

Cluster Competitiveness Assessment

EIGHT INDUSTRIAL AND SERVICES CLUSTERS IN PALESTINE



OCTOBER 2006

This publication was produced for review by the United States Agency for International Development. It was prepared by DAI Washington.

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The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

PREFACE

At the time this report is being prepared, the political and economic landscape of Palestine is in great flux. Much of the information in the report was compiled before the Palestinian Legislative Council (PLC) elections of January 2006. Over the past several months the international community witnessed the swearing in of a Hamas-led government and the subsequent political fallout. Shortly after installation of the new cabinet, the United States published its position on assistance to the Palestinians under the title “Palestinian Assistance: Humanitarian Assistance and Democracy Building.” This fact sheet, released by the U.S. State Department, outlined the United States strategy for canceling and suspending various types of development assistance projects while increasing assistance targeting “basic human needs.” The U.S. Government also froze all budget support payments to the Palestinian Authority (PA).

On March 15, 2006, the World Bank released an “Economic Update and Potential Outlook” for the West Bank and Gaza. The report modeled four different scenarios of economic performance in Palestine, based on various policy responses to the outcome of the elections. This report was prepared against the backdrop of the best-case scenario. It assumes no change in trade flows to Israel, continued transfer of value-added tax (VAT) to the PA, and donor disbursement levels equal to those in 2005. However, given recent political developments, it appears that the worst-case scenario is being played out on the world stage. This scenario is defined by: suspending transfer of tax revenues to the PA; restricting trade across borders; restricting or terminating Palestinian labor flows to Israel; and reducing aid flows. This negative scenario is projected to send the Palestinian economy into a downturn of immense proportions, equivalent to a deep depression, with unemployment hitting 47 percent and poverty 78 percent by 2008.

Although this report focuses on developmental interventions rolled out against the more positive backdrop of open borders, ongoing VAT payments, and the like, the report remains germane to the U.S. Government’s desire to shift gears and focus on humanitarian assistance. Humanitarian assistance is defined as “assistance to meet basic human health needs – the provision of food, water, medicine, sanitation services, or other assistance to directly meet basic human health needs.” Although not explicitly addressed in this report, the private sector is uniquely qualified, and extremely well positioned, to assist in the deployment of humanitarian assistance throughout the West Bank and Gaza. In fact, some of the clusters this report examines are absolutely critical to the deployment of food, water, and emergency medical services (for example, food processing, pharmaceuticals, transportation and logistics, and financial services). Also, as highlighted in the report, the employment generation capacity of the selected clusters is enough to mitigate against looming unemployment and poverty projections.

In light of current conditions on the ground, it is incumbent upon the U.S. Government to leverage all available resources to renew its focus on humanitarian assistance for the Palestinian people. Admittedly, and as shown in this report, the main thrust of the Palestinian Enterprise Development (PED) project is to increase the competitiveness of those industries with the potential to drive the Palestinian economy forward. However, it is worth noting that the tools and techniques used to examine and enhance industry competitiveness do not differ much from those used to ensure effective delivery of humanitarian assistance. For example, as with industry clusters, the delivery of humanitarian assistance involves the collective efforts of buyers, sellers, collaborators, shared resources, and a critical mass of information, skills, relationships, and infrastructure. In addition, as with industry clusters, effective delivery requires a solid understanding of existing interorganizational relationships and enabling systems.

In fact, once the preconditions defined by the current political environment are factored into the analysis of this report, the pharmaceutical and agro-industry clusters become the predominant

clusters, followed closely by a number of emerging clusters, including transportation, logistics, and financial services. In the current context, these clusters would certainly be in the first position for receiving for donor support.

In summary, the U.S. Government can use the PED vehicle to build up capacity and mobilize local resources in industries that are along the supply chain for delivering humanitarian assistance. As the report highlights, PED has already completed much of the groundwork and the government could easily leverage it to complement the pending humanitarian relief efforts.

Finally, the Palestinian Enterprise development Project (PED) would like to acknowledge the efforts of many institutions and individuals who participated in the preparations of this report. Our Partner institutions and representatives of the private sector have provided us with valuable information that helped in assessing the competitiveness of the various clusters.

Also, special thanks goes to the United States Agency for International Development (USAID) for their continued support, vision and guidance provided especially by Mr. Dennis Sharma, Director - Private Enterprise Office and Mr. Amir Dajani, Aid Development Assistance Specialist and PED Cognizant Technical Officer.

PED management would like also to extend their sincere appreciation to the following individuals for their efforts in producing this report, Grace Odeh, Clusters Coordinator, Hesham Sobh, Furniture Cluster Manager, Issa Dahdal, Tourism and Handicrafts Cluster Manager, Karen Campbell, Deputy Chief of Party, Khaled Ayesh, Agro-Industry Cluster Manager, Khaled Rajab, Stone and Marble Cluster Manager, Lynne Manrique, Senior Political Economist – CSTED, SRI International, Mamoun Besaiso, Construction Cluster Manager, Mohammed Al-Afranji, Trade Facilitation Manager, Omar Al-Sahili, Clusters Development Manager, Omar Ghosheh, Pharmaceutical Cluster Manager, Peter Boone, Principal Economist – CSTED, SRI International, Rami Wihaidi, Gaza Manager, Reham Al Wehaidy, Institutional Development Specialist and Sushanta Mohapatra, Economist – CSTED, SRI International

Sincerely,

Said Abu Hijleh

Chief of Party

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1. EXECUTIVE SUMMARY

CONTEXT

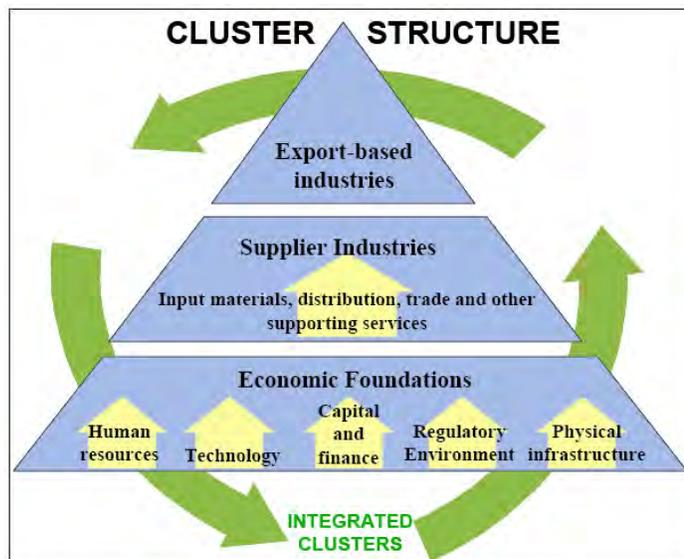
Since the signing of the Oslo Agreement between the Palestinian Liberation Organization and Israel in September 1993, hopes for economic growth and prosperity in the West Bank and Gaza have been high. In the early years following the agreement, gross domestic product (GDP) grew by 4-5 percent annually and, by the end of 1999, unemployment had fallen to single-digit levels, with almost three-quarters of new jobs created in 1998-1999 in the private sector. However, with the start of the Intifada, the economic situation deteriorated: GDP per capita fell 36 percent between 2000 and 2002, and, even with some recovery between 2003 and 2005, GDP per capita today is 30 percent lower than its 1999 level. Moreover, some 43 percent of the Palestinian population falls below the poverty line, with approximately 15 percent living in deep poverty.

For over a decade of economic volatility and political instability, the Palestinian private sector has demonstrated dynamism and the ability to adapt to changes. However, the global economic landscape is very different today from what it was in the past, and with these new global realities, the Palestinian private sector will have to be very creative and efficient to catch up with the competition. The USAID-funded Palestinian Enterprise Development (PED) project presents an opportunity for the private sector to re-engage in development-centric activities that will enhance its competitiveness in the marketplace, address local demands adequately, and drive economic prosperity by exporting its products and services to other countries. The PED project has been envisioned to create employment opportunities in the private sector through sustainable interventions that strengthen the foundations of the Palestinian economy. It is expected that PED interventions will generate \$60 million in new investments, create 6,000 new jobs, increase private sector revenues and local market share by 15 percent, increase exports by \$100 million, increase firm level profits by 10 percent, and create \$10 million in business development service (BDS) transactions.

METHODOLOGY

The PED project is grounded in the proven industry cluster methodology that has been used successfully worldwide to identify, utilize, and nurture competitive advantages of various economic clusters (see Figure 1-1). An industry cluster can be defined as agglomerations of firms in similar or related fields that grow within or are attracted to a region or nation. Clusters rely on an active set of relationships among themselves to ensure individual and collective efficiency and competitiveness. However, factors external to an individual business but internal to the regional economic environment are also increasingly important for creating and sustaining competitive advantage. These foundation

FIGURE 1-1: CLUSTER STRUCTURE



factors—skilled and adaptable human resources, availability of capital and finance, adequate physical infrastructure, access to new technologies, and a responsive regulatory environment—are indicated in the accompanying diagram, which also illustrates overall cluster structure.

Using the cluster structure as a framework, cluster competitiveness programs are processes whereby cluster stakeholders (firms, industry associations, government, economic development agencies, education and training institutions, community representatives, and so on) identify challenges and opportunities that can be addressed more effectively by cooperative actions than individual efforts. Cluster initiatives bring stakeholders together to construct a shared, fact-based vision of the industry's current and future competitive position; identify obstacles to competitiveness and opportunities for future business growth; and develop and implement cluster-level actions aimed at addressing those obstacles and opportunities.

In the West Bank and Gaza, the PED project will not only facilitate the development and communication of a shared vision of competitiveness but also create a process to ensure that actions are taken to build an enabling business environment. The project will achieve this through working groups to disseminate the latest thinking on industry clusters and on building competitive advantages at the firm and industry levels. The specific approach for implementing a cluster competitiveness program in the West Bank and Gaza under the USAID-funded PED program has the following goals:

- Identify key clusters with a strong potential for generating employment, exports, and investment;
- Establish effective public/private coalitions organized around a reasonably defined, common set of challenges and opportunities;
- Identify key policy and institutional constraints and opportunities to growth, and specify practical means to address constraints and exploit opportunities; and
- Define a consensus vision for industry clusters and economic growth. On the basis of that vision, help develop actionable strategies to stimulate the growth of viable industry clusters that will, in turn, be a key engine for sustainable business investment for Palestine.

CLUSTER SELECTION FRAMEWORK FOR THE WEST BANK AND GAZA

The PED project statement of work identified eight clusters, listed below, as the intended initial targets for the project's assistance. At the PED Project Planning Retreat in Jericho during November 2005, the PED team reaffirmed that, based on exploratory interviews and the knowledge of the local team, these eight clusters were indeed suitable for further assessment and potential assistance. These clusters were chosen because of their historical importance to the Palestine economy, preliminary views as to their competitive potential, or their nature as emerging or forward-looking clusters.

- Agro-industry
- Construction and Building Materials
- Furniture
- Handicrafts
- Information and Communications Technologies
- Pharmaceuticals
- Stone and Marble
- Tourism

The cluster selection process aims to identify those clusters in Palestine that hold the most promise in terms of their ability to contribute to the development of the country and take advantage of a cluster development program. Accordingly, the team carried out an assessment of each cluster based on: (1) growth potential; (2) cluster readiness; and (3) Palestine-specific factors, such as potential for rapid employment generation and sensitivity to border closures. Among the resources that the team used in conducting these assessments were:

- Extensive desk research; data collection; and literature review of available, current, and previous research studies prepared by various parties to get a solid background on major issues and previous initiatives associated with the target clusters;
- Formation of, and work with, Cluster Working Groups to gather data, assess cluster strengths and weaknesses, and develop strategies to enhance competitiveness;
- Systematic assessments of the organizational capacity of support organizations linked to the cluster, as a gauge of the cluster’s readiness for collective action; and
- Development of three key analytical outputs including: (1) cluster maps describing the cluster structure, inter-organizational relationships, and enabling systems; (2) rigorous SWOT (strengths, weakness, opportunities, and threats) analyses; and (3) value chain analyses to identify the cost structures of the various cluster activities.

CLUSTER SCORING AND SELECTION RECOMMENDATIONS

The PED study team carrying out the above-described analyses then scored the eight clusters based on the cluster evaluation framework mentioned before. Table 1-1 summarizes the results of the scoring exercise. Chapter II (Summary of West Bank and Gaza Industry Cluster Assessments and Selection Recommendations) provides summary explanations of these scores, with detailed interpretations in the following cluster-by-cluster chapters.

TABLE 1-1: CLUSTER SCORE SUMMARY

Cluster	Cluster Score			
	Aggregate Score	Score Components		
		Growth Potential	Cluster Readiness	Factors Specific to Palestine
Agro-industry	3.28	3.33	3.00	3.50
Construction	3.94	4.33	4.00	3.50
Furniture	3.67	4.00	4.00	3.00
Handicrafts	2.27	2.33	2.00	2.50
Information and Communications Technology	4.22	4.66	4.00	4.00
Pharmaceuticals	3.16	3.66	3.33	2.50
Stone and Marble	3.94	4.66	3.67	3.50
Tourism	2.89	3.00	2.67	3.00

Scoring Range = 0 (very low) to 5 (very high)

Based on the scoring, each cluster was placed into one of four categories as shown in Table 1-2: advanced, developing, emerging, or non-competitive. These categories are intended to “frame” and explain the proposed levels of support that each cluster might receive through the PED project, with the highest levels of support devoted to the clusters that demonstrated the most promise, (that is, the “advanced” clusters), and with selected interventions aimed at “developing” clusters and limited intervention for “emerging” clusters, in order to stretch beyond the currently best-performing clusters and build a “pipeline” of strong economic activity in the West Bank and Gaza. No intervention is warranted for clusters that fall into the non-competitive category.

TABLE 1-2: CLUSTER CLASSIFICATION

Cluster Class	Cluster Group	Total Cluster Score	Level of Support
Advanced	Information and Communications Technology	4.22	Intensive Cluster Support
	Stone and Marble	3.94	
	Construction	3.94	
Developing	Furniture	3.67	Selected Intervention
	Agro-industry	3.28	
	Pharmaceuticals	3.16	
Emerging	Tourism	2.89	Limited Intervention
	Handicrafts	2.27	
Non-competitive	None	n/a	No Intervention
		n/a	

SCORING INDEX: Advanced = 3.75 to 5.00, Developing = 3.00 to 3.74), Emerging = 2.00 to 2.99, and Non-competitive = 0 to 1.99)

POTENTIAL EMERGING CLUSTERS

While the aforementioned tables capture the team’s scoring of the eight initial clusters based on a logical framework and a robust analysis of qualitative and quantitative data, it was evident from this exercise that for the Palestinian economy really to establish and sustain growth momentum, additional industry clusters may need development-oriented intervention. Some of these clusters are recognized formally as industry sectors while others are less formally recognized as organized sectors. However, firms in these clusters serve all productive sectors of the economy, regardless of whether those industries are natural resource-driven (like stone and marble), or labor-driven (like handicrafts), or knowledge-driven (like information and communications technology). The team identified four “potential emerging clusters,” indicated in Table 1-3, which can accelerate development of all the eight core clusters included in the original scope of assessment.

TABLE 1-3: CLUSTER CLASSIFICATION

Cluster Class	Cluster Group	Total Cluster Score	Level of Support
Potential Emerging	Transportation and Logistics	Not investigated	Limited intervention based on detailed assessment to be conducted in the future
	Research, Design and Product Development		
	Financial Services		
	Marketing Services		

Definition and analysis of these clusters were based on the results of a crosscutting analysis of individual industry cluster maps, a critical step of the cluster assessment. In mapping the eight clusters, the team identified firms and organizations that have productive relationships with firms in the core clusters. Based on the insights of industry representatives the team interviewed, these relationships were marked as “satisfactory,” “needs improving,” or “absent.” After these cluster maps were developed, they were all studied collectively and trends in relationships were analyzed across clusters. Based on these observations, the team recommends that interventions be designed to target firms and service providers in these enabling clusters. Collectively called **Business Development Services (BDS) Clusters**, these clusters deserve as much attention as do the core clusters, if Palestine’s economic expansion is to be robust and sustainable in the long run.

CONCLUSION

The process described above—understanding the private sector environment in the West Bank and Gaza, situating current private sector realities within a cluster development methodology and framework tailored to the Palestinian context, and scoring and selecting clusters for different levels of interventions—provides a strong basis for answering the question of how best to configure assistance to produce developmental results in the short, medium, and long term. However, precise answers to this question will vary significantly at the level of implementation. Nonetheless, the types of interventions across clusters share some broad commonalities at the strategic level, including the need for access to markets, access to finance, access to technology and know-how, workforce development and capacity building, and policy and regulatory reform.

Working within these five broad categories will help to position the Palestinian economy as a whole to participate successfully in today's intensely competitive global market. Moreover, using these categories as an organizational tool enables cluster participants to agree upon and prioritize their most pressing needs and subsequently to identify and address specific activities to address challenges or capitalize upon opportunities.

Furthermore, in light of the frequent and sometimes unexpected turns and twists in the political context within which the Palestinian private sector operates, the array of activities in the five categories for strategic action provides an additional benefit in terms of development assistance implementation. Namely, since all initiatives and the activities in them have been identified as contributing to the overall competitiveness of the Palestinian economy, the relative priority of particular actions can be shifted to anticipate or respond to the greatest needs at any given time without deviating from the general course toward economic growth and development. In doing so, the PED project and its cluster stakeholders are positioned to address not only Palestine's immediate crises but also its medium- and longer-term development needs.

2. SUMMARY OF WEST BANK AND GAZA INDUSTRY CLUSTER ASSESSMENTS AND SELECTION RECOMMENDATIONS

PALESTINIAN PRIVATE SECTOR: COPING WITH A VOLATILE ENVIRONMENT

Since the signing of the Oslo Agreement between the Palestinian Liberation Organization (PLO) and Israel in September 1993, hopes for economic growth and prosperity have been very high. GDP grew in the early years by about 4-5 percent annually, and by the end of 1999 unemployment had fallen to less than 10 percent. Construction was one of the major sectors that benefited from this upward trend. Private investment in construction rose to more than \$800 million, and public investment through donors' contributions reached about \$1 billion. The Palestinian private sector was fully engaged in economic activities during these years of relative calm and political stability. Of the estimated 28,600 new jobs created between the first half of 1998 and that of 1999, almost three-quarters were in the private sector. There were also positive trends in planned commercial construction, credit creation by the banking system, and relative stability in consumer prices.¹

However, with the start of the Intifada, the economic situation deteriorated. GDP per capita declined by 36 percent between 2000 and 2002. Despite the gradual recovery in GDP in the period between 2003 and 2005, when the annual growth rate was about 7 percent, the Palestinian economy is still well below its potential. GDP per capita is still 30 percent lower than its 1999 level. The unemployment level as of third quarter 2005 is about 23 percent, more than double its pre-Intifada levels. Unemployment among the younger segment of the population (20-24 years old) remains high, at about 35 percent. Furthermore, some 43 percent of the Palestinian population still falls below the poverty line, with perhaps 15 percent classified as living in deep poverty.²

With the new developments resulting from the latest Palestinian parliamentary elections and the different proposed responses by Israel and the international community, the World Bank has modeled four different scenarios of economic performance. The best-case scenario assumes no change to trade flow to Israel, continued transfer of VAT to the PA, and donor disbursement levels equal to those in 2005. Despite all of this, real GDP per capita growth is expected to decline from 6.3 percent in 2005 to 4.9 percent in 2006, and to turn negative thereafter. By 2008, real incomes as measured by gross domestic income per capita will be 19 percent lower than in 2005, unemployment will grow to 34 percent of the workforce, and poverty will increase to 51 percent of the population.³

Over a decade of economic volatility and political instability, the Palestinian private sector has proved its dynamism and ability to adapt to changes, emerging from uncertain and volatile conditions with new survival strategies that have uplifted the whole economy. However, the global economic landscape is very different today from what it was in the past. Globalization has dramatically transformed the trading environment over the past decade; markets have become more competitive, supply chains more efficient, and consumers more discriminating. With these new global realities, the Palestinian private sector will have to be very creative and efficient to match the competition and not fall behind.

As Palestine is again subject to an economic situation potentially similar to the one before, the Palestinian Enterprise Development (PED) Project presents an opportunity for the Palestinian private

¹ United Nations Special Coordinator's Office in the Occupied Territories, *Report on the Palestinian Economy*, Autumn 1999.

² "The Palestinian Economy and the Prospects for its Recovery," *Economic Monitoring Report to the Ad Hoc Liaison Committee*, No. 1, World Bank, December 2005.

³ *Economic Update and Potential Outlook*, World Bank, March 15, 2006.

sector to re-engage in development-centric activities that will enhance its competitiveness in the market place, address local demands adequately, and drive economic prosperity by exporting its products and services to other countries. The PED project was envisioned to create employment opportunities in the private sector through sustainable interventions that strengthen the foundations of the Palestinian economy. It is expected that PED interventions will generate \$60 million in new investments, create 6,000 new jobs, increase private sector revenues and local market share by 15 percent, increase exports by \$100 million, increase firm-level profits by 10 percent, and create \$10 million in business development service (BDS) transactions

The PED project is grounded on the proven industry cluster methodology that has been successfully used worldwide to identify, utilize, and nurture competitive advantage. The following section summarizes the cluster development methodology in general and the approach taken in the West Bank and Gaza in particular, to identify and prioritize productive clusters for PED interventions.

CLUSTER DEVELOPMENT METHODOLOGY

DEFINING INDUSTRY CLUSTERS

Industry clusters can be defined as agglomerations of firms in similar or related fields that grow within or are attracted to a region or nation. Clusters rely on an active set of relationships among themselves to ensure individual and collective efficiency and competitiveness. The central types of direct relationships include:

- **Buyers and Suppliers.** These relationships encompass the core companies that produce goods and services that are sold to final customers. Buyer and supplier relationships also include companies at earlier stages of the value-adding chain that supply the inputs—raw materials, intermediate goods and services—that are used in the assembly of final goods and services. Distributors of final goods and services, where separate from the producers, are also considered part of the buyer-supplier relationship.
- **Competitors and Collaborators.** Competitor-collaborator relationships exist between companies that produce the same or similar goods and services at a specific level in the value chain. Such relationships can be formal or informal. For example, competitors frequently share information (often unintentionally) about market opportunities or product and process innovations. At times, however, these companies may collaborate formally in mutually beneficial strategic alliances. While there is cooperation in some areas, there must be rivalry among firms in order to create global competitiveness and to promote innovation and excellence.

Relationships also form between companies that use shared resources, including the same sources of raw materials, technology, human resources, services, and information, even though they may use these resources to produce goods and services for very different markets. With these relationships “in place,” industry 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 strong and viable cluster, because 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 creating and sustaining competitive advantage. These foundation factors include:

FIGURE 2-1: CLUSTER STRUCTURE

- Skilled and adaptable human resources;
- Available financial capital to support business expansion and new investment;
- Support of physical infrastructure for transportation, communications, energy and water, and waste-handling;
- Access to technologies on which new products and processes are based; and
- A responsive regulatory and taxation structure that balances business competitiveness with other policy goals.

Industry clustering is a powerful framework for regional economic development because it captures economic relationships among specific industry subsectors and it provides a set of tools for analysis, policy formation, and organization of competitiveness enhancement strategies and initiatives. It is particularly useful in defining medium-term strategies for retaining, establishing, and growing regional industry, and in organizing key stakeholders for action.

DEFINING COMPETITIVENESS INITIATIVES

Cluster competitiveness programs are processes whereby industry stakeholders (firms, industry associations, economic development agencies, education and training institutions, community representatives, and the like) identify challenges and opportunities that can be addressed more effectively by cooperative actions rather than individual efforts. 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; and
- Develop and implement cluster-level actions aimed at addressing those obstacles and opportunities.

DEFINING THE OBJECTIVES OF THE WEST BANK AND GAZA COMPETITIVENESS PROGRAM

The principal objective of the cluster competitiveness program is to create a framework and process for productive change. This program not only facilitates the development and communication of a shared vision of competitiveness but also creates a process to ensure that actions are taken to build an enabling business environment. By generating critical or strategic information that will allow the public and private sectors to adopt timely public policies and competitive business strategies, Palestine will be able to improve its competitive assets and enhance its relative competitive position on the basis of reliable data and solid analysis.

At the cluster level, tools and methodologies are applied to identify challenges, limitations, and opportunities of major industry clusters that are central to the country's economic future. Specific

development interventions emerge from the analysis, pointing out needs for policy improvement, export development, investment promotion, infrastructure enhancement, and human capital development. The specific approach for implementing a Cluster Competitiveness Program in the West Bank and Gaza under the PED project has the following goals:

- Identify key clusters with a strong potential for generating employment, exports, and investment;
- Establish effective public/private coalitions (that is, working groups) organized around a reasonably defined, common set of challenges and opportunities;
- Identify key policy and institutional constraints and opportunities to growth, and specify practical means to address constraints and exploit opportunities; and
- Define a consensus vision for industry clusters and economic growth. On the basis of that vision, help develop actionable strategies to simulate the growth of viable industry clusters that will, in turn, be a key engine for sustainable business investment for Palestine.

The success of the Cluster Competitiveness Program ultimately depends on the commitment of stakeholders to translate into results the strategy and action plans developed through this process. For this reason, the cluster approach maximizes interaction and collaboration with key stakeholders in order to obtain their buy-in from the very beginning.

CLUSTER SELECTION FRAMEWORK FOR WEST BANK AND GAZA

INITIAL LIST OF TARGETED CLUSTERS

The PED project statement of work identified eight clusters, listed below, as the intended initial targets for the project's assistance. At the PED Project Planning Retreat in Jericho during November 2005, the PED team reaffirmed that, based on exploratory interviews and the knowledge of the local team, these eight clusters were indeed suitable for further assessment and potential assistance. These clusters were chosen because of their historical importance to the Palestine economy, preliminary views as to their competitive potential, or their nature as emerging or forward-looking clusters.

- Agribusiness
- Construction and Building Materials
- Furniture
- Handicrafts
- Information and Communications Technologies
- Tourism
- Pharmaceuticals
- Stone and Marble

CLUSTER SELECTION CRITERIA

The cluster selection process aims to identify those clusters in Palestine that hold the most promise in terms of their ability to contribute to the development of the country and take advantage of a cluster

development program. After identifying an initial list of potential clusters, the team carried out an assessment of each cluster, based on the following criteria:

- ***Growth Potential*** – offer a clear promise for future growth, leading to expanded and new investments in productive Palestinian enterprises;
- ***Cluster Readiness*** – demonstrate a level of interest, organizational capacity, leadership, and dynamism; and
- ***Palestine-specific Factors*** – include the potential for rapid employment creation and sensitivity to border closures.

CLUSTER EVALUATION PROCESS

Methodology for Data Collection and Analysis

PED Cluster Managers (CMs) conducted desk research, data collection,⁴ and literature reviews of the available, current, and previous research studies prepared by various parties to obtain a solid background of major issues and previous initiatives associated with the PED target clusters. Table 2-1 summarizes the quantitative data collected for each cluster.

Based on this information, the CMs have developed three analytical outputs. First, the CMs produced cluster maps describing the cluster structure, inter-organizational relationships, and enabling systems. Second, the team created a rigorous SWOT analysis relating to the strengths, weaknesses, opportunities, and threats perceived among the relevant cluster stakeholders. Third, the team engaged in a value chain analysis that identified the cost structure of the various activities carried out in the cluster.

During these activities, the CMs initiated contacts with the cluster stakeholders and conducted introductory meetings. Official cluster meetings were conducted subsequently to trigger two types of activities; (1) institutional assessment activity to assess the governance of these organizations and their readiness to engage with PED; and (2) formation of core industry cluster groups to work with PED on validating desk research, baseline facts, and the cluster maps, with a vision to adding more cluster members on the way.

Institutional assessments were conducted for 12 organizations, and reports were finalized for discussion with the respective organizations to design PED intervention areas. More than 18 cluster working group (CWG) meetings were conducted for the eight designated clusters, depending on the readiness of the cluster players to engage with PED CMs, and the respective industries' feedback on PED desk research was documented. As a result, all of the clusters examined so far now have industry-validated facts and figures, SWOT analyses, value-chain analyses, and identified cluster initiatives.

⁴ A special note is needed regarding the reliability of data in Palestine. The project team observed that, in general, limited data are available and those that are available are typically of questionable reliability.

TABLE 2-1: INDICATORS FOR WEST BANK AND GAZA CLUSTERS

Cluster Indicators	Pharmaceuticals	Agro-Industry	Furniture	Tourism	Handicraft	Stone & Marble	Construction	ICT
General Cluster Performance Indicators								
Total Number of Enterprises	6	1532	1,100	608	1,020	1,124	>900	400
Contribution to GDP (%)	<1	4	3	4	<1	5.5	4.6 % (2004) 10.9% (1999)	1.08%
Local Market Size (\$m.)	est. 70-90	916.34**	38	400	60	79	500	300
Share of Local Market (%)	est. 45%	52%	76%	20%	30%	50%	80%	65%
Total Revenues (\$m.)	38.00	237.5	45	68	26	270	320	200 M (2005)
Total Export (\$m.)	3.40	21.76	7	48	20.00	183.6	N/A	2M (2001), 10 M (2005)
Workforce Indicators								
Contribution to Employment (%)	3.16%	15.37%	4.56%	1.90%	2.37%	9.85%	12.66%	0.73%
Total # of Employees in Sector	859	7442	10,000	5,800	12,000	13,500	50,000	2,000
Total # of Employees in Cluster	20,000	97,168	28,800	12,000	15,000	62,250	80,000	4,600
Average Worker Pay/ Month (\$)	550.00	365.17	440	390	200	230(PCBS), 500(USM)	(\$300 - 800)	Starting \$500, Advances >\$800
Value Added/Worker (\$)	20,881	13,669	19,189	15,744	N/A	11,225	17,236	\$18,579 SW & HW/ \$72,008 Telecom

**Projected for 2005 based on PCBS 2004 food consumption per capita.

Sources: The Palestinian Central Bureau of Statistics (PCBS) Website (www.pcbs.gov.ps) and PED field research

Evaluation Criteria and Rationale

Each cluster was analyzed according to three broad evaluation criteria, described below.

1. Growth Potential

In order to receive assistance, the cluster should offer clear promise for future growth, leading to expanded and new investments in productive Palestinian enterprises. Growth potential is one of the most critical factors in cluster analysis. Experience in many regions has shown that high-growth industries often become higher-wage industries, as sustainable competitive advantages in those industries develop. A cluster's growth potential is determined on the basis of the following three factors:

- **International Market Assessment** – Even a cluster with an extremely competitive position and one that has been growing quickly may not have significant potential for future growth if it is in a dying industry. This segment assesses whether the international market is expanding, stagnant, or contracting for the products in which each cluster specializes.
- **Competitive Position** – Every cluster is affected by new developments in technologies, demographics, demand and supply chains, which together represent key “drivers” for the industry. In order to compete, clusters must respond to—or be ahead of—these drivers so that they can attain, maintain, or improve their competitive position. In assessing competitive position, the team used key questions such as: What are the cluster's niche markets or products? What is the nature of the cluster's advantage, for example, geographical location, specialized competencies/skills, one-of-a-kind products? What countries are key competitors, and how do Palestine products/services differ from the competitors?
- **Recent Performance** – While past growth may not concretely predict long-term future growth, it is nevertheless one of the best sources of revealed competitiveness of the clusters. In other words, if a cluster has been growing well in the recent past, as long as the industry has not shifted dramatically, recent performance is a good indicator that the cluster has at least some of the characteristics needed to compete successfully in the market. Palestine presents special challenges in this regard, as it is currently recovering from the Intifada-related economic effects. Nearly all industries therefore have witnessed some stagnation or declines, which probably says more about the recent macroeconomic environment than it does about the strength and resiliency of the individual cluster. Available data on performance from 2000-2005 have been used to inform the analysis of recent performance.

2. Cluster Readiness

In order to maximize the impact of the cluster development support component of the PED project, selected clusters must have demonstrated a certain level of interest, organizational capacity, and dynamism to ensure that the cluster is able to absorb or take full advantage of project resources. Readiness is a core part of the cluster approach, because the approach emphasizes developing and strengthening synergies among diverse stakeholders. In examining cluster readiness, the team analyzed three distinct areas:

- **Commitment** – In order to gauge cluster commitment to working together, the team relied upon the following key questions and issues: Do potential leaders and organizations linked to the cluster show an interest in and commitment to the competitiveness approach? If there is a formal industry association, how effective is it? What percentage of the firms in the cluster belongs to the industry association? Have members of the cluster group worked together in the past? What

has been their participation in PED cluster working group meetings, and/or in past USAID projects?

- **Cluster Dynamism** – Rivalry among firms as well as the quality and intensity of the relationships among different elements such as suppliers and support industries are all important “social capital” elements of a healthy cluster. These elements are combined in the category of “cluster dynamism,” for which the team assessed questions including: Are cluster participants generally open to change/new ideas/innovation? Are cluster members willing to self-assess and work internally in order to make changes? How have cluster members responded to market changes (for example, introduce new products, obtain compliance with international standards/certification, and so forth)?
- **Critical Mass** – As discussed above, clusters are geographically concentrated agglomerations of firms and support institutions. To measure the “critical mass” of the eight clusters in the West Bank and Gaza, critical areas such as the following were examined: When looking at the cluster map, how deep and broad is the Palestinian cluster supply chain? How extensive and longstanding are the linkages among cluster firms and supporting organizations such as associations, universities, and financial institutions? How many firms and institutions are in the cluster?

3. Factors Specific to the West Bank and Gaza

In order to tailor the cluster development program to the specific needs of Palestine in its current economic and political situation, the team also developed Palestine-specific scoring criteria. This set of criteria will ensure that the project responds to challenging contextual factors that affect project success. The following two key issues specific to Palestine have been identified and will be taken into consideration:

- **Potential for Rapid Employment Generation** – In light of current poverty and unemployment rates in the West Bank and Gaza, the opportunity to spur rapid growth in new jobs is critical for the cluster development program. Accordingly, key questions include: Does the cluster have the potential to generate significant employment opportunities in the short and medium term? If so, approximately how many jobs?
- **Sensitivity to Border Closures** – In the current political context, border closures greatly affect the Palestinian economy; as a result, clusters that are less affected by such closures have the potential to sustain economic momentum even in trying circumstances. In order to identify the relative sensitivity of each cluster, each was assessed according to the extent to which it is “closure sensitive,” that is, significantly affected by changes in border openings and closings.

CLUSTER SCORING AND SELECTION RECOMMENDATIONS

SCORING

The PED study team carried out the above-described analyses and then scored all eight clusters on the basis of the cluster evaluation framework mentioned before. Table 2-2 summarizes the results of the scoring exercise; a narrative description of each cluster follows the table.

TABLE 2-2: CLUSTER SCORE SUMMARY

Cluster	Cluster Score			
	Aggregate Score	Score Components		
		Growth Potential	Cluster Readiness	Factors Specific to Palestine
Agro-industry	3.28	3.33	3.00	3.50
Construction	3.94	4.33	4.00	3.50
Furniture	3.67	4.00	4.00	3.00
Handicrafts	2.27	2.33	2.00	2.50
Information and Communications Technology	4.22	4.66	4.00	4.00
Pharmaceuticals	3.16	3.66	3.33	2.50
Stone and Marble	3.94	4.66	3.67	3.50
Tourism	2.89	3.00	2.67	3.00

Scoring Range = 0 (very low) to 5 (very high)

Agro-industry: This cluster is reasonably well positioned from a competitiveness standpoint, with international market trends encouraging for its growth potential and the (albeit gradual) movement of the West Bank and Gaza cluster toward niche markets in ethnic and organic foods indicating forward-looking behavior and some new product development. The cluster’s readiness to work collaboratively is based more on recent interactions with the DAI PED team than on past collective action, but these recent signals have been promising. Agro-industry offers high potential on issues that are particularly important in the West Bank and Gaza economy, such as employment generation, which—as a labor-intensive cluster—its growth would entail; however, the cluster’s health is somewhat sensitive to border closures.

Construction: Construction is a cluster with strong growth potential and readiness for collective action and with above-average performance on key factors related to West Bank and Gaza circumstances. Its strong growth potential ratings are based not only on global forecasts but also on the local context, which includes a diversified product and service base. Likewise, the past collaboration of its firms and support institutions translate into relationships that should propel fruitful and immediate coordinated activities. With history of labor absorption reaching more than one-fifth of workers, construction is positioned to resume its vital role in job creation, although the cluster’s fortunes do fluctuate with the political context.

Furniture: The West Bank and Gaza furniture cluster scores well on both growth potential and cluster readiness, based on a growing global market and on local products that, despite a lack of brand recognition and competition from other countries, are unique and of high quality. Having demonstrated adaptive strategies for facing challenges and responding to market demands, the cluster also enjoys committed support institutions that have worked together in the past. Its potential for employment generation is quite high, but, like other industries, furniture is sensitive to border closures, which impede imports of raw materials and exports of finished products.

Handicrafts: Because of lack of information, the competitiveness assessment for handicrafts must be considered preliminary. However, initial findings are that the cluster could produce results with targeted interventions. Integrally linked with tourism, handicrafts products in the West Bank and Gaza could respond to this growing international market if issues such as product differentiation are addressed; however, further investigation is needed to ascertain precisely the level of cluster commitment to working together. With a similar level of sensitivity as most other industries to the

political environment, handicrafts offers considerable opportunity for employment generation among important groups such as women and rural residents.

Information and Communications Technology (ICT): The ICT cluster’s score of 4.22 out of 5 implies very strong potential for the cluster’s development prospects. Within this globally expanding market, ICTs in the West Bank and Gaza benefit from expanding demand for IT solutions in the Arab world and from enormous opportunities in the local market. Given the cluster’s already established practice of working effectively through its representative association, ICT demonstrates high cluster readiness. Unlike other industries in the Palestinian Territories, however, ICTs are relatively less affected by border closures, and they offer good potential for job creation.

Pharmaceuticals: The pharmaceutical cluster offers considerable promise for generating growth. The global marketplace is growing, especially for generics, and exports by West Bank and Gaza companies shot up significantly in 2004 and 2005. With a small number of firms, all of which belong to the one industry association, the cluster is positioned reasonably well for coordinated efforts. However, because of dependence on imports of raw materials, as well as the desire to export more products, border closures are an important issue for the cluster. Moreover, the cluster offers low potential for employment generation.

Stone and Marble: With 3.94 points out of 5, the stone and marble score reflects booming international demand as well as the underlying strength of the cluster’s products, linkages to export markets, and resilience within tumultuous circumstances. Moreover, this long-established industry benefits not only from the depth and sheer numbers of its individual firms but also from the existence of an association that encourages joint efforts. The stone and marble cluster offers very high potential for job creation and about average sensitivity to border closures.

Tourism: The unique religious and culture heritage of the West Bank and Gaza seemingly makes the area a natural fit for tourism, but the cluster’s potential has been under-realized because of political uncertainties. Nonetheless, targeted interventions in the cluster offer potential for short- and medium-term benefits and lay the foundations for longer-term impact in this globally expanding industry. With a considerable critical mass of both private enterprises and industry associations, among which relationships already exist, the cluster demonstrates good readiness for collaborative activities. Moreover, with greater stability in the region, tourism would offer substantial employment opportunities.

SELECTION AND INTERVENTION RECOMMENDATIONS

As the basis for using the cluster scores in project planning, the team constructed cluster categories rooted in the zero to five scoring index. To define the categories, first the numerical index was divided into percentage groupings; Table 2-3 outlines the ranges of these groupings. From the four groupings, the team delineated three cluster categories:

- “Advanced,” which encompasses the top 25 percent of the numerical index;
- “Developing,” which includes the range of 60-74 percent of possible points;
- “Emerging,” which covers the scoring range of 40-59 percent; and
- “Non-competitive,” comprised of the lowest 39 percent.

The highest and lowest categories are self-explanatory. The rationale for the “developing” and “emerging” cluster categories is twofold. Most importantly, past experience in

Percentage Grouping	Scoring Index Range
75% to 100%	3.75 to 5.0
60% to 74%	3.0 to 3.74
40% to 59%	2.0 to 2.99
0% to 39%	0 to 1.99

cluster development assistance projects has shown that, for a number of reasons, it is beneficial to implement activities in a portfolio of clusters. One reason behind a portfolio approach is that a varied portfolio minimizes the risk that external events (for example, SARS outbreaks for tourism or disease outbreaks for agro-industry) affect all project outcomes. The involvement of multiple clusters also prompts a healthy degree of inter-cluster competition for resources, thereby serving as an incentive for sustained cluster activity. Moreover, because cluster development programs are a blend of “art and science,” meaning that all results cannot be projected linearly, it is normally beneficial to begin with a wider group of clusters and then pare back—or alter course—as progress evolves.

The four categories are intended to “frame” and explain the proposed levels of support that each cluster receives in a cluster development program. Logically, the highest levels of support are devoted to the clusters that demonstrate the most promise, as revealed by the competitiveness assessments. Because these “advanced” clusters offer the opportunity for substantial, short-term impacts from assistance, intensive support to “jump start” their collaborative efforts is warranted and recommended. Advanced clusters typically receive support for multiple activities in all or most of the five cluster foundation areas, that is, access to markets, access to finance, access to technology and know-how, workforce development and capacity building, and policy and regulatory reform.

In order to build a “pipeline” for sustained economic growth, there is a need for action beyond the currently best-performing clusters. Accordingly, cluster development programs often support middle-ranking clusters with targeted interventions. Selected interventions for developing clusters are those that offer substantial prospects for economic contributions in the medium (and longer) term with some expectation of short-term results. Interventions in “developing” and “emerging” clusters also may be chosen to “test” one or more aspects of a cluster, such as its commitment to working as a group, to addressing foundational issues, or to trying to overcome an especially significant barrier. Assistance efforts for “developing” clusters normally focus on a few particular areas, with periodic reassessments and monitoring of results to gauge changes in internal cluster relations and circumstances as well as shifts in external factors affecting cluster performance. “Emerging” clusters receive only limited support, reflecting the relatively low “return” (that is, results) that are expected in the near term.

Based on the scoring, the team placed each West Bank and Gaza cluster into one of the four categories, summarized in Table 2-4. As indicated, three of the eight West Bank and Gaza clusters meet the threshold for “advanced” clusters (that is, they scored above 3.75 points), namely, ICTs, stone and marble, and construction. The team recommends that these clusters receive the broadest and most intensive technical assistance and support through the PED project. Three others clusters—furniture, agro-industry, and pharmaceuticals—fall within the “developing” cluster category (scoring between 3.00 and 3.74 points), indicating that they should receive support for specific interventions designed to strengthen or gauge their capacity to work as a cluster, or to set the internal foundations for growth. Two clusters—tourism and handicrafts—fall in the “emerging” category, with scores between 2.00 and 2.99, indicating that limited interventions are called for. None of the West Bank and Gaza clusters fall into the “non-competitive” range.

TABLE 2-4: CLUSTER CLASSIFICATION

Cluster Class	Cluster Group	Total Cluster Score	Level of Support
Advanced	Information and Communications Technology	4.22	Intensive Cluster Support
	Stone and Marble	3.94	
	Construction	3.94	
Developing	Furniture	3.67	Selected Intervention
	Agro-industry	3.28	
	Pharmaceuticals	3.16	
Emerging	Tourism	2.89	Limited Intervention
	Handicrafts	2.27	
Non-competitive	None	n/a	No Intervention
		n/a	

SCORING INDEX: Advanced = 3.75 to 5.00, Developing = 3.00 to 3.74, Emerging = 2.00 to 2.99, and Non-competitive = 0 to 1.99

POTENTIAL EMERGING CLUSTERS

While the above tables capture the team’s scoring of the eight initial clusters based on a logical framework and a robust analysis of qualitative and quantitative data, it was evident from this exercise that for the Palestinian economy to establish real and sustained growth momentum, development-oriented interventions need to be considered for additional industry clusters. Some of these clusters are recognized formally as industry sectors while others have a less formal recognition as organized sectors. However, firms in these clusters serve all productive sectors of the economy, irrespective of whether those industries are natural resource-driven (like stone and marble), labor-driven (like handicrafts), or knowledge-driven (like information and communications technology). The team identified these as “potential emerging clusters” that can accelerate development of all eight core clusters included in the original scope of assessment.

Definition and analysis of these clusters were based on the results of a crosscutting analysis of individual industry cluster maps, a critical step of the cluster assessment. In mapping the eight clusters, the team identified firms and organizations that have productive relationships with firms in the core clusters. Based on the insights of cluster representatives whom the team interviewed, these relationships were marked as “satisfactory,” “needs improving,” or “absent.” After these cluster maps were developed, all were studied collectively and trends in relationships were analyzed across clusters. The exercise led to the following observations:

- Each cluster has a unique set of relationships with firms offering their services specifically to the cluster in which they operate; for example, cold chain providers for agro-industry or active ingredient suppliers for the pharmaceuticals cluster.
- Each cluster also has a set of relationships with a more generic set of firms and organizations offering services to more than one cluster; for example, firms providing financial resources, or organizations generating and providing innovation.
- Firms offering their products and solutions to more than one cluster are as important to enterprise development as firms within specific clusters. They can catalyze or hinder growth of individual clusters and thus can prove to be critical externalities.

Transportation and Logistics, Design and Research and Development (R&D), Financial Services, and Marketing are four clusters that are critically important to all productive industries. Firms in these clusters provide business-to-business services that enable other firms to identify unique

market needs, develop products and services that satisfy those needs, provide resources for procurement of input material and production of goods and services, and finally, deliver those products and services to consumers. Together, these firms enable the transformation of inputs—labor, material, and knowledge—into outputs that expand consumer choices. In the absence of these firms, economic sectors become less efficient, consumer choices shrink, and economies become less productive. Collectively called the ***Business Development Services (BDS) Clusters***, these clusters deserve as much attention as do the core clusters for Palestine’s economic expansion to be robust and sustainable in the long run.

The crosscutting analysis of individual cluster maps of the eight core clusters indicates that the abovementioned BDS clusters either do not exist in terms of influence on each of the eight clusters, or even if they are present, their relationships with other clusters are weak and need improvement. Based on these observations, the team recommends that appropriate interventions be designed to target firms and service providers in the four BDS clusters listed Table 2-5; a narrative description of the importance of the BDS clusters follows the table.

TABLE 2-5: CLUSTER CLASSIFICATION

Cluster Class	Cluster Group	Total Cluster Score	Level of Support
Potential Emerging	Transportation and Logistics	Not Investigated	Limited Intervention based on detailed assessment to be conducted in the future
	Research, Design, and Product Development		
	Financial Services		
	Marketing Services		

- **Transportation and Logistics:** Given the importance to all clusters of transfer of raw materials, products, and people within the West Bank and Gaza, between the West Bank and Gaza, and between West Bank/Gaza and other export destinations, the transportation and logistics cluster needs strengthening. This cluster comprises shipping companies, packaging and materials handling firms, customs clearance providers, and passenger and cargo transporters.
- **Research, Design, and Product Development:** Although not formally organized as a cluster, firms and organizations providing these competencies have common foundations in knowledge generation, dissemination, and use. This enabling cluster may include for-profit enterprises, academic R&D centers, not-for-profits, and the like.
- **Financial Services:** Most of the eight clusters identified the absence of readily accessible financial resources and instruments required for industrial growth in Palestine. Therefore, this set of organizations—including banks and insurance providers, venture capitalists, seed capital and venture funds, loans, and development assistance grant providers—should be organized as a cluster and interventions should be designed to strengthen their foundations.
- **Marketing Services:** Understanding consumer preferences and market trends requires specialized skills that manufacturers and service providers often lack. Firms focusing on filling those gaps through market research and business intelligence analysis are therefore important to any industry’s development. Many of the eight core cluster maps point to the absence of these specialized firms in Palestine. Therefore, organizations that include market researchers, competitive intelligence providers, consulting houses, brand managers, and advertisement units should be organized as a key BDS cluster and appropriate interventions must be designed to support their performance.

CONCLUSION

The process described above—understanding the private sector environment in the West Bank and Gaza, situating current private sector realities within a cluster development methodology and framework tailored to the Palestinian context, and scoring and selecting clusters for different levels of interventions—provides a strong basis for answering the question of how best to configure assistance to produce developmental impacts in the short, medium, and long term. However, as the preceding discussion (which offers a synopsis of each cluster’s history and current status and circumstances) implies, and as the following and more detailed chapters will describe, the precise answers to this question will vary significantly at the level of implementation. Nonetheless, the types of interventions across clusters share some broad commonalities at the strategic level, including the need for:

- Access to markets;
- Access to finance;
- Access to technology and know-how;
- Workforce development and capacity building; and
- Policy and regulatory reform.

Working within these five broad categories will help to position the Palestinian economy as a whole to participate successfully in today’s intensely competitive global market. Moreover, using these categories as an organizational tool enables cluster participants to agree upon and prioritize their most pressing needs and subsequently to identify and address specific activities to address challenges or capitalize upon opportunities. As described fully in the following chapters, CWG members have identified a wide array of actions, reflecting the heterogeneity of the clusters. Focused on everything from achieving compliance with international standards to increasing export market exposure, the targeted activities represent a significant step forward in coalescing the ideas and efforts of the Palestinian private sector and its supporting institutions into strategic action.

In light of the frequent and sometimes unexpected turns and twists in the political context within which the Palestinian private sector operates, the array of activities contained within the five categories for strategic action provides an additional benefit in terms of development assistance implementation. Namely, since all initiatives and the activities within them have been identified as contributing to the overall competitiveness of the Palestinian economy, the relative priority of particular actions can be shifted to anticipate or respond to the greatest needs at any given time without deviating from the general course toward economic growth and development. In so doing, the PED project and its cluster stakeholders are positioned to address not only Palestine’s immediate crises but also its medium- and longer-term development needs.



3. AGRO-INDUSTRY CLUSTER ASSESSMENT

CLUSTER OVERVIEW

This report provides a systematic review of the global and local factors, trends, and context that frame and influence potential USAID assistance to the West Bank and Gaza agro-industry cluster through the Palestinian Enterprise Development (PED) project. The report draws upon locally and internationally available research and data for the cluster as well as PED's extensive interaction with members of the West Bank and Gaza agro-industry. Using these materials, a "score" was given that represents a numerical assessment of the cluster's current status and future potential and that pinpoints assets and liabilities towards which USAID-funded activities can be targeted.

