Is an Industry Cluster? *Industry clustering* is a powerful framework for regional economic development because it captures economic relationships among specific industry sub-sectors, and it provides a set of tools to help define economic development strategies. Industry clustering can improve short-term industry attraction efforts through identification of industry gaps and definition of specific advantages. In addition, industry clustering is useful in defining medium-term strategies for retaining, establishing, and growing regional industry, and in organizing long-term strategies to sustain industrial growth within a region.

- The use of clusters captures the economic relationships among specific industry sectors in a dynamic way, providing a far richer source of information about regional economic inter-relationship than is available from more traditional economic development strategies.
- The use of clusters provides a powerful set of tools for analysis, policy formulation, and regional organization to increase the effectiveness of industry development strategies.
- The concept of industry clusters has become fairly standard in economic development literature in the past decade years. The precise origin of the concept is uncertain, but SRI International first used it in a consulting project for a Southern California utility in 1988 to help the utility segment its commercial user market in a way that would allow the utility to define technical assistance services for groups of related customers. The concept has since been widely popularized by Michael Porter in *The Competitive Advantage of Nations* (New York: Basic Books, 1990).



What is Competitiveness? *Competitiveness* can be defined as continually sustained increases in productivity resulting in higher wages and living standards. It is also characterized by firm level agility, efficiency and increasing export market shares. True competitiveness is not based on cheap labor, special tax exemptions, or continual devaluation of currency. It is based on generating more value through improved productivity, quality, service and innovation. Competitiveness has also been shown to be an intensely regional phenomenon, characterized by clusters of related and supporting enterprises. The role of the government is to generate an effective platform for competitive enterprises.

Competitive advantage is not created within a single firm alone. Efficiency in internal operations is a necessary—but not sufficient—condition to compete globally. Factors external to the business, but internal to the regional economic foundation, are increasingly important for the

creation of competitive advantage. Each firm is part of a “cluster” of interrelated firms, suppliers, customers and service providers, as well as supporting organizations (human resources, R&D, finance, infrastructure, and regulatory environment).

Every location, whether a nation, state, or region has a set of unique local conditions that underpin the ability of companies based there to compete in an industry. The competitive advantage of a location does not normally arise in isolated companies but in clusters of companies. These firms are in the same—or related—field, or are linked by buyer-seller relationships, common customers, or other relationships. An industry cluster is a group of companies that rely on an active set of relationships among themselves for individual efficiency and competitiveness. These relationships have four prominent characteristics:

- **Buyer-Supplier Relationships.** This cluster structure is the one most frequently described in economic development literature. It consists of core companies (see chart below) that produce goods and services that are sold to final consumers. It also encompasses companies at earlier stages in the value-adding chain that supply the inputs—intermediate goods, services, and raw materials—that are used in the assembly of final goods and services. Distributors of final goods and services, where separate from the producers, may also be a part of these clusters.
- **Competitor and Collaborator Relationships.** This cluster structure, consisting of companies that produce the same or similar goods and services at a specific level in the value chain, exists because competitors frequently share information (often unintentionally) about product and process innovations and market opportunities. These companies may, in fact, formally collaborate to develop such innovations in pre-competitive or strategic alliances. While there is cooperation in some areas, there must be rivalry among firms in order to create global competitiveness, and encourage constant innovation.
- **Shared-Resource Relationships.** These relationships exist when firms rely on the same sources of raw materials, technology, human resources, and information even though they may use these resources to produce goods and services for very different markets.
- **Critical Mass of Competitiveness Factors.** The clusters represent critical masses of information, skills, relationships, and infrastructure in a particular field. Having a critical mass of these competitiveness factors provides the foundation for a growing cluster.

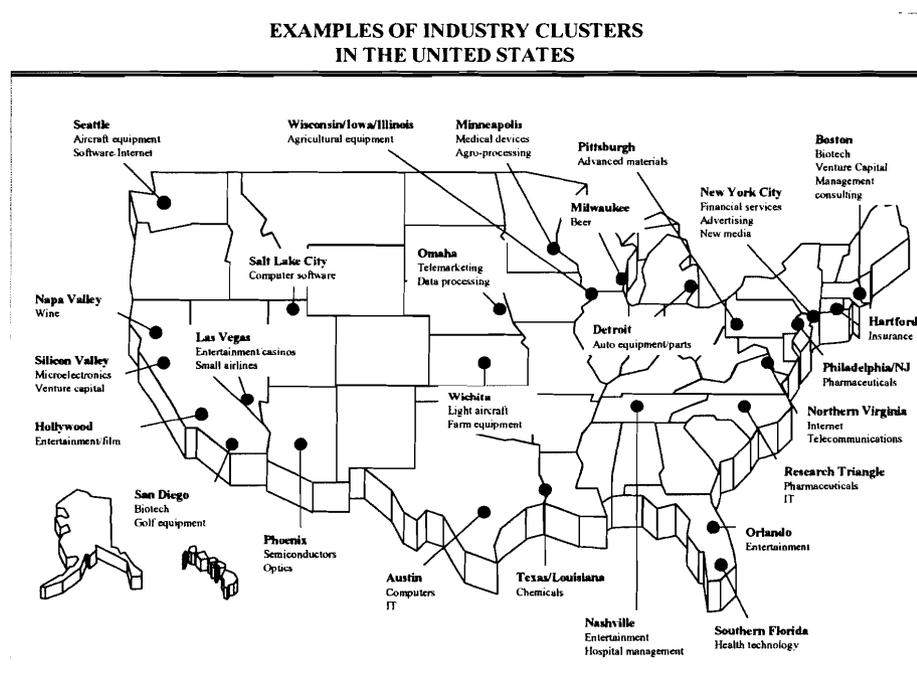
The common assumption underpinning these relationships is the premise that such relationships benefit from geographic proximity. The premise is that such relationships will be stronger if the distances separating participants in the cluster are as short as possible. Physical movement of goods is obviously important. In an era where just-in-time inventory management and time-to-market responsiveness are standard elements of competitiveness and productivity, the shorter the distance from loading dock to loading dock or from desk to desk, the better. Similarly, the flow of information that directs the flow of goods and services improves as distance decreases.

Although information technologies have reduced the impact of physical distances, many activities, ranging from product design to contract negotiations, can best be accomplished by face-to-face exchanges.

Regional Cluster Characteristics and Mapping

The experience in the United States (e.g., Silicon Valley, California; Philadelphia, Pennsylvania; Austin, Texas; Research Triangle North Carolina, etc) and other regions of the world (e.g., Ireland; Scotland; Singapore, New Zealand; and Australia) has demonstrated that strong clusters ensure sustainable competitive advantage within a region. Strong clusters in these regions have helped to continuously improve competitiveness, create new jobs and companies, attract new investment, and retain firms within the industry clusters.

A relatively small number of clusters usually account for an important share of the economy within a geographic area, and for an overwhelming share of its products and services that are “exported” to other locations. Exporting clusters—those that export products or services to compete outside the local area—are the primary source of a region’s economic growth and prosperity over the long run. The demand for local industries is inherently limited by the size of the local market.



Because few regions have accurate data about direct exports of goods and services out of a region—a proxy calculation is often necessary. The standard approach that has been used by SRI International is to calculate concentration coefficients³, or “location coefficients.” A high concentration coefficient indicates that a region has more people proportionately employed in

³ An employment concentration is the ratio of the percentage of a region’s workers employed in an industry (or a certain SIC grouping) to the percentage employed in that industry nationwide

that industry than the national average—which suggests that the cluster is exporting products out of the region, and has a competitive advantage. Thriving export clusters in the United States (e.g., Boston biotech, Orlando entertainment, and Seattle software) typically have employment concentrations ranging from two to five times the national average.