Globally, the agribusiness industry is an approximately \$3.2 trillion business (2004). Global food retail sales exceed \$2 trillion annually, with supermarkets/hypermarkets accounting for the largest share of sales. Among the major trends affecting the industry are: the increasing importance of food safety standards; the desire for more nutritious and healthier foods (for example, low fat, low cholesterol, and organic); reduction of tariff and non-tariff barriers; increased significance of processed foods; higher values for processing, as opposed to commodities; increasing global population; strong demand in the Gulf region related to the recent oil boom; and expansion in the Arab market.

The processed food industry is one of the oldest industries in the West Bank and Gaza, founded in the early 1950s with the establishment of a few candy factories and today producing more than 100 basic products. The industry has shown constant growth in the local market, increasing share from 25 percent in 1996 to 45 percent in 2003. The food processing industry employs about 7,439 workers, 39 percent of them self-employed family owners, and most of them working for wages. About 84 percent of workers are in production and 11 percent of workers work in management and supervisory functions. The value added of agricultural production of the Palestinian Territory amounted to about \$555 million in 2003, of which plant production accounted for 74.2 percent and livestock production constituted 25.8 percent.⁵ Export statistics showed a surplus in 2003 in net trade balance, including \$2.3 million of crude animal and vegetables, \$172,000 of hides and skins, and \$58,900 of sugar preparations and honey.⁶ Palestinian cash crops (strawberries, vegetables, guava/jawafa, and olives) are exported mainly to the Israeli market and to a limited extent to other countries.

Major strengths of the West Bank's and Gaza's agro-industry cluster include its favorable climate, adaptability, and relevant human resources. Its weaknesses are centered on reliance on imported raw materials and machinery from Israel and Europe, dependence on low cost strategies, and inadequate infrastructure (for example, cold storage capacity) and market intelligence. Future opportunities exist in expansion to the large and growing Arab market as well as the emergence of new product segments such as organic and ethnic foods. In addition to the uncertainties presented by the current political situation, the agro-industry cluster also faces threats from global phenomena such as bird flu, mad cow disease, and natural disasters, among others.

Table 3-1 provides an aggregate assessment of the cluster's current status and future potential as well as individual scores for key components and subcomponents related to the industry's competitiveness. As indicated by its aggregate score of 3.28, the agro-industry cluster offers considerable promise for generating growth on a scale that will help transform the West Bank's and Gaza's economy.

⁵ PCBS Website: <http://www.pcbs.org/desktopmodules/articles/articlesview.aspx?tabID=0&lang=en&ItemID=750&mid=10945>

⁶ PCBS, Agricultural Statistics 2003/2004.



Within the “growth potential” component, the West Bank and Gaza agro-industry cluster benefits from the expanding global market for food, although participation in this worldwide trend will be marked by significant competition from both developed and developing countries. In terms of the cluster’s competitive position, it does have some niche products, as well as advantages from its cultural and religious legacy, but other countries pose competition on both price and quality grounds. Although the cluster’s recent performance has fluctuated, optimism rests with a slow evolution toward ethnic and organic food and expansion of exports in target markets.

In terms of “cluster readiness,” the agro-industry cluster scores in the middle. Without a past history of collaboration, cluster members nonetheless express commitment to cooperating in the future. The cluster appears forward-looking in terms of adding some new products and export markets, but it remains less proactive regarding investments to improve quality and efficiency, and the long history of inter-firm rivalry is difficult to eliminate quickly. Moreover, while the base of food processors and manufacturers is wide, support institutions (including financial and technical assistance providers) are inadequate.

In terms of key considerations for the West Bank and Gaza, the agro-industry cluster offers very strong opportunities for rapid employment creation because of its labor intensity. However, the cluster is definitely sensitive to border closures because of the perishable nature of some of its products and because most raw materials are imported.

TABLE 3-1: SCORING OF THE AGRO-INDUSTRY CLUSTER

Growth Potential		Cluster Readiness		Factors Specific To West Bank and Gaza		Aggregate Assessment
3.33		3		3.5		
International Market	4	Commitment	3	Potential for Rapid Employment Creation	5	
Competitive Position	3	Dynamism	3	Insensitivity to Border Closures	2	
Recent Performance	3	Critical Mass	3			
						3.28

Scoring Range = 0 (very low) to 5 (very high)

INDUSTRY CLUSTER ASSESSMENT

INTERNATIONAL TRENDS IN THE INDUSTRY

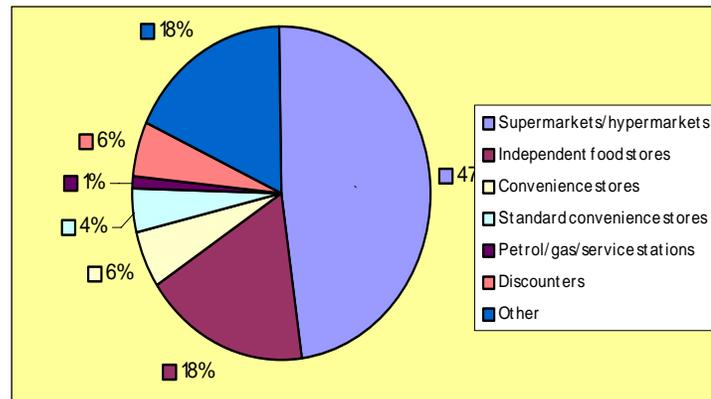
Globally, the agribusiness industry is an approximately \$3.2 trillion business (as of 2004). Global food retail sales exceed \$2 trillion annually, with supermarkets and hypermarkets accounting for the largest share of sales, as shown in Figure 3-1. Most of the leading global retailers are American and European firms, as large multinational retailers have expanded their presence in developing, while small retail firms increasingly account for a smaller share of total food sales. The top 15 global supermarkets account for more than 30 percent of world supermarket sales. With improved



technologies and economies of size, these retailers enjoy operating cost advantages over smaller local retailers.⁷ Several global trends are prominent in this industry, including:

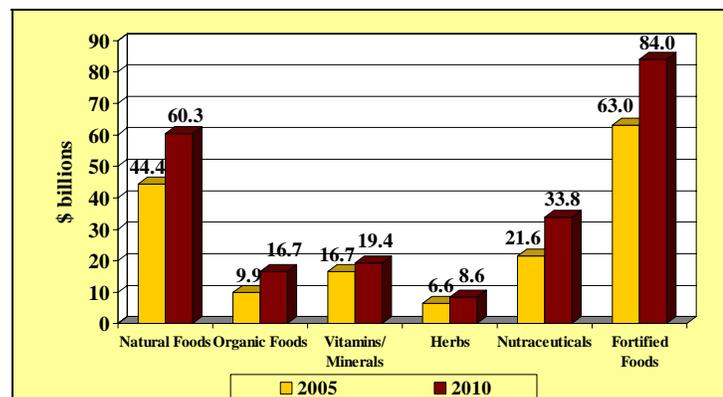
- The increasing importance of food safety standards.** In order to compete in developed country markets, food processors increasingly will be required to comply with strict quality assurance procedures such as HACCP, ISO 9002, and ISO 14000. To ensure that strict sanitary procedures are followed, buyers' representatives often visit suppliers' food plants.

FIGURE 3-1: SHARE OF GLOBAL PACKAGED FOOD SALES



- More nutritious and healthier food** is one of the fastest growing and highest margin segments of the global food industry (see Figure 3-2). Demand for nutritious, healthy products is growing, particularly for low fat, low cholesterol foods, and “organic” foods, the last of which has grown at an average rate of 10 percent per year in North American and Europe and which earns prime premiums of 20-30 percent higher than conventional products. In addition, consumer preference for less processing and fewer food additives is growing.

FIGURE 3-2: GROWTH OF U.S. HEALTHY FOOD MARKET



- Globalization and the reduction in tariff and non-tariff barriers benefit internationally focused agribusiness companies.** The WTO (GATT) agreement exemplifies the continued trade liberalization trend, reinforced by the continuing advances in transportation, telecommunications, and information technologies. Table 3-2 illustrates the WTO-related effects on agro-industry.

⁷ Source: USDA Bureau of Economic Research



TABLE 3-2: WTO-RELATED EFFECTS ON AGRO-INDUSTRY

	Developed countries 6 years: 1995 - 2000	Developing countries 10 years: 1995 - 2004
Tariffs		
Average reduction for all agricultural products	-36%	-24%
Minimum reduction per product	-15%	-10%
Domestic support		
Total tariff reductions for sector (base period: 1986-88)	-20%	-13%
Exports		
Value of subsidies	-36%	-24%
Subsidized quantities (base period: 1986-90)	-21%	-14%

Source: World Trade Organization

- **Increased importance and value of processed food.** Over the past decade, European and U.S. commodity exports decreased by 4 percent in volume terms, while their processed food exports increased by 80 percent. Developing countries that failed to make significant shifts out of commodities into higher value products have lost ground in their world market share. Moreover, producers receive far higher prices for processed food products than they do for raw material commodity products—typically 5 to 10 times higher.
- **Increasing population.** The world's population is expected to grow from 6 billion people in 2000 to 7.5 billion people in 2020. Availability of land for farming is on the decline and water for agriculture and other uses is increasingly scarce.⁸ Together, these and other forces will challenge the capacity of the world's food production.
- **Strong demand in the Gulf Region.** The recent rise in prices in the nearby Gulf countries has led to strong demand for imported foods, especially processed foods, dairy products, meat, and high value fresh foods and specialty products. Demand is particularly strong for food imports in Saudi Arabia and the United Arab Emirates (UAE).
- **The Arab market is expanding.** The Arab world has a huge consumption market, with imports of approximately \$220 billion per year, a production value of more than \$700 billion, and annual investments of around \$150 billion. Arab countries' agro-industry exports exceed \$270 billion, but the West Bank and Gaza's contribution to the Arab market is only 0.5% of production, 0.3 % of investments, 0.15% of exports, and 0.37% of imports.⁹

The trends outlined above will shape the competitiveness outlook for the Palestinian agro-industry cluster for many years to come. Companies will need to respond to these drivers of competitiveness and take advantage of the business opportunities emerging from these trends.

⁸ Rosegrant, Mark W., et al. "2020 Global Food Outlook, Trends, Alternatives, and Choices," International Food Policy Research Institute, Washington DC, August 2001.

⁹ Arab Monetary Fund. The United Arab Economic Report for 2003.



GENERAL CLUSTER DESCRIPTION IN WEST BANK AND GAZA

One of the oldest industries in the West Bank and Gaza, the processed food industry plays a key role in the Palestinian Territories' food security and economic growth. Palestinian food processing firms produce more than 100 basic commodities including bakery products, meat, dairy, oil, sweets, soft drinks, animal feeds, canned food, pasta, grains, confectionaries, and so on.¹⁰

Comprising less than 20 percent of the total number of industrial firms, West Bank and Gaza agro-industry firms include olive presses, citrus packing, food processing, olive pickling, cigarettes, and dairy plants, among others. Many of these firms, especially those related to dairy products, food processing, and tobacco, use imported inputs, thus limiting the linkages between the industry and domestic agriculture. Imported inputs are used because some local inputs (produced by many small farmers that have weak cooperative arrangements) are often not available in the volume needed, in the time needed, or in an efficient manner. Jenin, Hebron, and Rafah provide sustainable agricultural inputs into the industry and contributed the lion's share of the value added from agricultural output.¹¹

The cost of labor is estimated at about 22 percent of the manufacturing value added, excluding the cost of owner-family members.¹² In 2002, there were 3,540 people working in bakeries, while in dairy plants, there were 738. In sweets and chocolate plants, there were 641 workers, and in meat processing plants there were 476 workers.¹³

The fixed capital formation of the food processing industry averaged 26 percent of the total manufacturing fixed capital formation between 1994 and 2002. In 2002, dairy plants received about \$1.07 million out of \$2.75 million invested in the food industry. Total investment in food industries topped \$88 million by the end of 2002,¹⁴ while the Palestinian Food Industry Association (PFIA) recorded that the total investment (total assets) in the industry was \$350 million since its inception.¹⁵

The local demand for processed food in the West Bank and Gaza is estimated to be \$1,369 million in 2006. Spending on food varies based on income level, but the average spending is estimated at 36 percent of family income in the West Bank and 45 percent in the Gaza Strip.¹⁶

Palestine's agro-industry cluster map and value chain appear below in Figures 3-3 and 3-4. As they show, many parts of the cluster's inputs, processes, and supporting industry are either satisfactory or they exist with some needs for improvement. Product development, preventive maintenance, and cold chain systems are absent and, consequently, affect the performance of the cluster.

¹⁰ Palestinian Food Industry Association Website: <http://www.pfi.ps/>

¹¹ PCBS Website: <http://www.pcbs.org/desktopmodules/articles/articlesview.aspx?tabID=0&lang=en&ItemID=750&mid=1094>

¹² PCBS 2003 statistics.

¹³ PALTRADE: The Palestinian Food Sector-Trade Development Strategy, March 2005.

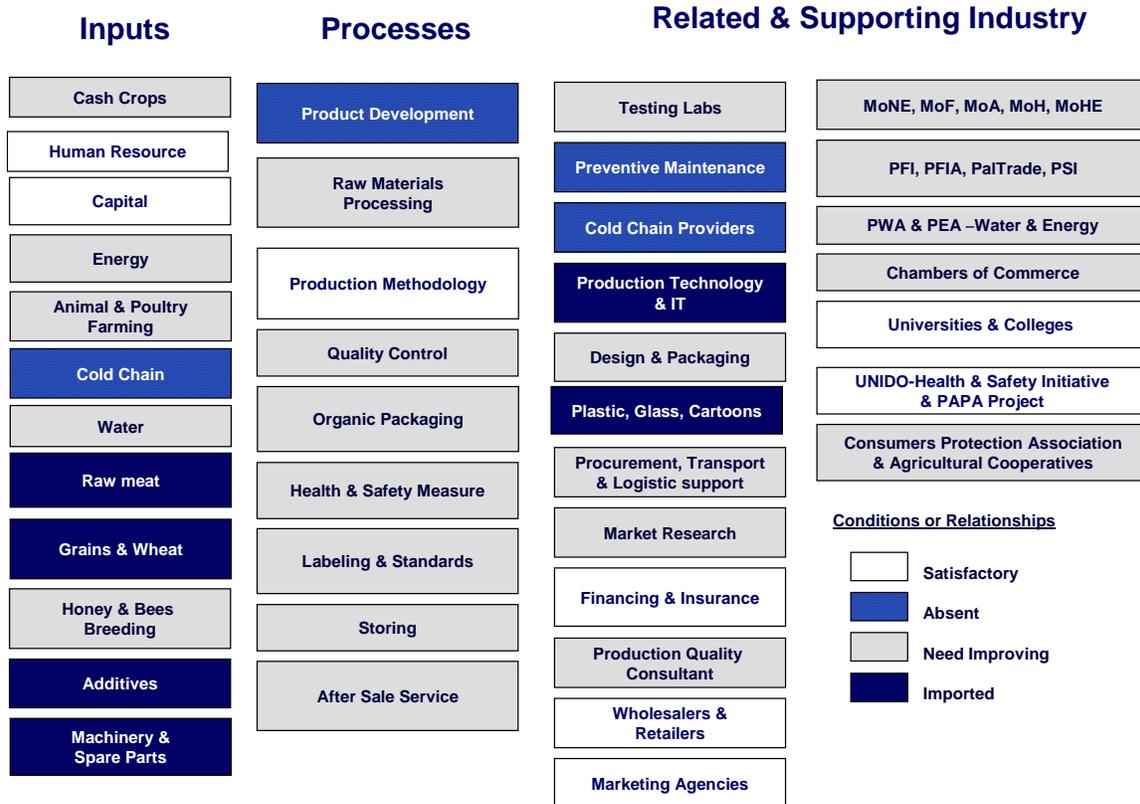
¹⁴ Ibid.

¹⁵ Palestinian Food Industry Association Website: <http://www.pfi.ps/>

¹⁶ PCBS, Statistical Abstract of Palestine, 2005.



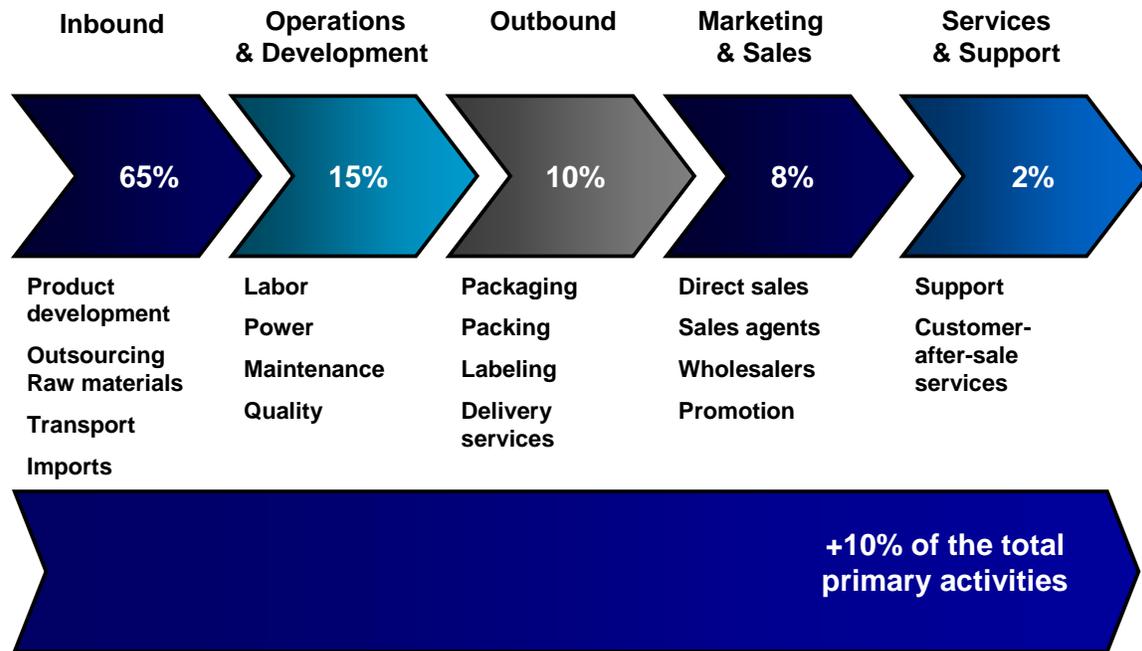
FIGURE 3-3: AGRO-INDUSTRY CLUSTER MAP



The following schematic captures the cluster’s value chain (Figure 3-4). It is clear that the “inbound” value segment, including raw material and logistics, is the dominant piece. Palestinian firms’ operation and development activities add only 15 percent to the cluster’s cost structure, with the implication that if the local firms could internalize product development and sourcing, there would be a greater potential for value added and profit from their operations.



FIGURE 3-4: AGRO-INDUSTRY CLUSTER: VALUE CHAIN COST ANALYSIS



CLUSTER ASSESSMENT

SWOT ANALYSIS

Table 3-3 summarizes the strengths, weaknesses, opportunities, and threats facing agro-industry in the West Bank and Gaza; a narrative description of each element of the SWOT follows the table.



TABLE 3-3: SWOT ANALYSIS FOR THE AGRO-INDUSTRY CLUSTER

Strengths	Weaknesses
<ul style="list-style-type: none"> • Favorable geographic location, Mediterranean climate, long historical, religious, and cultural legacies. • Availability of educated labor force. • High tolerance and adaptability in the face of challenges. 	<ul style="list-style-type: none"> • High dependence on imported raw materials. • Poor quality control in some firms. • High logistics/transportation costs. • Lack of marketing and promotion resources. • Lack of storage facilities/cold chain distribution services. • Weakness in meeting the packaging and labeling of target markets.
Opportunities	Threat
<ul style="list-style-type: none"> • Large and regional overseas (Arab) markets. • Meeting local demand on agro-products. • Increasing local interest in new products. • Demand for ethnic products in export markets—tehini, halawa, za'atar, etc. • Organic production. 	<ul style="list-style-type: none"> • Current political situation—closure, lack of free movement, impeded access to sources of supply and markets. • Weakness in food security supplies and shortage in national basic commodities warehouses. • Weak regulatory environment. • Crops losses and incidental diseases/hazards. • Monopolistic suppliers control the industry input supplies. • Competition in markets.

Strengths

Palestinian firms are highly adaptable to changes and tolerant of external shock. They can scale up to meet local demand and scale down to operate in lower capacity. Food processors use the seasonal fluctuations in costs of produce to their advantage and ramp up production of pickles and tomato pastes, and the like. The Mediterranean climate in the region leads to diversity in produce, and close proximity to many export markets offers strategic advantages to Palestinian firms. Palestine has a young labor force that is well educated, skilled, and willing to learn innovative industrial practices. Local universities graduate students with relevant technical expertise required by the food processing industry.

Weaknesses

The cluster relies heavily on imported raw materials and machinery from Israel and European markets. This increases the cluster's vulnerability to border closure and reduces the bargaining power of Palestinian food processors. The cluster competes on a low cost strategy rather than innovation or high-quality-based strategies. The cluster in general lacks reliable logistics support and cold storage capacity. Given the absence of a sophisticated transportation system, the food processors engage directly in the upstream and downstream food supply chains, leading to inefficiency and increased delivery costs. Small agro-industry enterprises lack ability to use market intelligence and marketing and communication technologies. In addition, the lack of understanding and use of high-quality packaging and labeling limits the firms' ability to address export market requirements and generate products with longer shelf lives.



Opportunities

The Arab market for food and agricultural products is large and expanding. Free trade agreements with Arab countries will allow Palestinian firms wider access to markets and sources of some input materials. Given the high growth of local demand for food (projected to be \$1.4 billion by 2007), there is a great opportunity for Palestinian firms to expand capacity. Business process reengineering and research and innovation are expected to enhance production efficiency and product quality in the coming years. In addition, emergence of new product segments such as organic food and ethnic products such as Tehini, Halawa, Za'atar, organic aromas, organic additives, natural supplements, and the like, will open new export opportunities.

Threats

The current political situation, which often leads to border closures and lack of free movement of people and products, impedes access to markets and sources of supply. Thus food security is threatened as various participants in the supply chain (such as transporters, cold storage providers, animal feeders, and food processors) are not able to function properly. The threats from bird flu, mad cow disease, pesticides and herbicides, natural disasters, and Israeli counter incursions into rural areas also affect the cluster's long-term growth potential. Lack of stringent inspection and certification of imported food products breeds severe competitive challenges from neighboring countries. In addition, the absence of a robust regulatory framework limits strong business-to-business relationships and reduces the scope of collaborative economic activities. Monopolies in the supply of basic commodities and input material prevent competition in the Palestinian agro-industry, leading to higher prices of products.

CLUSTER EVALUATION

GROWTH POTENTIAL

Cluster's Competitive Position in the International Market

To place the current status of the West Bank and Gaza agro-industry in context, the team chose several key and generally available economic and workforce indicators upon which to compare it with its regional counterparts. Through this comparison, the immediate goal is to better understand the structure and performance of the Palestinian industry compared to geographical neighbors and competitors. In the medium and longer term, the international indicators can also be used to compare changes and growth in the Palestinian industry.

Many of the indicators are related to the relative size of the various economies. Accordingly, the discussion in this section will focus on indicators in the following table that would not necessarily be expected, given the size of the West Bank and Gaza economy. Deviations (positive or negative) from the norm will be highlighted because such anticipated data may indicate underlying sources of strength or weakness, as well as areas that require additional investigation in order to understand avenues for developing competitive advantage.

In reviewing the data in the following table, a comparison that immediately stands out involves the number of agro-enterprises in Palestine compared to Egypt and Turkey. Egypt, with nearly 20 times the population of the West Bank and Gaza, has 13 times the number of agribusiness enterprises, while Turkey, with a population 18 times as large as the West Bank and Gaza, boasts 54 times the number



of agribusinesses. In other words, in terms of number of agribusinesses per capita, the West Bank and Gaza clearly outdistances Egypt, but, in comparison to the Turkish industry, it lacks depth.

TABLE 3-4: AGRO-INDUSTRY CLUSTER INDICATIONS FOR PALESTINE AND BENCHMARK COUNTRIES

(all data are for the latest year available)						
	Palestine	Lebanon	Jordan	Egypt	Turkey	Israel
Economic Performance Indicators						
Total Number of Enterprises	1,532	3,450	1,865	20,000	84,000	16,750
Contribution to GDP (%)	4%	12%	4%	15%	14%	2%
Local Market Size (\$m.)	916.34	3,898	3,297	24,814	31,416	3,860
Share of Local Market (%)	52%	47%	14%	51%	73%	28%
Total Revenues (\$m.)	237.5	2,105	887	13,400	33,600	2,204
Total Exports (\$m.)	21.76	255	440	840	6,484	1,100
Workforce Indicators						
Contribution to Employment (%)	15%	12%	5%	27%	44%	2%
Total # of Employees	7,442	42,000	10,000	8,535,000	14,798,000	67,000
Average Worker Pay Month (\$)	\$365	\$463	\$385	\$280	\$980	\$1,890

Sources (for countries other than Palestine): UNIDO Industrial Statistics Data Base, FAO Food and Agriculture Indicators, and various country reports

Wages in the West Bank and Gaza are in the competitive range of the benchmark countries; they are lower than all the comparison countries except Egypt. The total number of employees is another indicator with significant variation. The average size of an agribusiness enterprise in the benchmark countries ranges from a low of 4.8 workers (West Bank and Gaza and Israel) to 426 workers (Egypt). The West Bank and Gaza and Israel have the smallest number of workers in agribusiness companies, while Turkey and Egypt employ the most.

Another noteworthy indicator is exports. Gaza and West Bank agribusinesses export far less than all the benchmark countries, both on an absolute basis and after adjusting for the size of its population (exports per capita or per enterprise). For instance, Turkey exports \$77,190 per agribusiness firm and Israel \$65,672, while the West Bank and Gaza exports \$14,204 per agribusiness firm. These data suggest that increasing agribusiness exports in the West Bank and Gaza would be a key goal for raising incomes and the competitiveness of this cluster.

Competitive Position

Palestine's agro-industry covers a wide range of products, and the industry has developed a few niche product segments, including olive oil, biscuits, processed meat, confectionaries, drinks, canned food, ethnic products, and dairy products. Palestinian agricultural products enjoy the natural advantage of the Mediterranean weather and the geographic proximity to a religious and cultural center. The products are cost competitive in the local market, but Israeli, Turkish, and European agro-products compete directly with local products at the upper band of quality. On the other hand, products imported from Egypt, Jordan, and China compete with Palestinian products on price.

Recent Performance

Like most other economic sectors, agro-industry in the West Bank and Gaza has witnessed sharp fluctuations in value added in the recent past. However, as shown in Table 3-5, the cluster is on a rebound and is projected to experience continued growth.



TABLE 3-5: AGRO INDUSTRY CLUSTER PERFORMANCE

Key Performance Indicators	1999	2000	2001	2002	2003
Local Sales (\$000)			351,334	136,564	206,696
Export (\$000)			9,969	14,611	21,758
Employment (Number of laborers)	7,332	10,534	9,976	7,800	7,440
Value added (\$000)	82,900	198,600	101,000	77,000	101,700

Source: Palestinian Central Bureau of Statistics, (Unpublished Data)

Israel and Jordan have been the traditional export destinations for Palestinian food products. In the last five years, however, new export markets have been explored. Such markets include Jordan, Syria, and Egypt in the region; Italy, Ireland, Switzerland, and Holland in Europe; Saudi Arabia, Qatar, Oman, UAE, and Kuwait in the Gulf. Growth potential is summarized in Table 3-6.

TABLE 3-6: GROWTH POTENTIAL

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
International Market Outlook	Global food market is expanding. Competition from both developed and developing parts of the world is severe.	4
Competitive Position	Niche products in the processed food industry. Natural competitive advantage from the cultural and religious legacy. Strong competition from other countries on both ends of quality and price.	3
Recent Performance	Fluctuations in performance. Product mix slowly evolving to focus on ethnic and organic food. Target markets for exports have expanded in the recent past.	3

CLUSTER READINESS

Commitment

Founded in 1995, the Palestinian Food Industries Association (PFIA) is the key representative organization in this industry. With a membership base of 124 food manufacturers, representing about 10 percent of the entire industry, PFIA actively promotes the cluster locally and in overseas markets; coordinates standards and food specifications; provides training in quality and production techniques to members; coordinates with public sector institutions, including ministries; and lobbies for regulatory reform to support the private sector.

PFIA coordinated several activities in the past with PalTrade, the USAID-funded DAI/Market Access Program (MAP) and Palestinian Enterprise Revitalization (PER) Program, and Cold Chain USDA; it also worked with other donor projects, including a UNDP/UNIDO health and safety initiative. Having developed a new diploma program in coordination with Al Tira College, PFIA has strong collaborative ties and access to universities, testing labs, and food processing technology colleges. The CWG is comprised mainly of PFIA members, but also draws on some agricultural cooperatives, health and safety initiatives, PalTrade, and testing labs. Group members have shown interest in



working together to develop the cluster’s overall prospects. See Table 3-7 for this category’s readiness score.

Dynamism

The cluster is dynamic, to a certain degree, with regard to expanding product offerings; however, in relation to innovation, efficiency in supply chain management, and quality, the cluster has much room for improvement. Some firms have been early adopters of quality standards, but others have lagged.

The CWG participants admit that lack of trust and cooperation among peers has been the main cause of limited collaborative efforts to advance the cluster. In addition, the harsh political and economic conditions imposed on them periodically make it hard to think into the future, derive consensus, and work toward a common cause. CWG members did, however, express their desire to cooperate to compete, as long as their market positions are not threatened. For example, all CWG members are interested in issues such as quality improvement, health and safety, food security issues, shortages in raw materials, and best practices to create value-added products, and the like. See Table 3-7 for this category’s readiness score.

Critical Mass

The cluster’s value chain exhibits critical mass in certain parts, such as food processors, of which there are many in the West Bank and Gaza. However, there are only a few supporting firms (for example, packaging services and materials providers, or printing and labeling firms) to assist processors in making their products market-ready. The number of research and development organizations in agro-industry is also small, as is the group of cold chain distributors. Demands on procurement, transportation, and logistics service providers are increasing consistently.

Financial institutions exist, but they resort to traditional forms of lending and project financing based on collateral and high interest rates. Only a limited number of consulting firms serve the agro-industry cluster, providing technical support, training, IT, and marketing assistance. A limited number of testing labs are available at universities, but there are no private sector labs. Business associations such as PFIA offer some technical support and PalTrade offers overseas marketing facilities. See Table 3-7 for this category’s readiness score.

TABLE 3-7: CLUSTER READINESS

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
Commitment	<ul style="list-style-type: none"> Limited history of collaboration among industry associations, cooperatives. Members of the CWG willing to cooperate. 	3
Dynamism	<ul style="list-style-type: none"> Some dynamism in product offering, product mix expanded in recent years. Geographic market expanded. Firms are less proactive on investing in quality and supply chain efficiencies. Long history of firm rivalry and lack of a common vision. 	3
Critical Mass	<ul style="list-style-type: none"> Many food processors and manufacturers. Inadequacy of support organizations/ enablers. Financing institutions are risk averse, resort to traditional schemes. Limited technical assistance from third parties. 	3



FACTORS SPECIFIC TO THE WEST BANK AND GAZA

As a labor-intensive cluster, agro-industry is poised to expand employment if demand conditions remain favorable and supply constraints are not overburdening. The cluster has the potential to add more than 3,000 jobs in the best-case scenario. However, CWG members estimate that if the political situation is not conducive to growth, the number of additional jobs may be limited to a couple of hundred.

The cluster is considered highly sensitive to closure because of the perishable nature of the products and the fact that most of the raw materials are imported (with 70-80 percent outsourced from Israel and abroad).

TABLE 3-8: FACTORS SPECIFIC TO WEST BANK AND GAZA

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
Potential for rapid employment creation	Employment can be expanded rapidly if political and economic conditions remain conducive.	5
Insensitivity to border closures	Very sensitive to border closure.	2

ACTIONS TO ENHANCE CLUSTER COMPETITIVENESS

OVERVIEW OF THE CLUSTER'S SIGNIFICANCE AND POTENTIAL

The agro-industry cluster dates back to the establishment of candy factories over 60 years ago. In the past six decades, the processed food industry has evolved into a broader agro-industry and has become an integral player in the Palestinian economy. Today agro-industry is only in the early stages of economic recovery. However, with consistent growth in local market share, a trade surplus, and favorable climatic conditions, the cluster is well positioned to take advantage of business opportunities emerging from global trends.

To move forward, this cluster needs interventions designed to ready it for intense competition from both developing and developed countries, as new markets are penetrated. Initiatives should focus on strengthening back-office capacities, maximizing out-sourcing opportunities, and improving overall quality standards. Policy and regulatory reform initiatives are also important for maximizing investment potential.

PROPOSED CLUSTER INITIATIVES AND ACTIVITIES

Stakeholders from the West Bank and Gaza agro-industry developed a vision for cluster growth. It is “to produce Palestinian agro-products that have sustainable competitive advantages to compete in local, regional, and global markets.”

Based on this vision, the CWG identified many activities that will help the cluster prosper in the future. In addition to the many initiatives, the group outlined three priority areas that will collectively emphasize the need for, and provide the base for, immediate intervention. These are:

- Improving quality standards;
- Access to markets; and
- Policy reform and WTO accession.



As mentioned above, the group identified an expanded set of initiatives which directly refer to these three priority areas, or which support the cluster by improving cluster foundations. For each initiative, stakeholders have identified potential activities. Some of these may take place under the PED project while others may be undertaken by the cluster itself or in conjunction with other donors or partners. For the sake of consistency across all clusters, these initiatives have been grouped under five dimensions relating to the foundations of clusters.

Access to Markets

Market Penetration Initiative: This initiative includes the following components:

- Conducting an annual Palestinian agro-products “expo-day” in local and regional markets and preparing members to attend international technology expositions, food expositions, and trade fairs;
- Conducting market research and market intelligence studies to help firms penetrate targeted markets locally, regionally, and internationally;
- Establishing a platform for industry databases, export/import research, and an information bank; offering cluster members free access to strategic market information; and
- Preparing to build brand name, trademark registry, and goodwill management.

Improving Distribution Channel Initiative: This initiative includes the following components:

- Facilitating partnerships with marketing and sales distribution channels and customer services;
- Enhancing customer service and after-sales services;
- Enhancing packaging, labeling, and printing designs, and matching them with targeted markets; and
- Facilitating firms’ entrance into strategic alliances in local and global markets.

Access to Finance

- Identifying the financial needs of firms in the cluster (operating vs. investing);
- Creating a dialogue among industrial and financial institutions to develop financing options and lucrative investment packages;
- Inviting credit providers to offer special financial facilities to cluster stakeholders;
- Preparing for collective bargaining power to negotiate the terms of borrowing with credit providers;
- Networking with the best banking and financial institutions; and
- Implementing modern costing and pricing strategies for sub-cluster stakeholders.



Access to Technology and Know-How

Improving Quality Standards: This initiative includes the following components:

- Conducting quality audits to assess the value-added activities across subsector supply, value, and distribution chains;
- Preparing for outsourcing the best suppliers of agro-industry inputs and raw materials;
- Preparing for a good warehousing facility and storage management;
- Encouraging and facilitating collective buying of subsectoral raw materials in bulk quantities;
- Implementing a food safety and health compliance system;
- Partnering with local agricultural/farming cooperatives;
- Encouraging cold chain practices across the value chain;
- Implementing preventive maintenance approaches and applications;
- Implementing total quality management best practices; and
- Preparing cluster members for international quality certifications.

Research and Technology Transfer Initiative: This initiative includes the following components:

- Providing technical training workshops in such areas as production, management, marketing, finance, operations, quality control;
- Initiating programs of R&D, organic aromas, additives, packaging, and the like;
- Utilizing modern technology transfer in manufacturing, IT support and automation, machine engineering, and maintenance systems; and
- Working with testing labs to upgrade lab infrastructure, equipment, and technical testing support.

Workforce Development and Capacity Building

Disseminating best practices in human resources: Focused on improving the human capital of firms, this initiative will focus on the following activities:

- Applying HR best practices;
- Matching academic curricula with industry needs and bridging gaps in practices; and
- Designing continuing learning programs in cooperation with academia to design technical knowledge transfer to fresh graduates.

Fundraising and Capacity Building Initiative: This initiative will have the following components:

- Developing fundraising strategies at PFIA by establishing a business development unit to deliver technical assistance in quality, marketing, production technology, and technical training;
- Conducting diagnostic studies to assess production, quality, and management;



- Improving procurement, contract, and logistics management;
- Studying the feasibility of improving the supply side of business development services;
- Encouraging agro input suppliers to emerge;
- Enhancing delivery of consulting services such as implementing quality control, preventive maintenance, cold chain, customer services; and
- Offering training in ISO 22000, HACCP, health and safety measures, and GMP systems.

Policy and Regulatory Reforms

- Preparing advocacy campaigns to protect members’ interests;
- Building alliances to form public-private partnerships;
- Participating in agro-industry regulatory reform and the drafting of food law and industry public policy reform, national agricultural strategies, health and safety compliance, intellectual property protection rights;
- Monitoring policy actions over unified quality inspections of imports and exports, import custom tariffs, protecting national products, and encouraging exports;
- Coordinating and negotiating to create a good investment environment by providing such things as customs clearance, tax benefits, lower cost of capital, investment incentives; and
- Preparing for WTO membership awareness and compliance.

PRELIMINARY ACTION PLAN

The following action plan (Table 3-9) was developed in consultation with the agro-industry CWG:

Initiatives/Programs		2006				2007	2008
		Q1	Q2	Q3	Q4		
Access to Markets							
	<i>Market Penetration Initiative</i>						
1.1	Conducting and participating in agro-products expositions, and local, regional and international fairs.						
1.2	Conducting market intelligence and research						
1.3	Establishing a platform for a market industry information bank						
1.4	Preparing to build brand name, trade mark, and good will equities						
<i>Improving Distribution Chain Initiative</i>							
1.5	Partnering with marketing and sales distribution channels.						
1.6	Enhancing customer services and after sales services.						
1.7	Matching packaging, labeling and printing design with targeted market.						
1.8	Encouraging strategic alliances and networking in local and global market.						
Access to Finance							
2.1	Outsourcing the best financing institutions.						



Initiatives/Programs		2006				2007	2008
		Q1	Q2	Q3	Q4		
2.2	Creating dialogue with cluster stakeholders and financial sources.						
2.3	Preparing for collective bargaining to negotiate the best offers.						
2.4	Networking with the best financial institutions.						
Access to Technology and Know-How							
<i>Improving Quality Standards</i>							
3.1	Outsourcing the best suppliers of agro-industry inputs.						
3.2	Preparing for a good warehousing facility and storage management.						
3.3	Facilitating collective bulk purchases of inputs.						
3.4	Partnering with local agricultural cooperative/suppliers.						
3.5	Implementing food health and safety compliance.						
3.6	Encouraging cold chain practices across the value chain.						
3.7	Implementing preventive maintenance applications.						
3.8	Implementing total quality management best practices.						
<i>Research and Technology Transfer Initiative</i>							
3.9	Initiating R&D programs.						
3.10	Utilizing modern technology transfer in manufacturing and automation.						
3.11	Upgrading testing labs infrastructure.						
3.12	Providing technical support, engineering, and maintenance.						
Workforce Development and Capacity Building							
<i>Best Practices in Human Resources</i>							
4.1	Applying HR best practices.						
4.2	Matching curricula with the practical needs of industry.						
4.3	Designing continuing technical learning programs for fresh graduates.						
<i>Fundraising and Capacity Building Initiative</i>							
4.4	Establishing BDS unit at PFIA.						
4.5	Institutionalizing delivery of technical assistance for a/m initiatives.						
4.6	Creating industry databases for performance benchmarking						
4.7	Networking with other BDS providers and twinning with international business associations						
4.8	Delivering technical training in a/m-related initiatives areas.						
Policy and Regulatory Reform							
5.1.	Preparing advocacy campaigns to support cluster interests.						
5.2.	Forming public-private partnerships .						
5.3.	Monitoring policy reform actions.						
5.4.	Participating in drafting of regulations for agricultural strategy, health and safety compliance, patents rights, and the like.						
5.5.	Encouraging a good investment environment.						
5.6.	Preparing for WTO membership and compliance.						



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- Palestinian National Information Center Website: http://www.pnic.gov.ps/arabic/industry/ind-main_5_14.html
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INTERVIEWS

- Eng. Fu'ad Al Aqra', Executive Manager of PFIA, West Bank
- Mr. Adnan Abu Awad, Chairman Board of Director of PFIA, West Bank
- Dr. Abd Al Razeq Salama, Executive Manager of PFIA, Gaza
- Mr. Naser-Hamada Al Yazji, Vice President Board of Directors of PFIA, Gaza



4. CONSTRUCTION CLUSTER ASSESSMENT

CLUSTER OVERVIEW

This report provides a systematic review of the global and local factors, trends, and context that frame and influence potential USAID assistance to the West Bank and Gaza construction cluster through the Palestinian Enterprise Development (PED) project. The report draws upon locally and internationally available research and data for the cluster as well as PED's extensive interaction with members of the West Bank and Gaza construction industry. Using these materials, a "score" was given that represents a numerical assessment of the cluster's current status and future potential and that pinpoints assets and liabilities towards which USAID-funded activities can be targeted.

Already a \$4 trillion business, the global construction industry is projected to continue to grow, with future opportunities, trends, and drivers emanating from developing countries, where \$200 billion in annual infrastructure investments are forecasted. Similarly, the worldwide construction materials industry is expected to grow at a compounded annual rate of 3.1 percent from 2005 to 2009, with its market value reaching \$529.7 billion by 2009. Key trends in the global industry include "green" construction and increased use of technology, which is anticipated to affect everything from procurement processes to design, and from construction information systems to staff training.

The construction cluster is one of the West Bank's and Gaza's most important industries, although its fortunes have varied in line with changes in the political environment. The industry's contribution to gross domestic product reached as high as 10.9 percent in 1999; as of 2004, this figure had decreased to 4.6 percent. In 2002, the industry employed 10.9 percent of the Palestinian labor force, down from 22.3 percent in 1999. With 566 contractors, 489 engineering firms, and 556 construction materials firms (not including other materials suppliers), West Bank and Gaza industry has both breadth and depth. Besides private firms, three major nongovernmental organizations play integral roles in the industry, namely the Palestinian Contractors' Union, the Syndicate of Engineers, and the Palestinian Construction Industries Union.

The West Bank and Gaza enjoy a major advantage in the construction industry because the local workforce is sufficient, both in numbers and skill levels. Combined with relatively low wages, this labor availability means that local firms can complete construction projects at competitive rates. Moreover, existing inter-company relationships—among local firms themselves and between local firms and international companies—provide another source of strength.

Counteracting these strengths, the legal and regulatory environment is insufficient or altogether absent and local capital is inadequate (though donor funding has been substantial). The local, regional, and global market for construction combines to offer significant opportunities for growth in the West Bank and Gaza cluster, with accompanying opportunities for much employment generation. However, the cluster lacks sufficient knowledge of the procedures of one of its major clients (that is, donors), which threatens to slow the cluster's growth potential.

Table 4-1 provides an aggregate assessment of the cluster's current status and future potential as well as individual scores for key components and subcomponents related to the industry's competitiveness. As indicated by its aggregate score of 3.94 out of a maximum total of 5.0, the construction industry offers great promise for generating growth on a scale that will help transform the economy of the West Bank and Gaza.



A major element underpinning this strong outlook is the “growth potential” component, which reflects not only the worldwide context but also the competitive position of the West Bank and Gaza. With a booming global market, solid local demand, and a diversified product and service base, the cluster scores very high on the international market outlook and competitive position subcomponents. Likewise, although recent performance has been tempered by political uncertainties, the market has stabilized recently and is poised to return to pre-Intifada levels.

The construction cluster also receives high marks for “cluster readiness,” with its past collaboration among private firms and linkages across industry-academia-nongovernmental organizations providing substantial evidence of commitment. Similarly, the variety of cluster firms and products indicates significant critical mass. One area for improvement highlighted in the cluster-readiness component is dynamism, which points to a need for greater flexibility to change and for innovation.

Among the key considerations in the West Bank and Gaza environment, the construction industry provides very strong opportunities for rapid employment creation; indeed, with peace, the industry likely would regain quickly a greater than 20 percent share of the labor force. Nonetheless, because construction inputs are imported, sensitivity to border closures is a factor for this cluster.

TABLE 4-1: SCORING OF THE CONSTRUCTION CLUSTER

Growth Potential		Cluster Readiness		Factors Specific To West Bank and Gaza		Aggregate Assessment
4.33		4		3.5		
International Market	5	Commitment	4	Potential for Rapid Employment Creation	5	
Competitive Position	5	Dynamism	4	Insensitivity to Border Closures	2	
Recent Performance	3	Critical Mass	4			3.94

Scoring Range = 0 (very low) to 5 (very high)

INDUSTRY CLUSTER ASSESSMENT

INTERNATIONAL TRENDS IN THE INDUSTRY

Construction

Globally, the construction industry is a \$4 trillion business. Given the overall size of the industry, construction is important to nearly every country’s economy; for instance, in the United States, construction is the second largest economic sector, comprising 13 percent of gross domestic product (GDP).¹⁷ Although the local context is often more pertinent to the construction industry of an individual country, several trends in the industry are predominant globally, including:

- A continuous shortage of labor (mainly in the United States and some other industrialized countries);
- Lack of investment in research and development or technological solutions;

¹⁷ McGraw-Hill Construction, *Key Trends in the Construction Industry*, November 2004, p. 2.



- Constant cost pressures because of fierce competition among the many firms that comprise this fragmented industry; and
- Increasing impact of environmental and other regulation.¹⁸

“Future opportunities, future trends and future drivers [in the construction industry] will be in developing countries, where approximately \$200 billion is invested annually in new infrastructure.”

Source: McGraw-Hill Construction, Key Trends in the Construction Industry, November 2004, p. 2.

The major expected change in the construction industry is a shift toward the increasing importance of developing countries and the declining weight of industrialized countries. According to McGraw-Hill Construction, “future opportunities, future trends, and future drivers will be in developing countries, where approximately \$200 billion is invested annually in new infrastructure.”¹⁹ Driving these investments in developing countries are trends such as:

- Increasing average life expectancies (which particularly contribute to the need for more residential construction);
- Rapid and sustained urbanization;
- Growth in transportation and communications (which prompt heavy infrastructure construction); and
- Higher consumer/citizen expectations of what constitutes “adequate” infrastructure.

The major client bases for the global construction industry are not expected to shift. Instead, strong demand will continue from the four major clients of the past, including government ministries and agencies, major corporations, international donors such as the World Bank, and some non-governmental organizations.

In terms of design, the key trend in the global construction industry is the increasing popularity and significance of “green” construction. Green construction includes design, construction, and operation that take place in an environmentally friendly manner (including, for example, re-use of salvaged materials as well as removal of existing structures in a manner that allows recycling of inputs) as well as designs that promote energy efficient operations once the construction is completed. Increasing use of technology is also viewed as an important development in the industry. In particular, the construction industry will need to adapt to and incorporate automated construction systems, paperless design and construction, staff training via simulators, integration of renewable energy systems, increased security requirements, and other information technology tools (such as voice recognition systems, smart cards, touch screens, global positioning systems, and geographic information systems, that is, GIS). Other considerations that will become increasingly important in the future include adoption of the lifetime costing concept, potential movement toward performance-based procurement systems (PBPS),²⁰ e-bidding/e-procurement, and sustainable construction.

Construction Materials

The global construction materials industry—defined as consisting of sand, gravel, aggregates, cement, concrete, and bricks—maintained stable growth during the 2000 to 2004 period (see Figure 4-1), and

¹⁸ Ibid.

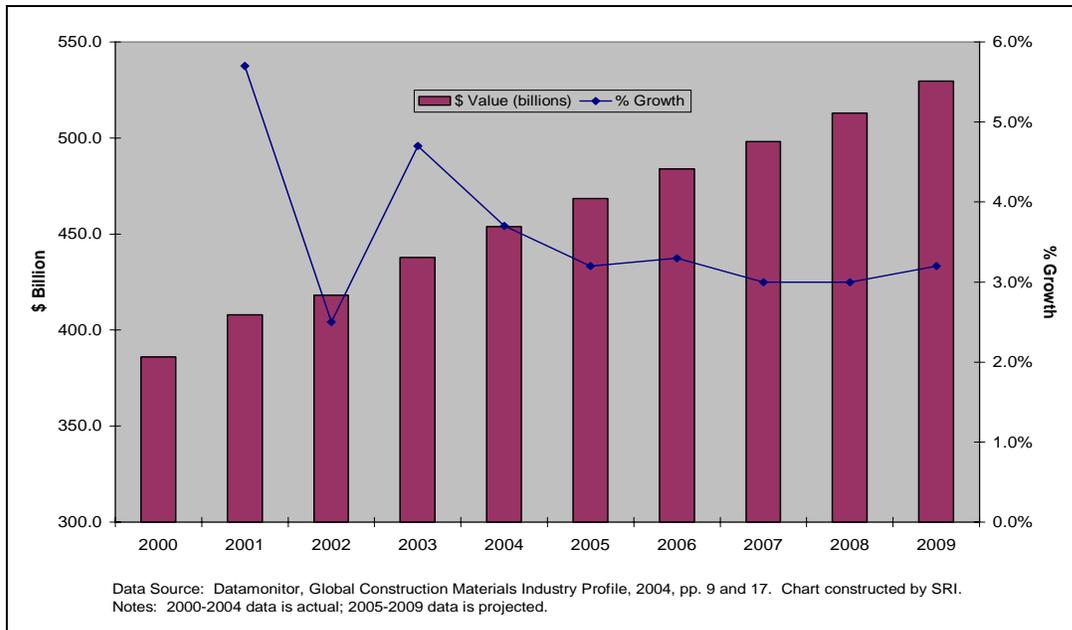
¹⁹ McGraw-Hill Construction, *Key Trends in the Construction Industry*, November 2004, p. 5.

²⁰ For example, PBPS has been adopted by the U.S. states of Florida, Iowa, and Hawaii as well as by the government of Australia. The World Bank is drafting new contract conditions incorporating PBPS.



it is expected to continue to grow steadily, but at a slightly lower rate, from 2005 to 2009. With a total market value in 2004 of \$453.9 billion, the construction materials industry grew at a compounded annual growth rate (CAGR) of 4.1 percent in the five years leading to 2004.²¹ For the period 2005 to 2009, the forecasted CAGR is 3.1 percent, with the market value reaching an anticipated \$529.7 billion in 2009.²²

FIGURE 4-1: GLOBAL CONSTRUCTION MATERIALS MARKET



In terms of value, brick represents the leading segment, comprising nearly 30 percent of the global construction materials market, as shown in Figure 4-2.²³ With 27.3 percent and 26.0 percent shares of global market value, cement and crushed stone follow closely behind, while sand and gravel comprises just over half (17 percent) of the market value of brick.²⁴

²¹ Datamonitor, *Global Construction Materials Industry Profile*, 2005, p. 8.