Cluster Development Initiatives

A common constraint to long-term economic growth in developing countries is the lack of investment in productive sectors, due to the lack of confidence and direction in the private sector that may result from a host of exogenous factors. Experiences have clearly demonstrated that organizing private and public sector players around the concept of *Industry Clusters* offers a powerful framework for developing effective strategies and action. The industry cluster concept and approach capture economic relationship within specific sub-sectors, and provide a set of analytical tools and processes to design and implement effective strategies.

The basic goals of industry cluster development approaches are to:

- Establish effective public-private coalitions organized around a reasonably defined, common set of challenges and opportunities;
- Identify through concrete examples key policy and institutional challenges to growth, and specific practice means to address these constraints; and
- Define a consensus “vision” for industry cluster growth, and on the basis of that vision develop actionable strategies to stimulate the growth of viable industry clusters.

Ideally, an industry cluster initiative would be conducted in three distinct phases:

- Phase I: Competitiveness Diagnostics and Cluster Selection
- Phase II: Initiation of Cluster Activities
- Phase III: Implementation of Cluster Initiatives

Descriptions of the phases follow below.

Phase I: Competitiveness Diagnostics and Cluster Selection

Competitiveness Diagnostics. Successful industry cluster initiatives are almost always linked with broader competitiveness strategies for a region or nation. Ultimately, the goal of a competitiveness initiative is to achieve sustainable growth for a region, leading to higher quality of life for its residents or citizens. Thus, the first phase is to conduct a broad assessment of the competitiveness of the *Economic Foundations* of the region/nation. Economic Foundations are the pillars of long-term, sustainable economic growth, and they usually include:

- Human Resources
- Financial Resources
- Physical Infrastructure
- Technology Infrastructure
- Regulatory Environment

These are factors that affect the competitiveness of a region, regardless of individual cluster strength or characteristics.

An increasingly common analytical step is to conduct a *competitiveness benchmarking* of the region or nation against a set of comparative or competitive peers, using a series of indicators that help measure a region's competitiveness position on each of the above economic foundation areas. The goal of the competitiveness benchmarking and economic foundation assessment is to identify overall strengths and weaknesses that cut across sectors and clusters, and to develop consensus for action. The result is usually a set of cross-cutting initiatives that would be implemented by a coalition of public and private sector leaders.

For example, in a project funded by the Industrial Development Corporation of South Africa, SRI assessed the country's economic foundations and identified *high corporate taxes* and *insufficient investment incentives* as two major weaknesses. SRI's analysis and recommendations subsequently led to two major cross-cutting policy changes: A 25 percent reduction in South Africa's corporate tax rate; and the introduction of a new job creation tax incentive in labor-intensive industry sectors.

In Palm Beach County, Florida, one of the *quality of life* weaknesses identified was the poor quality of the public education system, which was a disadvantage in attracting and retaining high-skill workers who have school-age children. This finding led to a series of education initiatives led by a working group that consists of the county's school board officials and private sector leaders.

The cross-cutting initiatives that result from a comprehensive assessment of economic foundations have proven to be very important in improving the competitiveness of all industry clusters in the region/nation.

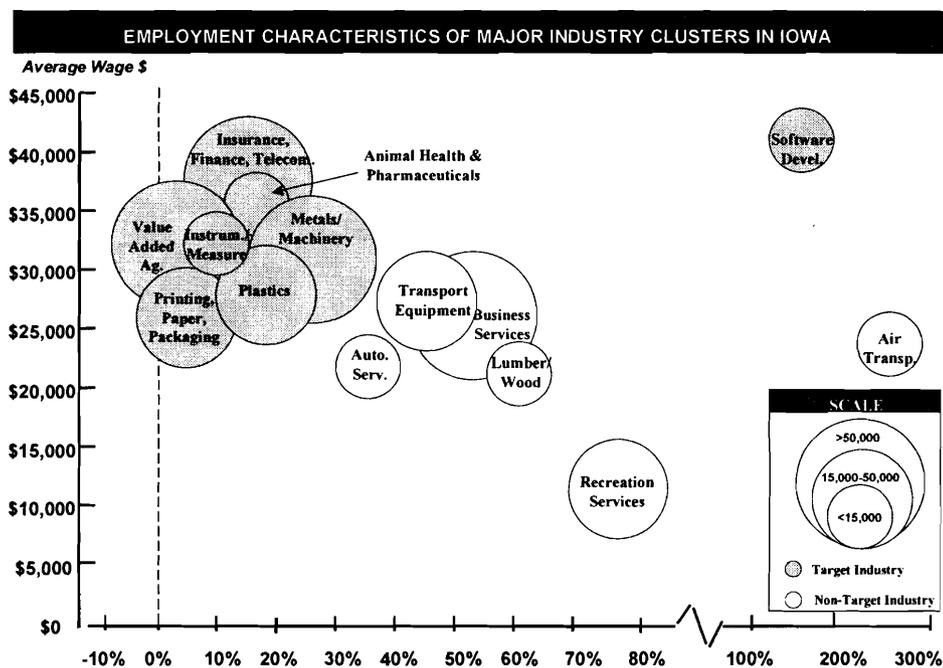
Cluster Identification and Selection. The next step is to identify and define the industry clusters that hold strong prospects for the region or nation. Often, regions or nations have already been targeting certain industry sectors in their investment attraction and export development efforts and would like to validate their choices, as well as identify newly emerging clusters. The cluster identification and selection process is typically based on detailed examination of output, employment and export concentration ratios, as well as on the assessment of comparative and competitive advantage.

In a regional cluster development project, two indicators are often used: *employment concentration ratio* and *export concentration ratio*. An *employment concentration* is the ratio of the percentage of a region's workers employed in an industry (or certain Standard Industry Classification or SIC grouping) to the percentage employed in that industry nationwide. An *export concentration* is defined as the ratio of the percentage of a region's exports in an industry to the percentage of the output in that industry exported nationwide.

A high employment concentration ratio indicates that a region has more people proportionately employed in that industry, which often suggests a region's competitiveness in that sector. Similarly, a high export concentration ratio suggests that the region is exporting proportionately more output in that industry, compared to the rest of the country. These two indicators are used in most industrialized country cluster projects where data to conduct such analysis is available

and reliable, and where industry clustering projects are conducted on a regional rather than a national scale.

In addition, other cluster selection criteria are utilized including the average wage level of the cluster and the recent growth rates of the industry. An example of cluster mapping with indicating wage levels, growth rates, and overall level of employment is shown from an SRI project in Iowa.



This type of analysis is often not possible in developing countries due to the lack of accurate data, and data collected on a sufficiently micro level. Accordingly, in USAID-funded projects, cluster selection usually is based on other proxy industry-level data, such as industry output or employment growth rates, export figures, etc., as well as from the viewpoints collected from substantive interviews.

The following criteria have also been proven useful to identify high-potential clusters:

- The activities should offer clear promise for growth, thus leading to expanded and new investments in enterprises in productive sectors.
- There is a critical mass of skills and resources in the sector.
- The activities should be capable of creating substantial employment opportunities.
- The sector offers strong potential for generating export and other foreign exchange earnings.
- There is strong private sector interest to collaborate on cluster initiatives.

A combination of the above criteria has been used by SRI to identify and select high potential clusters in nations including South Africa, Lebanon, Hong Kong, and Australia, and states and regions such as Philadelphia, Southern Florida, Illinois, and Iowa.

It should be noted that the grouping of industry sectors into an industry cluster is part science, part art. While quantitative data such as SIC codes could be used for the purposes of aggregating data within an industry sector, the definition of what constitutes a cluster is subjective. The precise grouping of sectors into a cluster depends on particularly regional characteristics, and the synergies among existing firms. For example, in developing a cluster-based strategy for the state of Iowa, SRI has included the agricultural sector as part of a larger life-sciences cluster that extends to high-tech industries such as biotechnology. In contrast, for the USAID-funded industry cluster project in Lebanon, agriculture is treated as an upstream supply tier within the agro-industry cluster. In a project conducted in Hollywood, California, SRI included both the film and tourism industries into a larger entertainment-tourism cluster.