²² Ibid.

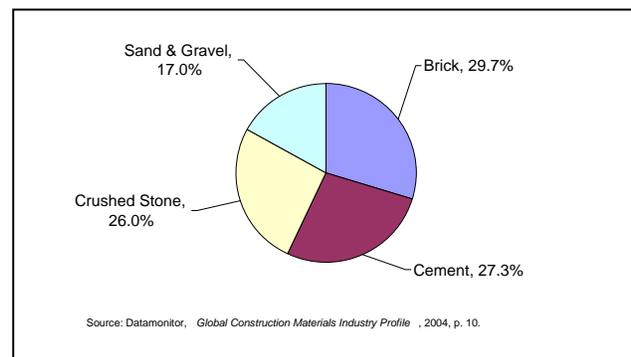
²³ Datamonitor, *Global Construction Materials Industry Profile*, 2005, p. 10.

²⁴ Ibid.



The Asia-Pacific region accounts for well over half—58 percent—of the world’s sales of construction materials.²⁵ By comparison, Europe absorbs 18.2% of global sales, the United States 7.7%, and the rest of the world 16.1%.²⁶ In the Asia-Pacific region, China represents the largest purchaser of construction materials; for example, China is estimated to consume 54 percent of the world’s concrete.²⁷ This trend is expected to continue, with demand driven by the 2008 Olympics in Beijing as well as by sustained migration from rural to urban areas and the associated urban construction boom.

FIGURE 4-2: GLOBAL CONSTRUCTION MATERIALS MARKET SEGMENTATION, BY VALUE, 2004



Despite the existence of several large international construction materials companies, the industry remains very fragmented,²⁸ mainly because the cost of transporting construction materials makes local production more economically feasible than importing such materials. Nonetheless, the global players are increasingly interested in capitalizing on opportunities in high growth regions such as Asia-Pacific, as well as in diversifying their operations into other emerging markets. Moreover, having experienced construction materials shortages in some American urban and industrialized areas, such companies are seeking new facilities and increased capacity in order to diminish supply chain uncertainties. Among the major global construction materials corporations, investments in research and development (R&D) are an important trend, with companies such as Lafarge²⁹ currently working on applying nano-technology to cement and concrete products. Such R&D is aimed at introducing new, differentiated products into the global market.

GENERAL CLUSTER DESCRIPTION IN WEST BANK AND GAZA

The construction cluster is one of Palestine’s key industries and a driving force of the Palestinian national economy. However, the cluster is very sensitive to the continuous cycles of violence that led to great devastation in various aspects of the economy. On the other hand, the anticipated peace process will lead to a boom in construction activities in the area.

The cluster is also important for growth as it carries significant forward and backward linkages, ranging from simple manufacturing plants to major construction materials production and processing industries. In addition, the cluster has acted as an impetus for the promotion and monopolization of local investments and has contributed to the consolidation of the Palestinian economic base.³⁰

The industry’s contribution to GDP reached as high as 10.9% in 1999 but decreased dramatically to 5.6% in 2000 and later to 3.2% in 2002. As of 2004, its contribution to GDP had improved to 4.6%.³¹

²⁵ Datamonitor, *Global Construction Materials Industry Profile*, 2005, p. 11.

²⁶ Ibid.

²⁷ Datamonitor, *Global Construction Materials Industry Profile*, 2005, p. 13.

²⁸ The top five companies, all of which specialize in cement, account for only 13.3 percent of global revenues, according to Datamonitor, *Global Construction Materials Industry Profile*, 2005, p. 13.

²⁹ Headquartered in Paris, France and employing 75,000 people in 75 countries, Lafarge is the largest manufacturer of cement in the world, recording revenues of \$1.78 billion in 2004, according to Datamonitor, *Global Construction Materials Industry Profile*, 2005, p. 15.

³⁰ Palestine Economic Policy Research Institute (MAS), *Investment Guide*, 2005.

³¹ PCBS



The industry employed 10.9 percent of the total Palestinian labor force in 2002, down from 22.3 percent in 1999.³² In light of these factors, donors consider the industry particularly important, as indicated by the 34 percent of donor resources that were devoted to construction from 1994 to 2000.³³

At the firm level, the construction cluster has 566 contractors (2005)³⁴ and 489 engineering firms (2005).³⁵ In 2002, construction materials firms included:³⁶

- Tiles and ceramics (800 employees in 80 firms);
- Brick and block (3,100 employees in 430 firms);
- Ready mix concrete (400 workers in 43 firms); and
- Concrete pipe (35 workers in three firms).

In the same year (2002), other materials suppliers included:

- Plastics for pipelines, fittings, and tanks (812 employees in 100 firms);
- Asphalt (325 employees in 33 firms);
- Paint and chemical (270 employees in 30 firms);
- Wood for doors and windows (2,100 employees in 500 firms);
- Aluminum (6,150 employees in 1,452 establishments),
- Electrical for wires (193 employees in 20 firms);
- Manholes (55 workers in nine firms);
- Hangers (60 workers in 14 firms); and
- Metal working for doors and windows (2,400 workers in 605 firms).

In light of the wide array of construction players (illustrated above), the structure of construction cluster is complicated. Many participants have significant roles in the cluster including (but not limited to): project owners, contractors, designers, engineers, manufacturers, fabricators, material suppliers, developers, testing laboratories, regulators, academia, and bankers, among others.

The following institutions are considered major stakeholders, based on their strategic roles: the Palestinian Contractors' Union (PCU); the Syndicate of Engineers (SE); the Palestinian Construction Industries Union (PCIU); and the Ministry of Public Works and Housing (MOPWH). (The three non-governmental organizations (that is, PCU, SE, and PCIU) are discussed in the portion of this chapter on cluster readiness.) Based on Law # 6 (1994), which established the legal framework for the industry, MOPWH is the governmental incubator for construction. MOPWH also addresses policy issues related to the industry, in cooperation with other cluster stakeholders. Other entities involved in construction include the national classification committee, which currently governs contractors'

³² PCBS

³³ MOPIC

³⁴ PCU

³⁵ Syndicate of Engineers

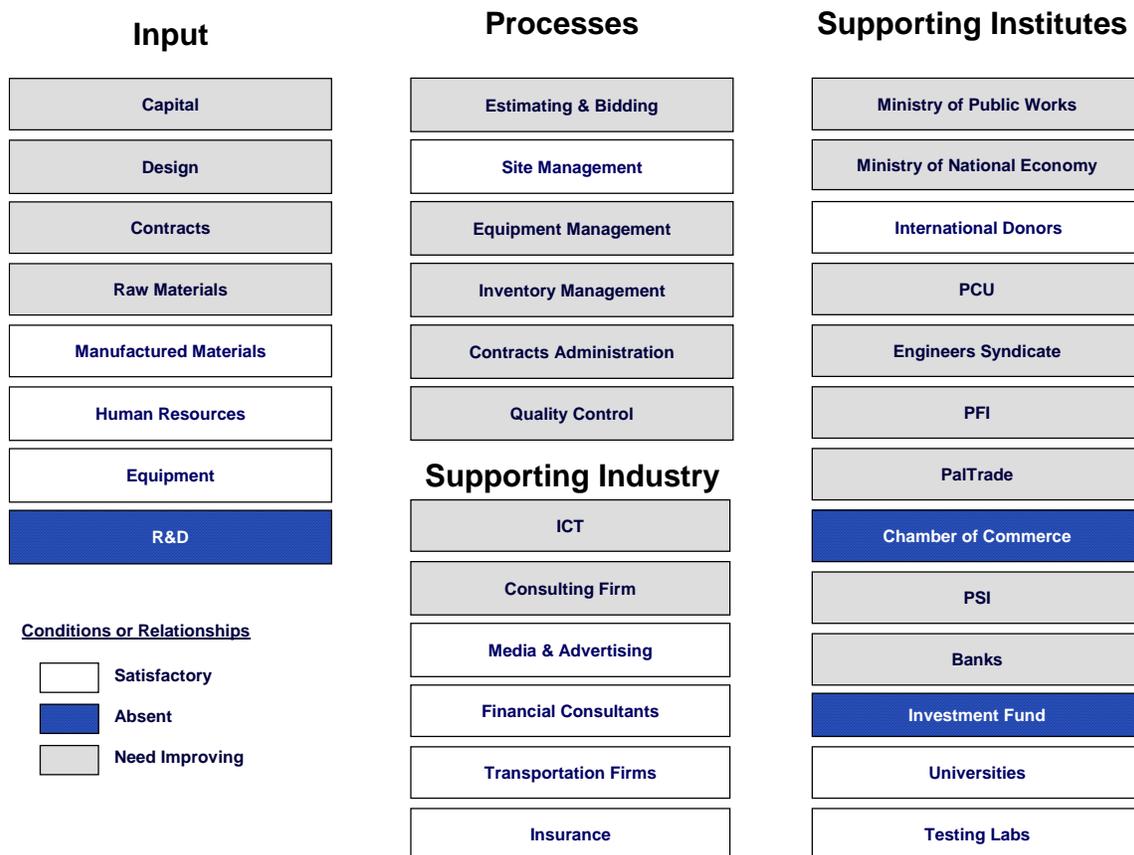
³⁶ Raufaste, Noel and Jeffrey Callahan, A draft strategic plan to improve the competitiveness of the West Bank and Gaza strip construction sector, DAI/MAP, August 2002.



classification, and the Central Bidding Commission, which regulates procurement activities in the construction industry.

The cluster map (Figure 4-3) and value chain map (Figure 4-4) depict the full array of participants and the cluster’s cost structure.

FIGURE 4-3: CONSTRUCTION CLUSTER MAP: CONTRACTORS

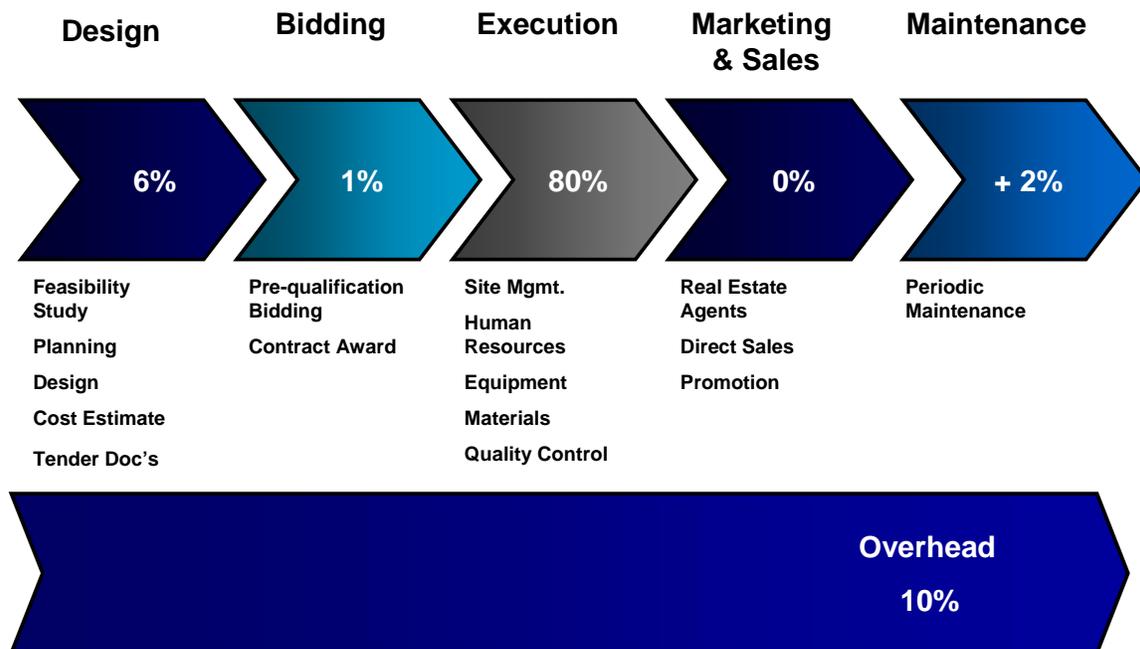


As the cluster map shows, many parts of the cluster’s inputs, processes, and supporting organizations’ roles are either satisfactory or need some improvement. Research and development is absent in the cluster, affecting the input-side strengths. The cluster would also benefit from the engagement of the chamber of commerce.

The following schematic captures the cluster’s value chain (Figure 4-4). It is clear that the “project execution” value segment (including site management, materials, equipment, human resources, and quality control) comprise a dominant share of the cluster’s value chain. By contrast, Palestinian firms’ design function comprises only 6 percent of the total cost. It is possible that the Palestinian firms are cost competitive at whatever level of design activities they engage, thereby limiting the share of the associated costs. However, this share of costs could also imply that the amount of design activities is limited; in this case, strengthening this part of the chain could mean improved cluster performance and profitability.



FIGURE 4-4: CONSTRUCTION: GENERAL VALUE CHAIN COST ANALYSIS



CLUSTER ASSESSMENT

SWOT ANALYSIS

Table 4-2 summarizes the strengths, weaknesses, opportunities, and threats facing the construction cluster in the West Bank and Gaza; a narrative description of each element of the SWOT follows the table.

TABLE 4-2: SWOT ANALYSIS FOR THE CONSTRUCTION CLUSTER

Strengths	Weaknesses
<ul style="list-style-type: none"> • Availability of workforce (skilled and unskilled) • Low wages • High return on investment (ROI) compared with other industries • Presence of International firms that help to upgrade the capacity of local firms • Large size of investment in construction cluster • Great market demand following political stability • Existing relationships among major stakeholders 	<ul style="list-style-type: none"> • Inefficiency of legal framework and regulations and absence of law enforcement • Inadequacy of local capital (high need for external investment, for example, international donors funds) • Inadequate investment in developing human resources • Lack of coordination between academia and industry • Underutilization of networking among major industry players • Unhealthy competition, as demonstrated by cutthroat prices that have led to increased contractor failure rates • Low or no differentiation among offerings by different firms



Opportunities	Threat
<ul style="list-style-type: none"> • Availability of international funds • Availability of new technology • Emergence of new markets at regional level • Potential joint ventures with international firms 	<ul style="list-style-type: none"> • Lack of awareness of the needs and requirements of international donors, but high dependency on international aid • Unacceptable business practices, such as corruption, monopoly • Migration of highly skilled people out of country • Inadequate finance • Over-reliance on Israel • Competition with international firms for large scale projects

Strengths

The West Bank and Gaza enjoy a major advantage in the construction cluster because the local workforce is sufficient both in numbers and in skill levels (for both skilled and unskilled workers), a fact that contrasts positively with other parts of the world, where adequate labor is scarce. Combined with the relatively low wages in the cluster, the labor availability means that West Bank and Gaza firms can complete construction projects at competitive prices and earn a high return on investment (ROI) compared with other industries. For example, an ROI of 7-10 percent is typical today among construction firms.³⁷ Another key strength is the interaction between local and international firms operating in the West Bank and Gaza; this interaction contributes to upgrading the capacity of local firms and increasing their knowledge of international practices and markets. Additionally, major players in the cluster know each other well. As in other developing countries, large investments in construction projects are currently being made, and such investments are expected to strengthen further with stabilization of the political situation.

Weaknesses

The West Bank and Gaza construction cluster also has weaknesses that must be considered in evaluating potential avenues for assistance. The legal and regulatory regime is insufficient and enforcement of existing laws and regulations is weak. Local capital is in short supply, which means that construction depends heavily on external investments, mainly from international donors. Although major players have relationships with each other, these networks are underutilized. Industry-university ties are also weak, and the rigidity of university curricula makes graduates ill prepared for working in the rapidly changing industry. Use of technology is another weakness: firms are not incorporating available technology into their operations (such as advanced construction management practices), with engineering consulting firms particularly weak technologically. Because many construction projects use almost identical plans (for example, for schools), firms cannot gain competitive advantage through experience and expertise in performing different types of projects. Given the physical dimensions of the West Bank and Gaza, the size of the construction market is also limited, a challenge that is compounded by the existence of government agencies (namely, in-house design and construction units) that in effect compete with private firms for business. Finally, movement of goods and people is often restricted, greatly affecting construction.

³⁷ By comparison, return on investment in the mid-1990s was 20% to 25%.



Opportunities

Construction provides considerable potential to contribute to economic growth in the West Bank and Gaza. Among the most prominent opportunities related to the expansion of construction activity is the cluster's need for labor; much employment could be created. The availability of international funds and technology provide the opportunity to turn the job creation potential into a reality. Moreover, the Middle East and Gulf regions present significant potential for new markets, as demonstrated by the participation of a Gazan engineering consulting firm in the design of what will be the world's tallest skyscraper. Because local firms already work with international ones, possibilities for joint venture are available, especially since West Bank and Gaza construction companies can help provide international partners with a "bridge" to working in the region. Combined, these opportunities translate into significant potential growth for wages earned by workers and revenues/profits earned by firms in the cluster.

Threats

A number of important challenges threaten the future of the West Bank and Gaza's construction cluster. Among the most pressing is the general lack of awareness of international donor requirements, a factor that impedes progress because of the cluster's heavy dependence on international aid. This dependence on aid is further threatened by the prevalence of unacceptable business practices, such as corruption, that international donors consider seriously in determining strategies and activities. Other threats that have effects both within and beyond the construction cluster include: out-migration of highly skilled people from the West Bank and Gaza; inadequate finance available through the banking system; and dependence on Israeli border closures not only for movement of people and goods, but also for continued overall investment and growth in the cluster.

CLUSTER EVALUATION

GROWTH POTENTIAL

Cluster's Competitive Position in the International Market

To place the current status of the West Bank and Gaza construction cluster in context, the team attempted to find data for the economic and workforce indicators collected for other industries covered in this report. However, because national statistics typically consolidate construction data into broader categories, data on construction as a stand-alone industry is scarce. Table 4-3 presents the data that are readily available through U.S.-based research:



TABLE 4-3: CONSTRUCTION CLUSTER INDICATORS FOR PALESTINE AND BENCHMARK COUNTRIES

(all data are for the latest year available)					
	Palestine	Jordan	Egypt	Turkey	Israel
Economic Performance Indicators					
Total Number of Enterprises	1,611	1,458			
Contribution to GDP (%)	4.6%	3.7%	4.0%	4.0%	
Total Revenues (\$m.)	\$320	\$1,457	\$3,501		
Workforce Indicators					
Total # of Employees	50,000	21,125			112,500
Average Worker Pay/Month (\$)	\$350-\$500	\$430			\$1,344
Value Added/Worker (\$)	\$17,236	\$8,967			

Sources: government statistical agencies.

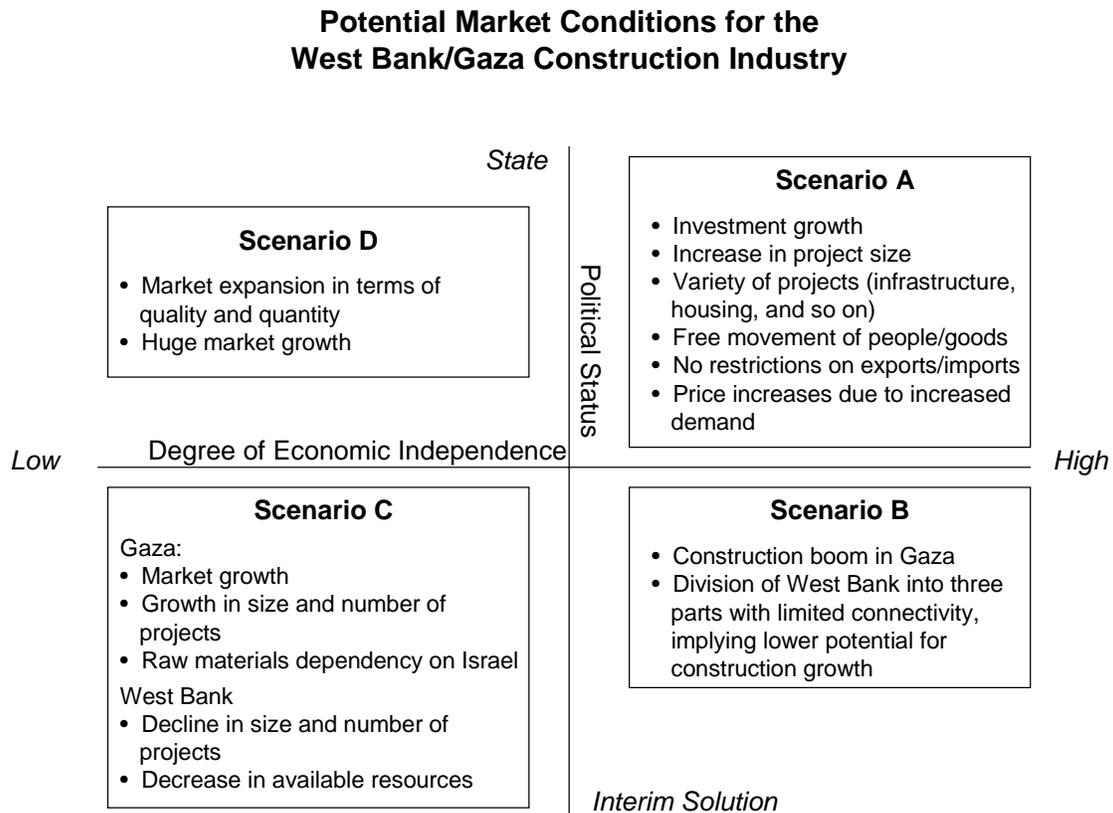
As the table indicates, the construction cluster in Palestine is relatively more important to GDP than in Egypt, Jordan, or Turkey, a fact that is consistent with the great need for construction and reconstruction in the West Bank and Gaza. Likewise, the large number of workers in the West Bank and Gaza cluster demonstrates the cluster's significance, especially compared to Jordan, which has one-quarter the number of construction employees even though its population is one and one-half times that of the West Bank and Gaza.³⁸ A potential source of competitive advantage for the West Bank and Gaza construction cluster may be value added per worker, which is almost double the corresponding figure for Jordanian construction workers, even though average wages for Palestinian workers are similar to their Jordanian counterparts.

In qualitative terms, however (and as already described), the global construction market is expected to experience continued growth, particularly in developing countries. For the most part, the West Bank and Gaza construction industries should reflect the global trend; however, relations with Israel will to a great extent determine local trends. The following diagram outlines the potential effects of this key driver of the West Bank and Gaza construction cluster, describing various political scenarios and the impact on market conditions for the construction industry. As indicated in Figure 4-5, the industry will grow in all scenarios—reflecting the great need for construction following years of destruction—but the extent of growth will vary considerably.

³⁸ According to the Central Intelligence Agency's *World Factbook* (<http://www.cia.gov/cia/publications/factbook/index.html>), Jordan's population is 5,906,760, the West Bank's is 2,460,492, and Gaza's is 1,428,757.



FIGURE 4-5: POTENTIAL MARKET CONDITIONS FOR THE WEST BANK/GAZA CONSTRUCTION INDUSTRY



Source: DAI/PED, "Scenario Planning for Palestinian Construction Industry," adapted by SRI International.

Demand for residential construction is expected to increase substantially in the eventuality of an inflow of Palestinian returnees, as well as the resettlement of refugees. Assuming the influx of perhaps one million returnees, the total population of the West Bank and Gaza could reach over six million. Thus, it is expected that the demand for residential construction will increase substantially in the next 10 years. In addition the construction cluster has to build the needed increase in infrastructure. This includes buildings for public schools, health centers, hospitals, cultural and recreation facilities, post offices, and police stations.

According to the World Bank, the construction and transport industries exhibited the highest growth rates among all sectors (25 percent and 18 percent, respectively) and contributed about one-third of the jobs created. This would seem to reflect a steady growth in residential and commercial investment, as well as an expansion in both internal and external trade. All those factors point towards a labor market that is growing and improving, and is thus promising for a better future.³⁹

³⁹ Palestine Economic Policy Research Institute (MAS), *Investment Guide*, 2005.



Competitive Position

The West Bank and Gaza construction cluster has three main product lines in which it is competitively positioned. These products include:

- **Contracting services.** Today, contracting services are provided mainly in the local market, but there is considerable potential for export expansion. Many contractors are considering exporting their services regionally. For example, Humaidat Co. is working in the Gulf area while SAK Co. is considering different options in Iraq and Sudan.
- **Engineering services.** Like contracting services, engineering services currently serve the local market but could expand abroad, in part because many engineering consultants have had successful experiences working as partners or subcontractors to international firms.
- **Construction materials.** Although most raw inputs for construction materials are imported from or through Israel (which presents uncertainties), locally manufactured materials such as tiles and blocks are competitive not only on the local market but also in regional markets (for example, tiles are already exported to Israel and have potential for export to Egypt).

In addition to having a range of marketable services and products, the construction cluster has additional sources of competitive advantage. For example, its highly skilled workforce covers both professional engineers as well as laborers, both of which are paid wages that are low (and thus competitive) by regional standards. West Bank and Gaza construction companies also have a variety of somewhat intangible advantages, such as accumulation of know-how from working with international firms, quick adaptability to change, and a strong “survivor mentality” resulting from prevailing cycles of destruction and violence.

Key competitors to West Bank and Gaza companies include international firms (particularly contractors and engineering consultants), Israeli construction materials companies, a few Egyptian and Jordanian building materials firms, and—for outsourcing to the Gulf region—certain Egyptian and Jordanian engineering firms. Sources of competitive advantage for West Bank and Gaza companies compared to international firms (although dependent upon project size and type) are often based on cost, experience, and familiarity with local conditions. For large-scale projects like power plants, airports, wastewater treatment plants, local companies typically work as subcontractors under international firms.

Recent Performance

Changes in Key Economic Indicators. Figures 4-6, 4-7, and 4-8—covering the construction industry’s contribution to GDP, employment, number of establishments, and building licenses—all point to one overriding factor governing performance: the greater the degree of political uncertainties, the lower the rate of construction activity. Nonetheless, it is important to note that regardless of the political context, construction projects continued, a fact that probably indicates the underlying strength of the industry as well as the great need for its products and services.



FIGURE 4-6: CONSTRUCTION INDUSTRY'S CONTRIBUTION TO GDP

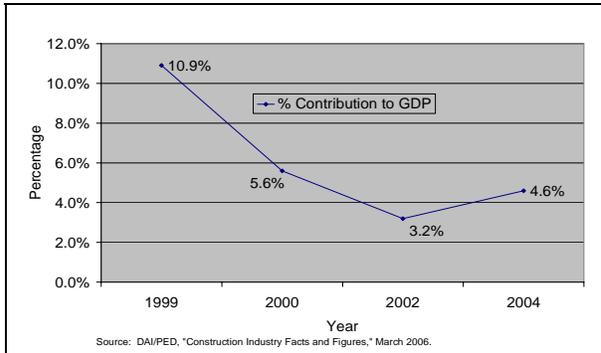


FIGURE 4-7: CONSTRUCTION INDUSTRY'S SHARE OF EMPLOYMENT

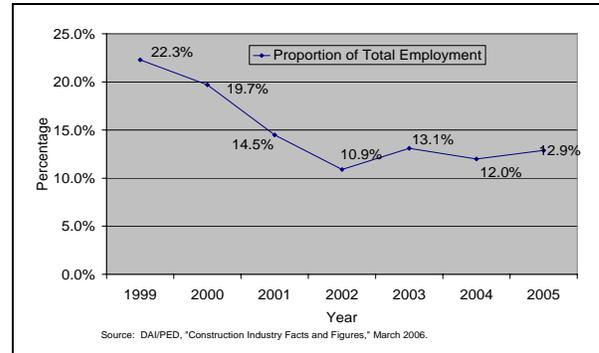
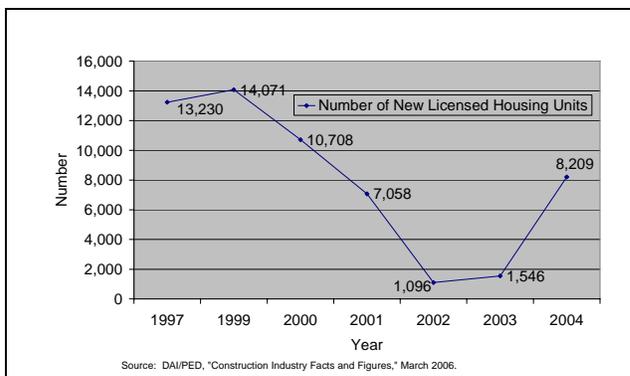


FIGURE 4-8: NEW BUILDING LICENSES, 1997-2004



Changes in Product Mix. The construction cluster is quickly adaptable to changes in technology and techniques. Because construction projects are driven mainly by international donors, who usually impose their respective national technical specifications on the construction materials and processes to be used locally, the product mix changes constantly and rapidly. Recent examples of introduction of new products include: large sizes of concrete pipes incorporated to serve large-scale infrastructure projects and the recent start of local manufacture of various types of plastic pipes and fittings that previously had been imported.

Changes in Export Partners. Currently, Israel is the dominant export partner for construction tiles, but Egypt is being targeted. The Arabian Gulf area is also a target market for engineering services. The Gulf, Iraq, and North Africa are potential export markets for contractor services. Growth potential is summarized in Table 4-4.



TABLE 4-4: GROWTH POTENTIAL

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
International Market Outlook	<ul style="list-style-type: none"> • Global market is booming. • All local market scenarios point to growth. 	5
Competitive Position	<ul style="list-style-type: none"> • Diversified service and product base. • Extensive subcontractor/ partner experience. • Emerging recognition within the region of the West Bank and Gaza industry. 	5
Recent Performance	<ul style="list-style-type: none"> • Performance has been volatile. • Declining trends were observed. • Markets began to stabilize only recently. 	3

CLUSTER READINESS

Commitment

In addition to the numerous private sector firms, three support institutions form the core of the cluster. The three support institutions include:

- **Palestinian Contractors' Union (PCU).** PCU was established in 1994 as a member-based business association to serve contractors and the construction cluster at large. As of December 2005, PCU membership stood at an impressive 566 companies (210 Gaza and 356 West Bank).
- **Syndicate of Engineers (SE).** Chapters of this syndicate have longstanding presences in both the West Bank and Gaza; the SE—West Bank was established in 1963 while the SE—Gaza was formed in 1976. Membership is strong, with 489 engineering firms (381 in West Bank and 108 in Gaza) and 13,667 individual members (7,867 in West Bank and 5,800 in Gaza) as of December 2005.
- **Palestinian Construction Industries Union (PCIU).** Established in Gaza in 1999 as a member-based business association, PCIU serves the construction materials manufacturers. PCIU-Gaza has around 191 firms (as of 2005); in the West Bank, PCIU is not yet formally established and operates under the auspices of the Palestinian Federation of Industry (PFI).

Construction companies and their three main support organizations show solid commitment to working together. They have already agreed to a shared cluster-level strategic plan. Cluster stakeholders endorsed the cluster-level strategic framework at the International Engineering Conference held at Gaza University (2003), followed by a strategic plan retreat held in Amman, Jordan (2004). Other ways in which key cluster stakeholders show a responsive attitude toward working together include numerous jointly organized events and frequent combined delegations of PCU, SE, and other organizations to attend international conferences and trade fairs. Companies in the construction cluster typically work together, particularly for large projects in which contractors and consultants realize that joint ventures help to position them to compete against international



firms; for small- and medium-sized projects, construction firms generally work separately. See Table 4-5 for this category’s readiness score.

Dynamism

As mentioned earlier, the Palestinian construction cluster is driven primarily by the needs and requirements of its main clients, that is, international donors. As a result, the cluster quickly adapts to change, and cluster leaders are open-minded about new ideas and innovations that may lead to improving their performance, as long as the ideas are relevant to local conditions. Firms have introduced new products to the market and have begun to manufacture some products that previously were sourced externally. In addition, many construction companies have adopted ISO practices.

Cluster members positively endorsed the cluster concept because they understand that they cannot “go it alone.” They are very excited to be working together to form a consolidated work plan. Past activities, such as DAI/MAP’s work in bringing them together for a “strategic management retreat” in Jordan and its initiatives on unified construction contracts, also point to forwarding-looking behavior and attitudes on the part of cluster members. See Table 4-5 for this category’s readiness score.

Critical Mass

There is a high level of interaction among cluster members. The cluster has deep roots in the West Bank and Gaza and is so large that it affects many people’s lives. While the many players in the cluster make it a complicated industry, the sheer number of firms and supporting institutions indicate solid critical mass. Nonetheless, linkages within the cluster, although currently good, could benefit from targeted improvement efforts. See Table 4-5 for this category’s readiness score.

TABLE 4-5: CLUSTER READINESS

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
Commitment	<ul style="list-style-type: none"> Committed support institutions accustomed to working together. Past private sector collaboration. 	4
Dynamism	<ul style="list-style-type: none"> Accustomed to changing with the needs of international donors. Some new products introduced to market . 	4
Critical Mass	<ul style="list-style-type: none"> Many companies with different product/service offerings. Institutions and firms have deep local roots. 	4

FACTORS SPECIFIC TO THE WEST BANK AND GAZA

Construction is currently a significant source of employment for Palestinians: as of 2004, it comprised 13.1 percent of the total employment in the West Bank and Gaza. In past years, when the Israeli-Palestinian conflict has had less effect on the West Bank and Gaza economy, the industry’s share of employment has risen above one-fifth of total employment; for example, in 1999, it comprised 22.3 percent of all employment. Given the great need for reconstruction, it is likely that, should the economy improve, construction employment would rise again and would absorb significant numbers of currently unemployed workers.



As with most other industries in the West Bank and Gaza, construction is very sensitive to border closures, since most raw materials are imported. (See Table 4-6.)

TABLE 4-6: FACTORS SPECIFIC TO WEST BANK AND GAZA

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
Potential for rapid employment creation	With the right conditions, employment could boom.	5
Insensitivity to border closures	Because inputs are imported, sensitivity is high.	2

ACTIONS TO ENHANCE CLUSTER COMPETITIVENESS

OVERVIEW OF THE CLUSTER’S SIGNIFICANCE AND POTENTIAL

The construction cluster is certainly a major driving force in the Palestinian economy. All local market indicators point to growth in the cluster. With its emerging recognition in the region, the backing of donor resources, the worldwide construction boom, and a comparative advantage in labor, the cluster provides considerable potential to spur sustained long-term economic growth.

Given the cluster’s inherent position in the Palestinian economy, interventions must move past those of the typical development model. Initiatives must be bold and endeavor to create employment, form strategic alliances, and diffuse technology. Also key to realizing the full economic potential of this cluster is an aggressive agenda of public-sector capacity building and legal and regulatory reform.

PROPOSED CLUSTER INITIATIVES AND ACTIVITIES

Stakeholders from the West Bank and Gaza construction cluster developed the following vision for cluster growth: The construction cluster vision is to “*Successfully meet the construction needs of the people of the West Bank and Gaza to effect a better quality of life.*”

Based on this vision, the cluster outlined critical initiatives that will provide the framework for its actions. For each initiative, stakeholders have identified potential activities; some may take place under the PED project, while others may be undertaken by the cluster itself or in conjunction with other donors or partners.

Access to Markets

Firm-level technical assistance and access to business development services: This initiative aims to build the capacity of construction firms to improve performance, leading to increases in revenues and profits. This initiative will have different components to suit construction firms in different disciplines (that is, contractors, consultants, manufacturers, and the like) and of different sizes (small, medium, large). An association will offer the initiative as a service program; locally established commercial BDS providers will be the main implementers.

Access to Technology and Know-How

ICT Diffusion in the construction cluster: This initiative aims to improve the performance of firms and thereby lead to increases in revenues and profits by facilitating access to ICT applications in



construction. For example, a highly recommended action is development of a construction Web portal (www.construction.ps) to provide essential data to all cluster stakeholders and to serve as a backbone to initiate online bidding services. Needed software will be provided to relevant business associations to improve their services to members. Potential pioneer activities will include working with selected construction firms to use state-of-the-art industry standard software that is used worldwide but not yet locally.

Research and Development (R&D): Current R&D activities in the construction cluster are very poor and tend to be theoretical academic research. Lack of coordination among industry, scholars, and academic institutes leads to fragmented and repetitive research efforts. In addition, today most construction materials are imported. It is critical to conduct research and develop new construction materials. Coordination of R&D efforts will benefit industry needs. To achieve that goal, a seminar on “Research Agenda for Construction Industry – (2007 - 2020)” shall be conducted.

Workforce Development and Capacity Building

Connect Business Associations to Universities: This initiative aims to bridge the gap between academia and industry by fostering continuous dialogue and joint programs. This initiative will advocate for forming a joint academic-industry council to serve the role of a coordinating body between academia and industry. Universities could be an excellent not-for-profit, viable BDS provider.

Training and Certification Program: In coordination with industry, universities, and other educational service providers, this initiative will facilitate establishing and providing accredited certification programs, programs for executives, and other training programs. A second component of this initiative will focus on supporting testing laboratories for construction materials and providing on-the-job training for university graduates in these labs.

Building organizational capacity of associations: This initiative aims to build the capacity of construction business associations to become stronger, more sustainable member-based associations that advocate for the interests of their members and contribute positively and effectively to the development of the construction cluster in general. The main focus of organizational strengthening efforts will be three associations: Palestinian Construction Industries Union (PCIU); Palestinian Contractors’ Union (PCU); and Engineers Syndicate (ES).

Policy and Regulatory Reform

Capacity Building of Central Bidding Commission: The Ministry of Public Works and Housing (MOPWH) is the governmental incubator for the industry, based on the Law #6 (1994), which laid the legal framework for the industry. The Central Bidding Commission is the executing arm for Law #6. This initiative aims at building the capacity of the commission for better handling of policy constraints in construction and encouraging dialogue with the private sector.

Develop Palestinian Unified Contract: International donors drive the construction cluster, imposing their national practices in various areas, including contracts. Currently, dozens of different contract conditions are used, leading to great confusion. To maximize efficiency, it has become a national-level priority to create a standard unified contract to use across all projects. The priority is to create a Unified Contract for Construction Works and a Unified Contract for Consulting Services.

Improve Contractors’ Classification System: The existing Contractors’ Classification System was adopted in 1994. This system is now obsolete and represents an obstacle in advancing the



construction cluster. This initiative will support the development of a modern system that is more relevant to local conditions

Contractors Law: To enable PCU to represent the cluster’s interests better, it is recommended that its legal status be changed to a “Syndicate” under the “Law of Syndicates.” Such a law, if approved by the PLC, would empower the PCU in representing its members and the construction cluster at large.

Arbitration Chamber: Disputes in construction are common. The construction community has a consensus that the existing court system is not very helpful in resolving disputes. The trend towards Alternate Dispute Resolution (ADR) techniques (such as mediation and arbitration) is largely accepted. The Syndicate of Engineers and Palestinian Contractors Union is considering a joint Arbitration Chamber to serve the construction cluster at large. This initiative will support establishing this entity.

PRELIMINARY ACTION PLAN

TABLE 4-7: CONSTRUCTION CLUSTER ACTION PLAN

Initiatives/Programs		2006				2007	2008
		Q1	Q2	Q3	Q4		
Access to Markets							
1.1	Firm Level Technical Assistance through BDS						
Access to Technology and Know-how							
2.1	ICT diffusion in Construction Cluster						
2.1	Research and Development (R&D)						
Workforce Development and Capacity Building							
3.1	Connect Business Associations to Universities						
3.2	Certification and Training						
3.3	Build Organizational Capacity of Associations						
Policy and Regulatory Reform							
4.1	Capacity Building of Central Bidding Commission						
4.2	Develop Palestinian Unified Contract						
4.3	Improve Contractors' Classification System.						
4.4	Contractors Law						
4.5	Arbitration Chamber						



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5. FURNITURE CLUSTER ASSESSMENT

CLUSTER OVERVIEW

This report provides a systematic review of the global and local factors, trends, and context that frame and influence potential USAID assistance to the West Bank and Gaza furniture cluster through the Palestinian Enterprise Development (PED) project. The report draws upon locally and internationally available research and data for the cluster as well as PED's extensive interaction with members of the West Bank and Gaza furniture cluster. Using these materials, a "score" was given that represents a numerical assessment of the cluster's current status and future potential and that pinpoints assets and liabilities towards which USAID-funded activities can be targeted.

Globally, the furniture industry is a \$190 billion industry (as of 2004) that has been growing steadily at 8 percent per year. Furniture is the 18th largest exported goods industry, with a global trade of 141 manufacturing product groups and \$78 billion in world exports. Major markets for furniture products are the United States, Europe, and Japan, but the fastest-growing markets have been the United States and Asian countries including China, Korea, Japan, and Singapore. Rising incomes, new home sales, low interest rates, and home renovation projects are the major drivers for purchases of home furniture. Ergonomics, compatibility with office computing equipment, and functionality are the major drivers of purchasing decisions in the office furniture market. The key megatrends in the industry include: the rise of superstores such as Ikea, Staples, and Target; increasing consumer demands for use of sustainable forest products; the rise of Internet purchases, which is changing the industry's structure; and the growing dominance of China.

The furniture industry is one of the oldest in the West Bank and Gaza region, and it has flourished during the last few years to become one of the major promising Palestinian productive sectors, with many firms established prior to the political crisis and economic recession beginning in 2000. There has been substantial industry expansion and development, including new categories such as interior design, hospitality, and commercial furnishings, as well as advancements in design and manufacturing. Today, the industry includes 600 establishments in Gaza that use sophisticated manufacturing techniques and employ more than 5,500 workers. The estimated annual sales of Gaza manufacturers are \$44 million. Statistics show that 76 percent of the total production in Gaza's furniture industry is sold in the local market of Gaza, with a further 8.5 percent sold in the West Bank. Exports make up an estimated 15.5 percent of production, the majority of which is destined to Israel for sale in the Israeli market or export to other markets. The total annual value of direct exports to counties other than Israel (that is, not through Israeli agents) is estimated at just \$250,000, which represents 0.05 percent of the local production.

Strengths of the furniture cluster are mainly typified in high carpentry workmanship skills; good factory conditions; fine quality of produced furniture; and newly emerging, original Palestinian designs. In addition, Palestinian firms have established buyer networks in Israel and other markets and have started to pursue market opportunities aggressively through industry associations and partnerships. Weaknesses of the cluster are characterized by limited use of technology in communication, management, and marketing; lack of specialized skills; costly export distribution channels; and the limited use of proper strategies to reach global markets. Opportunities for the furniture cluster lie in the development of new original and ethnic designs, in accessing target markets with favorable trade agreements, and in upgrading the industry's technological infrastructure.

Table 5-1 provides an aggregate assessment of the cluster's current status and future potential as well as individual scores for key components and subcomponents related to the cluster's competitiveness.



As indicated by its aggregate score of 3.67, the furniture cluster offers considerable promise for generating growth on a scale that will help transform the economy of the West Bank and Gaza.

A major element underpinning this solid outlook is the “growth potential” component, which reflects not only the worldwide context but also the competitive position of the West Bank and Gaza and recent performance. On all counts, the furniture cluster scores high, with potential for exports into an expanding global market offering promise, with unique products and quality craftsmanship balancing the lack of brand recognition and competition from Chinese and Italian products, and with reasonably strong recent performance that, although not comprising a significant portion of GDP, hints at adaptive strategies for facing future challenges.

As with “growth potential,” the furniture cluster also receives high marks for “cluster readiness.” It enjoys committed support institutions that have past and recent experience working together, as well as producers that are keenly aware of—and responsive to—changing market demands, consumer preferences, and political and economic pressures. The cluster also benefits from its sheer numbers, as well as some history of inter-firm relationships.

Within the West Bank and Gaza environment, prospects for rapid employment creation are critically important, and on this criterion the furniture cluster scores quite well, with potential to create between 500 and 1,000 new jobs in the short term. As with most industries in the West Bank and Gaza, however, furniture is subject to border closures; this affects imports of raw materials as well as exports.

TABLE 5-1: SCORING OF THE FURNITURE CLUSTER

Growth Potential		Cluster Readiness		Factors Specific To West Bank and Gaza		Aggregate Assessment 3.67
4		4		3		
International Market	4	Commitment	4	Potential for Rapid Employment Creation	4	
Competitive Position	4	Dynamism	4	Insensitivity to Border Closures	2	
Recent Performance	4	Critical Mass	4			

Scoring Range = 0 (very low) to 5 (very high)

INDUSTRY CLUSTER ASSESSMENT

INTERNATIONAL TRENDS IN THE INDUSTRY

Globally, the furniture industry is a \$190 billion industry (as of 2004). Furniture is the 18th largest exported goods industry, with global trade of 141 manufacturing product groups and \$78 billion in world exports.⁴⁰ The global industry has been growing steadily at 8 percent per year. Major markets for furniture products are the United States, Europe, and Japan (see Figure 5-1). Over the past decade,

⁴⁰ Includes SITC codes 5-8. Source www.unctad.org (2006).



the fastest-growing markets for furniture products have been the United States and Asian countries, including China, Korea, Japan, and Singapore. Rising incomes, new home sales, low interest rates, and home renovation projects are the major drivers for purchases of home furniture. Ergonomics, compatibility with office computing equipment, and functionality are the major drivers of purchasing decisions in the office furniture market.

While furniture is generally considered to be both a resource-intensive and labor-intensive industry, several of the major exporting countries are wealthy nations, as Figure 5-2 illustrates. In 2004, however, China passed Italy as the number one furniture exporting country in the world, with China's \$7.3 billion in exports representing 12% of global furniture exports. Other large exporting nations include Italy (11%), Germany (9%), the USA (8%), and Canada (7%).

FIGURE 5-1: DESTINATION OF GLOBAL FURNITURE IMPORTS

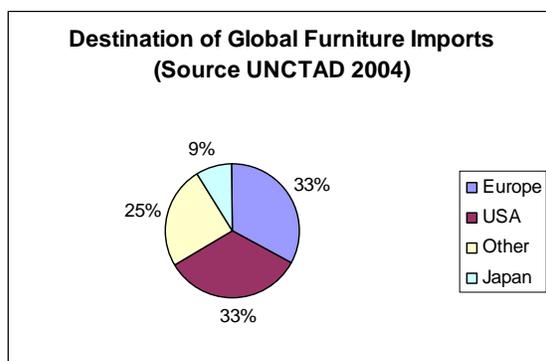
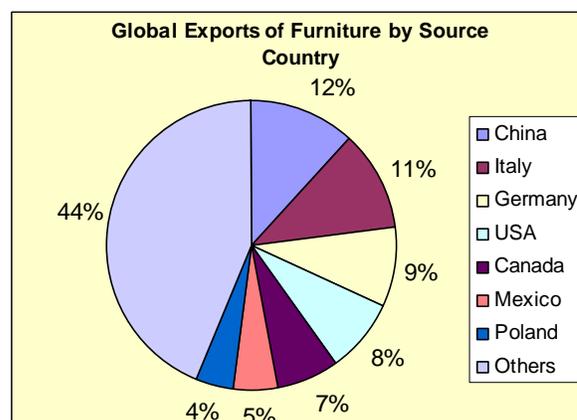


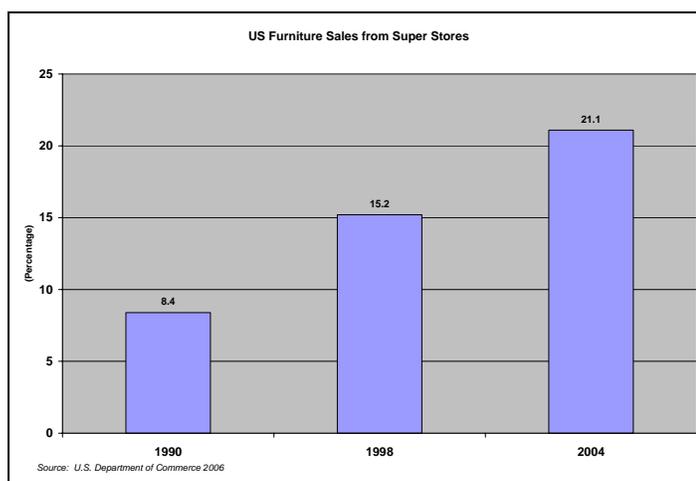
FIGURE 5-2: GLOBAL EXPORTS OF FURNITURE BY SOURCE COUNTRY



Several trends are prominent in the furniture industry. Some of the megatrends include:

- The rise of superstores:**
 Increasingly large superstores (such as IKEA, B&Q, Pier One, Target, Staples, Office Depot, and Wal-Mart) are becoming dominant players in the global furniture market. Large-scale retail furniture stores have become the major outlets for furniture sales globally; in the United States, for example, they now represent 64 percent of furniture sales, up from 46 percent in 1990 (see Figure 5-3).

FIGURE 5-3: U.S. FURNITURE SALES FROM SUPERSTORES



Large-scale retail stores typically are very high-volume purchasers of furniture and source their products from numerous overseas suppliers. They usually are very price competitive and focus mainly on low- to mid-range segments of the consumer



market. Successful suppliers are able to deliver high-quality furniture to these “superstores” in high volumes on a regular basis at competitive prices.

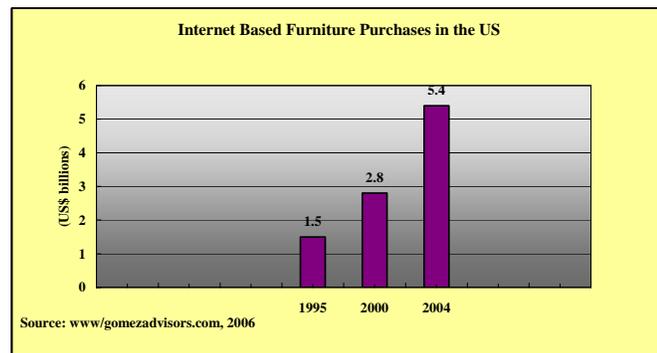
IKEA is the world’s largest furniture chain (with annual sales of \$14 billion). It currently has retail stores in Saudi Arabia, Israel, Kuwait, and UAE in the Middle East. It plans to open new stores in several cities in the Middle East with populations of over one million inhabitants. It also plans to source more products from the Middle East region. About 70 percent of Ikea’s raw materials for their furniture are made of wood or wood fiber; the company sources products from around the world for sale in 35 different countries.

- **Sustainable forest products.** Large furniture buyers are increasingly demanding that their furniture products come from sustainable forests, which conforms to Forestry Stewardship Council (FSC) standards or equivalent criteria. For example, IKEA targets “wood materials that come from responsibly managed forests”⁴¹ and B&Q, Europe’s largest “do-it-yourself” chain, only sources wooden products from FSC-certified forests.

Organizations such as the Forestry Stewardship Council and the Certified Forest Products Council act as independent third-party agents to verify that the timber they certify comes from forests that are managed in eco-friendly and sustainable ways. Wood from certified sustainable forests generally costs more than wood from non-certified forests, but the higher costs are often offset by the benefits of increased volume in orders from new ecology-conscious buyers and higher sales prices.

- **The rise of Internet purchases is changing the structure of the industry.** Furniture buying over the Internet has been increasing by an average of 18 percent per year in the United States over the past 10 years (see Figure 5-4). Some of the major retailers selling furniture online include Target, Staples, IKEA, GoodHome.com, Furniture.com, Living.com, B&Q, and FurnitureFind.com. Major manufacturers, including La-Z Boy and Ethan Allen, have also started to sell their own brand products online, in addition to continuing to sell through their traditional wholesale and retail channels.

FIGURE 5-4: INTERNET-BASED FURNITURE PURCHASES IN THE U.S.



- **The growing dominance of China.** China's growth in furniture exports in recent years has been phenomenal. In 2004, China achieved production of \$31.7 billion and furniture export value of \$9.6 billion (up from \$7.3 in 2003), China has replaced Italy as the world's largest exporter. China’s furniture industry has been growing at an annual growth rate of 17 percent over the last three years (see Figure 5-5).

⁴¹ www.ikea.com/about_ikea/press_room.



China has the capacity to mass-produce furniture with prices that are attracting buying interest from around the world. For example, the Swedish company IKEA, which ranks first in sales of furniture globally, has moved its Asia regional procurement hub from Singapore to China. It has set up regional procurement centers in Harbin, Qingdao, Guangzhou, Yunnan, and Shanghai.

There are several factors behind the strong export growth for China's furniture industry. China's furniture manufacturers include foreign manufacturers from over 20 countries, and foreign investors produce about 60 percent of China's furniture exports to the United States. Another deciding factor is the investment by Taiwanese furniture companies, more than 500 of which had shifted their manufacturing plants to China to take advantage of the labor cost and abundant raw materials.

The trends discussed above will affect the ability of the West Bank and Gaza furniture cluster to penetrate international export markets. Companies will need to respond to these trends and position themselves to take advantage of the business opportunities emerging from them.

GENERAL CLUSTER DESCRIPTION IN WEST BANK AND GAZA

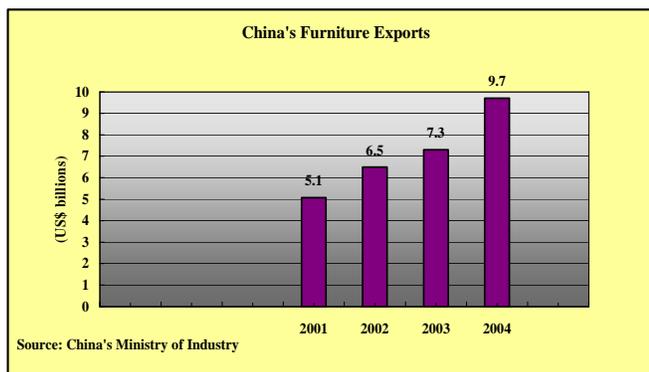
The furniture cluster is one of the oldest in the West Bank and Gaza, and it has flourished during the last few years to become one of the major promising Palestinian productive sectors. Prior to the political crisis and economic recession beginning in 2000, the industry saw the establishment of many firms as a result of the growth of the Palestinian economy. The cluster has developed and expanded to include new categories such as interior design, hospitality, and commercial furnishings. In addition, design and manufacturing have made advances.

Today, the cluster in Gaza includes 600 establishments that use sophisticated manufacturing techniques and employ more than 5,500 workers. The estimated annual sales of Gaza manufacturers are \$44 million. Statistics show that 76 percent of the total production in Gaza's furniture cluster is sold in the local market of Gaza, with a further 8.5 percent sold in the West Bank. Exports make up an estimated 15.5 percent of production, the majority of which is destined to Israel for sale in the Israeli market or export to other markets. The total annual value of direct exports to counties other than Israel (that is, not through Israeli agents) is estimated at just \$250,000, which represents 0.05 percent of the local production.

The following factors have emerged as key drivers of the local furniture cluster:

- **Marriage Market:** More than 45 percent of the West Bank and Gaza community is under the age of 15 years old, which indicates an active and growing local marriage market.
- **Marriage season:** the local marriage season is in the summer, so furniture purchases increasingly start in the spring/early summer months of March and April. This is particularly true in the local West Bank and Gaza markets, but is also somewhat true of the Israeli market.

FIGURE 5-5: CHINA'S FURNITURE EXPORTS





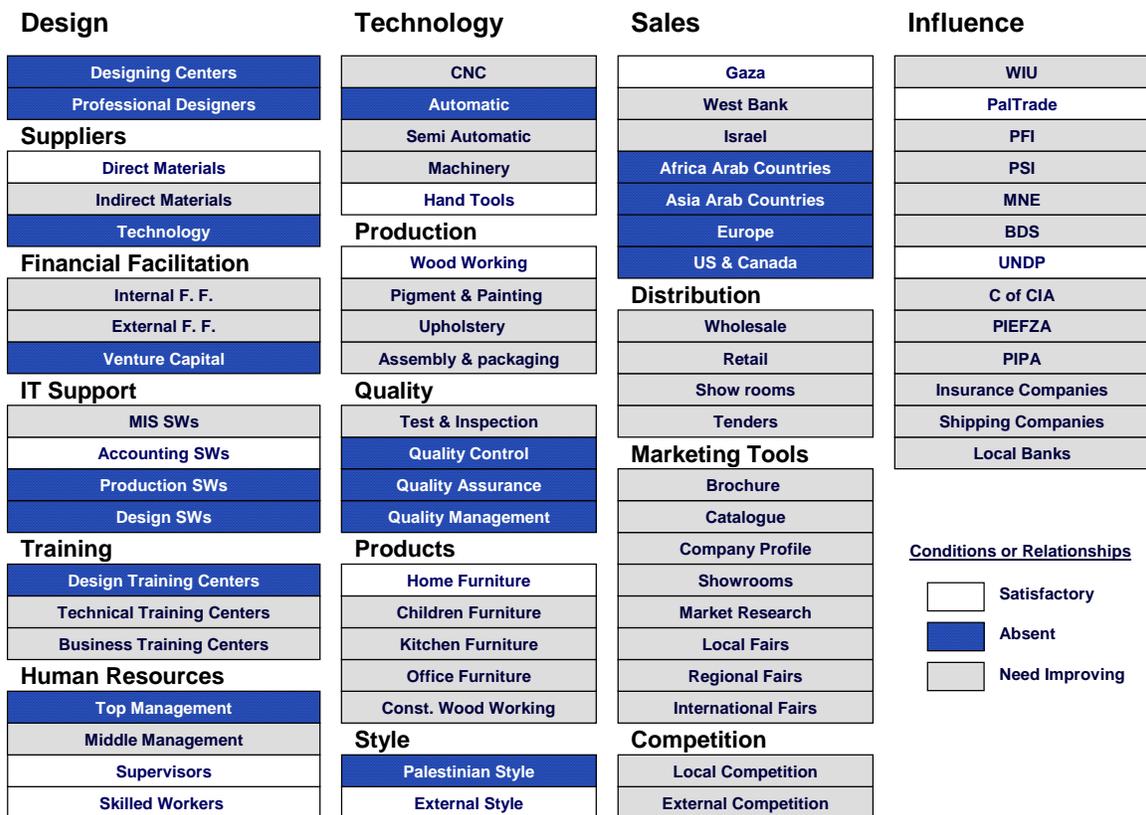
- **Religious Holidays:** Islamic, Christian, and Jewish holidays constitute vital drivers for the cluster, as purchases increase prior to holidays, and are sometimes linked to religious beliefs or traditions.
- **Economic Development:** More than 40 percent of the local market in the West Bank and Gaza is deemed a contract market. Growth of contract furnishings is highly dependent on economic development and political stability. International donors fund many of these projects and political stability is expected to result in new projects and investments. Local NGOs, the private sector, and government normally drive contract business, with sales based on tenders, which are often open for bidding, and at other times based on short-listed suppliers. Tenders are likely to be bid by both local manufacturers and showrooms, which supply both local and imported products.

Palestinian furniture products have the potential to compete successfully against other products from the region in terms of design, quality, consistency, and value. Original designs and fine craftsmanship are fast becoming recognizable Palestinian furniture hallmarks. These potentials qualify Palestinian furniture to access medium- and upper-medium niches of Western Europe and Gulf markets.

After analyzing the cluster’s current potential to expand in world markets, PalTrade and Wood Industries Union (WIU) representatives have jointly developed the cluster’s trade development strategy. It is crafted to establish a sustainable market position for Palestinian firms and set the overall strategic direction for the cluster.

The cluster map and value chain map (Figures 5-6 and 5-7) depict the full array of participants and the cluster’s cost structure.

FIGURE 5-6: FURNITURE CLUSTER MAP

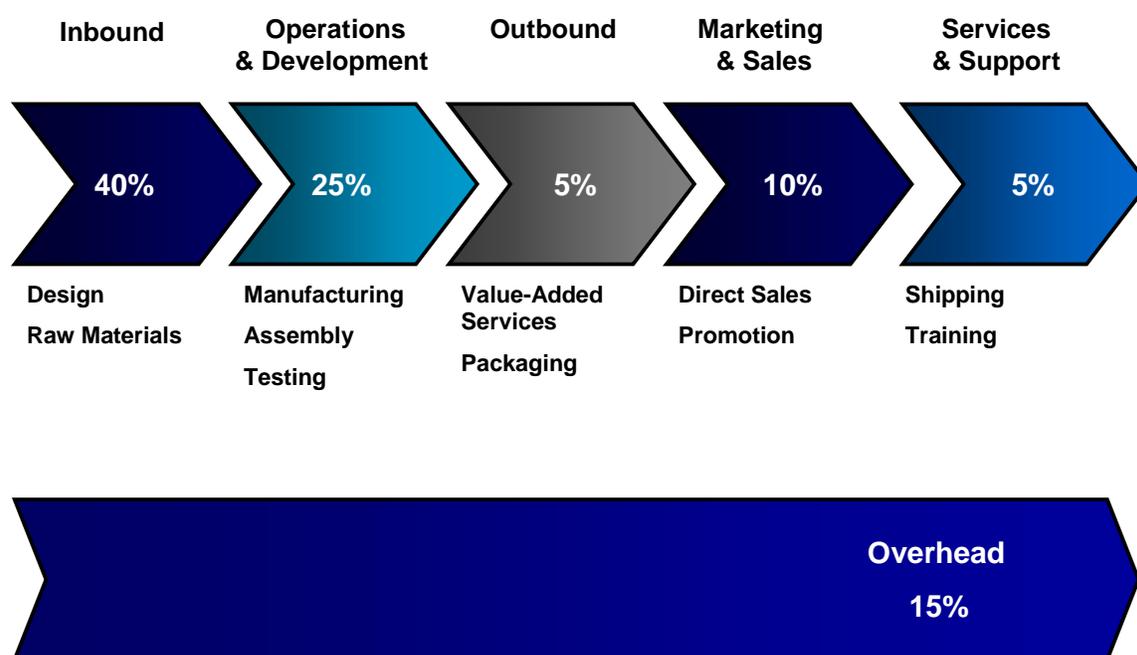




While many parts of the cluster are developed to some degree, most need improvement. In addition, the cluster map indicates that design capabilities and competencies are lacking. Limited use of new manufacturing technologies and ICTs, lack of quality systems and processes, and lack of high-level management skills inhibit cluster growth.

The following schematic (Figure 5-7) captures the cluster's value chain. It is clear that the furniture cluster is both resource and labor intensive. While raw material and design inputs consume 40 percent of the cost, manufacturing, assembly and testing consume 25 percent, suggesting a fair amount of play in this value segment. Value-added services and packaging consume 5 percent of the value chain's aggregated cost.

FIGURE 5-7: FURNITURE: VALUE CHAIN COST ANALYSIS



CLUSTER ASSESSMENT

SWOT ANALYSIS

Table 5-2 summarizes the strengths, weaknesses, opportunities, and threats facing the furniture cluster in the West Bank and Gaza; a narrative description of each element of the SWOT follows the table.



TABLE 5-2: SWOT ANALYSIS FOR THE FURNITURE CLUSTER

Strengths	Weaknesses
<ul style="list-style-type: none"> • High carpentry workmanship skills • Good factory condition • Mid- to high-range quality of products • Emerging original designs • Comparatively low labor costs • Strong management commitment through well-established industry association and industry partnerships • Established distribution channels in the Israeli market • Wide product range with variety of features 	<ul style="list-style-type: none"> • Sub-optimal factory layouts and limited technology usage • Lack of certain specialized skills • Limited application of quality control practices • Lack of original designs • Comparatively higher costs of production • Poorly developed management skills and organizational structures • Weak distribution channels • Lack of global networks
Opportunities	Threats
<ul style="list-style-type: none"> • Introduction of new technologies and techniques • Opening of Rafah crossing to export and import 	<ul style="list-style-type: none"> • Political and economic instability • Increased cost of supplies • Unreliable and costly outbound logistics

Strengths

Strengths of the furniture cluster are mainly typified in high carpentry workmanship skills; good factory conditions; fine quality of produced furniture; and the newly emerging, original Palestinian designs. In addition, Palestinian firms have established buyer networks in Israel and other markets and have started aggressively pursuing market opportunities through industry associations and partnerships.

Weaknesses

Weaknesses of the cluster lie in limited use of technology in communication, management, and marketing, and lack of specialized skills. Costly export distribution channels and the limited use of proper marketing strategies and tactics to reach out to and expand the global market opportunities hinder the cluster's development.

Opportunities

Opportunities for furniture cluster are foreseen in the development of new original and ethnic designs. Accessing target markets with appropriate marketing tactics and exploitation of favorable trade agreements with the United States, the European Union, and Arab countries will expand opportunities. Upgrading technological infrastructure is likely to increase the competitiveness of Palestinian products.

Threats

Increasing competition with low-priced products from the Far East, particularly China, poses a threat to the Palestinian cluster. Unreliable and costly outbound logistics resulting from border control and the current political instability are threats to the cluster's competitiveness.



CLUSTER EVALUATION

GROWTH POTENTIAL

Cluster's Competitive Position in the International Market

To place the current status of the West Bank and Gaza furniture cluster in context, the team chose several key and generally available economic and workforce indicators upon which to compare it with its regional counterparts. Through this comparison, the immediate goal is to better understand the structure and performance of the Palestinian cluster compared to geographical neighbors and competitors. In the medium and longer term, the international indicators can also be used to compare changes and growth in the Palestinian industry.

Many of the indicators are related to the relative size of the various economies. Accordingly, the discussion in this section will focus on indicators in the following table that would not necessarily be expected, given the size of the West Bank and Gaza economy. Deviations from the norm (positive or negative) will be highlighted because such anticipated data may indicate underlying sources of strength or weakness, as well as areas that require additional investigation, in order to understand avenues for developing competitive advantage.

In reviewing the data in the Table 5-3, a comparison that stands out is the total revenues from furniture. In absolute terms, the West Bank and Gaza earns less from furniture revenues than all of the benchmark countries. When adjusted for population, furniture revenues in the West Bank and Gaza are lower than the some of the benchmark countries and about on a par with others. For instance, Israel, with a population about one and a half times that of the West Bank and Gaza, boasts more than 22 times the revenues from this industry, and Lebanon with a population almost identical to that of the West Bank and Gaza, earns eight times as much. On a per capita basis, the West Bank and Gaza earns about the same from furniture as Turkey and Indonesia.

TABLE 5-3: FURNITURE CLUSTER INDICATORS FOR PALESTINE AND BENCHMARK COUNTRIES

(all data are for the latest year available)							
	Palestine	Lebanon	Jordan	Egypt	Turkey	Israel	Indonesia
Economic Performance Indicators							
Total Number of Enterprises	1,100	368	450	4,500	2200	2,000	15,000
Contribution to GDP (%)	3%	2%	3%	1%	<1%	<1%	2%
Local Market Size (\$m.)	\$38	\$777	\$240	\$900	\$1,133	\$1,140	\$950
Share of Local Market (%)	76%	45%	42%	83%	84%	79%	75%
Total Revenues (\$m.)	\$45	\$375	\$360	\$950	\$1,100	\$1,000	\$2,600
Total Exports (\$m.)	\$7.0	\$25	\$259	\$200	\$167	\$100	\$1,500,000
Workforce Indicators							
Contribution to Employment (%)	5%	<1%	3%	<1%	<1%	<1%	2%
Total # of Employees	10,000	1,105	6,400	65,000	53,000	15,000	350,000
Average Worker Pay/Month (\$)	440	540	420	390	1,100	2,100	330

Sources (for countries other than Palestine): UNIDO Industrial Statistics Data Base, *Furniture World* and various country reports

Wages of the West Bank and Gaza in this cluster are in the middle range of the benchmark countries, with Egypt, Jordan, and Indonesia having lower wages, and Lebanon, Turkey, and Israel having higher wages.



The percentage of employment derived from furniture is another indicator with significant variation. The furniture industry in the West Bank and Gaza employs a higher percentage (5 percent) of the total workforce than any of the benchmark countries. In most of the countries, furniture represented less than one percent of the workforce.

Table 5-4 details the markets that the team identified as desirable export destinations for the Palestinian furniture cluster. See growth potential score for this category in Table 5-5.

TABLE 5-4: DESIRABLE EXPORT DESTINATIONS FOR FURNITURE CLUSTER	
Market	Justification
Primary Markets	
Israel	Large market with significant buying power, with increasing demand and geographic proximity; local manufacturers hold it in high esteem and have had positive experiences.
UAE	Huge investments in furnishing at both household and contract markets, in addition to its position as a regional hub for furniture industry and re-exports. Tariff-free access for Palestinian products.
Saudi Arabia	Fast growing population and investments at household markets, in addition to the tariff-free access for Palestinian products.
Secondary Markets	
France	Leading world importer market, with increasing purchasing power and opportunities in niche segmentations, with relative geographic proximity and successful export initiatives. Tariff-free access for Palestinian products.
Netherlands	Leading world importer market, with increasing purchasing power and opportunities in niche segmentations, relative geographic proximity, and successful export initiatives. Tariff-free access for Palestinian products.
Germany	Leading world importer market, with increasing purchasing power and opportunities in niche segmentations and relative geographic proximity. Tariff-free access for Palestinian products.
USA	Largest world importer market, with increasing purchasing power and opportunities and tariff-free access for Palestinian products.
Other Arab Countries	Qatar, Bahrain, Tunis, and Algeria are deemed growing markets in furnishings and investments, with increasing purchasing power and tariff-free access for Palestinian products.

Competitive Position

Palestine's furniture cluster specializes in a set of niche product segments, including dining room furniture, bedroom furniture, kids' room furniture, and baby beds. The cluster focuses on Arab countries in general and the Gulf region in particular. A wide product range and a variety of product features, combined with high carpentry craftsmanship, are the cluster's competitive advantages. In addition the cluster benefits from its strategic location.

In the local market, products from Turkey, China, Italy, and the United States compete for market share. Internationally, the competitors are Turkey, Malaysia, and Indonesia. West Bank and Gaza products differ from those of competitors in terms of product quality and features. In addition, satisfactory order management and availability of after-sales services in the local market add competitive advantage in the local market. On the other hand, availability of tax-free arrangements with almost all Arab countries offers competitive advantage to Palestinian producers in the export market. See growth potential score for this category in Table 5-5.



Recent Performance

The cluster has developed significantly in Gaza and now includes 600 establishments employing over 5,500 workers, most of whom are skilled craftsmen. Gaza-based manufacturers' sales are estimated at \$44 million. The total annual value of direct exports to counties other than Israel (that is, not through Israeli agents) is estimated at just \$250,000, which represents 0.5 percent of the local production.

Fewer than 50 furniture manufacturers (of over 600 firms in the cluster) export, and very few have successfully exported directly to markets outside of Israel. Recent initiatives with design and promotion components have attempted to increase the number of exporting firms and to improve their access to export markets in Jordan, Tunisia, UAE, Saudi Arabia, the Netherlands, and France. These initiatives have largely been subdued by the current recession and mobility restrictions imposed on the West Bank and Gaza.

Furniture production is always subjected to adopting new styles to fulfill changing demands and fashions. Palestinian manufacturers have adapted to such changes and tailor their products to customer needs and preferences. In the last few years, Palestinian manufacturers started targeting exports to new markets, such as the UAE and Europe, instead of depending solely on Israeli markets. See growth potential score for this category in Table 5-5.

TABLE 5-5: GROWTH POTENTIAL

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
International Market Outlook	<ul style="list-style-type: none"> • Global market is expanding, but extremely competitive. • Potential for export growth as part of the global supply chain. 	4
Competitive Position	<ul style="list-style-type: none"> • Product uniqueness and craftsmanship. • Lack of brand recognition. • Competition is severe from Chinese and Italian products. 	4
Recent Performance	<ul style="list-style-type: none"> • Contribution to national economy is limited. • Recent performance has been reasonably strong. • Products and market strategies are adaptive. • Limited exports. 	4

CLUSTER READINESS

Commitment

The Wood Industries Union (WIU) is the cluster's primary representative organization; 189 out of 900 players in the cluster are members in the WIU, making the membership base broad. Established in October 1999, the WIU has members in both Gaza and the West Bank. Since 2000, there has been a varied degree of cooperation among the WIU and several national and international organizations in Palestine. For example, every year WIU and PalTrade hold the Palestinian International Fair, with USAID support. In the cluster working groups, cluster members showed great interest and commitment to participation. In addition, DAI projects such as the Market Access Program (MAP)



and Palestinian Enterprise Revitalization Program (PER) have established working relationships among WIU members. Table 5-6 includes the readiness score for this category.

Dynamism

Palestinian manufacturers have responded adaptively to market changes in an environment that is politically and economically unstable. For instance, most of the exporters to Israeli markets adopted and implemented the Taken Requirements (Israeli standards) in order to gain access to these markets. They are willing to collaborate on developing a cluster initiative. Table 5-6 includes the readiness score for this category.

Critical Mass

The furniture cluster is broad, with over 900 producers. The cluster receives support from other private and public sector institutions with a mandate to develop the private sector and trade. Various international donor-funded programs have recognized the importance of this industry and created interventions to develop its capacity and competitiveness. The USAID-funded Market Access Program (MAP) managed by DAI carried out a number of programs to promote design, quality, and marketing skills and capacity in the industry. PalTrade, the national trade promotion organization, also supports the cluster with training programs, trade fairs and exhibitions, and other initiatives. Public-sector institutions have also supported the cluster. The Ministry of National Economy is considered the umbrella institution for the cluster, providing much support in terms of movement, facilities, legal framework, and networking. The cluster has also formed concrete cooperation with the Palestine Standard Institute (PSI), Palestinian Federation of Industries (PFI), local municipalities, and the private sector. WIU, PalTrade, Al-Aqsa University, Islamic University, PFI, and business development service firms (design, quality, and marketing) participate in the cluster. Table 5-6 includes the readiness score for this category.

TABLE 5-6: CLUSTER READINESS

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
Commitment	<ul style="list-style-type: none"> Committed support institutions accustomed to working together. The union is actively engaged in development initiatives. 	4
Dynamism	<ul style="list-style-type: none"> Producers are adaptive to changing market demands and changing consumer preferences. Firms are adaptive to political and economic pressures. 	4
Critical Mass	<ul style="list-style-type: none"> Many companies and support institutions. Organizational interactions are sufficiently strong. 	4

FACTORS SPECIFIC TO THE WEST BANK AND GAZA

The cluster has the potential to create between 500 to 1,000 job opportunities during the coming three years. Transporting furniture from the West Bank to Gaza is almost impossible because of Israeli



restrictions. As with most other industries in the West Bank and Gaza, this cluster is very sensitive to border closures, as closure negatively affects the importation of raw materials, as well as exports to Israel and international markets. (See Table 5-7.)

TABLE 5-7: FACTORS SPECIFIC TO WEST BANK AND GAZA

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
Potential for rapid employment creation	Potential to expand employment is high.	4
Insensitivity to border closures	Border sensitivity is high.	2

ACTIONS TO ENHANCE CLUSTER COMPETITIVENESS

OVERVIEW OF THE CLUSTER'S SIGNIFICANCE AND POTENTIAL

The furniture industry is one of the oldest industries indigenous to Palestine. In recent years this cluster has recaptured its potential to become one of the most promising for generating growth on a scale that will help transform the country's economy. The cluster's comparative advantage in labor costs, coupled with high quality and emerging ethnic designs, positions it to capitalize on megatrends driving a globally-expanding furniture industry.

Empowering key stakeholders in the furniture cluster is critical to unleashing its potential. In addition to deploying a traditional blend of interventions focused on alternative financing and workforce development, initiatives should leverage the strengths of the cluster by facilitating access to international markets and creating an enabling business environment, both in terms of geographical location (for example, co-location of firms in an industrial zone) and policy and regulatory reform. To expand and enhance product offerings, the creative design aspects of the cluster should receive additional attention.

PROPOSED CLUSTER INITIATIVES AND ACTIVITIES

Access to Market

Inter-cluster cooperation initiative: The initiative aims to combine forces among other PED clusters to enhance the relationship among the furniture and wood cluster, tourism cluster, construction cluster, and stone and marble cluster.

Expo Center Initiative: The initiative aims to establish a center in the WIU responsible for preparing and conducting internal and external furniture trade fairs.

Supporting the National Furniture Show initiative: The initiative aims to increase the awareness of Gaza production capabilities among Palestinian consumers. It will be the nucleus for an expo center, to start during the second year of the project.

New markets initiative: The initiative aims to support Palestinian manufacturers to attend and participate in regional and international fairs in order to access new markets. Exposure to new markets, understanding of needs and preferences of consumers in these target markets, and market penetration strategies will be the foci of this initiative.



Furniture industrial zone initiative: As a mechanism for developing a competitive environment for business improvement, the initiative aims to locate furniture manufacturers, suppliers, and essential services providers in one place close to the Karni trade crossing. WIU has approval from the Ministry of Endowments and Islamic Affairs for 150,000 m² in the north of Gaza to develop a furniture industrial zone.

Access to Finance

New investment initiative: The initiative aims to prepare feasibility studies for potential furniture manufacturing and trade to encourage new investors to invest in this cluster. This initiative will be developed through the industrial zone center, under the WIU umbrella.

Access to Technology and Know-How

Furniture study tour initiative: The initiative aims to learn from and establish collaborative relationships with other successful furniture clusters around the world. Activities will include visits to furniture industrial zones, design centers, training centers, and furniture unions.

Enhancing firms' performance initiative: The initiative aims to enhance the furniture firms' management and performance by firm restructuring and recruitment and retention of essential management and professional staff.

Design center initiative: The initiative aims to enhance the newly created design center at the WIU to develop new Palestinian furniture styles and designs and thereby expand the offerings of Palestinian firms. The design center will also be responsible for developing product quality standards, developing a Website for cluster members, and building capacity at the WIU to increase awareness regarding intellectual property rights (IPR) issues.

Enhancing furniture quality initiative: The initiative aims to enhance the quality of furniture products to match international standards. It will achieve this aim by developing and promoting new standards and supporting the implementation of these standards among the cluster members. The Palestinian Standards Institute will be a major partner in this initiative.

Workforce Development and Capacity Building

Professional engineer initiative: The initiative aims to assist the WIU to sign memoranda of understanding with local universities to include furniture designs and manufacturing development projects as part of the list of approved graduation projects. Also, the graduated engineers will be recruited into furniture firms as design engineers and production engineers.

Furniture training center initiative: The initiative aims to establish a center to train and improve the skills of furniture workers. The furniture training center will be managed under the WIU umbrella.

Policy and Regulatory Reform

Enhancing WIU capacity initiative: The initiative aims to support the WIU in retaining a professional chief executive officer (CEO) and professional staff who are able to accomplish the initiatives and lead the WIU to success. WIU will increase membership to contain all cluster members, especially those that are not organized under any associations (for example, home accessories). The initiative also focuses on building policy management capacity at the WIU.



Advocating Intellectual Property Rights (IPR) Enforcement: The initiative will support the WIU in its policy advocacy efforts targeted toward enforcement of intellectual property rights.

PRELIMINARY ACTION PLAN

The cluster manager, in consultation with the CWG, developed the following action plan (Table 5-8):

TABLE 5-8: FURNITURE CLUSTER ACTION PLAN

Initiatives/Programs		2006				2007	2008
		Q1	Q2	Q3	Q4		
Access to Markets							
1.1	Industry Cluster Cooperation Initiative						
1.2	Expo Center Initiative						
1.3	Supporting the National Furniture Show						
1.4	New Markets Initiative						
1.5	Furniture Industrial Zone Initiative						
Access to Finance							
2.1	New investment Initiative						
Access to Technology and Know-how							
3.1	Furniture Study Tour Initiative						
3.2	Enhancing Firms' Management and Performance Initiative						
3.3	Design Center Initiative						
3.4	Enhancing Furniture Quality Initiative						
Workforce Development and Capacity Building							
4.1	Professional Engineer Initiative						
4.2	Furniture Training Center Initiative						
Regulatory and Policy Reform							
5.1	Enhancing WIU Capacity Initiative						
5.2	Advocating Intellectual Property Rights Enforcement						

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6. HANDICRAFTS CLUSTER ASSESSMENT

CLUSTER OVERVIEW

This report provides a systematic review of the global and local factors, trends, and context that frame and influence potential USAID assistance to the West Bank and Gaza handicrafts cluster through the Palestinian Enterprise Development (PED) project. The report draws upon locally and internationally available research and data for the cluster as well as PED's extensive interaction with members of the West Bank and Gaza handicrafts cluster. Using these materials, a "score" was given that represents a numerical assessment of the cluster's current status and future potential and that pinpoints assets and liabilities towards which USAID-funded activities can be targeted.

The global marketplace for handicrafts is influenced by two major factors—tourism and exports—and by one major question—definition of the current and potential economic impact of the industry. Handicrafts are indissolubly linked to tourism and, as such, changes in tourism quickly translate into changes for handicrafts. The major tourism trend affecting handicrafts is the move toward "edutainment" travel—that is, travel that combines education (about the arts, culture, heritage, and history) with the entertainment experience of travel. "Edutainment" tourists are more likely to seek handicrafts that complement, connect, and "extend" their visit through the purchase of quality, evocative handicraft "reminders." The current handicraft export environment offers a less promising picture. In particular, the export experience of alternative trading organizations indicates, at best, stagnation of handicraft purchases in developed countries. Adding complexity to estimations of the potential benefits of handicraft development strategies, the cluster's current economic impact and market size are poorly defined. However, project- and country-specific research provides some evidence of positive income-generation effects from handicrafts production. Likewise, consumer expenditures in market segments that include handicrafts reach hundreds of trillions of dollars, indicating a strong global demand that handicrafts products could potentially fulfill.

Handicrafts in the West Bank and Gaza are a longstanding tradition, dating to at least 1200 B.C. Design, skills, and knowledge are typically passed by family members from one generation to another. Approximately 18 different types of handicraft products are made in the West Bank and Gaza, the most important of which are olive wood, mother-of-pearl, embroidery, ceramics/pottery, and glass. Olive wood and mother-of-pearl together are estimated to comprise nearly half of handicraft production, with olive wood constituting 36 percent of products and mother-of-pearl items composing 10 percent of the cluster's output. Seventy percent of olive wood handicrafts are sold to tourists who visit Bethlehem and Jerusalem; 20 percent are exports to Israel and 10 percent to Europe or Arab states. Unlike olive wood products, most mother-of-pearl items are exported directly rather than sold in local markets, with 75 percent of production destined for Jordan, Saudi Arabia, the Gulf States, the United States, and, to a lesser extent, Western Europe.

Like tourism, handicraft products derive significant competitive advantage from their association with the Holy Land, which imbues the products with unique symbolism and imagery. Because artisans have practiced their craft in the West Bank and Gaza for literally millennia, the human resources base and corresponding skill levels are strong, resulting in high-quality products. However, handicrafts in today's world risks losing its skill base as younger generations drift toward more "modern" clusters. Lack of geographical concentration of handicrafts producers inhibits the development of linkages and activities that would support a collective approach to addressing the cluster's needs, as does the absence of support institutions. The unique "brand" related to Holy Land origin offers a base for growth potential, especially if branding efforts are combined with quality improvement activities targeted to satisfying the tastes and preferences of medium- and upper-end "edutainment" tourists. Such opportunities, if realized, are associated with the potential for generating employment and



income among groups and regions in the West Bank and Gaza that otherwise have limited avenues for prospering.

Table 6-1 provides an aggregate assessment of the cluster’s current status and future potential as well as individual scores for key components and subcomponents related to the cluster’s competitiveness. Unlike the other clusters, this cluster is not very organized, leading to the lack of published data. However, the PED team has begun to help the cluster coalesce through interviews with cluster players. As indicated by its aggregate score of 2.27, the handicrafts cluster offers some potential for generating growth. Given the scarcity of information about the cluster at the writing of this report, however, this score—and thus the potential for growth—should be viewed as preliminary.

The potential represented by “edutainment” tourists is the key element lifting the cluster’s score in the “growth potential” component. By contrast, available information about the sources of internal competitiveness and recent performance points to somewhat less promising prospects. Scores for “cluster readiness” must be viewed as preliminary, given the lack of engagement to date between the PED team and cluster members. As indicated in the table, the cluster scores well on critical mass (reflecting the breadth and longevity of artisan traditions in the West Bank and Gaza), has exhibited some commitment to collaborative actions, but appears to lack innovation and adaptability. With respect to key considerations in the West Bank and Gaza environment, employment creation would be a significant benefit of support for the handicrafts cluster, as the cluster reaches many people (especially women) whose job potential is otherwise limited. As a result of its linkages to tourism, however, the cluster is quite sensitive to border closures.

TABLE 6-1: SCORING OF THE HANDICRAFTS CLUSTER

Growth Potential		Cluster Readiness		Factors Specific To West Bank and Gaza		Aggregate Assessment
2.33		2.0		2.5		
International Market	3	Commitment	2	Potential for Rapid Employment Creation	3	
Competitive Position	2	Dynamism	1	Insensitivity to Border Closures	2	
Recent Performance	2	Critical Mass	3			

Scoring Range = 0 (very low) to 5 (very high)

INDUSTRY CLUSTER ASSESSMENT

INTERNATIONAL TRENDS IN THE INDUSTRY

Linkages with Tourism

The handicrafts industry is indissolubly linked to the tourism industry. As such, changes in the tourism industry translate quickly into changes for the handicrafts industry. Two global tourism trends are particularly relevant for the handicrafts cluster:



- Travel is increasingly being tailored to the interests of individual tourists; and
- The number of “special interest” travelers is increasing, and these tourists often rank the arts, heritage, and other cultural activities as among their top reasons to travel.⁴²

The latter trend is often called “edutainment”—the combination of education (about arts, culture, heritage and history) with the “entertainment” experience of travel. Handicrafts complement, connect, and “extend” the tourist’s visit via the purchase of the handicraft “reminder.” Rather than cheap gifts, such as t-shirts, coffee mugs, or key chains, tourists “are looking for something to see, taste, experience, and take home with them ... [that is,] they want ‘souvenirs’ that reflect the essence of the place they have visited.”⁴³ The accompanying box⁴⁴ describes how handicrafts complement, connect, and “extend” the tourist’s visit via the purchase of the handicraft “reminder.”

The Symbolic Connotations of Handicrafts Purchases

“In the book *Consumer Culture and Postmodernism*, Mike Featherstone (1991) writes about shopping as a symbolic and self-validating experience—where the pleasure of shopping is often far greater than the pleasure derived from the good that is purchased. This argument may be extended further: that is to say, *in the act of buying an artisanal commodity, the Western consumer is at once buying the experience of ‘authenticity’ and ‘traditionalism’ in a way that symbolically connects the commodity back to the producer.* This is reinforced by a direct experienced of buying from the producer, as in a tourist encounter, or through a fair trade shop or catalogue where the details of the craft, and the lives of the producers themselves, are provided.”

Fair Trade and Other Exports

Founded on the premise that imports of food and handcrafted items produced by farmers or artisans in developing countries should receive a “fair” price from consumers in developed countries, the fair trade movement began in the late 1960s and built throughout the 1970s. In simple terms, the fair trade supply chain consists of four main players:

- Producers (artisans or farmers) in developing countries;
- Exporting and importing organizations (often called “alternative trading organizations,” that is, ATOs, which buy from producers at a fair price and may provide product development support, other technical assistance, and/or financial support);
- Specialized retail shops in developed markets (including both physical stores and online or catalogue outlets); and
- Consumers in developed countries.⁴⁵

Fair trade organizations and shops are established firmly in Europe and growing in North America. For example, European consumers have access to fair trade products (mainly food) in 43,000 supermarkets.⁴⁶ Food products are the main source of revenues and growth among fair trade products:

⁴² Vencatachellum, Indrasen, “Crafts and Tourism,” presentation at the World Crafts Council General Assembly, June 3, 2004, Metsovo, Greece, speech downloaded from www.craftrevival.org/AHTML/Tourism.htm, April 6, 2007. Note: Indrasen Vencatachellum is the Chief of the Arts, Crafts, and Design Section, Division of Arts and Cultural Enterprise, UNESCO.

⁴³ Ibid.

⁴⁴ Scrase, Timothy J., “Globalization and the Future of Artisan Labor,” *The INTERNATIONAL SCOPE Review*, Volume 4 (2002), Issue 8 (Winter), p. 9; emphasis added.

⁴⁵ Gamos Ltd., “E-Commerce Options for Third World Crafts Producers,” prepared for the UK Department for International Development (DFID), March 2002, p. 29.

⁴⁶ European Fair Trade Association, “Fair Trade in Europe 2001,” p. 59.



between 1998 and 2000, fair trade sales in North America increased from \$100 million to \$180 million, with the majority of revenues coming from four agricultural products: coffee, tea, chocolate, and fruit. (One major reason fair trade food products garner more sales is that they are typically repeatedly purchased products, unlike handicrafts, which are more likely to be one-time gifts.) Despite the predominance of food products within the fair trade segment, some ATOs have devoted significant attention to handicrafts; however, as described in the accompanying box⁴⁷ describing Oxfam's experience, such efforts illustrate the difficulties of marketing handcrafted products in overseas markets profitably.

The Oxfam example, as well as other data, suggests that handicrafts may command the greatest value when offered in immediate connection with the tourist experience. Malaysia provides an interesting comparison of the value of handicraft exports compared to handicraft sales to tourists: in 2000, Malaysia's exports of crafts totaled \$84 million, whereas sales of crafts to foreign tourists visiting the country reached \$134 million.⁴⁸

Even when exports of handicrafts reach a level of success, the sustainability of that success is subject to changes in fashion. For example, during the early 1990s, Guatemalan textiles were very popular in North America, and artisans responded to market demand by producing accessories ranging from wallets and backpacks to belts and water carriers, thereby flooding the market to the point of oversupply and oversaturation accompanied by ever-declining prices.⁴⁹ Contributing to volatility in the market, expenditures on handicrafts tend to be seasonal, concentrated around Christmastime. In addition, successful new products are often quickly and cheaply copied by others, which means revenues from any given handicraft item are difficult to sustain over the long term.

Handcrafted items are also finding it increasingly difficult to compete with hand-finished, machine-produced products from China and Southeast Asia. Even when items are hand-produced, the drive to meet the large quantities needed for export orders has resulted in some crafts themselves "becoming de-skilled and inauthentic" because time-consuming traditional methods of making handicrafts can be incompatible with market demands.⁵⁰

Estimates of the Economic Impact and Size of the Global Handicrafts Market

In national accounts, handcrafted products are almost always aggregated with other manufactured products; this makes estimating the size of the global market (and trends within it) problematic. Nonetheless, fair trade organizations as well as international bodies such as UNESCO have begun efforts to gauge the market size. This section first discusses various measures of economic impact.

Handicrafts Marketing by Oxfam

Oxfam, a 60+ year-old UK-based organization, began marketing handicrafts from developing countries in 1964, through what eventually became the Oxfam Fair Trading Company. In the early 1980s, Oxfam sold more than £1 million via its mail order catalogue, and they continue to sell handicrafts through their network of 850 charity shops in the UK. As of 2000, handicrafts comprised 70 percent of the £8.8 million turnover of the Oxfam Fair Trade Company. However, dramatic changes are afoot at the company, since its handicrafts operations have never been profitable or even broken even—indeed the business has represented an increasing cost to Oxfam, with over £3 million in subsidies provided to the unit in 2000 alone.

⁴⁷ Gamos Ltd., "E-Commerce Options for Third World Crafts Producers," prepared for the UK Department for International Development (DFID), March 2002, pp. 29 and 31.

⁴⁸ Vencatachellum, Indrasen, "Crafts and Tourism," presentation at the World Crafts Council General Assembly, June 3, 2004, Metsovo, Greece, speech downloaded from www.craftrevival.org/AHTML/Tourism.htm, April 6, 2007.

⁴⁹ Scrase, Timothy J., "Globalization and the Future of Artisan Labor," *The INTERNATIONAL SCOPE Review*, Volume 4 (2002), Issue 8 (Winter), p. 4.

⁵⁰ *Ibid.*, p. 3.



The second part of this section attempts to estimate the size of the market, using commonly identified market sectors in which handcrafted products are counted for statistical purposes.

Measures of Economic Impact. Most information regarding the economic impact of handicrafts production covers specific projects or countries. UNESCO has initiated a pilot project to develop a “tourism and crafts index” that, if fully implemented, will provide more precise data than are currently available regarding measures of economic impact such as handicraft employment and wages. The UNESCO’s Tourism-Craft Index will also gather information about tourists’ expenditures on these products. Table 6-2 summarizes key indicators derived from UNESCO’s initial work on the index.

TABLE 6-2: SOCIAL AND ECONOMIC IMPORTANCE OF CRAFTS

Country	Population (millions)	Number of Artisans (millions)	Percent of Time Dedicated to Handicraft Production	Average Monthly Income (US\$)
Burkina Faso	10	.5	n/a	n/a
Colombia	38	.185	47	60
Greece	10	.160	50	100
Malaysia	10.5	.01	50	500
Mexico	100	6.8	25	302
Morocco	26	2	90	137
Thailand	63	2	50	70-90

Source: Bouchart, Dominique, “Índice UNESCO Artesanía-Turismo,” prepared for UNESCO’s Division of Arts and Cultural Enterprise, Arts, Crafts, and Design Section, May 2004, Annex 2, p. 8; data translated from Spanish to English by SRI.

In addition to these UNESCO findings, other research indicates that, for many developing countries, sales of handicrafts can be an important source of income for individuals with few other job options. Artisan production offers a degree of labor autonomy for those who have limited access to the cash economy and, because it is often home-based, provides opportunities for women to combine other responsibilities with production of income-earning crafts.⁵¹ Moreover, increases in women’s incomes are associated with many other positive outcomes, such as greater access to food, healthcare, and education for family members; reduction of mortality and fertility rates; a more active role for women in family finances; more freedom to take part in the community; and greater respect inside and outside the household.⁵²

Conclusive data about increased incomes related to handicrafts production are not available; however, a recent evaluation of seven assistance projects operated by Aid to Artisans⁵³ (ATA) provides some insight. This evaluation found that:

Average artisan income for past project participants is slightly higher than the national per capita income in four cases (Armenia, Central Asia, Ghana, Peru), equal to the minimum wage in one case (Honduras), and less than the national per capita income in two cases (Hungary, Russia). In all cases, artisan work is often only part-time or seasonal ... Although data for artisans who did not participate

⁵¹ Ibid., p. 2.

⁵² Richards, Asha, Machiko Tsubura, and Amy Woodstock, “Promoting International Development through Handicraft Production and Global Marketing,” prepared for The Crafts Center, Washington, DC, May 2003, p. 5.

⁵³ Aid to Artisans is a Connecticut-based not-for-profit organization that (according to its mission statement) “offers practical assistance to artisan groups worldwide, working in partnership to foster artistic traditions, cultural vitality, improved livelihoods, and community well-being,” <http://aidtoartisans.org/about/index.html>, downloaded April 7, 2006.



in ATA projects are quite limited, anecdotal evidence indicates that those who do not participate earn less than artisans who did participate in projects (Peru, Central Asia, Russia).⁵⁴

Other research indicates that handicrafts provide the largest source of rural income after agriculture, and that handicraft production is often associated with higher incomes for individuals in rural areas.⁵⁵

Market Size. As mentioned above, estimating the size of the market for handicrafts is challenging, because handcrafted items are aggregated with machine-produced ones. Table 6-3 is intended to illustrate the overall size of the market, including both machine- and hand-produced goods, as a way to demonstrate the “size of the pie” of which handicrafts products are a part. As the “global market” figures indicate, consumer expenditures worldwide for items such as jewelry, ceramics, glassware, and home furnishings total hundreds of trillions of dollars.

Of course, handicrafts claim but a minute portion of these consumer expenditures. For example, according to the World of Good (a fair trade organization based in the United States), in 2002, fair trade sales of handicrafts generated \$13.8 million in revenues in North America.⁵⁶ Nonetheless, the overall size of the market implies that consumers are willing to spend money on such products, and producers of quality handcrafted items could conceivably earn these dollars.

TABLE 6-3: INDICATORS OF THE SIZE OF THE GLOBAL HANDICRAFTS MARKET

Segment	Examples of Products	UK Market (2001 estimate)	Global Market (2003)
Giftware			
Toys and games	Wooden puzzles, traditional toys, and board games	£2,020m	N/a
Jewelry, watches and silverware	Earrings, necklaces, pendants, solid-silver and silver-plated ornamental ware and tableware	£1,685m	\$164,290.5m
Ceramics	Traditional pottery and domestic tableware	£828m	\$117,149.2m
Glassware	Hand-blown glass, glass ornaments, vases, figurines, and the like	£230m	
Small leather goods	Wallets, purses, handbags, bags, and the like	£26m	N/a

⁵⁴ Cockran, Mary, “Lessons Learned in Twenty Years: Aid to Artisans’ Projects in Honduras, Ghana, Hungary, Russia, Armenia, Central Asia, and Peru,” prepared for Aid to Artisans, October 2005, p. 5.

⁵⁵ Basu, Kunal, “Marketing Developing Society Crafts: A Framework for Analysis and Change,” in Janeen Arnold Cost and Gary J. Bamossy, eds., *Marketing in a Multicultural World: Ethnicity, Nationalism, and Cultural Identity* (Thousand Oaks, CA: Sage Publications), 1995, as cited in Cockran, Mary, “Lessons Learned in Twenty Years: Aid to Artisans’ Projects in Honduras, Ghana, Hungary, Russia, Armenia, Central Asia, and Peru,” prepared for Aid to Artisans, October 2005, p. 8.

⁵⁶ <http://www.worldofgood.com/FT/?osCsid=2648829407811b32dcf8d107672e5fb6>, downloaded March 24, 2006.



Segment	Examples of Products	UK Market (2001 estimate)	Global Market (2003)
Home Furnishings			
Window dressings	Ready-made curtains, accessories, blinds (fabric, wood, plastic, bamboo)	£1,790m	\$103,343.3m
Bedding	Including duvet covers, sheets, pillowcases, blankets	£1,580m	
Bathroom Textiles	Including towels, bath mats	£580m	
Cushions and covers	Cushions and covers	£250m	
Table linens	Including tablecloths, napkins	£40m	
TOTAL GIFTWARE and HOME FURNISHINGS		£9,209M	N/A

Sources:

For UK Market data: Gamos Ltd., "E-Commerce Options for Third World Crafts Producers," prepared for the UK Department for International Development (DFID), March 2002, p. 25.

For Global Market data: Euromonitor, *World Consumer Spending 2004/2005*, Tables 4.81, 4.85, and 4.149.

Note: "Global Market" refers to the 71 countries covered in *World Consumer Spending 2004/2005*, minus the UK

GENERAL CLUSTER DESCRIPTION IN WEST BANK AND GAZA

Handicrafts in the West Bank and Gaza are a longstanding tradition, dating to at least 1200 B.C.⁵⁷

Design, skills, and knowledge are typically passed by family members from one generation to another. Figure 6-1 indicates that more than half of the handicrafts producers that operate in the West Bank and Gaza today were established before 1977, meaning that most have been in existence for much longer than 35 years.

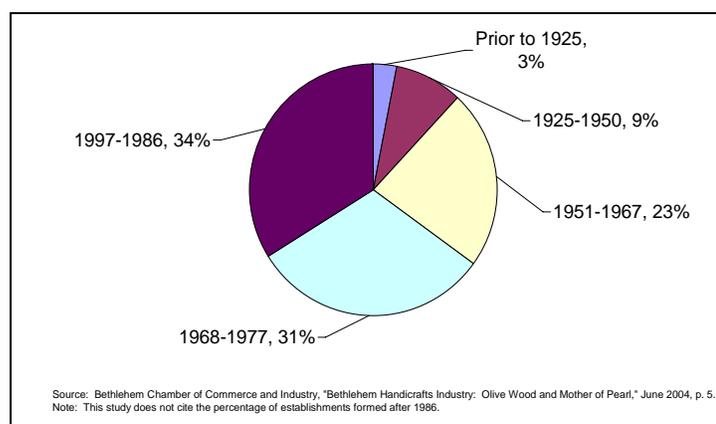
This longevity may indicate the perseverance and dedication of the artisans who produce handicrafts as well as the cluster's durability in

spite of the uncertain economic and political context that prevailed for most of the twentieth century.

Approximately 18 different types of handicrafts products are made in the West Bank and Gaza.⁵⁸ The major handicrafts segments (described further in the following box) include: olive wood, mother-of-pearl, embroidery, ceramics/ pottery, and glass.

Olive wood and mother-of-pearl together comprise nearly half of handicraft production, with olive wood constituting 36 percent of products and mother-of-pearl items composing 10 percent of the

FIGURE 6-1: DATE OF ESTABLISHMENT OF OLIVE WOOD AND MOTHER-OF-PEARL HANDICRAFT ESTABLISHMENTS



⁵⁷ "Guide to Handicrafts in Gaza," Guide produced with funding assistance from the European Union, 1998, p. 2. The date of 1200 B.C. refers to ceramic products.

⁵⁸ Bethlehem Chamber of Commerce and Industry, "Bethlehem Handicrafts Industry (Olive Wood and Mother of Pearl)," June 2004, p. 5.



sector's production.⁵⁹ Other handicrafts that comprise smaller portions of the industry's products include copper, rugs, weaving, bamboo furniture, and tiles.