Phase II: Initiation of Cluster Activities

The success of an industry cluster initiative hinges upon the quality of participation of key stakeholders. Ultimately, it is the long-term commitment of the *cluster stakeholders* to carry on the initiatives that will bring about lasting impacts. The role of the external consultants is to galvanize the collaboration of stakeholders, primarily from the private sector, and to ensure local buy-in for the initiatives developed. Based on SRI's experience in industry cluster projects, the energy, enthusiasm, and facilitation experience of external consultants often brought life into an industry cluster initiative. The objectivity of outside experts helps local stakeholders to look beyond entrenched interests and positions to define areas of common interest and actions. During this phase, the consultants usually take the lead in conducting the following activities.

Establish Cluster Working Groups. For each industry cluster selected, a small working group will be established. The working groups will include stakeholders from the private sector, government, and academia. Participants will be selected as individuals who have a strong knowledge and understanding of their respective industry cluster and the conditions it faces, demonstrate a commitment to national economic growth (beyond that of their agency, association, or firm), and display a willingness to collaborate with their fellow participants on an objective basis.

Initial Orientation and Start-Up. Cluster stakeholders are introduced to the goals, process, and desired outcomes of the process, as well as the principles and process of project management. Typically, the consultants would conduct an orientation session that provides a briefing on the industry cluster technique and process, as well as on the working group's operating rules, goals, roles, and responsibilities will be reviewed and defined. The working group is also engaged to map the specific boundaries of the cluster, and define the products/service categories included.

Assessment of Regional Industry Clusters and Supporting Foundations. The objectives of this component are to:

- Develop an in-depth understanding of the selected industry clusters.
- Assess their competitiveness, growth prospects, and opportunities.

- Evaluate the ability of the region's economic infrastructure to support the expansion of the cluster over time.

A number of analytical techniques have been employed by SRI effectively to assess regional industry clusters and their support foundations.

Cluster Analytical Techniques

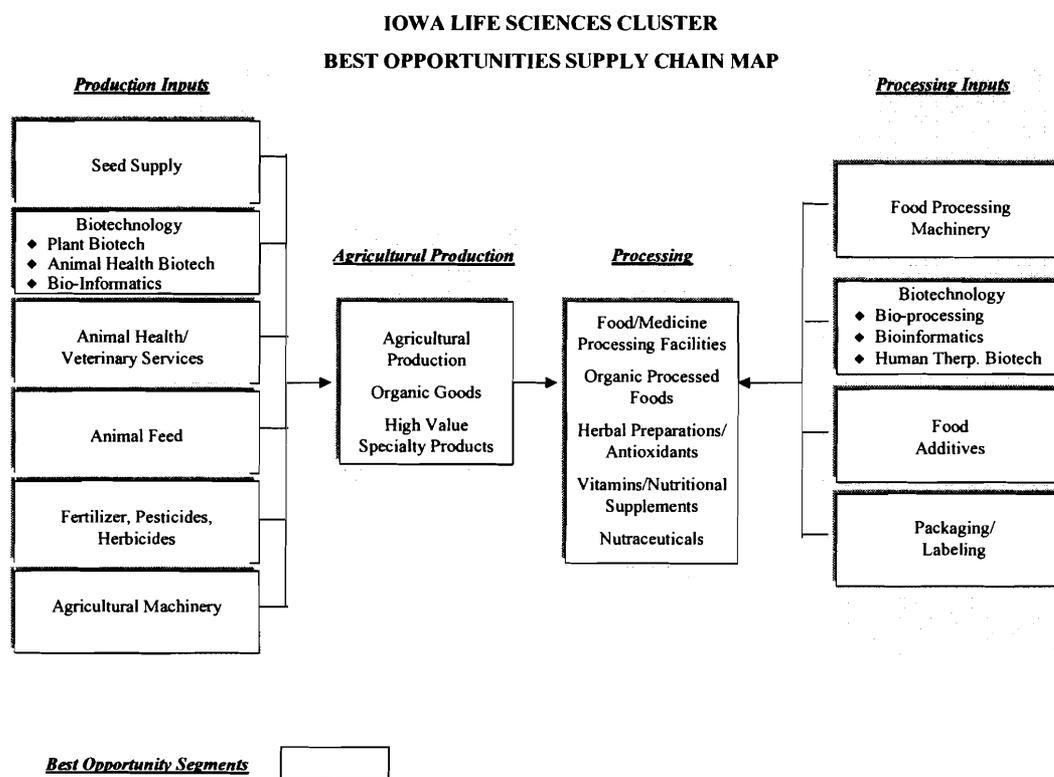
Cluster Pyramid. For the clusters examined, SRI often develops a *cluster pyramid* that summarizes the cluster's structure, which is represented by the triangle consisting of three tiers. The bottom layer is made of cluster-specific *foundation factors* that provide the building blocks of that cluster. Some of the foundation factors will overlap with those covered by the overall Economic Foundation factors in phase 1. However, they will also include foundation factors that are specific to the cluster. For example, for a tourism cluster, SRI often includes *Image and Promotion* as a foundation factor (See chart below).

"SWOT" (Strengths, Weaknesses, Opportunities, and Threats) Analysis. It is useful to conduct a SWOT Analysis with key stakeholders. Typically, SRI would prepare an initial SWOT analysis as a starting point for the focus group. This has proven to be a very useful process to focus attention on the key issues that need to be addressed.

Identify Cluster Drivers. It is important to identify factors that drive success in a particular industry cluster. Drivers vary significantly by cluster. In a life sciences cluster, existing patent laws and their implementation often represent an important driver. In an information technology cluster, the supply of engineers is an important driver. These cluster drivers will be used as reference points in the assessment of the competitive position of the industry clusters in a region or nation.

Detailed Cluster Data Analysis. The consultants would collect and analyze available data on the industry clusters, focusing on growth patterns of employment, firms, investment, and exports, buy/supplier relationships, productivity, value-added, etc.

Map the Cluster Supply Chain. This is the analytical process that defines and characterizes the complex buyer-supplier relationships within a cluster. A well-mapped supply chain and cluster linkages will point out weakness in the supply chain that could be strengthened, existing relationships that could be leveraged and improved, and gaps that may represent "cluster in-fill" investment opportunities. A map of an aggregate industry supply chain from an SRI project in Iowa is shown below.



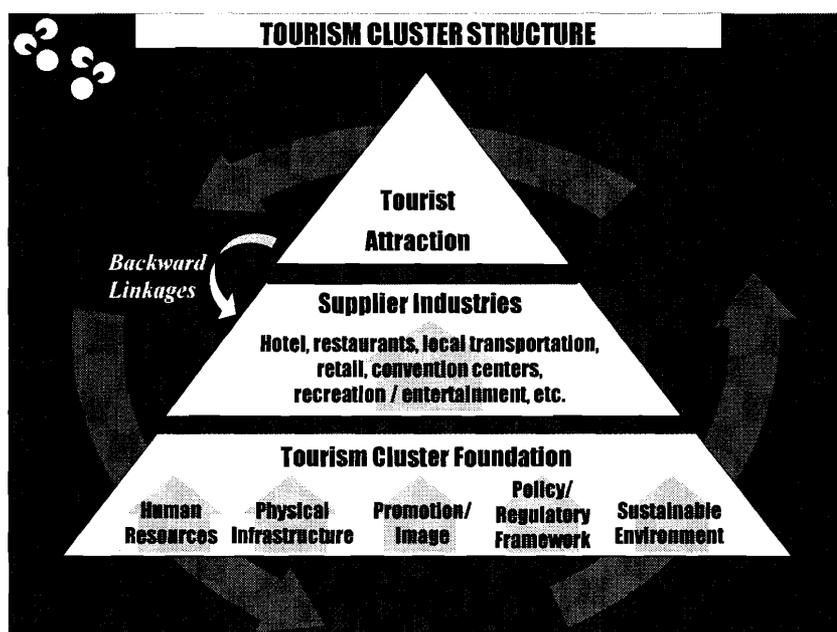
SRI has used all or a combination of the above analytical techniques in industry competitiveness projects to provide a rigorous cluster assessment. The exact analytical tools employed depend on the project's focus. For example, for the industry cluster project in Colombia, SRI has focused on the supply chain assessment in the petrochemical industry in order to identify areas for cluster in-fill investment. In the USAID-sponsored industry cluster initiative in Lebanon, detailed quantitative analysis could not be conducted due to the lack of industry data, so the approach was to take the SWOT analysis as far as possible to identify areas of intervention. The initiatives recommended by SRI included the collection of primary data through a series of surveys in order to begin building industry databases for the country.