Description of Palestinian Handicrafts Products

Olive Wood: Although the first olive trees took root in the West Bank and Gaza as far back as 6,000 years ago, the craft of ornamental olive-wood carving is thought to date "only" to the 15th century. Olive-wood carvings were first marketed to pilgrims as religious items, but were later extended to a wide range of handicrafts, mostly representing the story of Christianity.

Mother-of-pearl: The mother-of-pearl craft was introduced between the 14th and 16th century, by a combination of Franciscan friars from Damascus and craftsmen from Genoa. Since this time, generation after generation has produced beautiful products including crosses, frames, boxes, and more.

Ceramics and Glassware: With designs dating from Phoenician and Biblical times over 3,000 years ago, ceramics and glassware production is based in the Hebron area. Hand-formed, individually hand-painted, and fired in a clay oven, these handicrafts range from bud vases to large flower vases, water glasses, cups, goblets, and wine glasses.

Embroidery: Traditionally practiced by village and countryside women, the stitching style, fabrics, patterns, and colors of the embroidery are designed to communicate specific information about the wearer or owner, such as marital status, region, or village of origin. Today, products include shawls, pillowcases, coasters, tablecloths, and bags.

Source: Turath Center, http://www.psgateway.org/download/1378/turath_report.pdf.

Olive wood handicrafts are sold mainly to tourists who visit Bethlehem and Jerusalem; sales in these cities absorb 70 percent of production and sales are very seasonal, with the peak occurring during the summer. Exports to Israel represent 20 percent of olive wood sales, and the remaining 10 percent is exported to Europe (mainly for Christmas markets) or Arab states. Unlike olive wood, mother-of-pearl products are traditionally exported rather than sold in local markets. Seventy-five percent of mother-of-pearl items are exported to Jordan, Saudi Arabia, the Gulf States, the United States and, to a lesser extent, Western Europe.⁶⁰

CLUSTER ASSESSMENT

SWOT ANALYSIS

Table 6-4 summarizes the strengths, weaknesses, opportunities and threats facing the handicrafts cluster in the West Bank and Gaza; a narrative description of each element of the SWOT analysis follows the table.

⁵⁹ Bethlehem Chamber of Commerce and Industry, "Bethlehem Handicrafts Industry (Olive Wood and Mother of Pearl)," June 2004, p. 5

⁶⁰ All data in this paragraph are from the Bethlehem Chamber of Commerce and Industry, "Bethlehem Handicrafts Industry (Olive Wood and Mother of Pearl)," June 2004, p. 9.



TABLE 6-4: SWOT ANALYSIS FOR THE HANDICRAFTS CLUSTER

Strengths	Weaknesses
<ul style="list-style-type: none"> • Uniqueness of products, especially in terms of their connection with the Holy Land (rich craft heritage). • High-quality, hand-crafted products. • High skill levels. • Strong domestic market comprised of both tourists and locals. • Willingness among women to work (high employment percent among women). 	<ul style="list-style-type: none"> • Risk of losing skills base as artisans age (especially since youth are not entering the field). • Raw materials are expensive but not necessarily high quality. • Artisans are dispersed geographically, especially for embroidery. • Lack of structured training and other support. • Comparatively high labor. • No representation or regulation on patent. • No group marketing or branding. • Lack of designing and product development facilities.
Opportunities	Threats
<ul style="list-style-type: none"> • Expansion and/or entry into new markets (for example, the Gulf States and elsewhere in the Middle East). • Increased sales revenue via branding and quality improvement. • Linkages with large industry to enhance the efficiencies of the cluster. • Potential women entrepreneurship development. 	<ul style="list-style-type: none"> • Low-cost competition from other countries. • Internal competition on the basis of price. • Reliance on seasonal market. • Border closures affect imports of raw materials and exports of final products. • Political context affects tourism arrivals.

Strengths

Like tourism, with which handicrafts are linked closely, handicraft products derive significant competitive advantage through their association with the Holy Land, which imbues the products with unique symbolism and imagery. Because artisans have practiced their craft in the West Bank and Gaza for literally millennia, the human resources base and corresponding skill levels are strong, resulting in high-quality products. Solid domestic demand—from both tourists and locals—provides an additional asset.

Weaknesses

As with other traditional clusters, handicrafts in today’s world risks loss of its skill base as younger generations drift toward more “modern” clusters. Lack of geographical concentration of handicrafts producers inhibits development of linkages and activities that would support a collective approach to addressing the cluster’s needs, as does the absence of support institutions. Lastly, inputs for handicraft products are often expensive but are not necessarily of high quality, thus affecting artisans’ final output, price, and profit.

Opportunities

The unique “brand” related to Holy Land origin offers a base for growth potential, especially if branding efforts are combined with quality improvement activities targeted to satisfying the tastes and preferences of upper-end “edutainment” tourists. Expanded exports, especially in the Middle East and Persian Gulf regions, could also be promising, since these markets already have a base of experience and level of recognition on which to build. These opportunities, if realized, are associated with the



potential for generating employment and income among groups and regions in the West Bank and Gaza that otherwise have limited avenues for prospering.

Threats

Competition, both internal and external, threatens to thwart the potential of the handicrafts cluster. Internally, too few artisans have attempted to develop new products that would allow them to differentiate themselves and compete on this basis rather than on price. This lack of product differentiation is particularly critical given the cost advantages of Chinese and other Asian producers of machine-produced or hand-finished goods. The current political context also affects handicrafts, with border closures affecting raw material imports, handicraft exports, and tourism arrivals.

CLUSTER EVALUATION

GROWTH POTENTIAL

Cluster's Competitive Position in the International Market

As described before, prospects in the global handicrafts market are mixed. In industrialized markets, in general, sales of handicrafts from developing countries face a stagnant or declining future. Some products may experience short-term popularity (and thus sales), but fashions change quickly and sustained consumer interest in particular handicraft products is unlikely.

By contrast, the market for high-quality, handcrafted souvenirs that evoke the traditions and “essence” of a tourism destination is expected to grow in parallel with the expansion of “edutainment” tourism. West Bank and Gaza handicrafts that are imbued with the historical, cultural, and religious connotations of the Holy Land have the potential to capitalize upon this important tourism trend. See growth potential score for this category in Table 6-5.

Competitive Position

Handicrafts producers in the West Bank and Gaza must make significant strides in product development and quality as well as cooperative linkages if they are to realize the opportunities presented by “edutainment” tourism. For example, there is little product differentiation (at least in olive wood and mother-of-pearl products), which results in severe price competition and acrimony between artisans.⁶¹

Handicraft producers also have an imprecise view of the basis on which they compete: as indicated in the accompanying chart, almost two-third of olive wood and mother-of-pearl artisans believe that their marketing advantage is derived from the “uniqueness” of their products. While it may be true that the Holy Land origin of the items provides differentiation in terms of global handicrafts products, tourists to the West Bank and Gaza see essentially the same items in every souvenir store, thus not receiving the connection to the producer or the place sought by the “edutainment” tourist.

Moreover, few artisans (at least those who make olive wood or mother-of-pearl items) understand the relationship between competition and new product development (see Figure 6-2). While nearly three-quarters of artisans indicated that competition affects production, only 7 percent saw new products as

⁶¹ Bethlehem Chamber of Commerce and Industry, “Bethlehem Handicrafts Industry (Olive Wood and Mother of Pearl),” June 2004, p. 9.



a way to counteract such competition; by comparison, over two-thirds said that their reaction to competition was to reduce product price and quality.⁶² See growth potential score for this category in Table 6-5.

Recent Performance

Between 1993 and 2000, tourism in the West Bank and Gaza flourished; it is thought that handicrafts similarly enjoyed a renaissance. More recent data regarding performance, like other information about the handicrafts cluster, are scarce. The Bethlehem Chamber of Commerce reports that the first Intifada caused handicrafts production to shrink by 40 percent; the chamber contends that the second (current) Intifada has had even worse effects than the first.⁶³ See growth potential score for this category in Table 6-5.

FIGURE 6-2: MARKETING TOOLS TYPICALLY USED BY OLIVE WOOD AND MOTHER OF PEARL PRODUCERS

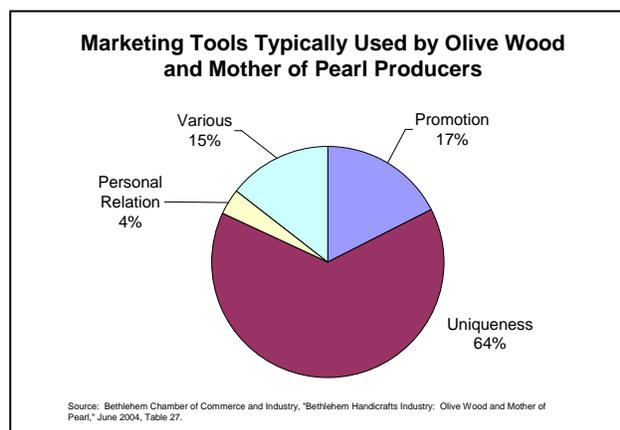


TABLE 6-5: GROWTH POTENTIAL

Category	Key Findings	Scores Scoring Range = 0 (very low) - 5 (very high)
International Market Outlook	<ul style="list-style-type: none"> Demand for good quality, evocative souvenirs is high at tourist destinations. Exports potential is limited. 	3
Competitive Position	<ul style="list-style-type: none"> Products are undifferentiated; thus, the potential competitive advantage of association with the Holy Land is not capitalized upon. 	2
Recent Performance	<ul style="list-style-type: none"> Performance is thought to be poor in recent years. 	2

CLUSTER READINESS

Commitment

The PED team has only recently begun to convene and assess the commitment of the handicrafts cluster. Prior efforts provide a mixed picture of cluster members' commitment to working together. On the positive side, in both the West Bank and Gaza, crafts centers have been established to encourage physical concentrations of artisans, thus promoting not only cooperation among the producers but also providing a convenient location that tourists can visit to see artisans at work and to purchase souvenirs.⁶⁴ Less optimistically, the Bethlehem Chamber of Commerce reports that a local

⁶² Ibid., Tables 15 and 16.

⁶³ Ibid., p. 6.

⁶⁴ These centers include the Turath Center in Bethlehem and the Arts and Crafts Village in Gaza.



marketing cooperative for olive wood and mother-of-pearl handicrafts has been ineffective because producers declined to coordinate with each other.⁶⁵

The Traditional and Tourism Industries Association-Palestine (TTIAP) represents the industry. This association is very weak. The cooperatives and the cluster-specific associations are numerous. The PED team met with a few of the associations, along with the Bethlehem Chamber of Commerce, and made clear that to achieve sustainability and competitiveness the TTIAP should represent the entire handicraft cluster. They should all work to make that association stronger and able to perform the support duties implied. See the cluster readiness score for this category in Table 6-6.

Dynamism

The information gathered in preparing this report points to low dynamism among handicrafts producers in reacting to changes in the international marketplace and in developing new products to respond to these shifts. As indicated previously, however, information about the cluster as a whole is scarce, as is information about different handicraft segments, with the implication that these initial conclusions should be subject to further verification. See the cluster readiness score for this category in Table 6-6.

Critical Mass

Although precise numbers of artisans are not available, it is widely believed that the cluster provides employment for significant numbers of Palestinians. The handicrafts cluster certainly has deep, strong roots in the West Bank and Gaza, as indicated by the longevity of handicraft producers in the face of many and longstanding challenges. Support organizations (such as associations or cooperatives) or other cross-cluster linkages appear to be ineffective or nonexistent. See the cluster readiness score for this category in Table 6-6.

TABLE 6-6: CLUSTER READINESS

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
Commitment	<ul style="list-style-type: none"> Some evidence of willingness to sell collectively via the crafts centers. 	2
Dynamism	<ul style="list-style-type: none"> Lack of new product development. Apparent lack of response to market changes. 	1
Critical Mass	<ul style="list-style-type: none"> Producers are reportedly numerous. Strong, longstanding local presence indicates resilience. 	3

FACTORS SPECIFIC TO THE WEST BANK AND GAZA

As mentioned above, the number of handicraft producers is believed to be high, and production is thought to have increased in areas that have been particularly hard-hit by the current Intifada. For example, income from embroidery products is thought to be especially important in refugee camps, particularly now that jobs in Israel are no longer an option for the men who live in the camps. With

⁶⁵ Bethlehem Chamber of Commerce and Industry, "Bethlehem Handicrafts Industry (Olive Wood and Mother of Pearl)," June 2004, p. 7.



proper support, handicrafts is a cluster viewed as able to generate substantial employment among some of the poorest people in the West Bank and Gaza.

Except for abalone, which is used in mother-of-pearl handicrafts, most raw materials are available locally, so production is not particularly vulnerable to border closures that slow or prevent imports, though such closures inevitably do affect exports. However, because sales are dependent on tourism, the cluster is significantly affected by the political situation. See Figure 6.7.

TABLE 6-7: FACTORS SPECIFIC TO WEST BANK AND GAZA

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
Potential for rapid employment creation	<ul style="list-style-type: none"> • Employment possibilities are reasonably high for key populations. 	3
Insensitivity to border closures	<ul style="list-style-type: none"> • Relatively independent with respect to imports/exports. • High variability related to changes in tourist inflows. 	2

ACTIONS TO ENHANCE CLUSTER COMPETITIVENESS

OVERVIEW OF THE CLUSTER'S SIGNIFICANCE AND POTENTIAL

Handicrafts in Palestine have a long lineage dating back as far as 1200 B.C. The brightly colored threads in the embroidery, the intricate carvings of olive wood, the mother-of-pearl inlays, and the indigo painted ceramics are recognized the world over as coming from the Holy Land. It is this product differentiation, strong domestic market, and high potential for income generation—especially among women—that makes this cluster particularly attractive.

Eventually interventions designed to support this cluster should reflect the breath and longevity of the artisans themselves. However, in its current state, the cluster is somewhat fragmented and prospects are mixed. Therefore efforts should focus on establishing baseline data from which to design initiatives.

PROPOSED CLUSTER INITIATIVES AND ACTIVITIES

Because data regarding the handicrafts cluster are insufficient, resulting in uncertain but low scoring, proposed initiatives in the cluster represent “first steps” toward understanding the cluster and the potential for generating income and employment through targeted assistance. Two exploratory initiatives are proposed, on the basis of which any further activities will be determined. These initiatives will be conducted through TTIAP, to yield perspectives of the cluster and facilitate capacity building of the most representative association early on. These exploratory initiatives include:

An inventory of handicraft production and support organizations in the West Bank and Gaza.

The inventory would be similar to the Bethlehem Chamber of Commerce’s study of the olive wood and mother-of-pearl segments, but would be broader, covering other major product segments and geographic areas beyond Bethlehem.

A feasibility study examining different options for support. On the basis of the inventory, the PED team will develop various options for strengthening the handicrafts cluster and will vet these options



with cluster members identified during the inventory process. On this basis, the feasibility of various options will be identified.

PRELIMINARY ACTION PLAN

TABLE 6-8: HANDICRAFT CLUSTER ACTION PLAN

Initiatives/Programs		2006				2007	2008
		Q1	Q2	Q3	Q4		
Exploratory Initiatives							
1	Inventory of industry support organizations						
2	Feasibility study on options for future technical assistance						

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World of Good Website:

<http://www.worldofgood.com/FT/?osCsid=2648829407811b32dcf8d107672e5fb6>



7. INFORMATION AND COMMUNICATIONS TECHNOLOGY CLUSTER ASSESSMENT

CLUSTER OVERVIEW

This report provides a systematic review of the global and local factors, trends, and context that frame and influence potential USAID assistance to the West Bank and Gaza information and communications technology (ICT) cluster through the Palestinian Enterprise Development (PED) project. The report draws upon locally and internationally available research and data for the cluster as well as PED's extensive interaction with members of the West Bank and Gaza ICT cluster. Using these materials, a "score" was given that represents a numerical assessment of the cluster's current status and future potential and that pinpoints assets and liabilities towards which USAID-funded activities can be targeted.

Information and communications technology remains the primary driver of today's knowledge economy. Both as a productive sector and as an enabler of other sectors, ICTs have contributed significantly to economic growth in developed as well as developing parts of the world. The share of ICTs' value added in the total business sector value added has grown continuously, in some cases rising to as high as 15-16 percent. Reflecting this high degree of importance of the cluster to economic growth, global ICT spending has grown rapidly as the private and the public sectors all strive to increase their ICT adoption worldwide. The Digital Planet initiative estimates global ICT spending to top \$3 trillion in 2006, or over 6.9 percent of the world's total gross domestic product (GDP). Growth in ICT use is changing the way people communicate with each other and the way business is conducted. Because the sector is knowledge-intensive rather than capital-intensive, this rapid expansion opens up new opportunities for the developing world. Countries like India, China, and Brazil have benefited from the ICT industry boom by participating in ICT outsourcing.

ICT-related activities started in the West Bank and Gaza in early 1980s with a handful of companies selling computers and electronics. These companies were mostly subagents to Israeli dealers and had limited experience in services. ICT activities in Palestine really took off only after the Oslo agreement in 1993, as the Internet was made available for wider personal and commercial use. Today, a wide array of Palestinian ICT companies sells hardware products (direct agents or PC assemblers), software development, enterprise consultancy, Internet services, and office automation equipment. At the end of 2005 there were approximately 100 ICT companies, 150 small computer stores, and more than 150 Internet cafés in the West Bank and Gaza. The cluster's 2003 revenues were estimated at \$87 million and the average annual growth rate for ICT companies was estimated at 25 percent in 2001. The ICT cluster and market demand is concentrated in the Ramallah, Jerusalem, and Gaza areas.

Palestine's ICT cluster was more resilient than many other clusters in the political and economic circumstances of the last few years. The national data network is perceived to be adequate to address the local demand. Many professionally managed companies are emerging as competitive players in the regional market. The cluster is well organized under an active and forward-looking industry association and is committed to collaborating to propel developmental initiatives. While these strengths position the cluster for growth, there are many visible weaknesses. Diffusion of ICTs in the business sector is still very low. Lack of competition in the telecom sector and a harmonized regulatory framework restrict further penetration and use of ICTs. The local market remains extremely price-sensitive whereas the regional export market is extremely competitive. Collectively, these factors point to an immense opportunity for the Palestinian ICT cluster to develop and contribute to the development of the economy as whole.



Table 7-1 provides an aggregate assessment of the cluster’s current status and future potential as well as individual scores for key components and subcomponents related to the cluster’s competitiveness. The aggregate score of 4.22 out of a maximum of 5.0 indicates the overall strengths and prospects for development of the cluster.

One of the three dimensions used in the scoring framework is the “growth potential” of the cluster, which reflects not only the worldwide context but also the competitive position of the West Bank and Gaza. With a booming global ICT market, expanding demand for IT solutions and services in the Arab world, and the enormous opportunity to explore unrealized gains from the local market, the cluster scores very high on the international market outlook and competitive position subcomponents. It is well poised for growth and to create high-wage, knowledge-intensive jobs in the coming years.

The ICT cluster also receives high scores for “cluster readiness.” Given the cluster’s organization under a strong representative body, the Palestinian IT Association of Companies (PITA), and strong evidence of past collaboration among firms and other stakeholders, the cluster shows substantial evidence of commitment. The global ICT industry is extremely dynamic and new products and services are being released every day. In the comparative context, the Palestinian IT cluster has not performed as well as its peers in other countries. However, there is a critical mass of companies and product and service innovations are beginning to appear in the market.

The ICT cluster provides strong opportunities for higher-wage employment creation. As a knowledge- intensive cluster dependent on technological infrastructure rather than physical infrastructure, it is less sensitive to border closures.

TABLE 7-1: SCORING OF THE ICT CLUSTER

Growth Potential		Cluster Readiness		Factors Specific To West Bank and Gaza		Aggregate Assessment 4.22
4.66		4		4		
International Market	5	Commitment	5	Potential for Rapid Employment Creation	4	
Competitive Position	5	Dynamism	3	Insensitivity to Border Closures	4	
Recent Performance	4	Critical Mass	4			

Scoring Range = 0 (very low) to 5 (very high)

INDUSTRY CLUSTER ASSESSMENT

INTERNATIONAL TRENDS IN THE ICT INDUSTRY

Information and communications technology remains the primary driver of today’s knowledge economy. Given the increasing role of technology in the development of all productive economic sectors, ICT production and use have received continued attention from decision makers in the private and public sectors around the world. The ICT cluster comprises a broad-ranging industry that encompasses a diverse group of manufacturing and service businesses. Common industry definitions of ICT include four major subsectors: computing and communications hardware, software products

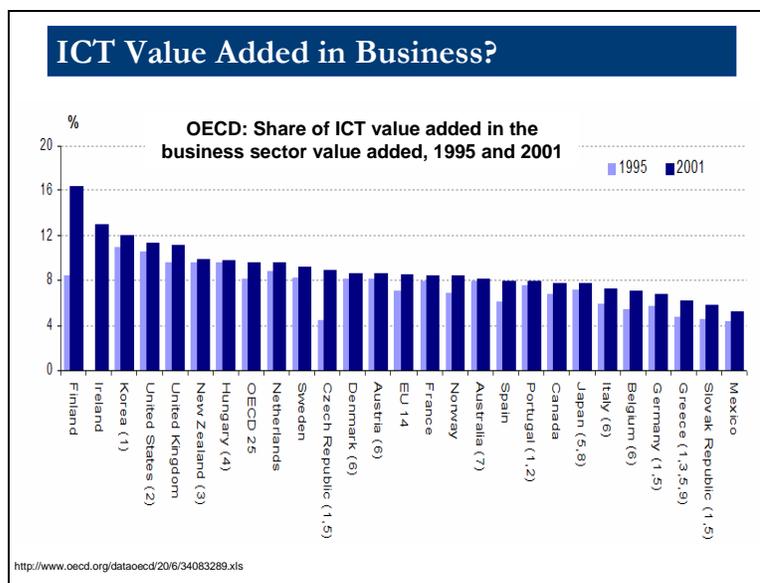


and services, telecommunications services, and ICT-related and ICT-enabled services. While many trends continue to emerge in this rapidly changing industry, the following megatrends are important from the point of view of developing economies.

The ICT sector is a major contributor to economic growth: Both as a productive sector and as an enabler of other sectors, ICTs have contributed significantly to national economic growth. In the developed countries, where ICTs have been adopted more widely, the impact on economic growth has been substantial. For example, in the United States, the ICT sector accounted for 8 percent of GDP in 2000 and approximately 28 percent of total real economic growth between 1996 and 2000⁶⁶.

The share of ICTs in total value added is steadily increasing: ICTs have continued to expand economic value added around the world. According to OECD, the share of ICT value added in the total business sector value added has steadily increased in the past years, with the level of increase varying from country to country based on composition of business sectors and level of adoption of ICTs. The following chart presents the share of ICT value added in the business sector value added in 1995 and 2001. As Figure 7-1 shows, the share of ICT value added in business sector value added more than doubled between 1995 and 2001 in the case of the Czech Republic and Finland.

FIGURE 7-1: ICT VALUE ADDED IN BUSINESS

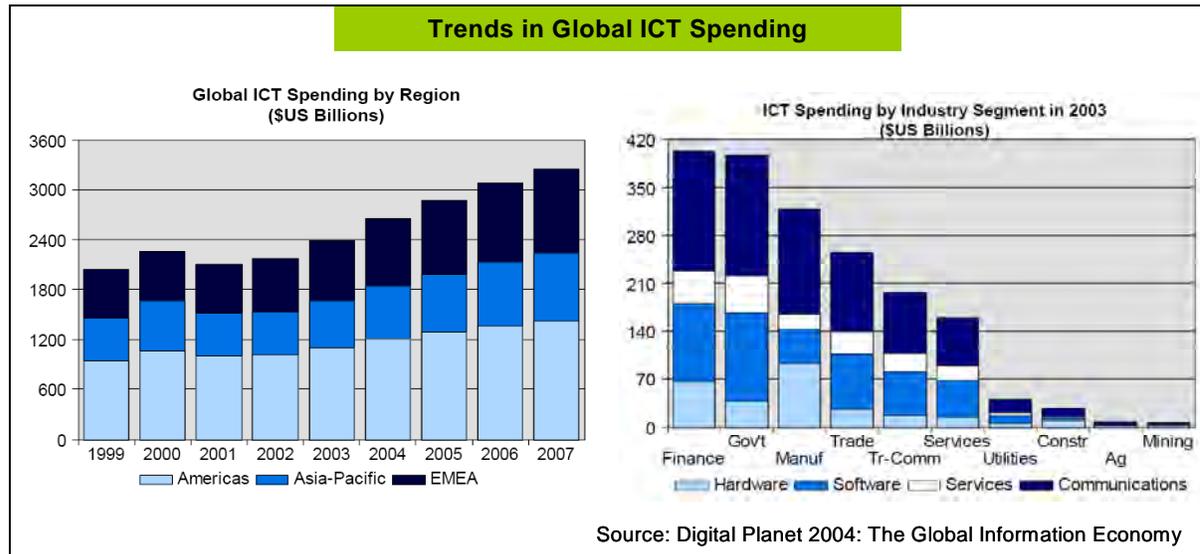


Global ICT spending continues to increase: Fueled by continuous innovation, product and services offered by the ICT sector have expanded enormously in the past decade. This expansion has resulted in increased ICT spending by consumers, the private sector, and governments around the world. The Digital Planet initiative estimates that global ICT spending will top \$3 trillion in 2006, or over 6.9 percent of the world’s total gross domestic product (GDP). Although countries in North and South America contribute a large part of this amount, the rate of growth of ICT spending in Europe and the Middle East surpasses that of all other regions, as shown in Figure 7-2. In 2003, finance, government, and manufacturing sectors were the top three sectors investing in ICTs. However, Digital Planet predicts that the services sector is going to lead future investment in ICTs. The service sector, which spent over \$160 billion on ICTs in 2003, is expected to expand its ICT spending by 11.7 percent. Consumer ICT spending, the top segment in global ICT spending, is expected continue to grow in the coming years.

⁶⁶ *Digital Economy 2002*, ESA, Office of Policy Development



FIGURE 7-2: TRENDS IN GLOBAL ICT SPENDING



Expansion of communications technologies: Communications technologies and services continue to expand and comprise nearly half of total global ICT spending. The Internet has radically transformed the way people communicate. Next generation mobile phone and Internet technologies will continue to transform the communications space.

Expansion of E-commerce: E-commerce is growing rapidly around the world, driving ICT spending by the corporate sector. According to estimates released by Forrester Research, worldwide e-commerce increased to over \$6 trillion from just over \$650 billion in 2000, recording a ten-fold rise in four years.

Developing economies continue to benefit from ICT boom: Expansion of the ICT industry has benefited developing economies, particularly those with educated, English-speaking populations. For example, India’s ICT industry has recorded nearly 30 percent annual growth from 1998 to 2005, and was estimated at \$28 billion in 2005. The industry’s contribution to the national economic output has nearly tripled, from 1.2 percent in 1997-98 to 3.5 percent 2003-04. The industry’s exports revenue stood at nearly \$18 billion.

Global outsourcing opportunities are increasing across ICT segments: In all areas of ICTs, including hardware, software, and ICT-related services, offshore opportunities have increased substantially, giving developing countries an opportunity to participate in this phenomenal growth. In the hardware sector, outsourcing has grown beyond component outsourcing to complete product and product line outsourcing. In the software segment, a growing class of committed offshore users is moving beyond application development and maintenance to new areas such as package implementation and support, database monitoring and management, infrastructure testing, and monitoring by their offshore vendors. The trend is similar for IT-enabled service functions as clients are evolving from outsourcing low-end data-entry activities to more analytic-based processes.

Stabilization of pricing pressures: Pricing trends in the industry have stabilized in most segments. As developed economies have recovered from the recent economic recession, the downward pricing pressure on outsourcing contracts has eased and the volume of outsourcing is increasing across segments.



GENERAL CLUSTER DESCRIPTION IN WEST BANK AND GAZA

ICT-related activities started in the West Bank and Gaza in the early 1980s with a handful of companies selling computers and electronics. These companies were mostly subagents to Israeli dealers and had limited experience in services. The handful of software companies focused on accounting-related packages to serve the local market.

At the beginning of the 1990s the demand for ICT services increased, with the demand coming mainly from the private sector, universities, and local governments. During the occupation, Israel fully controlled the telecommunication sector and it was only after the Oslo agreements in 1993 that ICT activities started to grow. The first Palestinian ISP was created and the Internet became commercially accessible to individuals, companies, and universities.

After the establishment of the Palestinian Authority (PA) and the arrival in Palestine of NGOs, banks, and new companies, the ICT cluster started to show significant growth by the end of 1995. Today, the PA is the biggest end-user of technology products and services, followed closely by municipalities and large companies. Utility companies such as the Jerusalem Water and Electricity Companies are fueling ICT consumption in Palestine. By 1997, the Palestinian telecom sector was 100 percent privatized, with the creation of the Palestine Telecommunications Company (PALTEL). PALTEL, with an exclusivity license, has a complete digital network connecting the West Bank and Gaza and offers a wide range of services, such as standard fixed telephone lines, leased lines, and ISDN connections. It has over 315,000 subscribers for its fixed lines, with an 8 percent penetration and 11,000 ADSL lines. Jawwal, the cellular operator, has over 550,000 mobile subscribers, and 51 percent of the Palestinian market share. The telecommunication sector is expected to be fully competitive by the end of 2006.

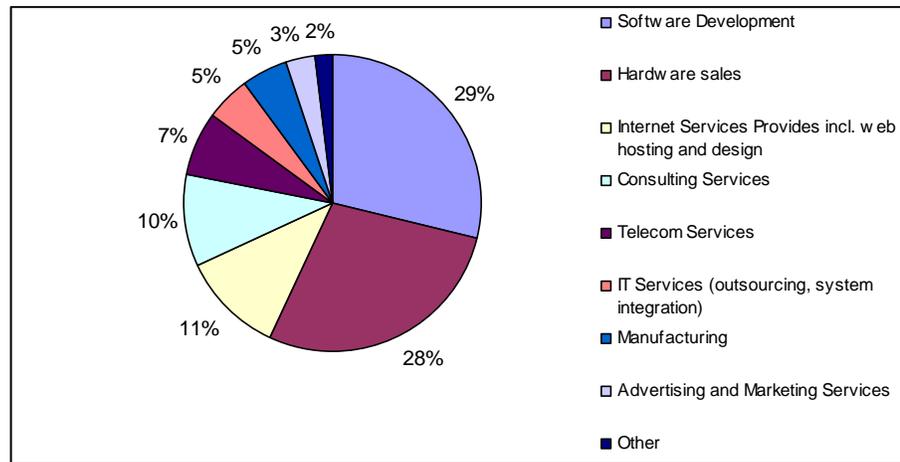
The cluster's 2003 revenues were estimated at \$87 million, despite a sharp decline from its 2000 high of \$120 million. In 2000, the average annual growth rate for ICT companies was estimated at 25 percent. The ICT cluster and market demand is concentrated in the Ramallah, Jerusalem, and Gaza areas. A wide array of Palestinian ICT companies sells hardware products (direct agents or PC assemblers), software development, enterprise consultancy and Internet services, and office automation equipment. At the end of 2005, there were approximately 100 ICT companies, 150 small computer stores, and more than 150 Internet cafés in the West Bank and Gaza. A number of international companies including HP, IDS, Timex, and Siemens had opened offices or established direct sales operations in Palestine. With the exception of Siemens, which is now represented by Exalt, all these companies closed down their activities as a result of the harsh conditions caused by recent conflict.

Based on a 2003 survey of the members of the Palestinian IT Association, in which 69 companies participated, respondents listed 149 products and services. Of these companies 29 % are engaged in software development, 28% in hardware sales, and only 5% in product manufacturing. The products and services listed by companies were categorized according to the North American Industrial Classification System for Information Communications Technology (NAICS). A majority of the companies (40 percent) specialize in a single category of business, but there are a few companies that have diversified offerings like Internet services, software development, and hardware sales.



As Figure 7-3 shows, the top two categories of offered products and services are software development (29%) and hardware sales (28%). Companies engaged in Internet provision⁶⁷ and Web design and hosting comprise 11% of the total, whereas those in IT consulting, including training, comprise 10% of total number of firms. Noticeably, some ICT companies are engaged in sophisticated high-level services in the fields of manufacturing (3%) and a few are involved in electronic component design and manufacturing (2%)—activities that are unique in the Middle Eastern countries.

FIGURE 7-3: PRODUCT CATEGORIES



Today, the main players in the Palestinian ICT cluster are the private sector, schools and other academic institutions, carriers, public sector, NGOs, and the international donor community. The Palestinian IT Association of Companies of Companies (PITA) is the professional association representing the private sector. Established in Ramallah in 1998, PITA is a membership-based nongovernmental and not-for-profit organization representing the interests of its members by fostering a proactive dialogue with the government and all of the major stakeholders. With its 72 full members, representing 80 percent of the ICT cluster (excluding PALTEL—the telecom carrier—and Jawwal—the GSM carrier), PITA has been an initiator for major cluster-related initiatives targeting such goals as Internet diffusion, telecom regulation, establishment of high-tech parks, the university curriculum upgrade, the ICT incubator.

For a long time, Palestine did not have its own country-code Top-Level-Domain (ccTLD). However, after three years of hard work with IANA, International Standards Organization (ISO), and the United Nations Offices in New York, Palestine managed to obtain its own ccTLD, namely, "PS." This was accomplished through the sincere and relentless efforts of many governmental institutions, individuals, and Palestinian experts, inside and outside Palestine. To realize the Palestinian presence in the information world, an independent Palestinian National Internet Naming Authority (PNINA) was formed, with the mission to formulate the necessary registration policies for the PS domain and to set appropriate policies for enhancing Internet usage in Palestine. PNINA is made up of representatives from the public, private, academic, legal, and other sectors and individuals interested in advancing and promoting Internet usage in Palestine.

Palestine's ICT cluster has recently established a technology incubator. The Palestine Information and Communications Technology Incubator (PICTI) is an independent Palestinian organization that was created through the initiative and support of the Palestinian ICT Community. The key focus is to establish an incubator facility that will offer professional business services to Palestinian entrepreneurs who have mature concepts for unique and innovative ICT products assessed to have

⁶⁷ In the year 2005, PalTel has concluded acquiring most of the ISPs and formed Hadara Technologies Company.



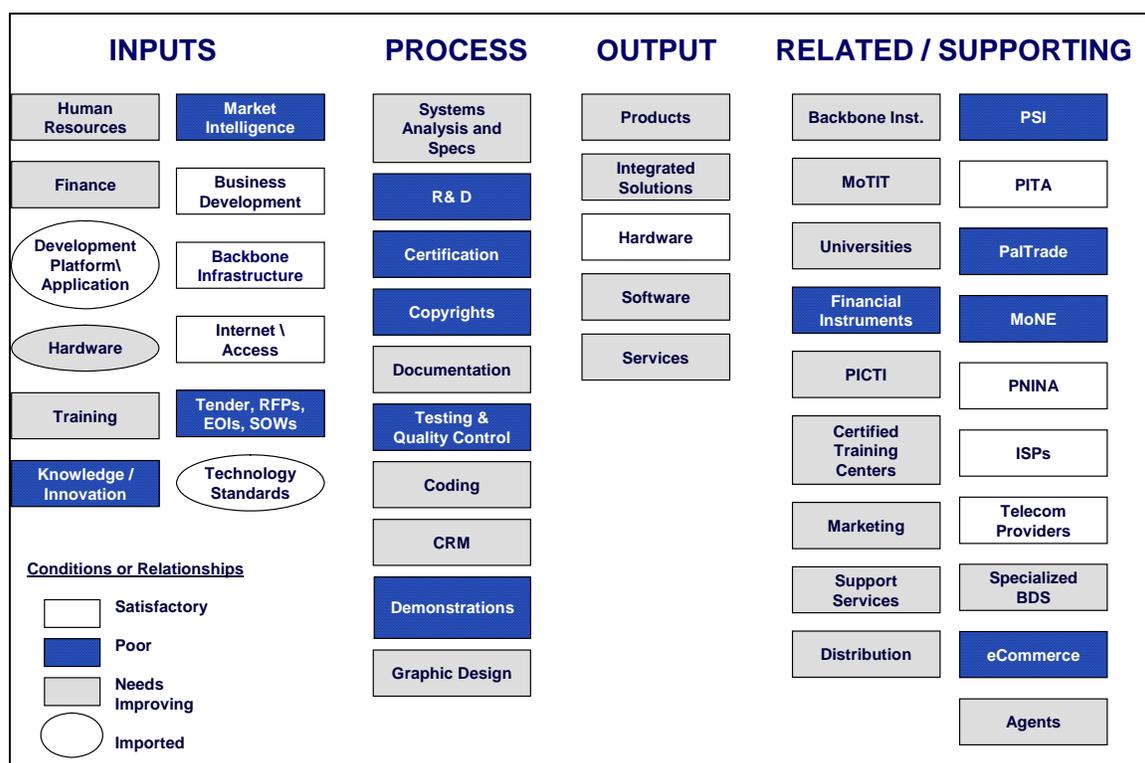
strong market potential. As the incubator matures, PICTI looks forward to working with Palestinian ICT firms to jointly identify, develop, and implement new initiatives that will be of significant benefit to the cluster. Currently, PICTI has eight tenants, three of which are ready for graduation.

The Palestine Chapter of the global Internet Society (ISOC.PS) is a not-for-profit organization that aims to advance Internet development and use in Palestine. ISOC.PS seeks to use the expertise of Palestinian Internet professionals and the Palestinian Diaspora to advance the Internet and technology sector in Palestine. The Internet Society chartered ISOC.PS in December 2002 and established it in February 2003. Two ISOC.PS members represent it on the board of the Palestinian National Internet Naming Authority. In the past two years, ISOC was very active in policy advocacy activities related mostly to the telecommunication monopoly and Internet liberalization.

Cluster Map and Cluster Value Chain. Through extensive research and consultation with the members of the CWG, an industry cluster map was developed for the Palestinian ICT cluster. The CWG also identified the cluster’s value chain on the basis of aggregate cost. Given the clear distinction between the hardware and the software sectors, two separate value chains were developed. The cluster map (Figure 7-4) and the value chains (Figure 7-5) follow.

As the cluster map shows, many parts of the cluster’s inputs, processes, and supporting institutions are either satisfactory or need some improvement. Innovation based on research and development is minimal. The cluster also suffers from low levels of market intelligence regarding technology and business opportunities. In addition, lack of enforcement of intellectual property rights and lack of certification and quality systems prove to be major weaknesses in the cluster. This dynamic cluster certainly will benefit from increased engagement of financial institutions, trade promotions, and development of e-commerce.

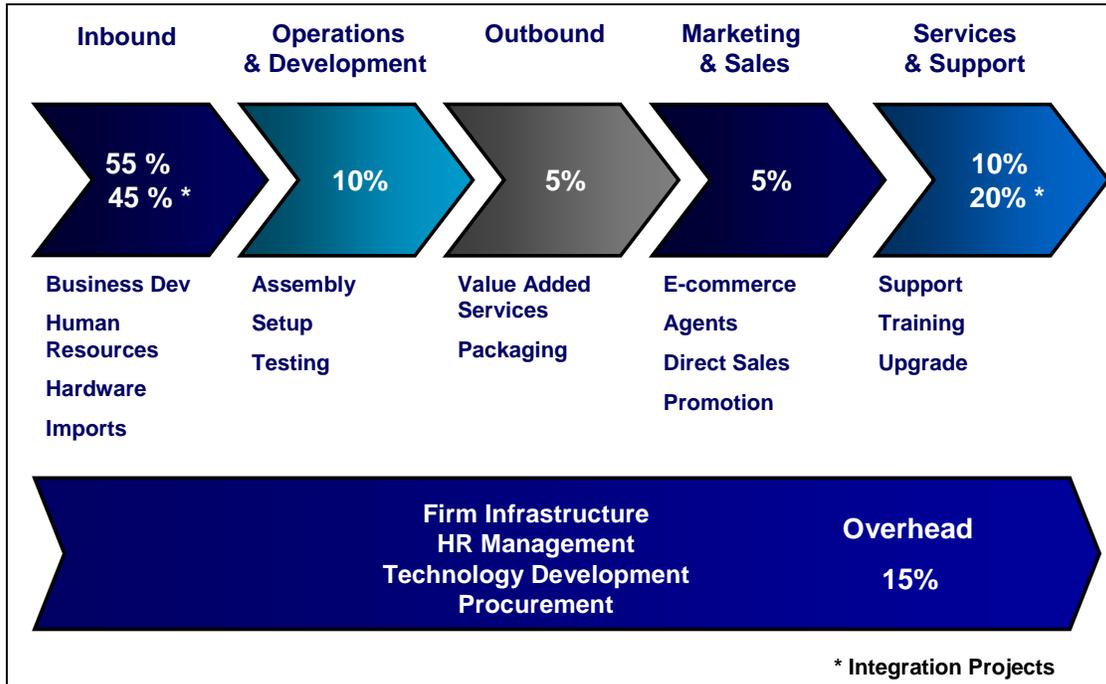
FIGURE 7-4: ICT CLUSTER MAP





The following schematics capture the cluster’s value chain. The hardware value chain clearly exposes the cluster’s over-reliance on imports. The operations segment captures only 10 percent of total cost, indicating the cluster’s focus on assembly. In contrast, the software sector’s operation and development segment captures a bigger share, indicating a higher degree of value added as compared to the hardware sector.

FIGURE 7-5: ICT SOFTWARE: VALUE CHAIN COST ANALYSIS



CLUSTER ASSESSMENT

SWOT ANALYSIS

Table 7-2 summarizes the strengths, weaknesses, opportunities, and threats facing the ICT industry in the West Bank and Gaza; a narrative description of each element of the SWOT analysis follows the table.

TABLE 7-2: SWOT ANALYSIS FOR THE ICT CLUSTER

Strengths	Weaknesses
<ul style="list-style-type: none"> • Positive growth rate despite the political situation. • Pool of proven ICT products and services supported by experienced human resource. • A leading cluster specialized association, PITA with other existing active organizations such as PICTI and ISOC. • Advanced and accessible basic telecom infrastructure including ADSL, ISDN, and leased lines. • ICT has officially been recognized in strategic government economic planning as future economic pillar. 	<ul style="list-style-type: none"> • Lack of leadership to create and drive an adopted vision for the economy in general and ICT in particular. • Lack of business side of ICT professionals and management competencies in ICT companies. • Lack of investment in ICT, especially in venture capital and access to financing. • Lack of local procurement policy to promote local ICT by the government, donors, and large companies. • Lack of competition in telecommunications, leading to high cost. • Lack of comprehensive and harmonized legal and regulatory framework and in particular to ICT. • Lack of recognized cluster performance indicators.
Opportunities	Threats
<ul style="list-style-type: none"> • Potential for benefiting from national initiatives like eGov, PEI, NERN projects and the liberalization of the telecom market. • Potential to utilize the success of other industrial clusters. • Significant donor projects can help jumpstart industry, if proper policy is there. • Proximity to Israel may benefit some software outsourcing operations. • Possible technology boom, given relative stability on the political front. 	<ul style="list-style-type: none"> • Political conditions continue to constrain economic development and hinders free movement of people and products, including open borders. • Less seriousness to legislate and enforce IPR protection. • Lack of awareness of other trade clusters on importance of ICT. • Government and noncommercial efforts competing with private sector. • Highly price-sensitive local market. • ICT brain drain.

Strengths

Palestine’s ICT cluster has a number of strengths. First, it was more resilient than many other clusters in the political and economic circumstances of the last five years. Another key strength is the fact that there is a pool of well-established, well-managed local companies providing proven products and services and supporting the local market. Some of these products are already being exported to the region. A strong and active association, PITA, leads the cluster and is playing a very important role in developing and promoting it. PITA demonstrates strong cooperation with other specialized ICT associations and institutions like PICTI, PNINA, PalTrade, and ISOC-PS.

There also exists an adequate national data network (ADSL, ISDN, and leased lines) that offers a robust infrastructure for ICT development. In addition, ICT has officially been recognized as a future economic pillar in government economic planning. The cluster enjoys strong commitment and support of all stakeholders.

Weaknesses

Despite cooperation from all cluster members toward developing a strong ICT cluster, there is still no unified vision for the cluster. At the general firm level, there is moderate professionalism and business management aptitude. The lack of competition in telecom is a major factor hindering cluster



development. There is no venture capital—the lifeline of technology startups—in Palestine. ICT diffusion in many productive clusters remains below global levels. At the policy level, there is no harmonized regulatory framework, including no clear procurement policy by the government, NGOs, and leading private companies.

Opportunities

The potential for benefiting from local and regional initiatives, like e-Government, Palestine Educational Initiative (PEI), and National Educational and Research Network (NERN) projects is an important opportunity for the Palestinian ICT cluster. The expected liberalization of the telecom market will also offer an opportunity for software and ICT service providers. Similarly, promotion of ICT adoption by small and medium enterprises in industrial clusters will lead to opportunities for ICT products and service providers. Donor-funded projects can help accelerate growth in the ICT cluster, provided the political situation remains conducive to it.

Threats

Current political conditions and barriers on the movement of people and products affect the development of the ICT cluster and will remain a threat. Another threat is the lack of enforcement of policies and regulations, such as the protection of intellectual property rights. In some activities, like training and software development, the private sector perceives direct competition from NGOs, government agencies, and universities. The low levels of ICT penetration, especially in the small and medium enterprise segment, and the lack of awareness of the importance of ICTs by other trade and industrial clusters have led to a moderate demand. Price sensitivity of the local market limits the profitability of ICT ventures.

CLUSTER EVALUATION

GROWTH POTENTIAL

Cluster's Competitive Position in the International Market

To place the current status of the West Bank and Gaza ICT industry in context, the team chose several key and generally available economic and workforce indicators on which to compare its regional counterparts, as well as other selected comparator countries. Through this comparison, the immediate goal is to better understand the structure and performance of the Palestinian ICT industry compared to geographical neighbors and competitors. In the medium and longer term, the international indicators can also be used to compare changes and growth in the Palestinian industry.

Many of the indicators are related to the relative size of the various economies. Accordingly, this section will focus on those indicators in the following table that would not necessarily be expected, given the size of the West Bank and Gaza economy. That is, deviations (positive or negative) from the norm will be highlighted because such unanticipated data may indicate underlying sources of strength or weakness, as well as areas that require additional investigation, to define avenues for developing competitive advantage.

Table 7-3 shows that Israel's ICT sector not only has the strongest contribution to the national GDP, but also the highest percentage contribution to total employment, indicating the highest level of maturity among peers. India has carved out a niche export-driven growth strategy leading to relatively strong contribution to its GDP. However, given the large employment base of the Indian economy,



employment in the ICT industry is not significant at the national level. Estonia has emerged to be a strong ICT power among smaller economies, with exports generating over 60 percent of the sector's revenues. Lebanon, Jordan, and Egypt do not differ much from each other in their structure and market focus.

It is important to note that except for Israel and, to a certain extent, Lebanon, all the benchmark countries offer similar cost advantages, given the low compensation levels for employees engaged in the ICT sector. This is important because most of these countries are aspiring to increase their share of the global ICT outsourcing market, where cost is a key success factor. See the growth potential score for this category in Table 7-4.

TABLE 7-3: ICT CLUSTER INDICATORS FOR PALESTINE AND BENCHMARK COUNTRIES

(all data are for the latest year available)							
	Palestine	Lebanon	Jordan	Egypt	Israel	India	Estonia
Economic Performance Indicators							
Contribution to GDP (%)	1%	2%	3%	1%	10%	4%	15%
Local Market Size (\$m.)	300	403	565	3,700	9,000	19,600	1,400
Total Revenues (\$m.)	200	400	295	1,000	15,600	28,000	1,350
Total Exports (\$m.)	10	132	70	50	11,000	18,000	850
Workforce Indicators							
Contribution to Employment (%)	0.73%	0.70%	0.25%	0.04%	6.52%	0.30%	3.40%
Total # of Employees	2,600	6,750	3,550	7,000	150,000	1,000,000	10,249
Average Worker Pay/ Month (\$)	Starting \$500, Advanced >800	\$ 1,200	\$ 800	\$ 500	\$3,000	\$ 700	\$ 800

Sources (for countries other than Palestine): World Bank ICT Briefs and various country reports

Competitive Position

The products and service offerings of Palestinian IT companies have several distinct strengths. These include the use of advanced technology, remote communication capabilities, and bilingual applications. Some companies have succeeded in exporting software products and have established business partnerships in the regional markets of the UAE, Saudi Arabia, Yemen, Iraq, and Jordan. Some other companies are engaged in developing niche products serving customers in the United States and Europe as their back-end operations. Nevertheless, the local market is still the main market for the Palestinian ICT companies in software or hardware. The key strengths of the Palestinian ICT products and services are in the areas of financial and accounting solutions, education and information management solutions, and management information systems (MIS).

In the local market, there is no or very little external competition. Some donor-driven projects use imported ICT products and solutions. However in the targeted export market, companies from Egypt, Jordan, and Lebanon offer strong competition. See the growth potential score for this category in Table 7-4.

Recent Performance

The cluster is currently estimated to employ 4,600 people. Firms were able to retain most of their employees even during the Intifada, leading to minimal fluctuation in employment. The industry's total sales declined to \$87 million in 2003 from \$120 million in 2000. Sales in 2005 are estimated to be approximately \$200 million. Exports have grown from \$3 million in 2001 to \$10 million in 2005.



Value added per employee ranges between \$18,579 for computer and related products firms and \$72,008 for telecommunications companies.⁶⁸

Until the early 1990's, most of the ICT offerings were basic accounting packages and hardware reselling. With the growth of the industrial and services clusters in the second half of the 90s and the privatization of the telecom sector in 1996, the ICT companies responded to evolving market needs and started offering a diversified set of products and solutions.

Until late 2000, Palestinian software companies focused on the Israeli, U.S., and European markets. These companies participated at relevant trade exhibitions such as Cebit in Germany and Comdex in Tel Aviv. In recent years, the export market focus has widened to the Gulf countries and the broader Arab region. As a result, several companies have established business partnerships in Jordan, Saudi Arabia, Libya, UAE, Yemen, and Iraq. See the growth potential score for this category in Table 7-4.