Preparation of Cluster Development Action Plans. Based on the assessment and analysis undertaken, SRI would help stakeholders craft an overall strategic plan for cluster growth, design detailed initiatives as part of the strategic plan, assign roles and responsibilities, and identify appropriate measures for monitoring and follow-up activities. For each of the initiatives, it is essential that the cluster working group identify individual and institutional *champions* to carry out the initiatives. Steps needed to develop a cluster action plan:

1. **Cluster Vision.** It is important to develop a consensus view or vision for the industry cluster in as specific terms as possible. A good vision helps to keep cluster champions and other stakeholders focused on their ultimate objectives.
2. **Specify a select set of achievable, industry-specific initiatives.** These will include both policy and administrative reform actions that fall under government responsibility, and

investment and other actions that fall under the responsibility of private businesses, operating individually and collectively.

3. **Prepare detailed implementation action plans** and identify specific roles and responsibilities.
4. **Identify individual and institutional champions** to carry out the initiatives, determine the institutional mechanisms required to implement the cluster action plans, monitor progress, and ensure completion of tasks assigned.



Phase 3: Implementation of Cluster Initiatives

This is the phase where an industry cluster initiative becomes decentralized. That is to say, individual and institutional champions take charge of the activities in their action plans and start to implement them. At this phase of a cluster initiative, the consultant's role would vary depending on the resources of the stakeholders (or donors) to retain consultants, the nature of the initiatives, and whether stakeholders have the resources and expertise to move forward without external consultants.

Consultants take on the following roles during implementation:

- **The role of the consultant as a facilitator and an honest broker** is particularly a valuable one, especially in countries such as Lebanon where local constituencies have been traditionally fractured and relationships have been characterized by mistrust. Once the cluster action plans have been finalized, SRI was able to build on

relationships established with stakeholders to move forward cluster initiatives, capitalizing on its role as an objective outsider but also a trusted advisor

- **Provide targeted technical assistance.** Technical assistance could take many forms. For example, after completing an industry cluster strategy for the state of Illinois, SRI was retained to conduct a detailed feasibility study for the development of a technology business incubator. In South Africa, SRI's involvement after a completing a competitiveness analysis in labor-intensive industries was to provide a detailed assessment of the corporate tax system as well as tax incentive structure. For Lebanon, SRI has conducted a detailed study of tourism classification systems around the world in order to identify and recommend a competitive system to Lebanon's tourism industry. The SRI team has also taken Lebanese agro-industry firms to attend international trade shows that directly led to export sales. For the business services cluster, SRI provided technical assistance to LINBusiness to improve its business matching website.
- **Targeted training.** In addition to technical assistance, targeted training in the form of workshops have served to bring cluster firms up-to-speed on industry best practices, and provide additional opportunities for networking among industry firms.
- **Data collection and market research.** This is an important task in developing countries where there is little industry data and market information. The collection of primary data through surveys or inventory and the broad dissemination of the findings help inform cluster firms in their business decisions, and provide important baseline industry data for future competitiveness assessment.
- **Regional initiatives.** Industry cluster strategies often include regional initiatives, which could be regional industry clustering exercises in themselves. Often, organizing cluster initiatives on a national basis makes sense if it is on the policy/regulatory level, or if the initiatives address foundation factors on the national level. However, sometimes a national cluster is too large and fragmented for private sector leaders to collaborate effectively. For example, SRI has assisted to organize tourism clusters and formulate regional tourism development strategies in the Middle Metn and the Shouf regions.
- **Continuous consultation and engagement with business and government leaders** is critical for the success of the implementation phase. Cluster initiatives must be driven by local demand, and this is especially important for initiatives that are not funded by local constituencies (as in the United States) but by a bilateral donor such as USAID. Even the appearance of forcing initiatives on local stakeholders could be disastrous for a cluster project. Only through continuous consultation and engagement with high-level government representatives and business leaders could the industry cluster team ensure that the initiatives continue to reflect what stakeholders believe would help the cluster succeed.

- **Public relations and media management.** A somewhat nontraditional but important role for consultants engaged in a cluster initiative is to manage public relations for project activities as well as leverage the media for policy advocacy and dissemination of project progress and achievements. These activities help to elevate the visibility of USAID-funded cluster activities, build public support, and increase long-term effectiveness.
- **Periodic assessments of achievements and milestones.** In some of the cluster initiatives where implementation is well underway, SRI has been requested by clients to assess whether initiatives were on track, or if modifications were necessary. Clients often find it useful to access the consultant's expertise and exposure to cluster work elsewhere in order to measure their performance against their peers.

Cluster Development Program Lessons Learned and Success Factors

What is a Cluster Development Program? Cluster development programs are processes whereby industry stakeholders (industry representatives, economic development agencies, financial institutions, education/training institutions) identify challenges and opportunities that can be addressed more effectively by cooperative action rather than individually. Cluster action plans can complement firm-level strategic planning, but do not replace it.

Cluster initiatives bring stakeholders together to:

- Construct a shared, fact-based vision of the current and future competitive position of the industry.
- Identify obstacles to competitiveness and opportunities for future business growth.
- Develop and implement cluster-level actions aimed at addressing those obstacles and opportunities.

Who Participates in a Cluster Development Program? A Cluster Development Program should involve all stakeholders who contribute to the competitive platform of an industry cluster. Participants should come from small, medium and large companies from the industry, industry associations, government, and related and support firms and infrastructure providers. All institutions involved in the industry "value chain" from raw material producers to end consumers should participate.

What are the Benefits to Firms? The benefits to firms from participating in a cluster development program include:

- Closer, improved relationships with customers and suppliers in the region.
- Stronger competitive platforms in terms of skills, information, financing and infrastructure to meet the needs of industry clusters.
- Better-designed and targeted training programs to meet the needs of industry clusters.
- University R&D programs that are focused on regional industry technology needs.
- Targeted industry attraction efforts to fill gaps in the industry cluster supply chains.

What are the Key Steps in the Cluster Development Process? The Cluster development process, involves the following elements:

- Identification of key players/stakeholders in the industry clusters.
- Data collection and analysis and a “mapping” of the clusters.
- Formation of cluster development groups and task teams to deal with specific challenges and opportunities faced by the clusters.
- A prioritization of issues and actions needed to deal with specific challenges and opportunities, with emphasis on actions that can deliver quick results.
- A continuous focus on short, medium and long-term action steps that can be taken to increase the competitiveness of the industry clusters.

What Cluster Development Programs Do Not Do:

- “Pick industry winners.”
- Replace firm-level strategic planning and steps to boost firm-level competitive advantage.
- Act as a tool for special interest group lobbying.
- Act as a platform for purely academic analysis.

What Makes a Successful Cluster Development Program?