TABLE 7-4: GROWTH POTENTIAL

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
International Market Outlook	<ul style="list-style-type: none"> International ICT market is growing. Opportunities in the Arab market are unfolding rapidly. Competition from developing countries is stiff. 	5
Competitive Position	<ul style="list-style-type: none"> Distinctive products and services are especially attractive to the Arab market. No competition in the local market. 	5
Recent Performance	<ul style="list-style-type: none"> Performance has been less volatile after the Intifada. The cluster has rebounded strongly. Exports are growing. 	4

CLUSTER READINESS

Commitment

The cluster is well organized under PITA, which is recognized locally and internationally as the key representative organization in Palestine's IT cluster. PITA is now a member of and represented at WITSA, the Higher Council for TVET (Vocational Education), the United Nations ICT Task Force, Palestinian Private Sector Coordination Committee, the Palestinian Joint Public-Private Sector Forum, the Palestinian Investment Promotion Agency (PIPA), among others. Furthermore, PITA has created formal relations with USAID and several of its local projects like MAP, PER, PRIZIM, and American Near East Refugees Aid (ANERA). The cluster has established relationships with the Palestinian Federation of Industries (PFI), the Islamic Development Bank, Tijari.com - UAE, Dubai World Trade Center, Dubai Internet City, and the UNDP.

The USAID-funded, and DAI-managed MAP project has succeeded in assisting the ICT cluster to establish PITA, PICTI, PNINA, and ISOC. MAP also provided strategic planning and institutional assessment services to those organizations. PITA collaborated with MAP to provide training and firm

⁶⁸ Source: http://www.pcbs.gov.ps/Portals/_pcbs/EconomicSurvey/table17.aspx



level assistance. Since 1999, the ICT industry has participated in nearly 20 regional and international exhibitions and trade missions. Those events were conducted with full partnerships among the organizers (PITA, PalTrade, USAID/MAP) and the participating companies and entities. During the core CWG meetings, IT companies and supporting associations have shown high commitment to collaborate on developing the cluster. The cluster readiness score for commitment is shown in Table 7-5.

Dynamism

Most of the software development in Palestine has been based on specific market needs rather than on new knowledge gained through R&D. Companies have been fairly responsive to local market needs. Most of the cluster members are aware of the importance of group work to expand local and export market opportunities. The Palestinian ICT cluster is very self-critical and committed to changing and improving the current situation. The cluster readiness score for dynamism is shown in Table 7-5.

Critical Mass

Apart from a critical mass of ICT producers, sellers, and service providers, the cluster has strong linkages with various supporting organizations. The dynamic nature of the cluster necessitates continuous improvements in those relationships and strengthening of cluster linkages. The cluster readiness score for critical mass is shown in Table 7-5.

TABLE 7-5: CLUSTER READINESS

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
Commitment	<ul style="list-style-type: none"> • Good history of collaboration in the past. • Strong engagement from support organizations. • Commitment to cluster is strong. 	5
Dynamism	<ul style="list-style-type: none"> • Innovation-based product development is still rare, although companies are fairly responsive to local market need. • Willingness to promote the industry collectively. 	3
Critical Mass	<ul style="list-style-type: none"> • There are many firms and multiple representative organizations. • Relationship with supporting organizations is evolving. 	4

FACTORS SPECIFIC TO THE WEST BANK AND GAZA

Currently, the ICT workforce contributes to less than 1 percent of national employment. Nevertheless, jobs in the cluster are high-wage as compared to other clusters, and they generate higher value added for the Palestinian economy. Because of the business-enabling nature of ICTs, there are many ICT jobs in the other productive clusters. If those jobs are counted, the ICT cluster certainly has and will have a sizeable workforce to support national development goals.



The ICT cluster is less sensitive to border closure than other clusters. The cluster was resilient to economic disruption during the Intifada. However, ICT firms often experience difficulties in clearing telecommunications and high-tech equipment at Israeli ports. In order to avoid this, some distributors purchase from Israeli agents. Although videoconferencing services have developed in recent years to compensate for travel restrictions and delays between different parts of the West Bank and Gaza, restrictions to the movement of people can hinder access to overseas customers and stifle growth. See Table 7-6.

TABLE 7-6: FACTORS SPECIFIC TO WEST BANK AND GAZA

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
Potential for rapid employment creation	<ul style="list-style-type: none"> • Employment is high-wage, but limited in number. • Employment expansion will depend on export market and growth of ICT use locally. 	4
Insensitivity to border closures	<ul style="list-style-type: none"> • Although restrictions affect access to customers, the cluster is relatively less sensitive to border closure. 	4

ACTIONS TO ENHANCE CLUSTER COMPETITIVENESS

OVERVIEW OF THE CLUSTER’S SIGNIFICANCE AND POTENTIAL

The ICT cluster is a key pillar of the development and competitiveness of the entire economy. Building competent ICT firms capable of serving other industries will lead to technological and information management solutions needed to improve other industries. This, in turn, will lead to increases in their value added and will contribute to Palestine’s economic stability.

PROPOSED CLUSTER INITIATIVES AND ACTIVITIES

As an outcome of the core ICT CWG meetings, and after discussing the details of the ICT cluster map components, industry representatives produced a priority list of issues and suggested intervention programs.

Listed below, these initiatives address the most critical needs of the ICT cluster. The initiatives are categorized into five areas; Access to Markets, Access to Finance, Access to Technology and Know-how, Workforce Development and Capacity Building, and Policy and Regulatory Reform.

Access to Markets

ICT Diffusion: One of the main obstacles in expanding the local market is the disconnect that exists between the ICT suppliers and prospective beneficiaries and customers. This disconnect can also be verified by analyzing the cost analysis maps, which indicate ICT companies’ small marketing budgets. In response, a key driver for Palestinian ICT cluster development will be the ICT diffusion initiative, which will identify the ICT needs of local industries and match them with suppliers of ICT solutions. It will also address availability, awareness, access, and use of ICT through various activities, including promotional and outreach programs, exhibitions, seminars, and



commercialization of ideas. Led by PITA and cutting across all clusters, the ICT diffusion initiative will involve PICTI, PalTrade, ISOC-PS, the industrial business associations, and the rest the ICT cluster stakeholders.

A cornerstone of ICT diffusion is building an ICT cluster factbook. Updated on a yearly basis by the industry, this book will be the cluster resource of facts and figures and the baseline for development and regional and international benchmarking.

Export Market Access: This initiative will help maintain the presence of the Palestinian ICT products in the target export markets that were established during the past six years. Assisting cluster members to participate in key trade fairs in those identified markets will achieve this. To effectively penetrate and maintain those markets, professional capacities of market intelligence should be built and business networks supported. A complementary set of activities would be trade missions and study tours.

Access to Technology and Know-How

Operational and Competency Improvement: On the company level, there are core management, administration, and technical areas that need to be tackled to improve competitiveness. Although executive training courses will be used as a tool, the effort will concentrate on providing technical assistance and certification programs in areas like financial management, operational management, and international ICT standards like CMM, technical writing and documentation, and project management.

Industry-Academia Forums: As there are very few formal linkages (if any) between universities and the ICT private sector, there is a great need to initiate sustainable forums that would serve as mechanisms for transferring know-how and technology and facilitating a dynamic mutual flow of expertise and information among universities and the private sector.

Workforce Development and Capacity Building

Capacity Building: Although it is becoming apparent that Palestinian universities are graduating a sufficient number of IT graduates, the CWG strongly feels the need for improved quality rather than high numbers. This capacity building can be achieved by improving university curricula, co-op programs, internships, apprentice programs, and postgraduate specialized training. A very practical way to ensure continuous capacity building is by establishing private sector/university forums with periodical events to exchange needs, expertise, and information.

In addition, there is a great need to boost the capacity and technical knowledge of Palestinian firms and professionals in areas of particular weakness such as technical writing, project management, systems analysis, quality management, and customer relations management.

A baseline study to analyze the current and future IT workforce is needed to build the proper training programs. Then—in conjunction with the ICT diffusion program—technical training will be required to help diffuse new systems throughout the various industrial clusters; this will create the know-how needed to run those ICT systems efficiently.

Policy and Regulatory Reforms

Policy Reform: The purpose of this initiative is to build the institutional capacity in policy and advocacy—mainly at PITA and stakeholder private sector organizations—to continue to assume their roles to influence policy making and reform.



The principal policy priorities of the cluster will be telecom regulation and liberalization; various e-regulations (for example, IPR, e-signature, privacy); public procurement; and investment promotion. With the coming liberalization of the telecom market at the end of year 2006, these issues will become more urgent.

PRELIMINARY ACTION PLAN

The following cluster action plan (Table 7-7) was developed in consultation with the working group:

TABLE 7-7: ICT CLUSTER ACTION PLAN

Initiatives/Programs		2006				2007	2008
		Q1	Q2	Q3	Q4		
ACCESS TO MARKETS							
1	ICT Diffusion						
1.1.	ICT fact book		■			■	■
1.2.	ICT industrial surveys			■	■		
1.3.	Diffusion programs and activities			■	■	■	■
2	Export Market Access						
2.1.	Support market intelligence activities		■	■	■	■	■
2.2.	Support specialized trade missions and exhibitions			■	■	■	■
ACCESS TO TECHNOLOGY AND KNOW-HOW							
3	Improve operational and competency						
3.1.	Identify needs		■				■
3.2.	Design and launch response services and programs			■	■	■	■
4	Create Academic-Industrial Forums						
4.1.	Develop outreach and networking events		■				
4.2.	Support participatory activities		■	■	■	■	■
WORKFORCE DEVELOPMENT AND CAPACITY BUILDING							
5	Build Capacity						
5.1.	Do a workforce analysis and needs assessment		■				
5.2.	Support specialized training activities with integration with the results of the ICT diffusion			■	■	■	■
POLICY and REGULATORY REFORM							
6	Work for Policy Reform						
6.1	Continuous institutional capacity building to private sector organizations			■	■	■	■



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8. PHARMACEUTICAL CLUSTER ASSESSMENT

CLUSTER OVERVIEW

This report provides a systematic review of the global and local factors, trends, and context that frame and influence potential USAID assistance to the West Bank and Gaza pharmaceutical cluster through the Palestinian Enterprise Development (PED) project. The report draws upon locally and internationally available research and data for the cluster, as well as PED's extensive interaction with members of the West Bank and Gaza pharmaceutical cluster. Using these materials, a "score" was given that represents a numerical assessment of the cluster's current status and future potential and that pinpoints assets and liabilities towards which USAID-funded activities can be targeted.

Globally, the pharmaceutical industry is a \$550 billion business that has grown steadily at about 12 percent year for the last 10 years. The major markets for pharmaceutical products are the United States, Europe, and Japan, but rising incomes and longer life spans are driving pharmaceutical spending upward worldwide. The major global trends in the industry include: the increasing importance of biotechnology, sales of which grew from \$22 billion in 2000 to \$44 billion 2004; the key role of generic drugs, which are popular alternatives to branded medicines in both developed and developing countries; the changing structure of the industry, from one of consolidated vertical organization to an outsourcing model in which many players have roles; the high cost of new drug development, which serves as a powerful barrier to entry to small- and medium-sized companies; the consolidation of "Big Pharma" through a series of mergers; the prominent role of regulatory approval agencies; and the increased popularity of natural products, including traditional and alternative medicines.

Born after the 1967 war, as a result of the West Bank's isolation from the rest of the Arab world, the pharmaceutical industry was established by nine pharmacists and today consists of six companies, four in Ramallah, one in Beit-Jala, and one in the Gaza Strip. With products covering more than half of local consumption, the pharmaceutical cluster (though small on the world scale) is a key element of the Palestinian healthcare continuum. While it contributes less than 1 percent to GDP, it is considered one of the highest clusters in terms of worker output (\$44,000 in 2005). The industry employs about 850 workers and produces 1,070 products; a small portion (9 percent) of production is exported. Most of the drugs are of good quality and are competitive in price, but many pharmacists, physicians, and customers have "a perception issue" with the product. But all six companies are ISO-9000 certified, five are ISO-4000 certified, and all are engaged in good manufacturing practices (GMP) development programs.

The pharmaceutical cluster enjoys a number of significant strengths, the most important of which is its commitment to development, in terms of both expansion and investment. Other assets include high adaptability to change; skilled labor, with competitive wages; a strong representative organization that promotes cooperation; and good quality products, with significant local market share. The cluster's greatest obstacle is the absence of GMP certification, which is a key requirement for accessing new markets. Nonetheless, there are opportunities for the cluster, including exports as well as increased local market share through greater participation in government tenders. Political uncertainties present a threat to further growth of the cluster, since related border closures impede the transport of medicine between the West Bank and Gaza as well as imports of raw materials. The legal and regulatory environment also presents challenges for the local market.

Table 8-1 provides an aggregate assessment of the cluster's current status and future potential as well as individual scores for key components and subcomponents related to the cluster's competitiveness.



As indicated by its aggregate score of 3.16, the pharmaceutical cluster offers considerable promise for generating growth.

Within the “growth potential” component of this score, the industry’s recent performance stands out strongly: after hovering just below or above the \$1 million mark in exports from 1999 to 2003, exports jumped to \$2.3 million in 2004, and then leaped to \$3.4 million in 2005. Likewise, total sales experienced cumulative growth of 83 percent from 1999 to 2005, when they reached \$38 million. Global market growth, as well as developing countries’ increasing turn toward generic drugs, bode reasonably well for the cluster in the West Bank and Gaza, although the cluster’s lack of niche products and product innovation, combined with severe price-based competition, prompts some caution about future prospects.

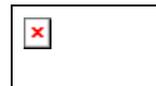
The pharmaceutical cluster receives quite high marks for “cluster readiness,” based on nearly a decade of operation by the industry’s association and more recent signs of cooperation, such as participation in trade shows. The cluster’s degree of dynamism is less clear, with unambiguous responsiveness to market demands for quality but slow or no attempts to expand the product mix. Nonetheless, this small group has demonstrated interest and commitment to cluster development and it enjoys existing relationships focused on operations and finance, although it has had limited knowledge-oriented interactions.

Among the key considerations in the West Bank and Gaza environment, pharmaceuticals has less sensitivity to border closures than most industries, although such closures are still a factor; however, its opportunities for employment generation are rather limited.

TABLE 8-1: SCORING OF THE PHARMACEUTICAL CLUSTER

Growth Potential		Cluster Readiness		Factors Specific To West Bank and Gaza		Aggregate Assessment
3.66		3.33		2.5		
International Market	3	Commitment	4	Potential for Rapid Employment Creation	2	
Competitive Position	3	Dynamism	3	Insensitivity to Border Closures	3	
Recent Performance	5	Critical Mass	3			

Scoring Range = 0 (very low) to 5 (very high)



INDUSTRY CLUSTER ASSESSMENT

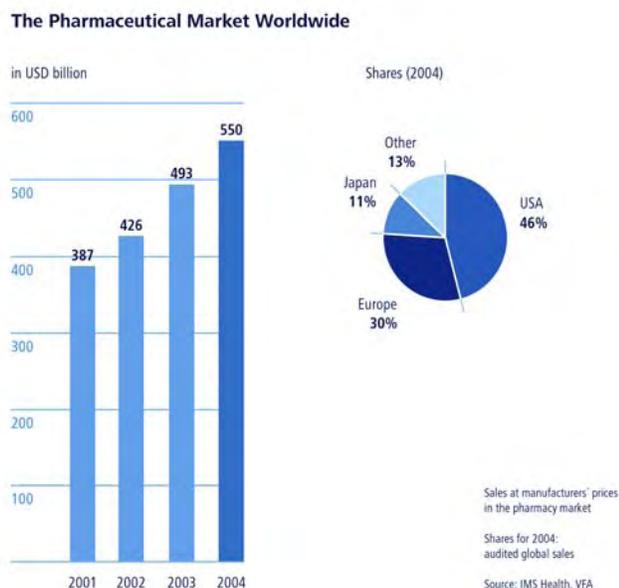
INTERNATIONAL TRENDS IN THE INDUSTRY

Globally, the pharmaceutical industry is a \$550 billion market (as of 2004) (see Figure 8-1). During the past 10 years, the industry has grown steadily, at about 12 percent per year. The major markets for pharmaceutical products are the United States, Europe, and Japan. Over the past six years, the fastest-growing markets for pharmaceutical products have been in the United States, Spain, and the United Kingdom. Rising incomes and longer life spans have been the major drivers of pharmaceutical and healthcare spending worldwide. The major consuming markets are also the sources of the world's major producing companies. For example, the United States produces 33% of the world's pharmaceutical products, followed by Japan (16%), France (10%), the United Kingdom (7%), and Germany (7%).

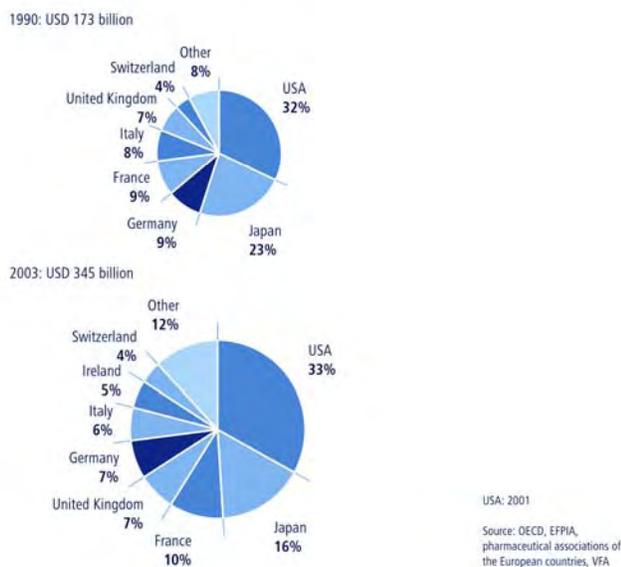
Several trends in the pharmaceutical industry are predominant globally, including:

- **The increasing importance of biotechnology.** Biotechnology is becoming a more and more important segment of the global biopharmaceutical industry. Biotech has grown from \$22 billion in global sales revenues in 2000, to \$44 billion in 2004. Although biotechnology represents only a relatively small percentage of the global drug market, (8 percent in 2004), about 25 percent of the new medicines under development are now biotech products. Biotechnology has quickly become a very rapid way to discover new drug

FIGURE 8-1: PHARMACEUTICAL MARKETS AND PRODUCTION WORLDWIDE



Production in Europe, Japan and the USA



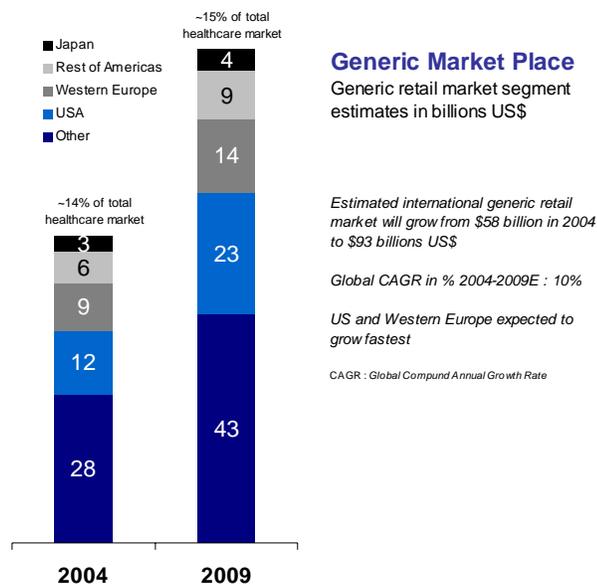


products. Using biotechnology tools such as combinatorial DNA synthesizing, drug discovery times have been dramatically reduced compared with conventional drug discovery approaches. Within the past decade, researchers who work in drug discovery have made remarkable progress in understanding the molecular mechanisms involved in disease. They owe that progress in large measure to advances in such technologies as RNA interference, gene expression, development of live cell assays, laboratory automation systems, and other valuable research tools. These new biotech laboratories bring together information and expertise from a variety of fields, notably structural biology, genomics, proteomics, and bioinformatics. Because of the power and wonder of these new biotech technologies, some people have referred to this past decade as “the Golden Age of Biotechnology.”

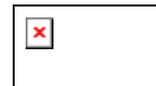
- **The key role of generic drugs.**

Generic or off-patent drugs are playing an increasingly large role in global pharmaceutical sales (see Figure 8-2). As the costs of patented drugs continue to rise faster than overall inflation, consumers are turning more and more to generic drugs. They pay substantially less for generic drugs, which are often very similar or even identical products to the branded medicines. Generics are becoming very popular in both developed and developing regions. They are forecast to reach \$43 billion in the regions outside of the United States, Western Europe, and Japan by 2009 and \$23 billion in the United States in the same year. In volume terms, four out of five of the top prescriptions dispensed in the United States are for generic products. The global market of generics is forecast to reach \$93 billion by 2009.

FIGURE 8-2: GENERICS MARKET PLACE

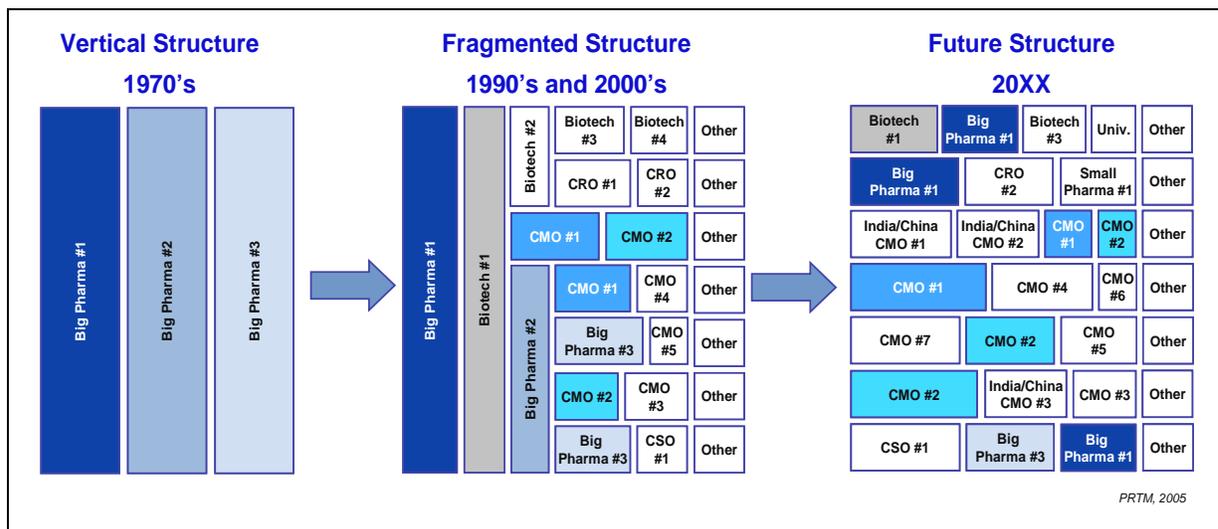


- **The changing structure of the industry.** Along with the emergence of biotech discovery companies, other structural changes have occurred over the past decade. “Big Pharma” companies, while still dominant, have outsourced a number of their previous core competencies to specialized outside companies (see Figure 8-3). These outside companies include biotech drug discovery companies, bioinformatics, genomics, clinical trials (Clinical Research Organizations or CROs), and contract manufacturers (Contract Manufacturing Organizations or CMOs). Big pharmaceutical companies frequently outsource most of their previous core functions and are now focusing almost solely on marketing and distributing their products. The implication of this new structure is that companies must find their new core competencies within this new global value chain, and compete within the new and emerging niches.
- **The high cost of drug development.** Most of the pharmaceutical industry, with the exception of the generic manufacturing companies, faces very high capital costs for R&D expenses, as well as high costs associated with the regulatory steps required to bring a new product to market. The



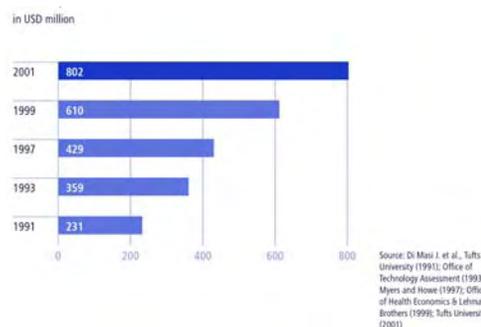
typical timeframe for bringing a pharmaceutical product to market is 10 to 13 years, at a total development cost of about \$800 million per new drug. These very high capital costs serve as a powerful barrier to entry for most small- and medium-sized pharmaceutical companies. This is why the main entry point into this industry for many developing country firms' is through generic drug manufacturing.

FIGURE 8-3: CHANGING STRUCTURES IN PHARMACEUTICAL COMPANIES



- **Consolidation of Big Pharma.** An outcome of the high cost of drug discoveries is substantial consolidation in the pharmaceutical industry. One of the main reasons companies have merged is to pool their R&D budgets. Over the last decade, the blockbuster merger deals in the industry have included: Sanofi-Synthelabo and Aventis, Pfizer and Pharmacia, BASF Pharma/Knoll and Abbott, Glaxo Wellcome and SmithKline Beechman, Astra and Zeneca, and Ciba Geigy and Sandoz.
- **The prominent role of regulatory approval agencies.** The pharmaceutical industry is one of the most regulated industries in the world. The most renowned regulatory agencies in this industry are the approval agencies for the biggest consumer markets, for example, the FDA (Food and Drug Administration) in the United States and the EMEA (European Medicines Agency). The main responsibilities of these agencies are the protection and promotion of public health. Before new drugs are approved by these agencies, they must undergo lengthy clinical trials. Once drugs are approved for human use, pharmaceutical manufacturing companies are still subject to considerable regulatory oversight, including for their strict adherence to good manufacturing practices (GMP) (see Figure 8-4). In addition to the drug safety regulations, many pharmaceutical products receive patent and trademark protection; this also serves as a powerful barrier to entry for new entrants.

FIGURE 8-4: DEVELOPMENTAL COSTS OF NEW PHARMACEUTICALS





- The increased popularity of natural products.** Traditional and alternative medicines have maintained popularity in all regions of the world and their use is spreading rapidly in industrialized countries. In China, traditional herbal medicines represent from 30-50 percent of total medicine consumption. In Germany, 90 percent of the population has used a natural remedy at least once. In the United States, 160 million people (about half the population) use alternative medicines, spending \$23 billion on these products in 2004.

The trends outlined above will shape the competitiveness outlook for the Palestinian pharmaceutical cluster. Companies will need to respond to these drivers of competitiveness and position themselves to take advantage of the business opportunities emerging from these trends.

GENERAL CLUSTER DESCRIPTION IN THE WEST BANK AND GAZA

The industry was born just after the 1967 war as a result of the isolation of the West Bank from the rest of the Arab World. Before the 1967 war all pharmaceutical products were imported from foreign companies via importers in Amman, Jordan. After the war, the borders were closed, thus preventing the import of any products from Jordan. In 1969, this difficult situation led nine pharmacists in the West Bank to establish small laboratories to manufacture simple products. In 1970, these labs merged together into three companies; many years later, new companies were established. Today, the industry consists of six companies (Figure 8-5). Four are in Ramallah, one is in Beit-Jala, and one is in the Gaza Strip. Two are listed on the stock market and all companies are generic drug manufacturers.

With six companies, the Palestinian pharmaceutical cluster remains relatively small compared to world pharmaceutical industries. However, it is considered one of the key strategic industries in Palestine. Products cover more than half of local consumption, making this cluster a key component of the Palestinian healthcare continuum. Although the industry contributes to less than 1 percent of GDP, it is considered one of the highest in worker output (\$44,000 in 2005). The industry employs around 850 workers (Table 8-2).

There are more than 4,000 Palestinian, Israeli, and foreign pharmaceutical products in the Palestinian market.

Palestinians produces 1,070 pharmaceutical products (as registered at the Ministry of Health at the end of 2005) covering a wide range of therapeutic classes with various dosage forms (Figure 8-6); however many Palestinian pharmaceutical companies focus on similar product categories, mostly reproductions of off-patents. Palestinian drugs are believed to constitute around 45 percent of the dollar value (\$38 million in 2005, see Table 8-1), and 60 percent of drug consumption, in a market estimated at \$70-90 million.

FIGURE 8-5: PALESTINIAN PHARMACEUTICAL COMPANIES

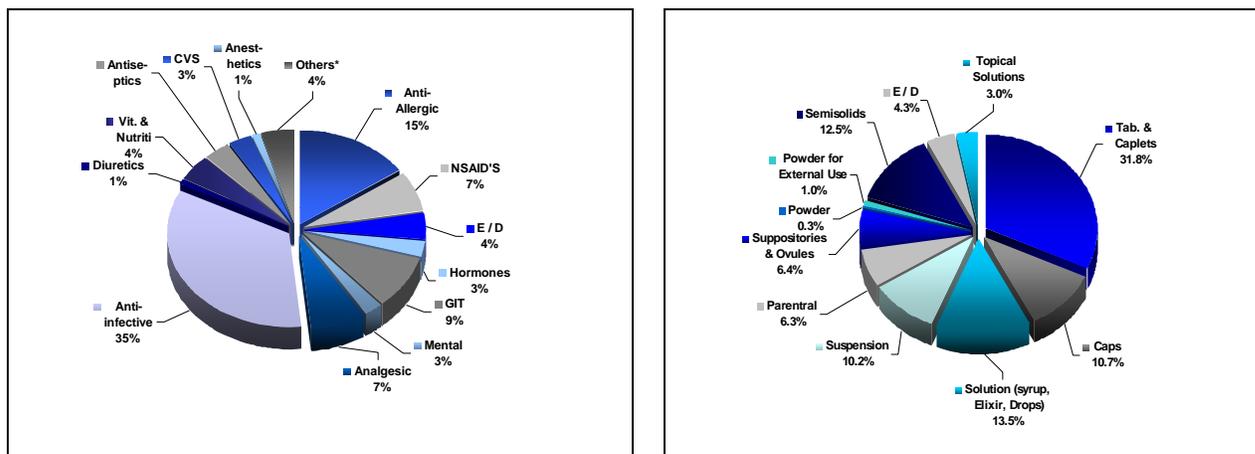


TABLE 8-2: 2005 KEY FIGURES – PHARMACEUTICAL COMPANIES

Employees	859
Females	293
Males	566
Revenues (\$ Millions)	38.0
West Bank	25.8
Gaza Strip	8.8
Export (\$ Millions)	3.4
Investment (2004–2005) (\$ Millions)	8.8
Total Assets (\$ Millions)	70.8



FIGURE 8-6: PALESTINIAN PHARMACEUTICAL THERAPEUTIC CLASSES AND DOSAGE FORMS AS REGISTERED IN THE MINISTRY OF HEALTH ON DECEMBER 31, 2005



Palestinian pharmaceuticals are marketed mainly in the West Bank and Gaza, while a small portion (9 percent of sales) is exported mainly to the Arab countries and Eastern Europe. Palestinian drugs are not allowed into Israeli markets.

Israeli border control and checkpoints are an impediment to Palestinian companies. Distribution of drugs in the West Bank and Gaza was and still is a real concern, especially those drugs requiring special handling conditions that could be stranded for long periods on checkpoints. Border closures and delays also affect supplies of packaging and raw materials going to pharmaceutical companies. With all these difficulties, the industry has proven to have high tolerance and adaptability to face challenges and increase its sales over the years of Intifada.

Most Palestinian drugs are of good quality and are competitive in price. However, many pharmacists, physicians, and customers have a “a perception issue” with the products. Healthcare providers need an outreach campaign to explain quality assurance programs and the companies’ GMP compliance procedures (Table 8-3). The Palestinian Ministry of Health initiates tenders to supply its hospitals and its primary health centers. Local companies acquire a small portion of it (for example, less than 20 percent of a \$16 million tender in 2003), mainly because of issues related to implementing procedures for registering foreign drugs. It is believed that if the ministry follows the procedures in an appropriate way, local companies would increase their share substantially.

Over the years, Palestinians have exported pharmaceuticals to more than 14 countries in Eastern Europe, Asia, and Africa. Exports have tripled over the last three years. Arab and East European countries are the biggest export markets for Palestinian companies. Increasing their sales in existing markets and accessing new ones is a recognized ambition. Some companies have joint ventures with international partners to produce drugs locally or in other countries, all for foreign markets use. Acquiring good manufacturing practices (GMP) certifications will have a positive effect on accessing new markets.



TABLE 8-3: NUMBER OF HEALTHCARE PROVIDERS AND RELATED ORGANIZATIONS (FEBRUARY 2006)
There are syndicates in WB/G for pharmacists, physicians and dentists

	West Bank	Gaza Strip	Total
Pharmacists	2003	1395	3398
Pharmacies	780	375	1155
Physicians	Reg.4750, active ~2200	Reg. 3589, active ~3000	Reg.8339, active ~5200
Dentists	~1300	590	~1890
Hospitals	55	22	77
Drug Stores	50	18	68
Colleges of Pharmacy	2	1	3
Drug Testing Centers	3	1	4

The industry is highly regulated, and all six companies are ISO-9000 certified while five are ISO-14000 certified. All six companies are engaged with GMP development programs, following the international WHO guidelines. The Palestinian Ministry of Health adopted the Arab Guidelines on GMP for pharmaceutical products in 1999 and for regulations to manufacture drug products in 1995. The regulation is drawn mainly from the WHO regulations on GMP. The Ministry of Health – Drug Registration and Inspection Department is in the process of conducting gap analysis of the pharmaceutical companies to be able to certify the qualified companies. The Ministry is planning to implement the procedures so it will be able to grant GMP certificates soon. Some companies are planning to apply for the European and later the American FDA-GMP certifications in the future.

Although the Palestinian legal and regulatory environment and the political instability in the region do not encourage local and direct foreign investment and entrepreneurship, many of the Palestinian pharmaceutical cluster member companies have invested millions of dollars in new facilities and in upgrading equipment in their pursue to be GMP-compliant and improve manufacturing practices within their companies (Figure 8-7).

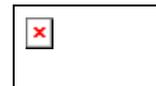
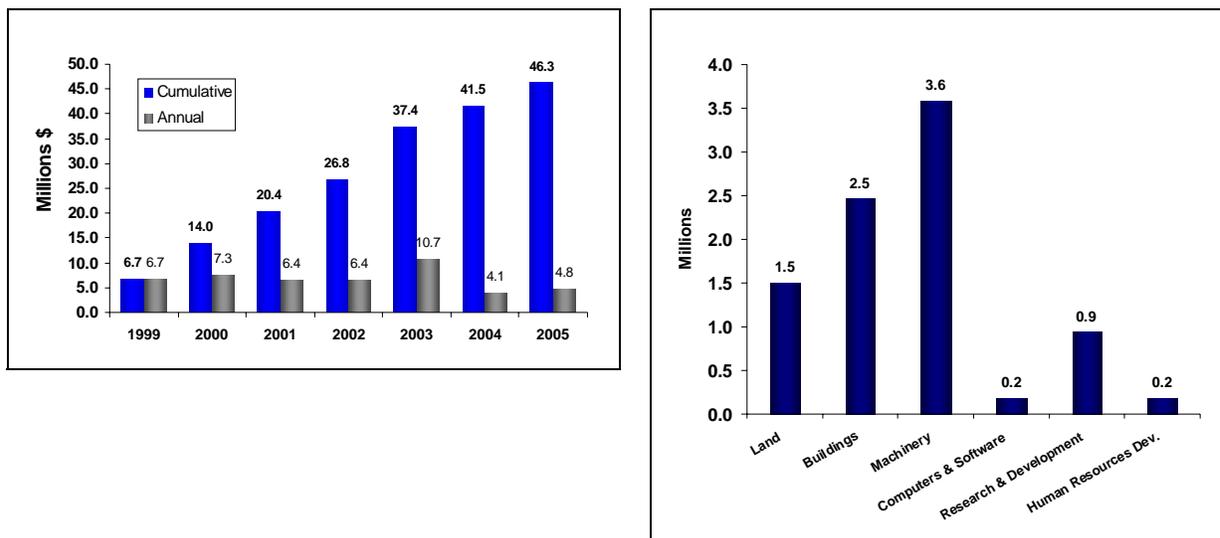


FIGURE 8-7: CAPITAL INVESTMENTS IN THE PHARMACEUTICAL INDUSTRY



Leaders of the pharmaceutical industry, who were interested in institutionalizing the cluster, established the Union of Palestinian Pharmaceutical Manufacturers (UPPM) in 1996, thereby creating an address for it in Palestine. Today, all six pharmaceutical companies are members of the UPPM. Over the past two years, the industry, represented by UPPM, has shown a notable maturity level in responding to industry matters and companies needs.

One success of the public-private sector relationship was reaching out to the government in a professional and systematic manner to develop the industry's advocacy campaign for reviewing and amending the Public Health Draft Law that was submitted to the Palestinian Legislative Council (PLC).

The Palestine Authority attended the WTO Ministerial conference in Hong Kong last year as an observer, and the industry needs to prepare itself for the WTO accession process, probably in the coming decade. Early preparations that result in active multilateral engagement can be incrementally helpful in facilitating and enhancing domestic reforms, in addition to the wider access and penetration of exports. There is a great need for the pharmaceutical industry to develop and adopt an overall position of the industry within a national context.

Palestinians have a good number of well-educated people who earn competitive wages. In the pharmaceutical industry the average Figure 8-8) is somewhat similar to generic companies worldwide.

Research conducted in the Palestinian pharmaceutical companies focuses on developing new formulas for known drug entities, that is, generics. Palestinian pharmaceutical companies pay attention to formulation, stability studies, and developing methods of drug analysis, all of which constitute a small portion of the allocations from net sales. Major leading pharmaceutical companies in the world conduct research in several additional areas, including the critical and complex synthesis of compounds, toxicology, and clinical studies. It is in these areas that most drug development occurs. However this requires huge investments: the average cost to develop one new drug exceeds \$800 million and involves more than 10 years of R&D. In addition to the financial impediment, intellectual property right protection to capitalize on R&D is weak in Palestine. Nevertheless, Palestinian generic



pharmaceutical companies can adopt innovative approaches that do not cost as much as producing new chemical entities, approaches such as developing new innovative dosage forms, formulations, new routes of administration for existing drugs, and new drug regimens, in addition to exploring natural product and nutrient supplements options as new product lines (which are gaining substantial interest worldwide). Cooperative efforts between the industry and the three local colleges of pharmacy, the three drug testing centers, and others in academia can lead to a better use of resources to conduct R&D. Bioequivalent studies for local products (an average of 10 annually, with a cost of more than a quarter of a million dollars) are conducted in Jordan and Egypt, since there are currently no clinical research centers in Palestine. Establishing such a center could be a decided accomplishment of academia-industry cooperation.

FIGURE 8-8: EMPLOYEES' EDUCATION AND THEIR DISTRIBUTION IN DIFFERENT COMPANIES' DEPARTMENTS

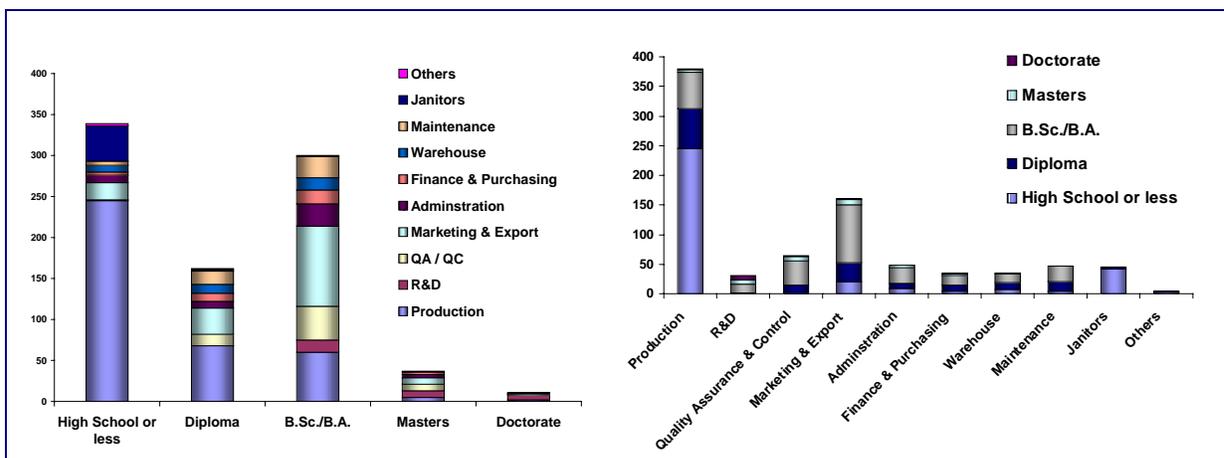
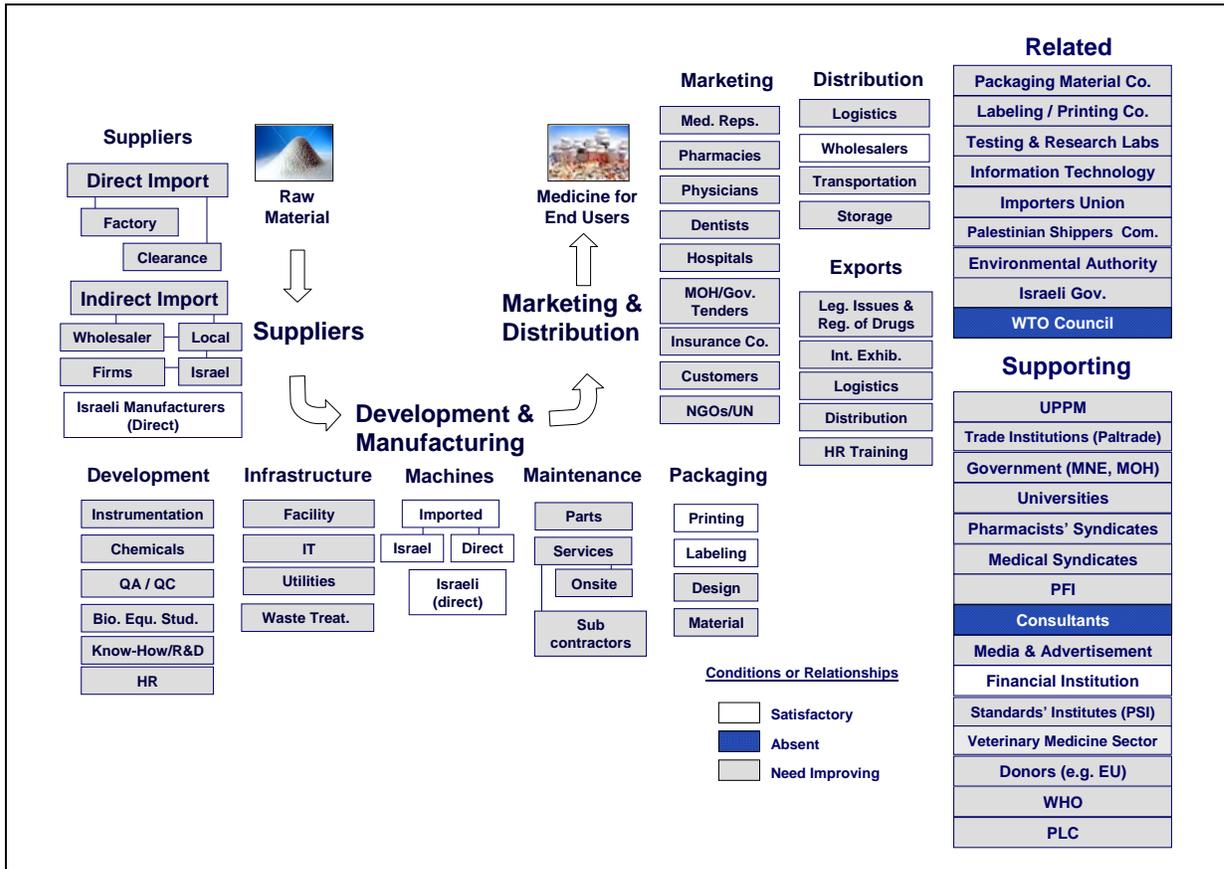


Figure 8-9 is a map of pharmaceutical industry activities. It was developed with the core CWG specifically to cover all activity areas and players involved in and with the Palestinian pharmaceutical companies. *It is important to note that the status assessment, relationships, and conditions in the map are not based on an audit or external expert opinion, but reflect the desire of the industry continuously to improve its existing status, even if the overall assessment may be satisfactory in many areas. It is also worth noting that assessments are conducted using American and West European quality standards as goals with which to comply. The assessment will change if done on the basis of quality standards set in regional countries.* The map is developed to reflect the flow of the value chain. Discussions with the CWG made clear that there was noticeable general agreement on status assessments of areas in the map. This will facilitate setting and working with the cluster on various initiatives.



FIGURE 8-9: MAP OF PHARMACEUTICAL INDUSTRY ACTIVITIES



The pharmaceutical cluster map (Figure 8-10) involves inputs, processes, and related and supporting organizations and services that would be generally available in pharmaceutical clusters. The assessment here uses the American and European models as standards, raising the industry's level of expectations. It takes into consideration the map of pharmaceutical cluster activities developed by the CWG (Figure 8-9), and visits to the six pharmaceutical companies. The map reflects an overall assessment of all companies and could differ if each company were considered separately. Synthesis, preclinical, and clinical studies are not usually available in generic pharmaceutical companies. This applies to the Palestinian case, where the huge cost involved in developing a new chemical entity (more than \$800 million) is considered an obvious barrier. Most of improvement needed in the input and process parts relate to quality standards, more specifically GMP requirements. With regard to related industries, there is a need to improve and maybe create local services specifically geared to the pharmaceutical industry. With respect to supporting parties, there is a need for local technical consultants, specifically in GMP. In addition, there is no coordination with the WTO Council in the Ministry of National Economy, a situation that needs correction. Regarding other cluster supporting members, there is always room for strengthening such relations in an organized structured setting.



FIGURE 8-10: PHARMACEUTICAL CLUSTER MAP SHOWING THE STATUS OF RELATIONSHIP/CONDITION OF VARIOUS MEMBERS/AREAS RELATED TO PHARMACEUTICAL COMPANIES IN GENERAL.

The side column shows estimated numbers of workforce in each work area.

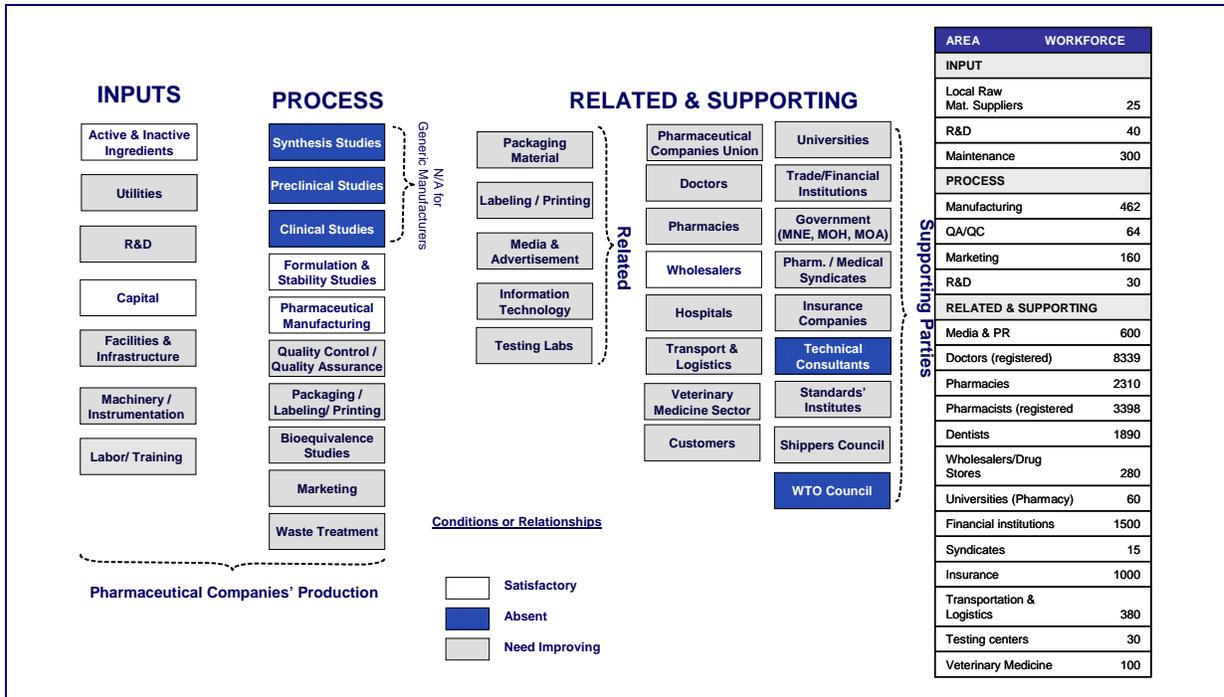
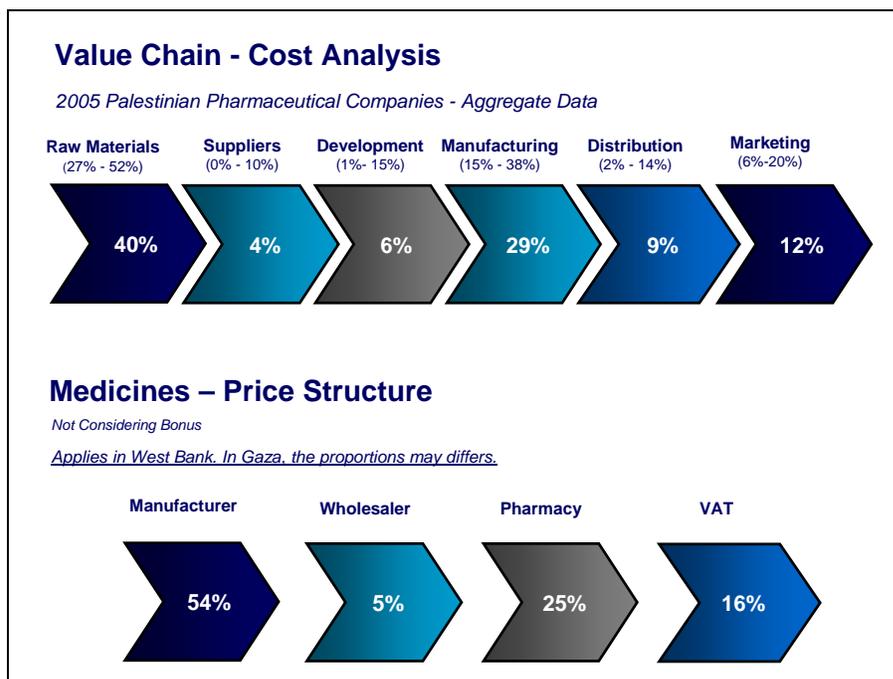


Figure 8-11 reflects the cost analysis of the companies' related value chain, averaged from numbers obtained from all six companies. It is obvious that raw materials constitute a significant portion of the cost. This could be the result of expensive, high standard raw materials used in most companies and/or low costs of other parts of the value chain. Developmental costs are low, reflecting the spending on R&D as generics (mainly formulation and stability studies), which does not cost as much as development of new drug entities. In addition marketing share is small compared to international companies, which often spend 30-40 percent of costs on marketing. Quality-related costs are distributed all over the value chain. The price structure of Palestinian drugs (Figure 8-11) is somewhat similar to many countries in Europe, such as Germany and Finland.



FIGURE 8-11: PALESTINIAN COMPANIES' VALUE CHAIN COST ANALYSIS AND PALESTINIAN MEDICINES' PRICE STRUCTURE



CLUSTER ASSESSMENT

SWOT ANALYSIS

Table 8-4 summarizes the strengths, weaknesses, opportunities, and threats facing the pharmaceutical cluster in the West Bank and Gaza; a narrative description of each element of the SWOT follows the table.

TABLE 8-4: SWOT ANALYSIS FOR THE PHARMACEUTICAL CLUSTER

Strengths	Weaknesses
<ul style="list-style-type: none"> • Big market share—national pharma products constitute 60% of local market consumption. • Acceptably developed industry and modern technology utilization. • Availability of skilled, well-educated graduates relevant to this cluster. • Good quality products, with competitive prices. • Firms capable of expanding. • Strong association representing 100% of the cluster, with commitment to investing towards the cluster's improvement. 	<ul style="list-style-type: none"> • Lack of GMP certification weakens access to markets. • Weak expertise in R&D for products. • Limited access to equipment and facility maintenance. • Focus on the production of similar pharmaceutical products. • High logistics/transportation costs and material handling. • Limited marketing services, both local and international.



Opportunities	Threats
<ul style="list-style-type: none">• Export potential, if GMP certified.• Growing demands for generics, locally and internationally.• WTO accession (once ready).• Cooperation with Jordanian Pharmaceutical union (Center of Excellence of the JAPM).• Exploring/expanding new products lines (for example, veterinary medicine, natural remedies, nutrient supplements).• Compliance with drug registration regulations (government tender).• Favorable trade agreements in some niche markets.	<ul style="list-style-type: none">• Political instability and closure.• Foreign and Israeli competition.• Weak legal and regulatory environment (for example, GMP, drug registration).

Strengths

Palestine's pharmaceutical cluster enjoys a number of significant strengths. Among its most important asset is its commitment towards development, in terms of both expansion and investment. The cluster demonstrates high tolerance and adaptability to facing challenges. Palestinian pharmaceutical companies met an average of 60 percent of the local consumption. The industry also has skilled labor. It also has a strong organization representing all of the industry and promoting cooperation and coordination among the various players in an institutionalized pattern. In addition, good quality products, with competitive prices, provide strength by enhancing the cluster presence in niche markets. From a human resources perspective, Palestine holds advantages in the availability of practical skills and knowledge, and local universities prepare strong university graduates.

Weaknesses

Among the greatest obstacle facing Palestine's pharmaceutical cluster is absence of a GMP certification, which is a key requirement for accessing new markets and developing the industry export capacity. Palestinian pharmaceutical companies focus on producing the same pharmaceutical products rather than diversifying; this leads to overlap in products and high domestic competition. The cluster suffers from weak expertise in R&D for products and needs to improve and develop. In fact, the cluster is formulating and producing already existing pharmaceutical products through new processes rather than inventing new products. Finally, access to different parts of the supply chain, such as maintenance, transportation, and marketing services (local and international) are limited; moreover, services like logistics and material handling are very dependent on political stability and passable borders.

Opportunities

Although exports comprise only 9 percent of total Palestinian pharmaceutical sales, there is a real opportunity to increase them significantly as companies become GMP-certified. This certification is key to accessing many new markets, especially since those for generics are growing steadily, at an annual rate of 10 percent. Palestinian pharmaceutical companies can benefit more if they prepare themselves well from now to Palestine's WTO annexation, expected in the coming decade (last year Palestine became an observer at the WTO). Meanwhile, the cluster must benefit from many current favorable trade agreements in some niche markets, as in the case of Algeria; this is considered a



major opportunity to increase exports. Furthermore, increased governmental compliance with drugs registration procedures could increase the national pharmaceutical share of government tenders. Palestinian pharmaceutical companies should consider new product lines and not limit themselves to pharmaceuticals. Their experience and capabilities qualify them to enter such areas as veterinary medicines, natural products, nutrient supplements, and others. Moreover, the cluster must build on good relations with the Jordanian Pharmaceutical Industry, to learn from their wealth of experience in many areas, especially through the JAPM Center of Excellence. Cooperation with local universities is also considered important, especially to promote R&D and qualify pharmacists on GMP and related skills.

Threats

Standing against the strong opportunities that exist for the Palestinian pharmaceutical cluster is the political instability, and among the most significant outcomes of it are border closures. Transporting medicines between the West Bank and Gaza has been a real problem, particularly for medicines that need special handling. Distribution of drugs within the West Bank is harmed by delays at checkpoints. These delays are in addition to those that exports face from border delays and closures. Adding to this threat is the strong competition of foreign and Israeli medicines in the local market. The legal and regulatory environment also presents challenges for the Palestinian pharmaceutical cluster, especially with respect to GMP and drug registration. This environment does not promote local and direct foreign investment and entrepreneurship because investors are discouraged by excessively high regulatory costs and risks from lack of harmonization and lack of a proper legislative package.

CLUSTER EVALUATION

GROWTH POTENTIAL

Cluster's Competitive Position in the International Market

To place the current status of the West Bank and Gaza pharmaceutical cluster in context, the team chose several key and generally available economic and workforce indicators on which to compare its regional counterparts. Through this comparison, the immediate goal is to better understand the structure and performance of the Palestinian industry compared to geographical neighbors and competitors. In the medium and longer term, the international indicators can also be used to compare changes and growth in the Palestinian industry.

Many of the indicators are related to the relative size of the various economies. Accordingly, this section will focus on indicators in the following table that would not necessarily be expected, given the size of the West Bank and Gaza economy. That is, deviations (positive or negative) from the norm will be highlighted because such anticipated data may indicate underlying sources of strength or weakness, as well as areas that require additional investigation in order to understand avenues for developing competitive advantage.

In reviewing the data in Table 8-5, a striking comparison involves the number of enterprises in Palestine compared to countries such as Egypt and Jordan. Egypt, with nearly 20 times the population of the West Bank and Gaza, has only 10 times the number of pharmaceutical enterprises, while Jordan with a population about 1.5 times the West Bank and Gaza boasts three times the number of



pharmaceutical companies.⁶⁹ In other words, in terms of number of pharmaceutical enterprises, the West Bank and Gaza clearly outdistances Egypt, but in comparison to the Jordanian industry, it lacks the depth signaled by Jordan’s “strength in numbers.”

The total number of employees is another indicator with variation. Most of the enterprises in the benchmark countries employ 100-200 workers, as do West Bank and Gaza pharmaceutical firms. It is obvious that Jordanian companies compete heavily with Palestinian firms in their common export markets, Arab and Eastern Europe countries (\$270 m. vs. \$3.4 m). The growth potential score for this category is shown in Table 8-6.

TABLE 8-5: PHARMACEUTICAL CLUSTER INDICATORS FOR PALESTINE AND BENCHMARK COUNTRIES

(all data are for the latest year available)							
	Palestine	Lebanon	Jordan	Egypt	Turkey	Israel	India
Economic Performance Indicators							
Total Number of Enterprises	6	5	18	61	84	74	20,000
Contribution to GDP (%)	<1%	<1%	1%	<1%	<1%	2%	<1%
Local Market Size (\$m.)	\$70-\$90	\$403	\$348	\$1,818	\$3,000	\$1,200	\$4,857
Share of Local Market (%)	45%-60%	3%	33%-45%	86%	41%	35%	70%
Total Revenues (\$m.)	\$38	\$17	\$385	\$1,600	\$1,380	\$3,742	\$6,500
Total Exports (\$m.)	\$3	\$5	\$270	\$44	\$150	\$3,300	\$3,100
Workforce Indicators							
Contribution to Employment (%)	3%	<1%	<1%	<1%	<1%	<1%	<1%
Total # of Employees	859	540	3,098	28,658	15,031	16,500	250,000
Average Worker Pay/Month (\$)	\$550	\$750	\$525	\$450	\$1,870	\$2,450	\$450

Sources (for countries other than Palestine): UNIDO Industrial Statistics database.

Competitive Position

Palestinian pharmaceutical companies are primarily engaged in the generic product segment, with an emphasis on addressing the needs of the local market. To some extent, they also focus on exporting to Eastern Europe and Arab countries, such as Algeria. The firms benefit from an available skilled labor pool and a wage structure that is competitive among peer countries. However, the lack of niche products puts Palestinian firms in strong competition with their peers from neighboring countries and other developed regions. Israeli firms and other international pharmaceutical companies producing similar products are the biggest competition in the local market, whereas in the export market segment, Jordanian and Egyptian companies compete heavily with Palestinian firms. Locally, Palestinian products are cost competitive as local firms are able to keep prices low and to provide bonus offers. The growth potential score for this category is shown in Table 8-6.

Recent Performance

Palestine’s pharmaceutical cluster has experienced substantial growth in the last few years. For example, the industry’s total sales increased from \$20.7 million in 1999 to \$38 million in 2005—a cumulative growth of over 83 percent. During the same period, exports grew from under \$1 million

⁶⁹ According to the Central Intelligence Agency’s *World Factbook* (<http://www.cia.gov/cia/publications/factbook/index.html>), Egypt’s population is 77,877,007; Jordan’s is 5,759,732; Turkey’s is 69,660,559; the West Bank’s is 2,460,492 and Gaza’s is 1,428,757.



dollars to over \$3.3 million. Although Palestine's share of the global pharmaceutical market is very small, the cluster has managed to grow significantly and has been able to retain growth momentum in the export market. Reflecting this performance, over 250 jobs have been added in the last six years. The charts below present key performance indicators between 1999 and 2005.

While the cluster experienced revenue and export growth, there has not been any significant change in export destinations. Eastern Europe and the Arab world were and continue to be the main target export markets. In the local market, changes in donor-driven investments and procurement policies have opened windows of opportunity. For example, the USAID waiver to purchase Palestinian pharmaceuticals in 2004, and more recently in 2006, has expanded opportunities for Palestinian pharmaceutical companies. Despite these changes, the product mix has not changed significantly over the past years. The growth potential score for this category is shown in Table 8-6.

TABLE 8-6: GROWTH POTENTIAL

Category	Key Findings	Scores Scoring Range = 0 (very low) - 5 (very high)
International Market Outlook	<ul style="list-style-type: none">• Global market is growing, dominated by big companies.• Developing countries are increasingly involved in generic drugs.	3
Competitive Position	<ul style="list-style-type: none">• Lack of niche products.• No change in product mix.• Severe competitive pressure from Israeli and international products locally, as well as other regional countries in regional markets.• Price-based competition strategy adopted by Palestinian firms.	3
Recent Performance	<ul style="list-style-type: none">• Substantial growth in sales• Exports more than tripled, albeit from low-base performance in 1999	5

CLUSTER READINESS

Commitment

Since 1996, the six pharmaceutical companies in Palestine have been organized under the Union of Palestinian Pharmaceutical Manufacturers (UPPM). Collaborative activities to support the cluster's cause have been sporadic. However, recent activities conducted in collaboration with PalTrade, the Palestinian Federation of Industries (PFI), and the Doctors Syndicate show signs of cooperation within the cluster group and joining of forces to support the growth of the industry. Firms have participated in a number of trade shows and missions coordinated by PalTrade, have collaborated in developing a study of the pharmaceutical cluster in Palestine through PFI's technical arm (the Industrial Modernization Center, or IMC), and have worked together in workshops and "scientific days" organized by the Doctors Syndicate.

The pharmaceutical industry represented by UPPM had an exclusive relationship with the USAID-funded MAP program that flourished as a result of the cooperative and professional spirit of the representatives. MAP supported the participation of a number of key professional staff from the pharmaceutical cluster in the GMP Auditors Certification program. Now, the Good Manufacturing



Practices Institute (GMPI) of the International Society of Pharmaceutical Engineering (ISPE) recognizes all participants as Certified GMP Auditors.

Under the PED program, the pharmaceutical CWG has had three meetings in which members showed active participation, a high level of commitment to the long-term development of the cluster, and a readiness to work together on mutually beneficial initiatives. The cluster readiness score for this category is shown in Figure 8-7.

Dynamism

Members of the pharmaceutical CWG are very dynamic and are highly open to change, new ideas, and innovation. The establishment of four committees immediately after the second CWG demonstrates this. All four committees held at least one meeting within one week of formation and identified a set of recommendations and programs as part of the work of their work. CWG members have shown a strong willingness to look and work internally in order to make changes.

To be responsive to the need for high quality, over the last decade, member companies have responded swiftly to market changes, investing millions of dollars in new facilities and upgrading equipment in an effort to become GMP-certified and improve manufacturing practices within their companies. Today, the Palestinian pharmaceutical industry is 100 percent ISO 9000-certified and has attained a high degree (five out of six companies) of ISO-14000 certification. The cluster readiness score for this category is shown in Figure 8-7.

Critical Mass

Although small, the pharmaceutical cluster has established a critical mass of manufacturers and supporting organizations to a degree reasonably matching its size and structure. In addition to the six pharmaceutical firms, the cluster is comprised of three colleges of pharmacy; three centers for drug testing in the universities, and one such center in the government; and supporting organizations, such as the Palestinian Standards Institute (PSI), PFI, PalTrade, and Pharmacists' and Doctors' Syndicates. However, since the cluster focuses on the generic market, it appears to lack innovation-based activities and relations with knowledge producers such as private R&D institutions and academic centers. The cluster readiness score for this category is shown in Figure 8-7.

TABLE 8-7: CLUSTER READINESS

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
Commitment	<ul style="list-style-type: none">• Firms demonstrate strong commitment.• Support institutions and firms are accustomed to working together.	4
Dynamism	<ul style="list-style-type: none">• Firms are responsive to market demands on quality, but product mix is unchanged.• Firms are active and interested in cluster development.	3
Critical Mass	<ul style="list-style-type: none">• Small set of participants.• Inter-organizational relationships focused on operation and finance.• Limited knowledge interactions.	3



FACTORS SPECIFIC TO THE WEST BANK AND GAZA

Potential for Rapid Employment Growth

The pharmaceutical cluster is capital-intensive and does not employ large numbers of workers compared to other labor-intensive clusters. Expanded market opportunities leading to increased sales may therefore not lead directly to rapid employment growth in this cluster.

Insensitivity to Border Closures

Delivery of pharmaceutical products in proper condition and at the right time is an essential requirement for both production and consumption of those products. Delays resulting from checkpoints within the West Bank and between the West Bank and Gaza affect the supply of packaging and raw materials as well as the distribution of drugs between the West Bank and Gaza. The effect is particularly significant in the case of those drugs that need special handling and storage. In addition, border crossing closures severely affect imports of critical ingredients and export of final products. See Table 8-8.

TABLE 8-8: FACTORS SPECIFIC TO WEST BANK AND GAZA

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
Potential for rapid employment creation	<ul style="list-style-type: none">• Employment growth opportunities are limited.	2
Insensitivity to border closures	<ul style="list-style-type: none">• Drug distribution is affected within West Bank and Gaza.• Both input ingredients and output are sensitive to border closures.	3

ACTIONS TO ENHANCE CLUSTER COMPETITIVENESS

OVERVIEW OF THE CLUSTER'S SIGNIFICANCE AND POTENTIAL

The pharmaceutical cluster in Palestine was born out of sheer necessity during a period of isolation immediately following the 1967 war. Although the pharmaceutical cluster remains small by international standards, to this day, it is considered one of the key strategic industries in Palestine. The cluster's high tolerance to external factors, its substantial growth over the past few years, and its demonstrated commitment to investment all position it well to take full advantage of recent trends in the international market for pharmaceuticals, particularly the increasing demand for generics worldwide.

Strengthening this cluster will require an effective deployment of initiatives aimed at improving adherence to international standards through a series of well-structured capacity building efforts and technical assistance programs. The scope of such programs should cut across key strategic areas to include local and international market access, cross-sectoral partnerships, research and development, and policy and regulatory reform.



PROPOSED CLUSTER INITIATIVES AND ACTIVITIES

The following cluster initiatives were identified in consultation with the CWG and other representatives.

Access to Markets

Local Market Access Program. Most Palestinian drugs are of good quality and are competitive in price. However, pharmacists, physicians, and customers have a “perception issue,” resulting in large part from a lack of understanding about the quality assurance procedures that West Bank and Gaza companies follow. Therefore, the purpose of the program is to enhance the perception of Palestine pharmaceutical products, thereby substantially increasing the companies’ local market share. Achieving this goal will involve launching a comprehensive campaign of image building and perception improvement based on a thorough study of the local market and its trends. The program will also support the development of human resources expertise in marketing and other related areas. In addition, it will stimulate IT diffusion within pharmacies and the industry at large.

Support the Development of BDS. The purpose of the program is to address common obstacles and needs that Palestinian pharmaceutical companies have in accessing reliable professional and distribution services that respond to the special requirements associated with the industry (such as stability and storage conditions). This will involve conducting a feasibility study for establishing a logistics company to specialize in pharmaceuticals in the West Bank and Gaza. Another feasibility study will focus on establishing a packaging company that specializes in producing state-of-the-art packaging services to pharmaceutical companies.

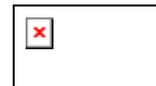
Pharmaceutical Exports Program. Palestinian pharmaceutical exports have tripled over the last three years, with Arab and East European countries representing the biggest markets. Accessing new export markets is a recognized ambition of the industry. This initiative seeks to develop the Palestinian pharmaceutical export capacity in existing markets as well as to identify new markets through market research activities and participating in regional and international trade missions and fairs. Obtaining GMP certification is another important element for entering new markets.

Access to Technology and Know-How

Good Manufacturing Practices (GMP) Initiatives

Ministry of Health GMP Certification Program. GMP certification is a requirement of regulatory authorities in many countries, as the global market requires products to be made in accordance with strict standards. If it is to create its niche in the global market, Palestine will have to compete on quality in addition to cost. To achieve this goal, the Palestinian GMP Certification Program will work to improve the quality of Palestinian products by establishing a transparent system and clear procedures to acquire GMP certifications from the Ministry of Health. In addition, pharmaceutical companies will be audited to identify areas that need technical assistance to assure GMP compliance.

Validation Program. Building the validation capabilities of Palestinian pharmaceutical companies is a crucial component of GMP. This program seeks to support onsite training on validation issues, with the expertise of professional consultants, to help companies set approved procedure validation formats. In addition, this program will conduct a study mission to GMP-certified pharmaceutical facilities (regional or international) to examine validation procedures, on ground, on HVAC (heating, ventilating, and air conditioning) system and for one product line.



Calibration Metrology Lab Program. The purpose of the program is to install advanced calibration services for the Palestinian pharmaceutical industry by identifying and implementing appropriate steps. The first steps will be to establish a cooperation mechanism between PSI and UPPM, to conduct a thorough assessment of the existing metrology lab in PSI, and to specify development actions.

GMP Technical Assistance Program. The purpose of the program is to build the capacity of pharmaceutical companies, help improve performance, and launch a firm-level technical assistance package; it will be based on a thorough assessment of pharmaceutical companies to identify areas needing improvement, to assure GMP compliance.

Research and Development (R&D) Initiatives

Industry-Academia Cooperation Program. This program seeks to establish solid cooperation that enhances the use of university and industry resources for the benefit of R&D in Palestine. Among the activities of this program is using the expertise in universities to provide courses and technical assistance in several areas of interest to the cluster.

Research New Product Lines Program. The development of new drug regimens, natural products, and nutrient supplements is gaining substantial interest worldwide. This initiative will assess potential new product lines such as natural products, nutrient supplements, baby food, biotech products, and veterinary medicines. It will also assess current product lines and ways to develop them, using local and foreign experts.

Assess Establishing a Bioequivalence Center Program. Bioequivalent studies for local Palestinian products (an average of 10 annually, with a cost of more than a quarter of a million dollars) are conducted in Jordan and Egypt; currently there are no clinical research centers in Palestine. The purpose of this program is to conduct a feasibility study for establishing a bioequivalence center, as well as to explore various options of cooperation in this connection with academia, drug testing centers, and clinical research centers in Jordan and Egypt.

Enhancing R&D Technical Skills and Knowledge Program. As a generic industry, research conducted in the Palestinian pharmaceutical companies focuses on developing new formulas for known drug entities. The purpose of this program is to develop R&D knowledge and capabilities by seeking access to valuable databases, journals, courses, individuals, and institutions—locally and internationally. It will also seek the technical expertise of experts with the detailed knowledge to train and build technical skills that would enhance capabilities of the cluster.

Policy and Regulatory Reform

WTO Compliance Program. This initiative seeks to develop industry capacity to formulate positions related to WTO accession and to negotiate its adoption. Achieving this goal will require educating the cluster players on issues concerning WTO accession via awareness sessions, training, and publications; benefiting from the experience of neighboring countries (Jordan and Egypt) on accession negotiation processes and implementation options; developing policy papers on options; and launching associated advocacy campaigns.

Public-Private Partnership Program. Work on this program will involve creating and implementing transparent and effective relations with different public sector organizations. The purpose of the program is to strengthen UPPM's position on issues with ministries, such as the Ministry of Health (on GMP certification issues and drug registration), the Palestinian Legislative Council (on reviewing Public Health Law and other industry-related regulations), the Ministry of



National Economy (on export-related needs and border crossings issues), and the Ministry of Finance (on public tenders issues).

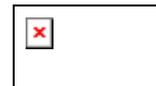
Positioning UPPM as a Cluster Change Agent. The purpose of this program is to build UPPM institutional capacity so it can become a strong organization that represents the pharmaceutical manufacturing industry in Palestine and can become the cluster change agent. Work under this program will include conducting a comprehensive assessment of the union and setting associated development plans, as well as institutionalizing public relations management and policy management activities within UPPM. This program also seeks to identify issues of critical importance to the industry and requiring more inter-institutional cooperation locally, regionally, and internationally. On the local level, it will involve formalizing an outreach plan to different syndicates (pharmacists, physicians, and dentists), the Palestinian Shippers Council (PSC,) and insurance companies to promote the use of national pharmaceutical products. On the regional level, the initiative will focus on creating networking channels with pharmaceutical unions in neighboring countries, specifically Jordan (Center of Excellence of the JAPM) and Egypt.

PRELIMINARY ACTION PLAN

The following cluster action plan (Table 8-9) has been developed by the cluster manager, in consultation with the CWG.

TABLE 8-9: PHARMACEUTICAL CLUSTER ACTION PLAN

Initiatives/Programs		2006				2007	2008
		Q1	Q2	Q3	Q4		
Access to Markets							
1	Market Access Initiative						
1.1	Local Market Access Program						
1.2	Support the Development of BDS Program						
1.3	Pharmaceutical Export Program						
Access to Technology and Know-how							
2.1	Good Manufacturing Practices (GMP) Initiative						
2.2	MOH GMP Certification Program (Manual and Implementation)						
2.3	Validation Program						
2.4	Calibration Metrology Lab. Program (Feasibility Study)						
2.5	GMP Technical Assistance Program						
3	Research and Development (R&D) Initiative						
3.1	Industry - Academia Cooperation Program						
3.2	Research New Product Lines Program						
3.3	Assess Establishing a Bioequivalence Center Program						



Initiatives/Programs		2006				2007	2008
		Q1	Q2	Q3	Q4		
3.4	Enhancing R&D Technical Skills and Knowledge Program						
Regulatory and Policy Reform							
4	Regulatory, Policy, and Outreach Initiative						
4.1	WTO Compliance Program						
4.2	Public-Private Partnership Program						
4.3	Positioning UPPM as a Cluster Change Agent						

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9. STONE AND MARBLE CLUSTER ASSESSMENT

CLUSTER OVERVIEW

This report provides a systematic review of the global and local factors, trends, and context that frame and influence potential USAID assistance to the West Bank and Gaza stone and marble cluster through the Palestinian Enterprise Development (PED) project. The report draws upon locally and internationally available research and data for the cluster as well as PED's extensive interaction with members of the stone and marble industry. Using these materials, a "score" was given that represents a numerical assessment of the cluster's current status and future potential and that pinpoints assets and liabilities towards which USAID-funded activities can be targeted.

In the past decade, the global market for stone and marble expanded dramatically with consumption of stone and marble nearly doubling in this period. Since 1990, stone and marble production grew at an average annual rate of 7.3 percent, while trade in stone and marble averaged yearly growth of 8.7 percent. Boosted by booming construction worldwide, the stone and marble industry is expected to continue to grow, with a 2025 projection of three billion square meters in trade and five billion square meters in production. Globally, prices have suffered some downward pressure as lower-quality and lower-cost producers have entered the market. The industry also must resolve problems concerning infrastructure and plant waste and disposal.

The stone and marble industry in the West Bank and Gaza is successful and growing. It contributes approximately 5.5 percent to gross domestic product and employs 15,000 workers. Moreover, the industry is significant not just by local measures, but also globally: in 2002, Palestinian stone and marble constituted approximately 4 percent of world production, placing the West Bank and Gaza in 12th place among the world's producers. Prior to the current Intifada, annual sales reached \$450 million. Despite the turmoil of the past five years, the industry has resumed growth—with 2005 sales reaching \$270 million, compared to \$220 million in 2004—although it has not yet reached pre-Intifada levels. The major current products include blocks, slabs, building stone, decorative products, and tiles. Potential future products include mosaics, headstones and funerary art, and manufactured stone. Stone and marble factories, workshops, and quarries are distributed throughout the West Bank, and to a lesser extent Gaza, with the two main industrial centers located in Hebron and Bethlehem.

Palestinian stone and marble derives its global competitiveness from two main sources: the spiritual and symbolic imagery of its origin in the Holy Land and its distinctive variety of colors and textures. The industry's longstanding tenure in the West Bank and Gaza translates into strong and committed companies (most of which are owned by devoted, loyal families) as well as effective business and trade support institutions. Counterbalancing the distinctiveness of Palestinian stone is the fact that order size for homogenous material is sometimes limited by the size of the deposit or by quarrying methods. The lack of a formal, comprehensive geological survey to gauge the size and nature of the national stone reserve is linked not only to the ability to fulfill current orders but also to manage future production at rates that maximize the economic impact of this nonrenewable natural resource. The lack of national standards for stone and marble products—and limited awareness of the importance of such standards—has a negative effect on the ability to benchmark Palestinian stone and marble against foreign products and thus to build the impression of quality in consumers' perceptions of West Bank and Gaza stone and marble. The growing global market and, in particular, increasing regional demand in the Gulf and Saudi Arabia present the major opportunity for the industry. International market growth, however, has also resulted in increasing competition, especially from Turkish and Chinese producers, as well as lower prices.



Table 9-1 provides an aggregate assessment of the cluster’s current status and future potential, as well as individual scores for key components and subcomponents related to the cluster’s competitiveness. As indicated by its aggregate score of 3.94 out of a maximum total of 5.0, the stone and marble cluster offers great potential for generating growth on a scale that will help transform the West Bank and Gaza economy.

A major element underpinning this strong outlook is the “growth potential” component, which reflects not only the worldwide context but also the West Bank and Gaza performance within the international environment. As implied by the very high scores on all three growth potential subcomponents, the Palestinian stone and marble cluster is well positioned in the international marketplace through unique products, established linkages with certain export markets and strong potential to expand to others, and fundamental resilience and even growth in tumultuous circumstances. The stone and marble cluster is also ranked well above average in terms of “cluster readiness.” The longevity and sheer numbers of the cluster’s members (that is, individual firms as well as support institutions) translate into a very solid critical mass of players who have demonstrated adaptability and understanding of evolving trends—characteristics not often seen in “traditional” industries. Through the past months of engagement with the PED team, firms’ commitment to collaboration has grown, as has receptivity to joint efforts involving the stone and marble union. With respect to key considerations in the West Bank and Gaza environment, stone and marble scores very high on potential for employment generation. Since high numbers of workers are already employed in the industry, rapid job creation is readily foreseeable as firms expand exports, introduce new products, and enter new markets. As with most industries in the West Bank and Gaza, however, the stone and marble cluster is sensitive to border closures, which constrain its potential.

TABLE 9-1: SCORING OF THE STONE AND MARBLE CLUSTER

Growth Potential		Cluster Readiness		Factors Specific To West Bank and Gaza		Aggregate Assessment 3.94
4.66		3.67		3.5		
International Market	5	Commitment	3	Potential for Rapid Employment Creation	5	
Competitive Position	5	Dynamism	4	Insensitivity to Border Closures	2	
Recent Performance	4	Critical Mass	4			

Scoring Range = 0 (very low) to 5 (very high)

INDUSTRY CLUSTER ASSESSMENT

INTERNATIONAL TRENDS IN THE INDUSTRY

The international market for stone and marble has been growing dramatically, mainly in the last 10 years, during which stone and marble consumption has almost doubled. Since 1990, the global production of the industry has witnessed an average annual growth of 7.3 percent, while the trade of stone and marble has grown by an average of 8.7 percent per year.

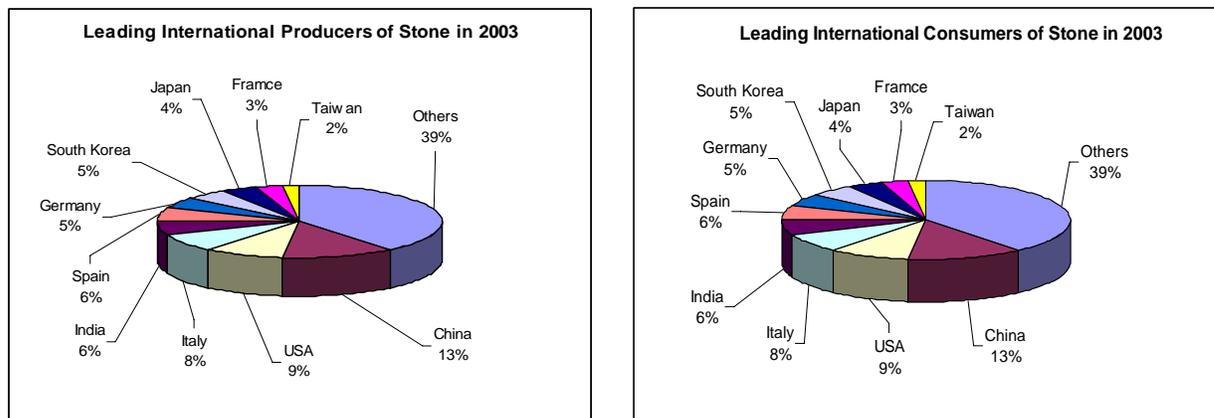
Between 2002 and 2003 growth in production and trade were 11.3 percent and 16.5 percent respectively. In 2003, global production reached more than 153 million tons, gross of quarry off-cuts



and processing waste, while consumption reached 818.5 million square meters, generating overall turnover of \$40 billion.⁷⁰

As the following chart shows, 10 countries cover more than 75 percent of the world total production of stone and marble, with just four countries (China, India, Italy, and Spain) accounting for more than half of global production and 32.9 percent of consumption. In 2003, production in China, India, and Turkey increased further, fueled by rising consumption in North America.

FIGURE 9-1: LEADING INTERNATIONAL PRODUCERS AND CONSUMERS OF STONE, 2003



The driving force in the industry continues to be trade, at just under 29.6 million tons and equal to 450 million equivalent square meters in 2002. Raw marble and limestone (HS⁷¹ code 2515) trade reached 5.21 million tons; raw granite (HS code 2516) reached 8.25 million tons; finished products of setts, curbstones, and flagstone (HS code 6801) reached 3.21 million tons; finished products of stone (HS code 6802) reached 11.76 million tons; and slate (HS code 6803) reached 1.0 million tons.⁷²

Prices continue to suffer from downward pressure as a result of increasing supply and technological development of synthetic and manufactured alternative products. Prices for finished products vary widely, demonstrated by an average price range of \$12 to \$52 per square meter for exports from China and Italy, respectively. The factors that control pricing in the international market are many and include: quality, cost of production, cost of shipping, and tariff regulations between countries. However, since Italy and China supply more than 50 percent of the finished marble and limestone products, both countries have a huge influence on prices—for the high-end market, in the case of Italy, and for the low-cost market, in the case of China.

The Chinese, Dubai, and Italian markets are considered the regional hubs within the international market. China is the Far East hub and its main distribution center, whereas Dubai is the hub for the Gulf specifically and the Middle East in general; Italy is considered the international hub for the industry, mainly to Europe and the United States.

⁷⁰ STONE 2004, *World Marketing Handbook*.

⁷¹ HS refer to The International Harmonized Commodity Description and Coding System (HS), which is administered by the World Customs Organization in Brussels

⁷² COMTRADE



The industry is expected to continue to grow, with a 2025 projection⁷³ of three billion square meters in trade and 5 billion square meters in production. The industry as a whole will increasingly face problems concerning infrastructure, plant waste, and disposal that need resolution on a national and supranational scale.

GENERAL CLUSTER DESCRIPTION IN THE WEST BANK AND GAZA

The stone and marble industry in Palestine is successful and growing. It contributes approximately 4.5 percent to the gross national product (GNP) and 5.5 percent to the gross domestic product (GDP) (see Table 9-2). Total investment in the industry is estimated at around \$700 million, making it a major employer of Palestinian capital.⁷⁴

TABLE 9-2: SNAPSHOT OF THE STONE AND MARBLE INDUSTRY IN PALESTINE

% of GNP	4.5
% of GDP	5.5
Total Investment	\$700
No. of Employees	15,000
Concentration of the Industry	Hebron and Bethlehem
Total Current Production	14.5 million square meter
Rank in the World	12th (in 2002)
% of World Production	1.8% (in 2002)
Total Annual Revenue	\$270 million
Export to Israel	55% of the production
Export to International Market	13% of the production
Local Market	32% of the production

Palestinian stone and marble is significant not only by local standards but also globally. In 2002, Palestinian stone and marble constituted around 4 percent of world production, placing the West Bank and Gaza 12th in the world among the industry. Palestine's production equals approximately one-third of Turkey's production and more than half that of France or the United States.⁷⁵ The competitiveness of Palestinian marble and stone derives from two sources: its origin from the Holy Land, which creates spiritual and symbolic imagery in the minds of much of the world's population; and the variety of the products' colors and textures.

The industry is a major source of employment in the West Bank. According to the Union of Stone and Marble (USM, the industry's main association), this industry provides jobs to more than 15,000 workers and employees, while official statistics place the figure at just over 10,000 (official statistics do not include informal workers). Average wages and value added per worker are estimated anywhere between \$2,750 to \$6,000 and \$6,600 to \$15,000 per year by PCBS and USM, respectively. The large discrepancy in these figures results from the discrepancy in the gross output estimated for the industry, which USM puts at near \$400 million while PCBS places it nearer \$200 million. The large

⁷³ STONE 2004, *World Marketing Handbook*.

⁷⁴ The numbers in this section come from several resources, including the Union of Stone and Marble, DAIMAP closing report, Paltrade, and Palestinian Federation of Industries. It should be noted that some numbers are based on best possible judgment from industry experts. The CWG emphasized the importance of conducting a comprehensive survey for the whole industry in order to have a reliable database with a GIS-enabled interface.

⁷⁵ Marble-Stat 2002



differences may result from the existence of a large informal sector in Palestine, underreporting of output, undocumented sales to Israel, and other factors; in order to analyze the cluster properly, these discrepancies need to be resolved.

Stone and marble factories, workshops, and quarries in Palestine are distributed all over the West Bank and, to a lesser degree, the Gaza Strip (see Table 9-3). The two main industrial centers of the stone and marble industry are Hebron and Bethlehem, the location of most of the factories and quarries. The following table illustrates the distribution of Palestinian stone and marble factories, workshops, and quarries.

TABLE 9-3: DISTRIBUTION OF PALESTINIAN STONE AND MARBLE FACTORIES, WORKSHOPS, AND QUARRIES IN PALESTINE

Location	Number of Factories and Processing Facilities	Number of Quarries	Number of Workshops
Hebron	178	130	43
Bethlehem	210	32	35
Ramallah	55	42	50
Nablus	60	23	30
Jenin	78	32	10
Tulkarem	10	3	12
Qalqilia	8	0	7
Salfeet	7	0	5
Jericho	2	0	2
Gaza	10	0	50
Total	618	262	244

Source: <http://www.usm-pal.org/usmPromising.htm>

Total production of stones in Palestine is around 22 million square meters, expandable to 32 million square meters within the existing capacity. Prior to the Intifada, the total value of annual sales of the Palestinian stone and marble reached \$450 million. Although the political situation has affected the cluster in the last five years, the industry has shown considerable growth in the past two years—from \$220 million in 2004 to \$270 million in 2005, or an increase of 23 percent.⁷⁶

The most recent data indicate that the Israeli market accounted for 55 percent of total sales, whereas the Palestinian market accounted for 32 percent. The share of international markets in total sales was only 13 percent. However, compared to 2004, the international markets have grown in importance from 10 percent of total sales to 13 percent of total sales. The international market covers over 27 Middle Eastern, European, and Far Eastern countries, as well as the United States and Canada (see Figure 9-2).

⁷⁶ *Al Ayyam* newspaper, page 13, February 23, 2006.



Local Market. Within the local market, the main product is building stone, for which the share of Palestinian producers is substantial and a result of the uniqueness of product finishes, labor intensity, and domestic demand. In other segments, products from Italy have a large market share, with total market value of these imports representing \$35 million. Imported granite, which accounts for 45.2 percent of total local stone imports, is used for kitchen tops.

Israeli Market. The Israeli market consumes 55 percent of Palestinian production; the main products sold include blocks, slabs, building stones, and tiles. Israeli demand for Palestinian building stone is substantial because there is no Israeli stone finishing labor. As a result of the customs union with Israel,

Palestinian products face no tariffs in the Israeli market, giving them a distinct advantage over other imports. The prices at which Palestinian building stone are sold to the Israeli market range from \$10 to \$30 per square meter, which is only slightly higher than the price range in the local Palestinian market. Palestine faces strong competition from Turkey in this market.

Jordanian Market. Total Palestinian exports of stone and marble to Jordan amounted to \$15.6 million in 2003. Most of these products are destined for use within Jordan, but approximately 20 percent is re-exported to other international markets. During the last few years, local production in Jordan has been developing and may become a competitive threat to Palestine in the future.

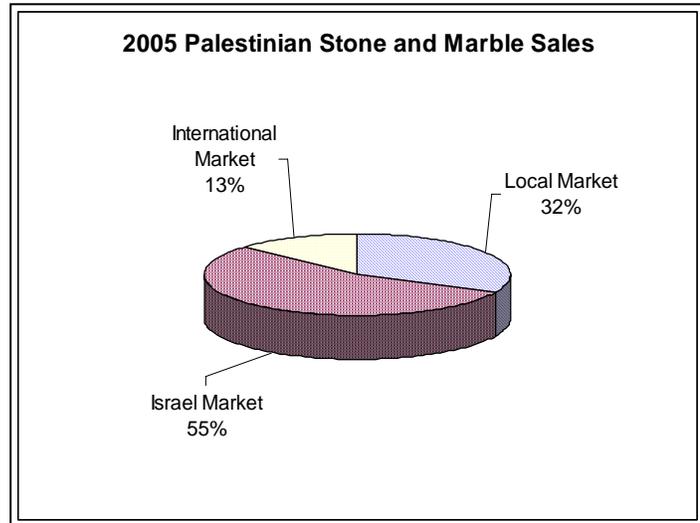
International Markets. In the international market, Saudi Arabia and the UAE provide a strong market for Palestine. Products from India, Iran, and Italy compete with Palestinian products in the Gulf countries. Users in the United States have revealed a high demand for the colors most prevalent in Palestinian stone and marble (gold, pink, and sage), a fact that represents a significant opportunity for Palestinian products.

Secondary target markets. The UK and the 25 countries of the largest global economical body, that is, the European Union, imported more than 11 million tons of stone and marble in 2003, in both raw and finished limestone and marble. Free-tariff entry for the Palestinian products makes them competitive with other offerings.

Leading Palestinian exporting companies include: Nassar Investment Company, Zafaran Marble Company, Suhil & Sahib Trade & Ind. Co., Atlas, Al-Waleed, Bani Naim for Stone & Marble Co., Al-Raeda'h Company for Marble & Stone, Al Haremein Co., and Overseas Co.

The cluster produces a wide variety of stone and marble products in different colors and textures. These include: blocks, slabs, tiles, building stones, decorative and ornamental products, kitchen and counter tops, and decorative and special products. Some potential products have been produced recently and need to be expanded, for example:

FIGURE 9-2: 2005 PALESTINIAN STONE AND MARBLE SALES

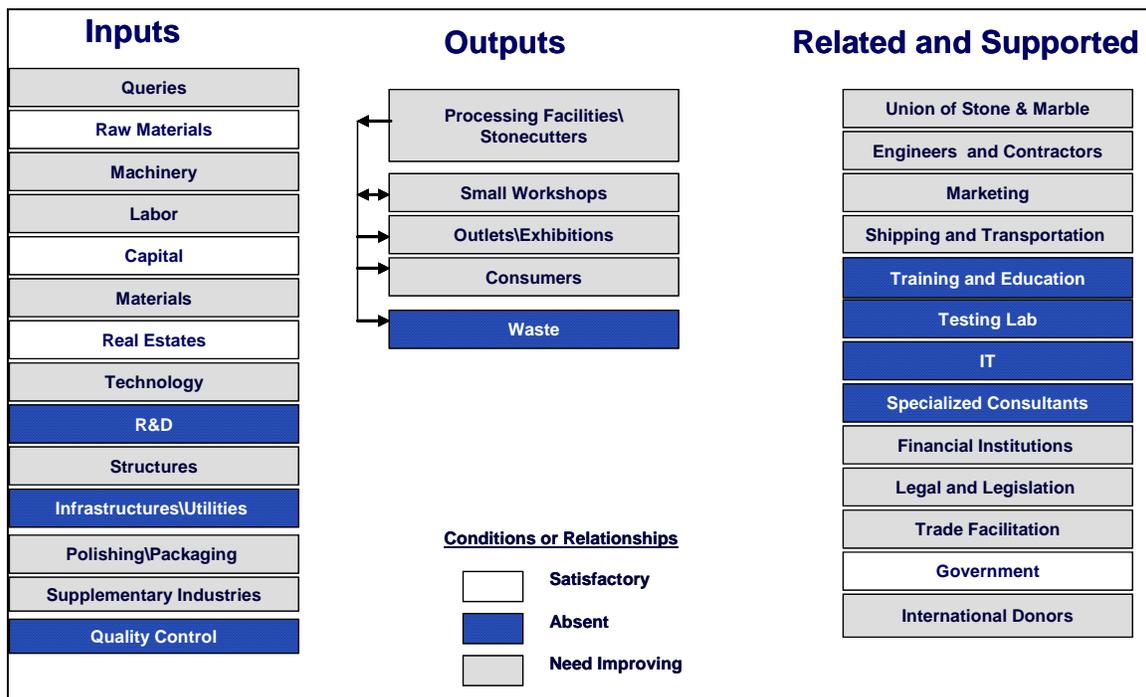




- Mosaics
- Headstones and Funerary Art
- Manufactured stone

A map for the cluster was developed through extensive desk research and brainstorming discussions with cluster leaders and experts. Most importantly, the map was verified and finalized by the CWG during a number of workshops and seminars. The map, Figure 9-3, is colored to indicate the assessment of the current situation of the stone and marble cluster in Palestine.

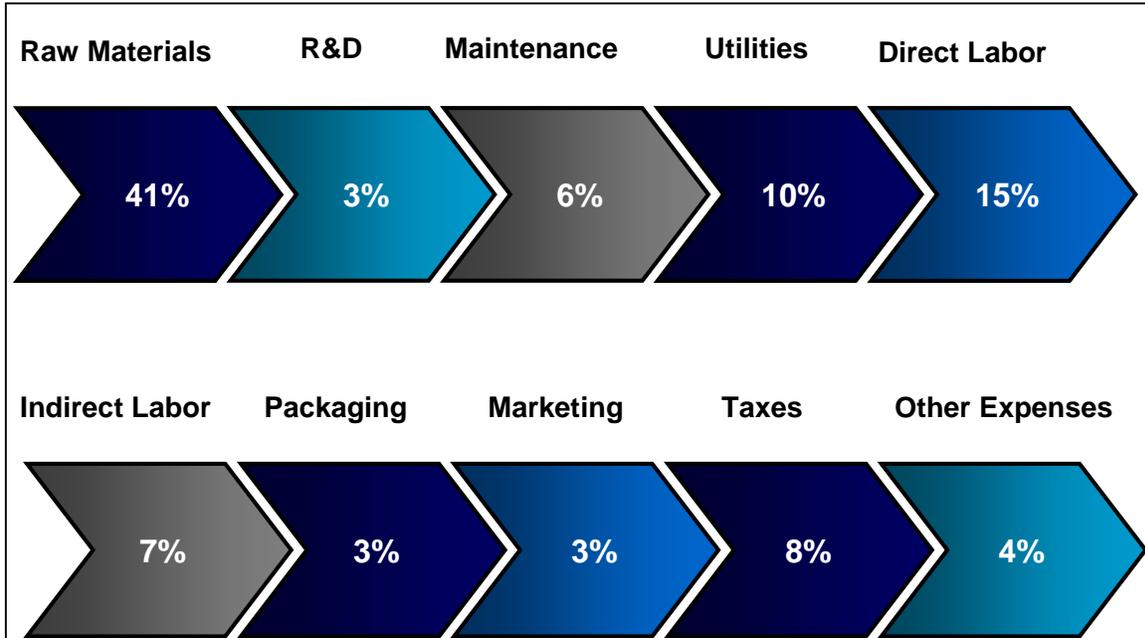
FIGURE 9-3: STONE AND MARBLE CLUSTER MAP



As the cluster map shows, many parts of the cluster inputs, processes, and supporting industry are either satisfactory or need improvement. Research and development, information technology, specialized training and education, infrastructure, specialized consultants, waste treatment and reuse, testing labs, and quality control systems are absent, implying a strong need for development. In the processing/output segment, waste handling does not exist. With regard to the supporting and enabling factors, there is a strong need for training and education; diffusion of ICTs and establishment of testing labs are weaknesses. The following schematic, Figure 9-4, captures the cluster’s value chain. Raw materials comprise the bulk of the cost associated with it. However, labor, packaging, and marketing account for over 30 percent of the cost, suggesting substantial value added in these segments.



FIGURE 9-4: STONE AND MARBLE CLUSTER: VALUE CHAIN COST ANALYSIS



CLUSTER ASSESSMENT

SWOT ANALYSIS

Table 9-4 summarizes the strengths, weaknesses, opportunities, and threats facing the stone and marble cluster in the West Bank and Gaza; a narrative description of each element of the SWOT follows the table.

TABLE 9-4: SWOT ANALYSIS FOR THE STONE AND MARBLE CLUSTER

Strengths	Weaknesses
<ul style="list-style-type: none"> • Supply of unique locally produced raw materials • Strong human resources base • Existence of support institutions • Machinery and equipment • Positive international market presence • Available, inexpensive warehousing 	<ul style="list-style-type: none"> • Limited homogeneity of some product varieties • Limited knowledge of material deposits • Lack of national standards and accredited testing services, and weak business trade • High waste and environmental hazards • Limited management and marketing expertise • Lack of vocational training and technical institutions • Expensive transportation and shipping, controlled by the Israelis • Old and inadequate machinery • Unreliable electricity/power supply



Opportunities	Threats
<ul style="list-style-type: none"> ● Growing demand globally ● Favorable trade agreements in key markets ● Current developments in niche products and demand from new markets ● Construction boom in the region ● Success of new industry models (Turkish and Spanish models) 	<ul style="list-style-type: none"> ● Downturns in the Israeli market ● Israeli restrictions on movement of people and goods ● Arab country restrictions on entry of people and goods ● Competition from Turkey and China and growth of Chinese export sales ● Depletion of resources ● Competitive coverings choices

Strengths

The stone and marble cluster in Palestine has several important strengths. The high quality and variety of natural stones (colors and products)—in addition to the religious significance of it being a Holy Land stone—gives Palestine an advantage over other countries. The industry enjoys a longstanding tenure in the West Bank, which assures high availability of skilled and unskilled human resources. Moreover, most firms are family-owned, with a high level of commitment and loyalty, in addition to a strong willingness to learn and change.

The existence of business and trade support institutions such as the Union of Stone and Marble (USM), PalTrade, and PFI, provide the industry with the necessary resources for improvement, technical assistance, and access to markets. It is also important to emphasize that leading exporting Palestinian companies have installed up-to-date processing machinery with high capital investment, a development that has helped the industry to access and export to many regional and international markets, including the Gulf, Europe, China, and the United States.

Weaknesses

Despite the uniqueness of the Palestinian stone, some varieties of stone are constrained by the size of the deposit or quarrying methods, which limit the size of order that can be fulfilled from homogeneous material. In addition, because there is no formal comprehensive geological survey, the actual size of national stone reserve is unknown; this makes the current annual production rate excessive for a small country like Palestine. While the cluster enjoys skilled human resources, there are no vocational training programs or technical institutions to develop new generations of workers or to promote innovation in the cluster. The lack of national standards for stone and stone products and the limited awareness of how important such standards are combine to have a negative effect on the benchmarking of Palestinian products, as compared with foreign products, in the eyes of consumers. Moreover, small factories and workshops dominate the cluster heavily; they have limited capacity for export and unsophisticated management capacity (for example, overall management, marketing, financial, operational, and technical skills). Companies with export experience are a minority. Finally, as is the case for all stone production industries in the world, the waste produced in both quarrying and processing is high, causing harm to the environment and endangering human health.

Opportunities

Recent trends in the global market offer a valuable opportunity to the Palestinian stone and marble industry. The global market has been growing steadily since the 1990s and is expected to continue in a positive trend. In addition, increasing regional demand for construction materials, especially in the Gulf and Saudi Arabia, gives the Palestinian stone and marble exports the potential to increase, with



implications for expansion of the entire industry. Moreover, the primary target markets for this cluster (Jordan, Saudi Arabia, UAE, Kuwait, Qatar, and the United States) all afford tariff-free access to Palestinian products. Promoting new product lines such as tombstones, mosaic, statuary, garden décor, and other decorative products may offer an opportunity to meet underserved markets, especially in the United States and Germany, particularly if finishing technology is introduced to produce appropriate finishes and colors. Such products would also help reduce the burden on the environment by reusing some of the waste and by-products

Threats

Counterbalancing the strong opportunities within Palestine's stone and marble cluster are several factors that pose threats to its future growth. Among the most significant constraints is the shrinking Israeli market, which purchases the largest share of the industry's exports and has been making more purchases from Turkish and Chinese suppliers, and increased restrictions on Palestinian access to the Israeli market. As is the case with other Palestinian industries, Israeli military checkpoints, the back-to-back system, and other obstacles within Palestine and on its borders make transport of goods and movement of people for the purpose of business transactions difficult. Recent performance by China and other competitors has depressed the global industry prices and poses strong competition for West Bank and Gaza stone and marble in target markets. The increased competition from other covering choices such as ceramic, wood, and carpet, imposes a serious threat to the natural stone products. Finally, the intense quarrying and sale of low value-added raw materials by the Palestinian cluster may deplete the valuable resources with minimal economical return.