- Active involvement of senior business, government, business development, academic and community leaders who are empowered to make decisions and are able to commit time to the process.
- A “neutral corner” that can facilitate action strategies and coordination among different cluster stakeholder groups.
- The ability of stakeholders to focus on specific areas of concern -- “cooperating to compete.”
- The collection and analysis of relevant data, which creates meaningful dialogue between the participants.
- A willingness to share data with other members of the cluster.
- An attitude of openness to new ideas and ways to solve industry problems.
- A determination to translate challenges into action steps toward solutions.

4.3 PricewaterhouseCoopers' Methodology for the Competitiveness Approach to Workforce Development

The methodology used by the PwC Workforce Development Strategies teams in South Africa, Sri Lanka, and Egypt is an evolving process. The first iteration was based on a review of existing work in the area of workforce development and tools used in other competitiveness exercises. It was refined through the experience in South Africa. The most complete application to date is the on-going workforce development program in Egypt; the most explicit definition of the methodology has been in connection with the work in Sri Lanka.

The context in which USAID Missions approach workforce issues varies. In one place, the problem is massive unemployment; in another, workforce issues are broached in relation to expansion of trade and export earnings. A Mission may focus on workforce issues for youth, or on issues emerging from civil service reform and privatization. The task also varies by cluster -

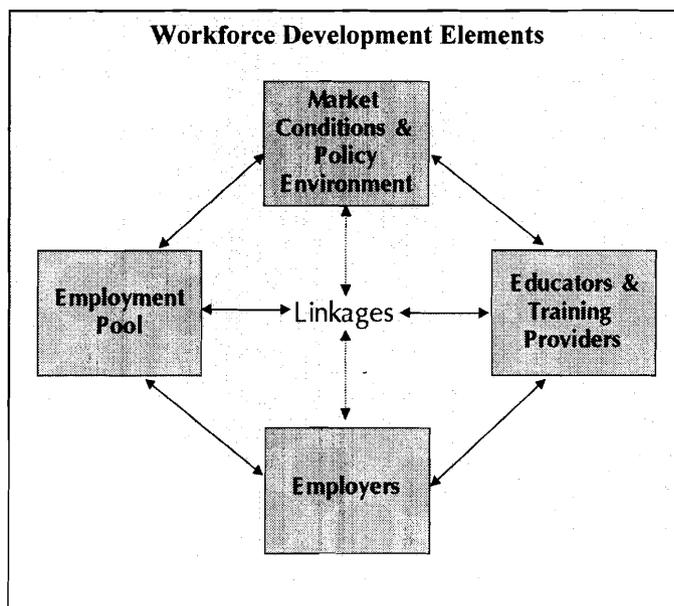
the requirements for the IT cluster, which implies high skill levels and international labor markets, are very different from those for textiles or *maquilas*, which rely on local, primarily female workers.

Several generalizations can be made about the approach. First, the methodology is participatory and requires stakeholder buy in. A part of the task is to create consensus about the problems and potential solutions to build long-term change. Second, it is cluster and industry specific, focusing on workforce issues for particular kinds of jobs and settings. The methodology uncovers broad policy and structural shortfalls for workforce development in the country, but the approach to solutions is through cluster stakeholders. Third, the approach is primarily demand-driven. It starts with employers and jobs rather than with education and training and potential employees. Because it has emerged from the work on competitiveness, the selection of clusters for attention is based on assessment of potential for job creation through growth in export earnings and the extent to which workforce and availability of skills are constraints to growth.

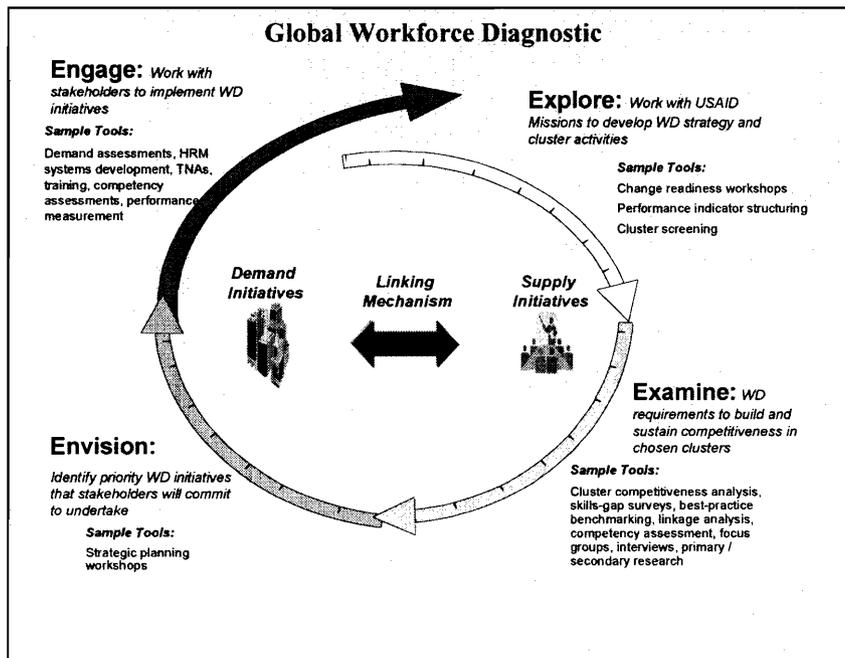
The Workforce Diagnostic

The first step in the methodology emerging from these field experiences has been labelled the Workforce Diagnostic. It is a general schematic to help USAID Missions and stakeholders understand how competitiveness and workforce development are linked, and to generate dialogue leading to actions and commitments to strengthen linkages within the cluster.

The diagnostic analyzes workforce development needs and policies in a cluster in terms of the following **four elements**: employers, employees and potential employees, educators and training providers, and market conditions and policy environment. It is a tool to systematically evaluate the alignment in terms of skill endowment among what the global market demands, employers require, training providers offer, and the labor pool brings. See figure below entitled "Workforce Development Elements".



The workforce diagnostic is a process in four sequential stages, visualized as an evolving spiral. Each stage produces outputs and results that can serve as benchmarks in meeting workforce development objectives. The four stages, beginning with “Explore,” are illustrated in the figure below entitled "Global Workforce Diagnostic".



The WDS team has spelled out a series of questions and tools for analysis as guides for the fieldwork in each stage. These tools, which can serve as the basis for defining the scope of work for a workforce development activity, are spelled out in detail in the April 2000 document, *Workforce Development Strategies: Methodology Guide*. They are reproduced here in text box below entitled "The Four Stages of the Workforce Diagnostic".

The Four Stages of the Workforce Diagnostic

Explore

The objective of the **Explore** stage is to identify key issues and clusters. Tools used in this stage may include primary and secondary research, statistical analysis, and policy reviews.

- **What are current trends and issues in the country affecting competitiveness?**
Industry retrenchment, population booms, unemployment crisis, wars, etc.
- **What are current workforce development issues?**
Policies, legislation, trade, legal implications, new funding, shifts in employees, portability of skills, curriculum changes, equity initiatives, wage structures, etc.
- **Who is talking and thinking about workforce development issues?**
Thought leaders, community leaders, stakeholders in government, industry, labor unions, educational institutions, NGOs, PVOs
- **What clusters meet the workforce criteria?**
Potential for job creation, political feasibility, willingness of stakeholders, etc.
- **Do these issues and clusters have critical enabling factors?**
Political will, economic need, demand, desire for institutional change
- **What are the appropriate clusters and issues to include in the Diagnostic process?**

The primary output of this stage is an **agreement of scope**, designating the focus clusters and issues for the Workforce Diagnostic. It also should delineate outputs and deliverables, identify the critical stakeholders, and include approval by financial backers of remaining tasks.

Examine

During the **Examine** stage, the objectives are to (a) determine the workforce development requirements to gain and sustain competitiveness; and (b) evaluate how industry needs are presently being met.

- **What are the characteristics and quality of the cluster's present workforce development programs?**
Communication and co-operation level among stakeholders
- **What are some examples of present success stories within the cluster?**
Organizations that have successful / quality programs
- **What workforce development actions are necessary to gain and sustain competitiveness?**
Skills development, increased technology training, job creation, hiring equity
- **How does the labor force acquire the characteristics industry needs in order to sustain competitive advantage?**
Curriculum responsive to market, continuing education in the workplace
- **How do political, social, and economic factors affect the competitiveness of the clusters?**
- **What are the dynamics of the present stakeholder relationships and how do they affect workforce development?**

The tools to answer these questions might include survey instruments, best practice benchmarking, contact groups, linkage analysis, and causal mapping. The final output of the Examine stage is a **cluster workforce development map**. This map identifies present workforce characteristics required by the cluster(s) and outlines factors affecting the development of these characteristics such as employer practices, educational or training establishment policies and practices, and stakeholder linkages and governance structures.

Figure 3 continued...

The Four Stages of the Workforce Diagnostic (continued)

Envision

The objective of the **Envision** stage is to share information from the analysis with stakeholders and agree upon actions to promote workforce development and enhance competitiveness.

- **What are the stakeholders' common strategic priorities?**
Short-term vs. long-term; some not always quickly resolvable
- **What actions will stakeholders commit to? Can we develop action plans to achieve common goals?**
Digestible actions that stakeholders can tackle and see results
- **Who will lead these commitments and actions?**
Identify cluster stakeholders that will fulfill leadership roles
- **What is the institutional setting available to take development forward?**
Where in the political agenda can workforce development be inserted?
How is this best done? Who needs to participate?

This stage uses stakeholder workshops to reach its final output – an **action vision** - an agreement on the analysis of the workforce development elements. The action vision should reflect consensus on workforce development priorities in a cluster.

Engage

The objective of this stage is to secure stakeholders' commitments to implement the action plan.

- **Who will be responsible for actions?**
Government, labor, industry, workers; the specific person
- **How will actions be institutionalized?**
Policies, laws, committees; timeframe for implementation of commitments
- **How will the stakeholders know when an action has been successfully implemented?**
Performance measurement indicators, appropriate benchmarks
- **How can external organizations support and monitor the process?**
Donors, NGOs, PVOs as financial supporters, monitors, or in data collection and analysis

The Engage stage uses workshops, focus groups, and performance measurement to create an output of **specific action commitments**. These commitments can be both long-term and short-term. Short-term commitments might include RFPs, implementation reports, recommendations on governance structures, or financial commitments. The goal is to produce commitments and results that will start the Workforce Diagnostic over again in a changed, more competitive environment.

To date, only USAID/Egypt has moved through the four stages of the methodology for workforce development, and the stage 4 implementation, the “engage” step, is currently underway. The conceptualization of the process as a spiral means that each stage evolves into the next, and that stage 4 will result in the initiation of a new phase of the process. In Egypt, the evolution from the “explore” to the “engage” aspect of the process has been clear, but the long-term trajectory is still untested.

In addition to its application in three Mission programs, the PwC WDS Team, in conjunction with USAID's Workforce Development Coalition, has used the diagnostic to prepare concept papers for USAID on workforce development in response to youth unemployment and to the impact of the HIV/AIDS pandemic.

For example, the Workforce Diagnostic was used as a tool to examine the link between youth, and workforce development. In regions, like the former Soviet Union and Eastern Europe, where education systems are perceived to be quite strong, credentials and attainment figures can be misleading. Anecdotal evidence suggests schools are sending youth into the workforce without basic skills required by the new economies. In regions where educational activities are weak or non-existent, the skills gap can be dramatic. In all cases, the workforce development methodology provides a method of focusing and prioritizing actions to reform education and training.

The issues related to the HIV/AIDS pandemic are different. Much of the conversation to date has focused on the terrible human tragedy of the disease, but increasingly stakeholders are realizing that there is a real economic dimension to the disease as well, affecting the growth of businesses, local and multinational, in a myriad of markets. HIV/AIDS has clearly become a business issue, one that links to the competitiveness of firms and of industry clusters. The Workforce Diagnostic is a small first step in addressing this issue by assisting USAID to understand and foster effective responses to the impact of HIV/AIDS on workforce and institutional capacity. The Diagnostic should be seen as a tool for mobilizing action at the community, firm, and national policy levels.

Workforce development is an emerging practice area for USAID that has grown out of the work on global competitiveness. Workforce development can be implemented in advance of, instead of, or in conjunction with broader competitiveness efforts.

The strength of the methodology is that it builds on the competitiveness work and melds it with USAID's considerable experience in adult education and vocational training, to create an approach that is responsive to employers and the demands of the global marketplace while building on the strengths of existing education and training programs. The methodology being applied at this early stage in the process is broad and open-ended to ensure flexibility and application to a wide range of issues.

Several specific refinements to the general questions in the workforce diagnostic are emerging from the fieldwork:

- The diagnostic includes an examination of the basic education system in the country in terms of the skills imparted and the teaching methods. Yet, reform of basic education only responds to a part of the issues related to acquisition and application of appropriate skill sets. Attention also needs to be given to the way the market for skills acquisition functions within the cluster. How are market signals of demand for skills created and transmitted from employers and job seekers to the training and education system? What are the linkage mechanisms or communication channels among the employers, employees, and trainers?
- The absence of communication channels with employers in this market deserves particular attention, since it has been noted as a problem in all the countries where the workforce diagnostic has been applied. In the U.S., companies invest in human resource

planning systems to evaluate skills sets and predict future skills needs. This information is used to design recruitment strategies and promotion programs, and to inform education and training providers. This type of “demand assessment” has emerged as a useful tool in both South Africa and Egypt.

- To some extent, individual companies can open communication channels, but the cluster competitiveness approach points to the importance of linking mechanisms for the cluster itself. NGOs, and especially trade and professional associations, often serve this function in industrialized countries, providing annual member demand surveys, and skills training and certification programs for the industry as a whole. The identification of the need for linking mechanisms and of organizations that might fill this role may lead to a plan for action that includes strengthening the organization by putting these mechanisms in place.

5. Indicators for Measuring Performance

5.1 Results and Performance Indicators on Competitiveness Projects

Phase I – Competitiveness Diagnostics and Cluster Selection

Deliverables under this phase include:

- Competitiveness benchmarking study for the nation or region completed.
- Competitiveness workshops conducted.
- Regional competitiveness conference presentation.
- Three to five industry clusters selected for analysis and possible development.

Results (3 to 6 months):

- Through macroeconomic work, leadership recognized potential benefits of competitiveness approach.
- Informal linkages established among business clusters.
- "Competitiveness" vocabulary, tools and approaches incorporated into discussions.
- Press coverage of competitiveness initiative encouraged, and new awareness created.

Phase II – Initiation of Cluster Activities

Deliverables under this phase include:

- Establishment of cluster working groups in three to five industry clusters.
- Facilitation of cluster working group meetings.
- Mapping of the clusters, including determination of boundaries and buyer-seller relationships within the cluster, and demarcation of the cluster supply chain.
- Analytical assessment of each cluster (including a SWOT analysis and cluster growth trends).
- Preparation of cluster action plans in at least three sectors. Identification of cluster champions; securing of stakeholder buy-in; definition of action steps and timetables.

Results (6 to 12 months):

- Identification of specific growth niches consistent with the industries' competitive advantages.
- Increased discussion in public meetings that affirms an understanding of competitiveness.
- Clear commitment from the stakeholders about the importance of competitiveness enhancement.
- Broad consensus among stakeholders about the action steps necessary to improve competitiveness in areas of common concern.
- Media coverage about competitiveness initiatives, and mind-set changes.

As shown by the lists of deliverables and results for Phases 1 and 2, the assessment and indicators of results at this stage are best reflected in qualitative observations of the process of cluster development. If quantitative indicators are needed to complement the qualitative observations they might be obtained through:

- content analysis of speeches, policy agendas, and the media
- measures of affiliation and number of attendees at competitiveness meetings or events
- private sector or government commitment of funds or personnel for cluster competitiveness initiatives.

Phase III – Implementation of Cluster Initiatives

Deliverables under this phase include:

- Cluster working group meetings facilitated.
- Provision of targeted technical assistance provided for implementation.
- Achievements of working groups documented and assessed.
- Communication with cluster leadership and government officials.

Results (one to three years):

- Increased production and exports in higher value goods and services within the clusters.
- Stronger cooperation in areas of common interest within the cluster.
- Closer industry-university relationships.
- Development of private-public partnerships.
- Increased alliances and networking within the cluster.
- Stronger competitive platforms in terms of skills, information, financing, and infrastructure to meet the needs of industry clusters.
- Better-designed and targeted training programs to meet the needs of industry clusters.

The expected results for Phase III point to particular quantitative and qualitative indicators, although the exact form and content of the indicators will vary by cluster and the specific action plans of the cluster working groups. In the long run (three to five years), the focus of all competitiveness programs is on production and export of higher value goods and services at the cluster and firm levels.

5.2 Results and Performance Indicators on Workforce Development Projects

Phase 1 - Workforce Development Diagnostic and Cluster Selection

Results (3 to 6 months):

- Strategic selection of two to four clusters where workforce is a significant constraint to competitiveness
- Completion of cluster mapping to identify high-impact segments
- Successful application of the workforce development diagnostic to selected clusters and identification of key issues and stakeholders

Illustrative indicators of completion of workforce diagnostic and cluster selection include:

- Awareness of the value of workforce development among employers and other stakeholders in the private sector.

- Participation in cluster activities (and affirmation of cluster boundaries) by stakeholders across various interest groups.
- Awareness of commonality of interest in workforce development and training.
- Willingness by lead players in cluster to help raise awareness of workforce development and build momentum among their peers

Phase II - Initiation of Cluster Activities

Results (6 to 18 months):

- Formation of stakeholder committees/organizations to formalize attention to human resource and training issues.
- Strategic plans written and approved by stakeholder working group
- Tangible cluster action plans developed by stakeholders
- Pilot projects (from action plan) implemented by stakeholders

Illustrative indicators of successful initiation of cluster activities include:

- Stakeholder participation in training events, cluster strategic workshops, and cluster working group sessions
- Stakeholder discussion in public meetings displaying greater understanding of workforce development and its role in competitiveness
- Stakeholder involvement in drafting feasible cluster action plans
- Stakeholder participation in/support of (in kind or funds) pilot projects.
- Stakeholder design of plan for full-scale implementation
- Stakeholder commitment of funds and in kind support for full-scale implementation project
- Identification of champions for projects
- Involvement of stakeholders from private employers, education and training providers, and government.

As noted above under the section on economic competitiveness, Phases I and II are concerned with building awareness and understanding, and with setting the groundwork for stakeholder initiation and management of the development process. The successes in this process are not easily quantifiable. The quality of the participation and discussion of the topics is as important as the discussion itself. The items listed above suggest potential quantitative indicators, which might be documented either individually or in a scale.

Phase III - Implementation of Cluster Initiatives

Results (1 to 3 years):

- Project successfully implemented by stakeholders
- Momentum generated for continued and additional actions by the stakeholder group
- Increased productivity and increased productive employment in cluster firms
- Increased investment in education and training at cluster and firm level
- More relevant, efficient, and responsive education and training providers
- Greater number of active linkages between industry and academia
- Greater number of employees recruited and retained within cluster

- Gradual decrease in the role of USAID funding
- Gradual decrease in the role of contractors in technical assistance

These results are illustrative since actual results vary by cluster, skills gaps, and stakeholder priorities. In workforce development, the focus is on results that build an indigenous capacity to identify, articulate, and provide skills to increase competitiveness in the global market. The results listed relate to employers' capacity to identify and articulate their needs, and to communicate them to training providers, training providers' capacity to provide those skills, employees' access to skills training, and the credibility of employees' skills within the global market. They also reflect indigenous capacity to support this process.

Illustrative indicators of successful implementation of cluster initiatives include:

- Output per worker in clusters and firms
- Size of cluster workforce
- Adoption of improved human resource management practices, such as objective hiring and recruiting standards, continuous employee feedback mechanisms, and better employee services
- Training programs designed in response to employer specifications
- Proportion of employee time/year in training and continuing education
- Number and percentage of certified employees
- Percentage of cluster firms' budgets for training and continuing education
- For educational institutions, proportion of new graduates employed in positions related to their field of study
- Employer assessment of adequacy/relevance of the skills of recent graduates applying for employment
- Institutionalized linkages between employers and training providers (e.g., industry publications or conferences, associations, etc.)
- Turnover of employees within and out of cluster

Because the methodology of both the cluster competitiveness and workforce development practices is based on participatory stakeholder-driven processes, a part of the assessment of results involves analysis of the breadth and representativeness of the stakeholders involved. This assessment is made on several dimensions including industry sectors, public and private sector employers, government agencies, NGOs, employees and employee representatives, firm characteristics (size, ownership structure, etc.), ethnicity, class, and gender. The indicators to measure results also should have the capacity to measure impact for sub-groups within the population, especially the differential impact by gender.

6. Constraints to Competitiveness

In reviewing its experience with competitiveness projects, SRI categorizes the constraints they have encountered and their impact on achievement of results into two broad groups, general constraints and constraints specific to USAID projects. The list of general constraints focuses on factors related to building linkages and cohesiveness among stakeholders in the cluster, as a base for action. SRI identifies both factors inherent in the nature of the cluster (the linkages and lack thereof are more obvious in some industry sectors than in others) and factors emerging from the cultural and political context. The explanations for these particular constraints vary by country and region.

6.1 General Constraints to Competitiveness Projects

- Lack of collaborative spirit within the private sector, and between the private and public sectors
- Challenge in identifying effective and committed cluster champions
- Some clusters are less cohesive and more difficult to define than others, and hence more difficult to organize for action (e.g., business service cluster in Lebanon)
- Lack of interest or buy-in from the public sector, which makes it more difficult to address cross-cutting issues (e.g., infrastructure, workforce, policy, etc.)
- A national cluster may be too big and fragmented to organize for action (tourism in Lebanon); organization of regional clusters is more effective (e.g., Middle Metn, Shouf)

SRI's broad base of competitiveness experience, both domestic and international, working with a range of sponsors, gives them a unique perspective on the role of the sponsor in the direction of the project. In the second listing of constraints, SRI identifies both administrative and political factors related to USAID's capacity to effectively sponsor competitiveness projects.

6.2 Constraints Specific to USAID-Funded Projects

- Budget and project funding cycles sometimes disrupt momentum building among cluster stakeholders
- As a bilateral donor, stakeholders are wary that USAID support for competitiveness is intended to benefit the U.S. rather than the host country
- Effective clusters require buy-in from local stakeholders. There is more risk in USAID funded projects, compared to cluster projects funded locally and led by the local business community, that the activities and initiatives will not be exclusively demand-driven. Stakeholder control of the process is an important condition of success.

- The USAID results framework seeks quantitative indicators. The benefits and results of the cluster process, while tangible in a qualitative sense, cannot be easily counted.
- There has been a lack of funding for implementation activities, based presumably on the assumption that cluster activities will be implemented without USAID consultant involvement.

6.3 General Constraints to Workforce Development Projects

The constraints identified by PwC in the workforce development activities parallel those identified by SRI.

- The absence of attention to investment in human resource management and skills development by firms in developing economies adds to the difficulty of engaging stakeholders around these issues. In our experience, skills training is seen by employers as a cost rather than as an investment or an asset.
- In the countries where we have worked, there is no tradition linking education and training directly to employment. Personal relationships tend to be the key factor in recruitment and hiring. Building linkages between educators and employers must overcome this traditional lack of recognition of interdependence.
- As in the case of economic competitiveness, weak leadership in the cluster and particularly the lack of private sector associations to fill this role make it difficult to move through the planning and particularly the implementation phases of the cluster competitiveness workforce model.

The “maturity” of the cluster, and the extent to which the private sector firms in the cluster view themselves as competitors in a local rather than a global market affects the pace of cluster cohesiveness around.

- When workforce development activities are done in advance or in lieu of broader competitiveness activities, the negotiation process among stakeholders of the importance of workforce development for competitiveness may be more complex than in cases where workforce development is examined in the context of the entire spectrum of previously defined competitiveness factors.

6.4 Constraints Specific to USAID-Funded Workforce Development Projects

All PwC workforce activities to date have been funded by USAID. In part because workforce development activities are new, and cut across conventional USAID program categories (i.e., they include elements of economic growth, human capacity development, and civil society development), continuity in funding has been a particular constraint in maintaining the engagement and confidence of stakeholders.

- Stakeholder perception of the competitiveness initiative as an avenue to USAID funds may constrain development of sustainable cluster linkages and deter from investment by the stakeholders themselves in the action plan.
- The short-term and piecemeal funding that is used for pilot programs like workforce development has placed limitations on full development and flow of the cluster development process.

In Sri Lanka, where USAID added the workforce competitiveness activity to an on-going cluster competitiveness program, the lag between the two activities (in part a result of funding delays) contributed to an overlap in research and analysis, with individual cluster members being interviewed by two teams for two sets of data. Further, the timing resulted in the workforce development findings not being included in the cluster strategic planning process. In Egypt and South Africa, the workforce development activities were used to introduce the competitiveness concepts to participating clusters. In these cases, the timing resulted in more integrated results.

- It is critical to get the timing between implementation of competitiveness initiatives and workforce development initiatives right, or neither program is fully realized.

7. The Competitiveness e-Library Index

This report has been included on the accompanying CD-ROM in MS-Word format, while the Experience Table described in Section 1 has been included in MS-Excel format. The CD-ROM also contains relevant reports, presentations, and other deliverables produced by PwC and SRI. Following is an index of deliverables on the CD-ROM, which are all in PDF-format.

SRI deliverables on CD-ROM:

1. *Building Prosperity: A Five-Part Economic Strategy for Hong Kong's Future, Summary*, September 1989.
2. Commercial Policy Model, *Global Growth Through Global Competition: Linking Commercial Policies, Economic Performance, and USAID Assistance*, October 1993.
3. *The WEB Model: Comprehensive Development Measurement and Analysis*, 1996, and Powerpoint presentation entitled, *The WEB: Measuring Development Performance*, 1996.
4. *Hollywood Economic Alliance: Partnerships for Hollywood*, October 1997.
5. *Benchmarking South Africa for Labour-Intensive Development: Benchmarking Assessment, International Lessons, and Strategic Implications*, January 1998.
6. Palm Beach, Florida, *Cooperating to Compete in the 21st Century: Executive Summary*, January 1998.
7. *Jordan Commercial Policy Assessment*, February, 1998.
8. *Economic Growth Initiative in Lebanon*, March 1998.
9. *Commercial Policy Tool Kit*, July 1998, and related Powerpoint slides.
10. *Lebanon Economic Growth Initiatives Regional Business Services Cluster*, December 1998.
11. *Industry Growth Partnerships: Achieving Lebanon's True Economic Potential*, January 1999.
12. Lebanon, *Tourism Workforce Development for Cluster Competitiveness*, July 2000.
13. Powerpoint presentation on *Achieving Global Competitiveness in the Lebanese Agro-Industrial Sector*, July 2000.
14. Lebanon, *Middle Metn Tourism Assessment and Strategic Plan*, March 2001.

PricewaterhouseCoopers' Deliverables on CD-ROM:

1. *Workforce Development Strategies: Methodology Guide*, April 2000.
2. Powerpoint presentation on *Competitiveness and Workforce Development*, USAID Second SEETI Conference, Skopje, Macedonia, November 2000.
3. Egypt, Phase I, *Workforce Development Strategies: Cluster Background Report*, October 3, 1999.
4. Egypt, Phase II cluster reports:
 - *Workforce Development Strategies: Agribusiness Cluster Report*, January 12, 2000.
 - *Workforce Development Strategies: Information Technology Cluster Report*, January 12, 2000.
 - *Workforce Development Strategies: Tourism Cluster Report*, January 12, 2000.
5. Egypt, Phase III reports:
 - *Workforce Development: Strengthening the Egyptian Tourism Cluster's Capacity to Implement Training Activities*, January 2001.
 - *Workforce Development: Information Technology Cluster, Report on Phase III Activities and Proposed Future Activities*, January 2001.
6. Egypt, Phase III case studies:
 - Information technology cluster, *IT Worx*, June 2001.
 - Information technology cluster, *Raya Holding*, October 2001.
 - Tourism cluster, *Jolie Ville Mövenpick Resort & Casino Sharm el-Sheikh*, June 2001.
 - Tourism cluster, *Emeco Travel*, July 2001.
 - Tourism cluster, *Americana - Restaurants Division*, June 2001.
7. South Africa, Deliverable I, *USAID Workforce Development Diagnostic Tool: Existing Assessment Tools*, October 29, 1998.
8. South Africa, Deliverable II reports:
 - *Workforce Development Strategies: Field Report I*, January 12, 1999.
 - *Guidelines for Competitive Analysis*, January 1999.
 - *Workforce Development Strategies: Competitive Analysis, South African Tourism*, February, 1999.
9. South Africa, Deliverable III, *Workforce Development Strategies: SETA Strategic Planning Methodology*, August 25, 1999.
10. Sri Lanka, *Workforce Development Strategies: Cluster Background Report*, June 1, 2000.

8. Useful Links

Following are five illustrative and informative website addresses relating to competitiveness that have been useful on competitiveness-related projects and which would be of potential use to a USAID audience:

1. The website of The Competitiveness Initiative project in Sri Lanka sponsored by USAID is **www.competitiveness.lk**. This website provides an overview of the program, its recent activities, and some of the results achieved. USAID audiences may find it useful to browse this site given that it is a currently ongoing USAID-funded program.
2. The *World Competitiveness Yearbook* can be found at **www.imd.ch/wcy/** and is the world's most renowned and comprehensive study of the competitiveness of nations, ranking and analyzing how a nation's environment sustains the competitiveness of enterprises. It is prepared by the International Institute for Management Development (IMD) in Lausanne, Switzerland, and ranks 49 industrialized and emerging economies, including countries where USAID currently operates.
3. Information on competitiveness-related programs and resources of the Center for International Development (CID) at Harvard University can be accessed at **www.cid.harvard.edu**. CID's resources and programs include the Andean Competitiveness Project, the *Global Competitiveness Report 2000/2001* produced jointly by the World Economic Forum and CID, and the *Africa Competitiveness Report 2001*.
4. Links to the World Bank's country competitiveness indicators for 130 countries can be found by doing a keyword search on "country competitiveness" at **www.worldbank.org**. The survey provides key data relating to each country's overall performance, macro and market dynamism, financial dynamism, infrastructure and investment climate, and human and intellectual capital.
5. The website for The Competitiveness Institute, based in Barcelona, Spain, can be found at **www.competitiveness.org**. The Institute is a non-profit, global network founded in 1998 by cluster practitioners of diverse backgrounds and nationalities dedicated to facilitating the spread and success of cluster-based competitiveness initiatives through networking, research and training activities.