CLUSTER EVALUATION

GROWTH POTENTIAL

Cluster's Competitive Position in the International Market

To place the current status of the West Bank and Gaza stone and marble cluster in context, the team attempted to find data for the economic and workforce indicators collected for other industries covered in this report. However, because most national statistics agencies do not disaggregate their economic data to the level of particular products, such as stone and marble, comparative international data are scarce. Table 9-5 presents the data that are readily available through U.S.-based research.

With the limited data available, it is hard to draw extensive inferences about the West Bank and Gaza stone and marble cluster. However, noteworthy in the table is the disparity between value added per worker in Palestine as compared to Jordan, especially when viewed in relation to average worker pay. At both the lower and higher estimations, value added per worker in Jordan is almost double the Palestinian figure, even though Jordanian wages are significantly higher only at the upper end of the range. These figures suggest a need for activities to move the West Bank and Gaza stone and marble cluster into higher-end niches. The growth potential score for this category is shown in Table 9-6.



TABLE 9-5: STONE AND MARBLE CLUSTER INDICATORS FOR PALESTINE AND BENCHMARK COUNTRIES (ALL DATA ARE FOR THE LATEST YEAR AVAILABLE)

	Palestine	Jordan ^b	Egypt ^c
Economic Performance Indicators			
Total Number of Enterprises	1,124	220	4,500
Contribution to GDP (%)	5.5%	2.7%	
Total Revenues (\$m.)	\$270	\$495	
Total Exports ^a (\$m.)	\$183.6	\$12.6	\$225.0
Workforce Indicators			
Total # of Employees	13,500	1,686	50,000–200,000
Average Worker Pay/Month (\$)	\$230–\$500	\$266–\$853	
	\$11,225	\$963–\$2,138	

Sources: ^a For Total Exports data (except Palestine): United Nations Comtrade Database. Note: Total Export figures is comprised of “articles of stone, plaster, cement, asbestos, mica, or similar material,” as a result, these figures include exports beyond stone and marble

^b For Egyptian data (except total exports): various country reports and articles.

^c For Jordanian data (except total exports): The Hashemite Kingdom of Jordan Department of Statistics, and the Competitiveness Unit at the Ministry of Planning.

Competitive Position

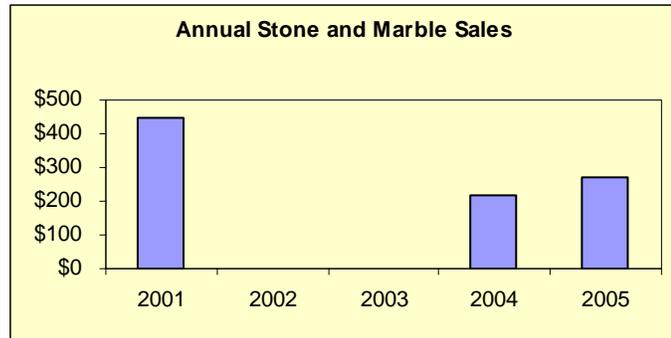
Key Markets: The competitive position of Palestine’s stone and marble cluster varies based on the market to which it supplies its products. For example, the cluster’s competitive position in the local market is different from that in the other primary markets, including Israel, Jordan, and some other international markets, and also from the secondary markets, including Europe and China. The uniqueness of the product and labor intensity combine to make the cluster very competitive in the local market when it comes to the building stone. However, in other uses of stone, such as countertops and flooring, the Italian suppliers pose a competitive threat to the Palestinian firms. In the Israeli market, the buyer often determines pricing because of the large volumes of product sourcing. There is increasing competition from Turkey in this market. Jordan not only provides a strong market for Palestinian stones, it also can be a strategic partner as a location for storage and as a gateway to the international market. Other international markets, both primary and secondary, are offering export opportunities to the Palestinian cluster, but not without stiff competition from suppliers from other parts of the world.

Key Products: Product varieties, colors, and finishes characterize Palestinian dimension stone. The country has a rich stock of good quality stone—both soft stone and hard limestone (“marble”). Dimension stone is also one of the few natural resources available to the Palestinian economy. The religious nature of the area gives an advantage to Palestinian stone because of its association with the Holy Land and Jerusalem. The technology used in the main processing facilities and manufacturing plants for these products is up-to-date and qualify the manufacturing facilities to make products that correspond to the highest international standards.



Key Competitors. Palestine's most prominent competitors are developing countries with vast reserves of raw materials; access to advanced technology; and a large, skilled, and low-paid workforce resulting in aggressively low pricing. The principal competitive threats come from China, Turkey, India, Egypt, Brazil, and Iran. Other significant competitive pressures come from countries whose product is internationally recognized as of high quality thanks to industries with sophisticated technology, an experienced work force, a long tradition, and a well-established infrastructure. These countries include Italy, Spain, Portugal, and Greece. The growth potential score for this category is shown in Table 9-6.

FIGURE 9-5: ANNUAL STONE AND MARBLE SALES



Recent Performance

The political situation in the area for the past years has had its effect on the industry. It is estimated that sales of the stone and marble enterprises dropped by at least 40 percent in 2004 because of the deterioration of the Palestinian political situation (Al Aqsa Intifada), which forced many small factories to close (see Figure 9-5). As for mid-sized factories, they were obliged to reschedule their work shifts and downsize their capacity. Some areas have been more affected by the economic deterioration than others. For example, according to a UNRWA report in March 2004,⁷⁷ the Beit Fajar region, which has a good concentration of quarries and stone cutters, had more than 150 stone-cutting factories, employing 10 to 50 workers per factory prior to the Intifada. Three years after the Intifada and because of a marked slowdown in the business, factory owners have reduced their work forces and laid off more than 50 percent of their workers, affecting many families that are depend on this industry as their only or main source of income. In 2004, out of the 150 Beit Fajjar factories, only 10 operate on a full-time basis and 50 open only when they receive an order. Another sign of recession is the factory working hours: before the Intifada, they used to work in two shifts, 16 hours a day; now they open for only half a day. Such is also the case in other locations like Jamma'en in the North West Bank.

However, and despite the decline during the first three years of the Intifada, the industry started to recover and resumed its pace in 2004. Numbers published by USM⁷⁸ indicate that the total production of the industry has increased from 12 million square meters to 14.5 million square meters. Industry-wide sales amounted to \$220 million in 2004 and \$270 million in 2005. The export volume to the international market in 2004 was 10 percent, while in 2005 it increased to 13 percent. These indicators show that the industry has high tolerance and adaptability to bad economic situations. The growth potential score for this category is shown in Table 9-6.

⁷⁷ UNRWA, 2004. The Decline of Stone-Cutting Factories in Beit Fajjar and the Impact on Arrub Camp , Reports on the West Bank Barrier, March 2004.

⁷⁸ Al Ayyam newspaper, page 13, February 23, 2006.



TABLE 9-6: GROWTH POTENTIAL

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
International Market Outlook	<ul style="list-style-type: none"> • Growing global market • All local market scenarios pointing to growth 	5
Competitive Position	<ul style="list-style-type: none"> • Established markets in Israel and Jordan • Emerging market in the region • Uniqueness of products sustaining demand • Competition from other countries as well as other alternative products 	5
Recent Performance	<ul style="list-style-type: none"> • Volatile performance, with a drastic drop • Declining trends • Recent market stabilization, with resilience in productivity 	4

CLUSTER READINESS

Commitment

The cluster consists of private firms, the one association for the industry (the Union of Stone and Marble), and other industry stakeholders. In general, the CWG (composition described later) has been committed and serious, and members have provided helpful input.

Founded in 1996 as an independent, not-for-profit and private membership-based organization, the Union of Stone and Marble (USM) is the only industry association for this cluster. The Union represents around 400 companies all over Palestine (reaching 40 percent of the estimated total establishments and 100 percent of the big exporting companies). USM's permanent headquarters are supposed to be in Jerusalem, but in practice it has maintained its main office in Bethlehem, in addition to branch offices located in the Nablus and Hebron areas.

The USM has selected seven of its members as the core CWG. At the PED team's recommendation, the group was expanded to include other stakeholders, such as Paltrade, UNIDO, universities, PFI, and other public and private sector representatives. For the first time, these stakeholders sat together around the same table and held serious and open discussions on the main issues and needs of the cluster. In addition, during the discussion, cluster members and the PED team discovered that more than one group is working on similar projects, without coordination. Many organizations, including UNDP, UNIDO, Paltrade, World Bank, and the EU are interested in collaborating with the cluster.

These current activities are built on a past history of some cooperation, mainly in mutually beneficial activities such as international trade shows, trade missions, and policy-related activities. However, before the CWG began, individual firms mainly competed with each other. The Union organized some activities (for example, workshops, training, trade missions) in which many companies participated. Commitment has also been demonstrated through past USAID projects such as MAP, in which the cluster was involved in obtaining a €1 million grant for a national environmental initiative;



initiated the production of the industry's first product catalogue; joined in partnership with CH2MHILL for its environmental initiative; and launched the export development program, ISO certificate programs, training programs, policy support, and USM capacity building and empowering as a backbone institution. Table 9-7 shows the cluster readiness score for this category.

Dynamism

In general, members of the stone and marble cluster are open to change and new ideas. For example, some of the small companies even suggested partnering with each other in order to export; expressed their need for a joint marketing company; and talked about moving together to industrial zones, if space is available. Another reason for openness is that most of the big companies are exposed to the international market as exporters or participants in trade shows. Companies have shown a willingness to go beyond complaining to figuring out potential remedies and actions to address their problems. The role of the union as a facilitator will be a key factor in forging cooperation among these firms and organizations.

Stone and marble companies have demonstrated a strong ability to adjust and respond to the market, as indicated by the cluster's positive growth in the past years, despite the difficult overall situation in West Bank and Gaza. The major players in the cluster are more responsive to market changes and they are ambitious to be leaders in the use of technology and modern equipment. Moreover, they are well aware of the international standards and markets, since they are frequent participants in many international fairs. The smaller companies are realizing the need to change and grow so they can be like the "big fish." Table 9-7 shows the cluster readiness score for this category.

Critical Mass

The private sector component of the cluster consists of more than 1,000 establishments (including stone cutters, factories, workshops, and others), as well as supplementary industry firms (for example, stone crushers). Cluster members are spread throughout the West Bank, with firms, supporting and related institutions, and some of the output components all around the West Bank.⁷⁹ Despite this wide dispersion, however, the greatest concentrations of the cluster are in the Bethlehem and Hebron areas (that is, in the south of the West Bank), with fewer in the northern part of the West Bank. Contributing to the cluster's critical mass is the strong linkage between the industry and the construction industry (especially the Contractors Union, Engineers Syndicates, and Builders). To strengthen the cluster's depth, more solid relationships with higher education institutions and vocational training centers need to be established to match market needs with the skills of the graduates.⁸⁰ Because the stone and marble industry is a backbone of the Palestinian economy, it is well connected to a wide range of private and public representative organizations. Table 9-7 shows the cluster readiness score for this category.

⁷⁹ There are no quarries in Gaza and most production and processing takes place in the West Bank.

⁸⁰ The construction and engineering industries would also benefit from improved linkages with educational and training institutions.



TABLE 9-7: CLUSTER READINESS

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
Commitment	<ul style="list-style-type: none"> Committed support institutions accustomed to working together Long history of firm-level rivalry and lack of cooperation Limited private sector collaboration under the union 	3
Dynamism	<ul style="list-style-type: none"> Big firms more adaptive to changing market demands Good understanding of evolving trends and competition 	4
Critical Mass	<ul style="list-style-type: none"> Many companies and support institutions More knowledge-intensive interactions with other organizations needed 	4

FACTORS SPECIFIC TO THE WEST BANK AND GAZA

The stone and marble cluster has the potential to generate large numbers of new jobs since the industry is mainly labor intensive. Expanding exports to international markets will be central to increased employment, as will continuing the current building and construction boom in local and regional markets. The estimated range of new employment is between 500 and 2,000 jobs in the next few years.

Israeli restrictions make transporting stone and marble from the West Bank to Gaza almost impossible. Transportation from one location to another within the West Bank is also difficult because of border restrictions. For the same reason, shipment of products to and from international destinations is cumbersome. Thus, this cluster is very sensitive to border closures, since most raw materials are imported. See Table 9-8.

TABLE 9-8: FACTORS SPECIFIC TO WEST BANK AND GAZA

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
Potential for rapid employment creation	<ul style="list-style-type: none"> With the right conditions, employment could increase. 	5
Insensitivity to border closures	<ul style="list-style-type: none"> Border sensitivity is high. 	2

ACTIONS TO ENHANCE CLUSTER COMPETITIVENESS

OVERVIEW OF THE CLUSTER'S SIGNIFICANCE AND POTENTIAL

Although Palestine is not particularly noted for its natural resources, one exception is the rich endowment of high-quality stone and marble. The stone and marble cluster enjoys a long and rich



history in Palestinian culture and is one of the country's jewels. Historically, the cluster has been a major source of employment. With established markets within and outside the region, unique product differentiation, a sustainable base of demand, and an inherent resilience, the cluster is well positioned for growth in the coming years.

Although performance indicators for the cluster have been somewhat volatile over the past few years, markets have begun to stabilize. Initiatives should therefore be designed to reinforce the stabilization and subsequent growth of the cluster. As such, cluster initiatives should capitalize on the growing international demand for stone and marble products, favorable trade agreements, and the recent construction boom in the region. They should strategically target export promotion, alternative financing schemes, technology transfer, workforce development, and advocacy.

PROPOSED CLUSTER INITIATIVES AND ACTIVITIES

The following points outline the overall strategy of the stone and marble cluster, as developed by the CWG:

- To become more competitive in the global market through productivity enhancement and supply-chain efficiencies;
- To enhance access to global markets by greater policy coordination and reform within the Palestinian institutions, including the private and public sectors;
- To promote the stone and marble cluster development; and
- To increase exports by strengthening past export efforts and opening more doors to new international markets.

Cluster Initiatives and Activities

To implement the previous strategies, a number of key initiatives are proposed. They are the outcome of CWG workshops and brainstorming. The initiatives were circulated so that various cluster stakeholders and players could review, verify, and finalize them. For the first time in its history, the stone and marble cluster in Palestine has a cluster map and initiatives supported by the entire cluster and other major players. The key initiatives follow.

Access to Markets

Export Promotion: The stone and marble cluster is an export-oriented industry. It has been successful in accessing markets, including the United States, the Gulf, and Europe. This initiative to promote export will build on this success and will support programs and activities to increase the export base and develop strategies to target potential markets with current or new product lines. According to the CWG recommendations, markets including the Gulf, the United States, and the Far East (China, Malaysia, Japan, and Korea) are priority targets. Under this initiative, *market research studies* will be conducted to determine marketing strategies and develop market channels and mechanisms of access. Where necessary, *trade representation offices* will be opened in hub locations in these markets. An integral part of this initiative is to assess the export capabilities of small and medium enterprises (SMEs) and design an *Export Preparation Program* that will help them expand their productivity. *Empowering the Union of Stone and Marble* as an industry representative in international market is essential for building a positive image and enhancing marketing capability. USM will be equipped with marketing tools and capacity to promote the Palestinian cluster and enhance its competitiveness. Finally, the cluster is in deep need of specialized marketing, shipping,



and trade facilitation services. An evaluation of the available resources will therefore be conducted to facilitate the *establishment of a related BDS for the industry*.

Access to Finance

The fact that the majority of stone and marble firms are family-owned and financed by private money is a good indication of the loyalty and commitment of the individuals. However, for the cluster to continue successfully, it needs greater and easier access to funding. This initiative will *study and assess the industry's needs* for financing and the availability of financial instruments. Through this initiative, financial facilitation programs such as an *Industrial Development Revolving Fund* and small workshops will be initiated and supported. Through this initiative, necessary financial services to foster exports will be analyzed and defined and a *pilot export support fund*, with proper guarantee schemes, will be established. A major purpose of this initiative is to help the cluster obtain funds and approach potential donors.

Access to Technology and Know-How

This initiative aims to improve the overall capacity of the stone and marble cluster by supporting technology transfer activities, and upgrade the productivity and quality of both the technology used and the establishments.

Total Quality Program: The initiative will promote and facilitate a Total Quality Training Program that will work to improve the quality of the cluster's products and processes through international quality training and certification (i.e., ISO 9000, ISO 14000 certification) and through industrial modernization and IT diffusion programs. Specific quality training programs would be tailor-made to fit the needs of small and medium enterprises. Planning for programs to transfer technology and know-how from more advanced countries will take place under this initiative. These programs may include, but not be limited to: study tours, workshops and training, and consultation and training with international experts.

Geological and GIS Surveys: The initiative will help the industry obtain the tools necessary for technological advancement, such as a geological survey and a GIS database survey. A comprehensive geologic study should be implemented to identify the size of the stone reserve and its locations and brands. The initiative will facilitate conducting this survey through cooperation with other international institutions and some financial support. A GIS database and a comprehensive survey of the establishments will be designed and implemented. A comprehensive database about the cluster and the reserve, its types, and locations, will help in developing a clear strategy for the cluster and in the subsequent processing of all aspects of investment and future development.

BDS Development and Environmental Program: Because the cluster greatly needs specialized consulting and technical services, an evaluation of the available resources will be conducted; this will facilitate the establishment of BDS for the industry. This BDS will provide services in maintaining, upgrading, and modernizing product lines, and other technical consultation. Finally, environmentally related issues will be addressed to minimize the harmful impact of the industry. Training programs, public awareness activities, and technical assistance will be part of this effort.

Workforce Development and Capacity Building

One of the major strengths of the stone and marble industry is the availability of human resources. However, workforce productivity of these resources is far less than that in other countries (such as Italy) and needs to be improved.



Certified Training Program: Under this initiative, an up-to-date certified training program for the cluster will be established in a major academic institution. The program will combine both technical and management skills required to enhance the productivity and competitiveness of the cluster.

Industry-Academia Integration: This initiative will facilitate activities and programs to support integrating the academia with the industry. Programs will include: curriculum development, training and internships for students and new graduates, and related services in the universities (for example, testing labs and engineering colleges).

Capacity Building and Industry Rehabilitation: Along with other supportive institutions and services, capacity-building programs will be implemented to improve the industry backbone institutions and enable them to represent the cluster. Under this initiative, existing industrial concentrations such as Jammeen and Beit Fajar will be studied and assessed to serve as pilot projects for establishing modern industrial zones.

Policy and Regulatory Reforms

In order for the cluster to thrive, the regulatory framework has to promote the free market and encourage investments. A *Policy Advocacy Program* will be designed and implemented so the private sector is able to tackle policy and issues related to regulation. In addition, there will be a *comprehensive review* of related laws and procedures to improve the current legal system with a view toward full WTO membership. Some related laws include: environmental law, public tendering and procurement procedures, investment law, customs procedures, and regional and international agreements.

PRELIMINARY ACTION PLAN

The following action plan (Table 9-9) was developed in consultation with the CWG.

TABLE 9-9: STONE AND MARBLE CLUSTER ACTION PLAN

	Initiatives/Programs	2006				2007	2008
		Q1	Q2	Q3	Q4		
Access to Markets							
1	Market Research and Analysis for Target Markets						
2	Trade Representative Offices Program						
3	USM Marketing Empowerment Program						
4	SMEs Export Preparation Program						
5	Image Building and Brand Development Program						
6	Specialized BDS Development Program						
Access to Finance							
1	Financial Environment Assessment Program						
2	Industrial Development Revolving Fund						
3	Water Recycling Finance Facilitation Program						
4	Small Workshops Financial Support Program						
5	Specialized BDS Development Program						
Access to Technology and Know How							
1	Multipurpose Center at USM						



	Initiatives/Programs	2006				2007	2008
		Q1	Q2	Q3	Q4		
2	Total Quality Training Program						
3	Technology Transfer Program						
4	Industrial Concentrations Rehabilitation Program (Beit Fужjar and Jamma'n as Pilot Projects)						
5	Feed Your Family and Clean Your Country Program						
6	Comprehensive Geological Survey Program						
7	Comprehensive industrial survey and GIS database Program						
8	Backbone Institution (USM) Capacity Building Program						
9	Specialized BDS Development Program						
Workforce Development and Capacity Building							
1	Certified Training Program						
2	Academia Integration with the Industry Program						
3	Industry-Engineers and Contractors Cooperation Program						
4	On the Job Safety Program						
Policy and Regulatory Reform							
1	Policy Advocacy Program						
2	Regulatory Framework Review Program						

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10. TOURISM CLUSTER ASSESSMENT

CLUSTER OVERVIEW

This report provides a systematic review of the global and local factors, trends, and context that frame and influence potential USAID assistance to the West Bank and Gaza tourism cluster through the Palestinian Enterprise Development (PED) project. The report draws upon locally and internationally available research and data for the cluster as well as PED's extensive interaction with members of the West Bank and Gaza tourism industry. Using these materials, a "score" was given that represents a numerical assessment of the cluster's current status and future potential and that pinpoints assets and liabilities towards which USAID-funded activities can be targeted.

After several years of decline following the combined effect of such events as the September 11, 2001 attacks; the SARS epidemic; the Iraq war; continued threat of terrorist attacks; and global economic uncertainties; global tourism rebounded in 2004 and is projected to continue to revive, with international tourist arrivals expected to grow by 8 percent in 2004 and 4-5 percent in 2005. Building on an average annual growth of 12 percent from 1995 to 2005, tourism in the Middle East is also forecasted to increase, with total tourism arrivals in the region reaching 28.8 million and receipts totaling \$13.9 billion in 2004. Among the most important competitive dynamics in the industry is the growing importance of niche markets that cater to travelers' specialized interests and activities, along with the rapid expansion of educational vacations, that is, the "edutainment" segment, which focuses on visits to historical sites, museums, festivals, and heritage- or culture-based attractions.

From 1994 to 2000, optimism about the future political situation prevailed in the West Bank and Gaza, with the result that tourist accommodations, ancillary facilities, and services grew significantly. In 2000, estimated employment in the tourism industry amounted to 12,000 workers, with estimated receipts reaching \$226.3 million; however, tourism dropped from these levels by over 90 percent in 2001 and 2002. In 2005, the West Bank and Gaza had 123 registered tourism accommodation establishments offering 5,850 rooms. The majority of accommodations, which are relatively small and usually family-run, target the pilgrimage market, which is characterized by a less affluent clientele; the existing hotels are therefore not fully suitable for tourists who seek a product related to the cultural heritage of the country and for whom three- and four-star hotels are the norm. In the past, West Bank and Gaza tour operators offered programs beyond the pilgrimage market, such as archeological and cultural tours, but currently Israeli authorities allow limited tour-group access to key sites such as Jericho. Since Israeli authorities operate border controls, West Bank and Gaza tour operators market mainly in countries that do not require an entry visa into Israel, such as North America, Britain, and the EU. Together, these markets supply 70 percent of tourists, while domestic tourism represents 20 percent and visits from family and friends comprise the remaining 10 percent.

As the home of three major religions—Judaism, Christianity, and Islam—the West Bank and Gaza is rich with holy sites as well as archeological attractions that date to before the birth of Christ. Against these inherent geographical and historical strengths, tourism in the West Bank and Gaza suffers from a weak legal and regulatory environment, lack of government support, and inadequate infrastructure, compounded by the uncertainties of the political context, which are considerable, since safety and security are basic ingredients for tourism. Nonetheless, the growing global tourism market offers significant opportunities if the West Bank and Gaza cluster can work together to improve tourism infrastructure, branding, and product range.

Table 10-1 provides an aggregate assessment of the cluster's current status and future potential, as well as individual scores for key components and subcomponents related to the cluster's



competitiveness. As indicated by its aggregate score of 2.89, the tourism cluster does not offer much promise for generating growth when compared to other clusters.

With respect to growth potential, the West Bank and Gaza tourism cluster benefits from its unique religious and cultural heritage, which provides it with an inherent competitive strength, albeit one that has not been fully realized through collective marketing and branding. The growing international market for tourism presents an opportunity for the West Bank and Gaza; however, growing global recognition of tourism's economic impact means the West Bank and Gaza will have to compete in what has become a fierce market for attracting international visitors. The recent upturn in tourist arrivals represents a positive development, but future performance seems likely to depend significantly upon the local political situation.

With five associations representing hotels, tour operators, tourist transport, guides, and restaurants, as well as over 700 enterprises, "cluster readiness," especially in terms of critical mass and commitment, is quite high, particularly since cluster members already have ongoing relationships. The lack of willingness to promote the cluster collectively and the dearth of innovation in service and product offerings, however, signal areas for much-needed attention.

As with other clusters, tourism is very dependent on cooperation between Israel and the Palestinian Authority, meaning it is very sensitive to border closures. However, because the cluster is labor intensive and has a history of high employment rates, increased market opportunities could translate into employment gains in the range of 500 to 1,000 direct new jobs in the short and medium term.

TABLE 10-1: SCORING OF THE TOURISM CLUSTER

Growth Potential		Cluster Readiness		Factors Specific To West Bank and Gaza		Aggregate Assessment 2.89
3		2.67		3		
International Market	3	Commitment	3	Potential for Rapid Employment Creation	5	
Competitive Position	3	Dynamism	2	Insensitivity to Border Closures	1	
Recent Performance	3	Critical Mass	3			

Scoring Range = 0 (very low) to 5 (very high)

INDUSTRY CLUSTER ASSESSMENT

INTERNATIONAL TRENDS IN THE INDUSTRY

Global Tourism Trends and Drivers

After three years of stagnation following the combined effect of such events as the September 11, 2001 attacks; the SARS epidemic; the Iraq war; continued threat of terrorist attacks; and global economic uncertainties, global tourism bounced back strongly in 2004. The *World Travel Market Global Travel Report 2004/05* projected an increase in international tourist arrivals of 8 percent worldwide for 2004, and of 4-5 percent in 2005.



After the upheavals of recent years, a number of external, megadriver trends, industry developments and competitive dynamics are likely to influence future developments in world tourism markets.

Table 10-2 summarizes these drivers and dynamics:

TABLE 10-2: TOURISM CLUSTER DRIVERS AND DYNAMICS

External Drivers in the Global Tourism Industry

- Increased travel costs, particularly for international travel, as a result of higher oil prices.
 - Continuing concerns among international travelers regarding security, health, and climate risks.
 - Strong and growing importance of leisure travel as a worldwide market segment, which will fuel outbound travel, not only from Europe and North American but also from a number of high-income Asian markets.
 - A rebound in business travel growth, including healthy prospects in the MICE (meetings, incentive travel, conferences, and exhibitions) market.
 - Ongoing transformation of destination choice and distribution channels as the Internet plays an increasingly important role in consumers' travel decisions and bookings.
-

Competitive Dynamics of the Global Tourism Industry

- Proliferation of niche markets that cater to travelers' specialized interests and activities (for example, bicycle tours, bird-watching, diving, and the like).
 - Rapid expansion of educational vacations—the “edutainment” segment—including visits to historical sites, museums, and festivals of all kinds.
 - Movement toward a buyers' market, with a focus on value.
 - The importance of image and branding to set a destination apart from competitors, particularly since many travelers make destination choices based on the perception of social peers.
 - The importance of quality control to guard the reputations of successful brands.
 - Intense global competition, as tourism's economic value is increasingly recognized and stakeholders' resources are marshaled to develop and promote the sector.
 - Market consciousness of sustainable tourism, including “fair” distribution of economic benefits to destinations, particularly in developing countries.
-

Tourism Trends in the Middle East

Tourism trends in the Middle East have exceeded most analysts' expectations during the past decade. From 1995 to 2005, for instance, international tourist arrivals to the region grew at an average yearly rate of 12 percent, doubling the 1995 volume of 14 million visitors.⁸¹ Even in 2001, with the events of September 11 and other regional disturbances, visitor volume in the Middle East shrank by a mere 1 percent, mostly the result of a sharp drop (15 percent) in visits to Egypt, the region's primary destination.⁸²

In fact, according to the *World Travel Market Global Travel Report 2004/05* and as indicated in the Figures 10-1 and 10-2, the Middle East has experienced a stronger rebound than the rest of the world in international tourist arrivals. In 2004, the Middle East's upsurge in arrivals exceeded 14 percent, much of which was intraregional tourism. Projections for 2005 are for somewhat slower growth in arrivals, but the increase, at 6 percent, is still expected to be healthy. Total tourism arrivals in the Middle East reached 28.8 million in 2004, with receipts of \$13.9 billion⁸³; Egypt typically gains

⁸¹ World Tourism Organization, *Middle East Tourism Trends 2004*, p. 17.

⁸² Ibid.

⁸³ Ibid., p. 11.



nearly a third of the region's tourism receipts.⁸⁴ Intraregional travel is the greatest source of tourists in the Middle East, followed by Europe, which generates 25 percent of total tourist arrivals.⁸⁵

FIGURE 10-1: INCREASE IN INTERNATIONAL TOURIST ARRIVALS, JANUARY–AUGUST 2004 (MILLION)

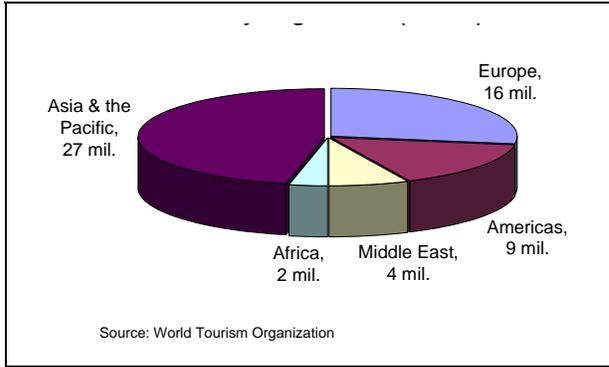
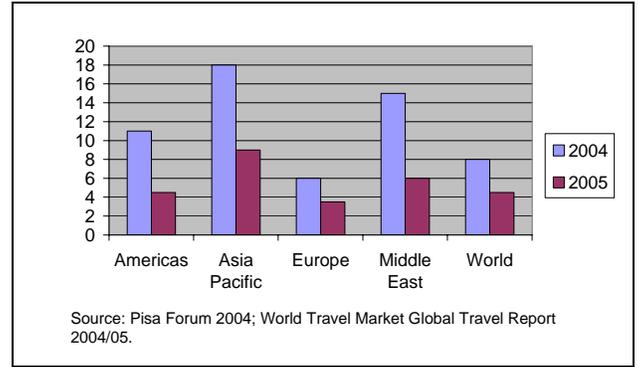


FIGURE 10-2: WORLDWIDE TOURIST ARRIVALS GROWTH FORECAST 2004–2005 (% ANNUAL INCREASE)



To enhance their tourism environment, Middle Eastern countries in 2004 continued to focus on improvements in quality (including grading schemes and training) as well as in transportation infrastructure and visa procedures, which remain among the most complicated in the world. Diversification of tourism products also continued, with new efforts made in cultural, adventure, rural, and ecotourism. In many countries, the public sector continued to promote public-private partnerships and other mechanisms to encourage investments and technological upgrades. During 2004, almost all countries placed heavy emphasis on international trade show and exhibitions; for example, Jordan participated in nearly 20 trade fairs in 2004.⁸⁶

GENERAL CLUSTER DESCRIPTION IN THE WEST BANK AND GAZA

Over the period from 1994 to mid-2000, optimism about the future political situation prevailed, with the result that tourist accommodation, ancillary facilities, and services grew significantly (see Table 10-3). During that time, the number of tourist accommodation units (hotels, pensions, and guest houses) increased from 54 units with 2,464 rooms to 91 units offering 4,275 rooms. In addition, in 2000, a further 30 hotels were under construction, increasing the accommodation stock by an additional 2,346 rooms. Over the same period, the number of tour guides registered by the Palestinian Authority rose from 18 to 223. A firm basis for the cluster was developing.

The estimated employment in tourism amounted to 12,000 by the year 2000. Estimated tourist receipts from tourism totaled some \$226.3 million, with souvenir stores and handicrafts generating 47 percent of the total. Tourism took a major setback from September 2000 through mid-2004. Tourism dropped by over 90 percent in 2001 and 2002. In mid-2004, tourism in Palestine started coming back as a result of the temporary political stability.

⁸⁴ Ibid., p. 28.

⁸⁵ Ibid., p. 30.

⁸⁶ Ibid., p. 17.



TABLE 10-3: VALUE CHAIN (AS DEFINED BY THE INDUSTRY)

	Percent	Value (2005) US \$
Tour Operator	6.3	3,023,622
Transportation	7.9	3,779,527
Hotels	26.8	12,850,393
Hotel F&B	12.6	6,047,244
Restaurants	11.0	5,291,338
Guides	1.6	755,905
Shopping	20.5	9,826,771
Culture Centers / Sites	2.4	1,133,858
Taxes and Tariffs	11.02	5,291,338
Total	100.0	48,000,000

In the year 2005, there were 123 registered tourist accommodation establishments offering 5,850 rooms. Of these, 86 were hotels, 15 pensions and guest houses, and 22 associated with religious establishments catering largely to the pilgrimage tourists. The majority of the accommodations are relatively small and family-run, with a lower standard of facilities and service levels. Except for the Intercontinental Hotels in Bethlehem and Jericho, there are no internationally managed or franchised hotels in Palestine.

Existing hotels are suitable for the pilgrimage market, which tends to be characterized by a less affluent clientele. But existing hotels are not wholly suitable for those tourists who seek a product related to the cultural heritage of the country and for whom three- and four-star hotels are more the norm. Although official statistics indicate that there are some 37 hotel establishments offering 2,628 rooms in the three- and four-star categories, in reality, the majority do not attain internationally acceptable levels for these classifications. If tourism is to develop on a wider basis than is currently the case, better quality hotels in areas with tourism development potential will be needed.

Table 10-4 summarizes the current status of the tourism industry in Palestine. It should be noted that figures obtained directly from the tourism industry differ somewhat from those issued by the Ministry of Tourism and Antiques (MOTA); in general, industry figures are thought to be more accurate.

The pilgrimage market is a major part of tourism in Palestine. Since Israeli authorities control the border, Palestinian tour operators market mainly in countries that do not require an entry visa into Israel, such as North America, Britain, and the EU. These markets constitute about 70 percent of tourists. Domestic tourism is estimated at 20 percent, with the other 10 percent being leisure and family and friends visiting Palestine during vacations.

Potentially important originating countries for the pilgrimage market that Palestinian tour operators have not explored include Indonesia, India, Arab countries, and countries of the former Soviet Union. Tour operators cite the Israeli entry visa requirement as the primary reason for lack of interest in these markets, although some Israeli tour operators have apparently had success in obtaining entry visas for tourists from such countries.



TABLE 10-4: SUMMARY OF TOURISM INDUSTRY IN THE WEST BANK AND GAZA

Indicator	MoTA 2005	Industry 2005
Number of accommodation establishments	123	123
Number of rooms	5,850	5,800
Number of tour and travel offices	120	120
Number of incoming tour operators	N/A	38
Number of tour guides	231	231
Number of tour buses	230	80
Number of tourists	N/A	120,000
Length of stay	N/A	3-4 nights
Hotel occupancy	15%	20%
Number of employees	5,800	5,800
Average spending per tourist	\$190	\$130
Investments	\$ 1.5 billion	N/A
Domestic tourism	20%	N/A
Total revenue	N/A	\$ 48 million
Contribution to GDP	7%	3-4% (estimated)
Number of tourist restaurants	155	52
Average worker pay / month (2003)	\$390	N/A
Value added/worker (2003)	\$15,744	N/A

In the past, the tourism industry offered different programs, such as archeological and cultural tour packages. With the restriction of access to the West Bank towns and Gaza, these packages are not currently sold. Hebron, Jericho, Bethlehem, Ramallah, Nablus, Gaza, and many other cities have sites that not only date back 3,000 years but also have religious importance.

Currently, tour groups have limited access to Bethlehem and Jericho, while other cities are essentially off-limits to tour groups. Israelis deny access to tour groups trying to visit these cities; as a result, tour operators no longer attempt such tours.

The following cluster map (Figure 10-3) and value chain(Figure 10-4), both of which were developed by the cluster members and the PED team cluster manager, depict the full scope of the tourism cluster in the West Bank and Gaza.

As the cluster map shows, most parts of the cluster inputs, processes, and supporting industry need improvement. Lack of capital is a major weakness in the cluster.⁸⁷ Similarly, financial services available to cluster enabling and supporting organizations are inadequate. The cluster does not have sophisticated firms providing marketing, public relations, advertising, and consulting expertise. These factors, along with the lack of standards organizations and support from donor agencies, weaken the cluster's prospects.

⁸⁷ For example, hotels in East Jerusalem are in dire need of investment for renovations, to compete with newer hotels in West Jerusalem.



The following schematic captures the cluster’s value chain. It is clear that the “inbound” value segment, including raw material and logistics, is the dominant piece of the chain. Palestinian firms’ operation and development activities add only 15 percent to the cluster’s cost structure, with the implication that if the local firms could internalize product development and sourcing, there would be more potential for value added and profit from their operation.

FIGURE 10-3: TOURISM CLUSTER MAP

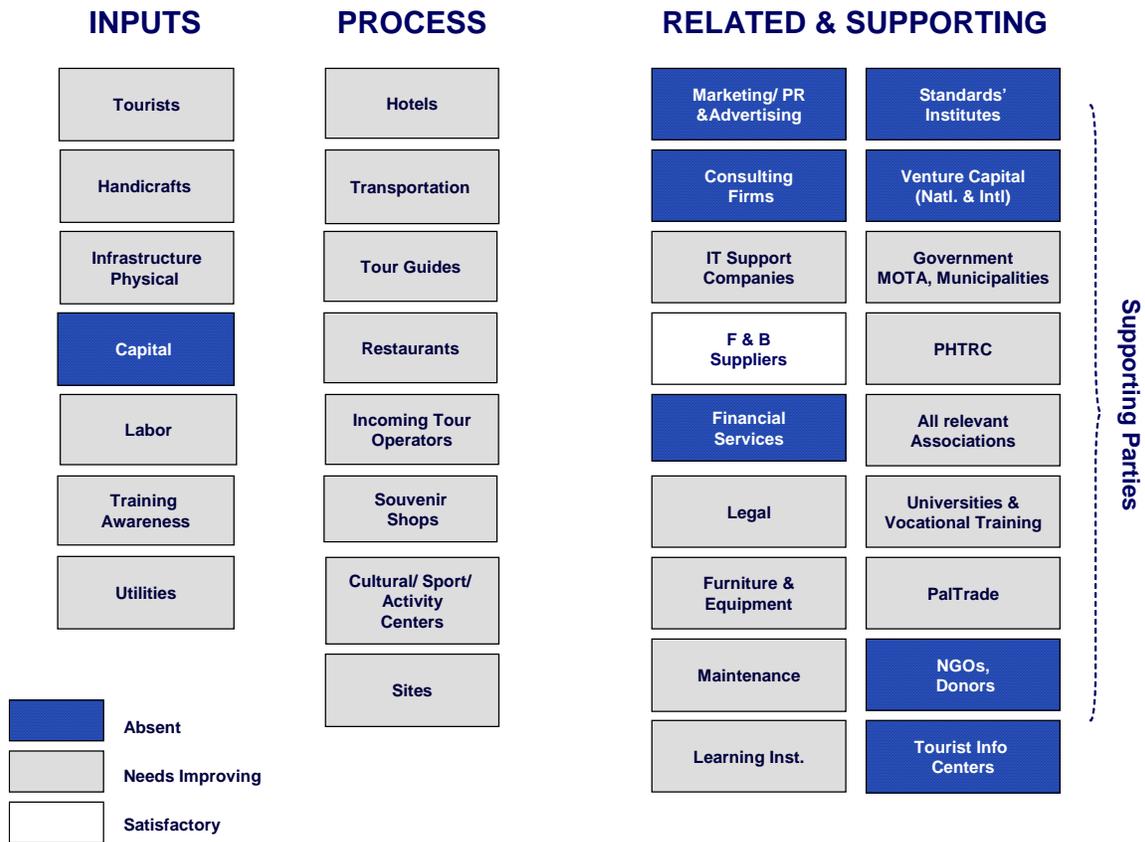
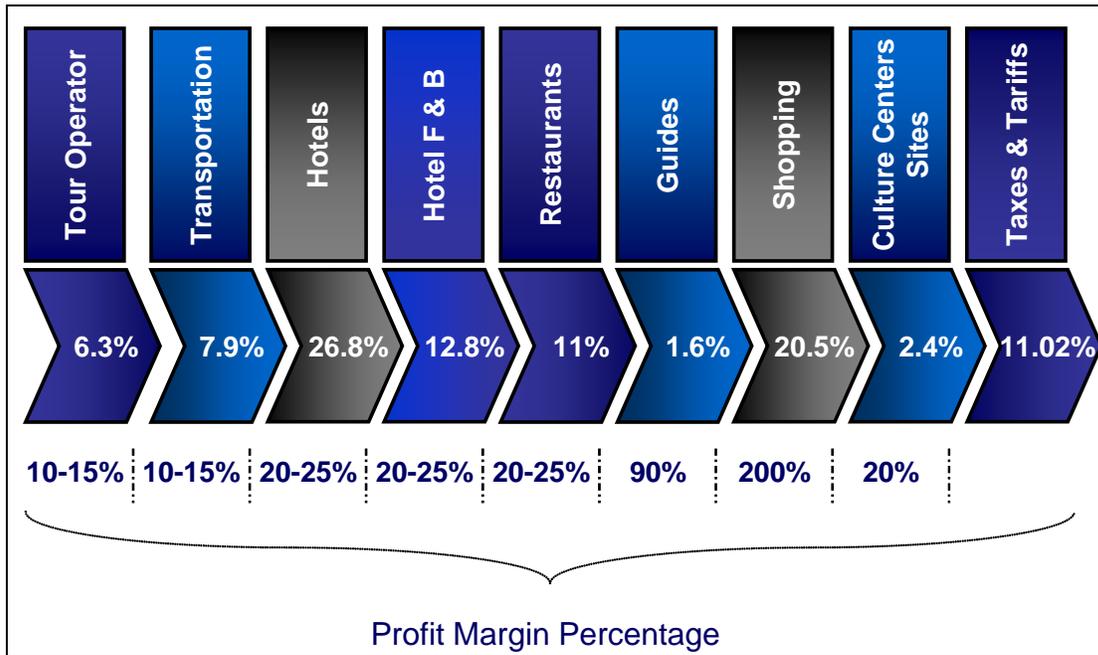




FIGURE 10-4: TOURISM: VALUE CHAIN COST ANALYSIS



CLUSTER ASSESSMENT

SWOT ANALYSIS

Strengths

The tourism industry is one of the oldest in Palestine. As the home of three major religions—Judaism, Christianity, and Islam—Palestine is rich with holy sites. It is also rich with archeological sites dating back to before the birth of Christ. The tour operators, the food, and guides are considered to be key selling points. Geographical location, which includes the desert, mountains, sea, and valleys, is an asset to Palestinian tourism, although these natural resources have not been used to their full potential. Finally, shopping in Palestine is accessible every day of the week in tourist areas, presenting an advantage over other nearby tourism destinations. A summary of the SWOT analysis is presented in Table 10-5.

Weaknesses

The weak legal and regulatory environment, lack of government support, and inadequate infrastructure make it hard for the West Bank and Gaza to compete in the regional market, especially since many countries in the region, and worldwide, are investing heavily in tourism support and promotion. Tour operators, along with other stakeholders, would benefit from a defined marketing plan and one for accessing new markets. However, the political environment in the last five years, and the consequent decline in tourist arrivals, has discouraged cooperation. Tourist services, including hotels and tour guides, also require improvements to compete successfully. Inaccurate statistics, underutilization of information technology, and lack of representatives abroad hamper the cluster as



well. Reflecting the general lack of cooperation, cluster organizations are weak and do not collaborate sufficiently.

Opportunities

There are real opportunities in exploring new markets if there is a defined plan and cooperation among all stakeholders, including the potential for local, regional, and potentially international joint ventures, especially for renovations and infrastructure improvements. Opportunities for partnerships, not only between private firms, but also between the public and private sectors, are important and poised for realization. Similarly, better coordination between industry and academia would improve the preparation and competitiveness of the workers required for tourism services. Lastly, with concerted efforts to increase domestic tourism and to expand into other types of tourism products (that is, moving beyond pilgrimage tourism), the West Bank and Gaza cluster has the potential to capture a share of this globally growing market.

Threats

It is well known that safety and security are basic ingredients to tourism. Although this region is politically unstable, no tourist has ever been harmed in the Palestinian territories. Nonetheless, the overall situation poses a great challenge to the local tourism industry. Moreover, lack of control over borders and checkpoints, as well as the lack of freedom of movement between Palestinian cities, inhibits the cluster. As discussed elsewhere in this report, other countries in the region are also targeting tourism as a source of growth. While synergies could be explored with other countries, their aggressive promotion efforts mean a competitive threat to the growth of the cluster in Palestine. The tourism cluster in the West Bank and Gaza needs to advance rapidly to begin to meet this challenge. Lastly, in the past few years no permits have been issued to Palestinian tour operators or guides from the West Bank. While there is demand for guides, the supply is restricted solely to Bethlehem.

TABLE 10-5: SWOT ANALYSIS FOR THE TOURISM CLUSTER

Strengths	Weaknesses
<ul style="list-style-type: none"> • Holy Land sites • Mix of three of the world's major religions • Culture and heritage • Geographical location and climate • Knowledgeable guides • Food quality and hospitality • Shopping seven days/week 	<ul style="list-style-type: none"> • Weak infrastructure • Lack of a well-defined marketing plan • Inadequate capacity and quality in tourism services and accommodations • Market access restrictions • Inadequate language skills among guides • Inaccurate information and statistics • Underutilization of Information technology • Weak cluster organizations and lack of cooperation among them
Opportunities	Threats
<ul style="list-style-type: none"> • Expanding global markets • Domestic tourism • Joint ventures (local, regional, and international) within and across clusters • Innovative partnerships between public and private sectors • Other types of tourism products 	<ul style="list-style-type: none"> • Political instability and related travel advisories • No Palestinian control over borders or internal movement between Palestinian cities • Israeli and regional competition • Permits



CLUSTER EVALUATION

GROWTH POTENTIAL

Cluster's Competitive Position in the International Market

To place the current status of the West Bank and Gaza tourism cluster in context, the team chose several key and generally available economic and workforce indicators as well as several indicators specific to this industry. Through this comparison, the immediate goal is to better understand the structure and performance of the Palestinian industry compared to geographical neighbors and competitors. In the medium and longer term, the international indicators can also be used to compare changes and growth in the Palestinian industry.

Many of the indicators are related to the relative size of the various economies. Accordingly, the discussion in this section will focus on indicators in the following table that would not necessarily be expected, given the size of the West Bank and Gaza economy. Deviations (positive or negative) from the norm will be highlighted because such unanticipated data may indicate underlying sources of strength or weakness, as well as areas that require additional investigation, in order to define avenues for developing competitive advantage.

As indicated in Table 10-6, the contribution to GDP of Palestine's tourism industry is lower than all the benchmark countries except Israel. Its total revenues from tourism are also lower than the benchmark countries by several orders of magnitude. These figures certainly reflect the political instability of recent years. However, comparing Palestine's figures to the benchmark countries illustrates the potential gains that could be derived from tourism, given less uncertainty and unrest.

Examining the contribution to employment and to GDP of the West Bank and Gaza and the comparator countries provides some basis for optimism about the prospects for harnessing developmental impacts from expanded tourism. The tourism industry in the West Bank and Gaza has the lowest contribution to employment of all six countries; as a labor-intensive industry, tourism growth in Palestine therefore would be expected to result in employment contribution rates that approach or exceed some of the comparator nations. Likewise, with comparatively low visitor numbers and average spending per visitor, the tourism industry in the West Bank and Gaza can expect to see improvement on both indicators, with activities that enhance the tourist experience, such as new, higher-end product offerings.

TABLE 10-6: TOURISM CLUSTER INDICATORS FOR PALESTINE AND BENCHMARK COUNTRIES

(all data are for the latest year available)						
	Palestine	Lebanon	Jordan	Egypt	Turkey	Israel
Economic Performance Indicators						
Contribution to GDP (%)	4%	5.30%	8.53%	5.73%	6.00%	2.00%
Total Revenues (\$m.)	\$68	\$956	\$815	\$4,581	\$14,260	\$7,633
Workforce Indicators						
Contribution to Employment (%)	1.9%	3.5%	6.5%	6.7%	3.1%	4.1%
Total # of Employees	5,800	54,000	94,000	1,600,000	662,000	110,000
Cluster-Specific Indicators						
# of visitors (per year)	390,400	956,000	3,897,000	6,044,000	14,030,000	862,000
Average spending per visitor (entire visit)	\$768	\$1,000	\$518	\$798	\$1,069	\$3,056
Length of stay (in days)	7.97	1.46	2.43	10.08	n/a	28

Sources for all Cluster-Specific Indicators and all indicators for countries other than Palestine: World Tourism Organization and World Tourism and Travel Council.



As summarized above, a prominent trend in international tourism is toward more specialized offerings, particularly activity-based products such as bicycle or bird-watching tours. “Edutainment” tourism is also on the rise. West Bank and Gaza tourism offerings have not focused on activity-based products, but it is possible to combine the cultural and historical sites into promising “edutainment” packages. The growth potential score for this category is shown in Table 10-8.

Competitive Position

The pilgrimage tourism market is currently the largest market in the West Bank and Gaza, with Israel as the main competitor. No other niche markets have yet been determined; this is a major disadvantage in the global market. However, reinvigoration of cultural and historical offerings would be possible if the political environment stabilizes. Because the Gaza coast is off-limits to visitors, the potential for “sun-and-sand” oriented tourism has not been exploited. Few firms have tried to explore new markets collectively. Global marketing and promotion is expensive and inefficient on an individual firm basis, so firms have resorted to limited regional and international promotion. Consequently, both product offerings and origin countries for tourists have not been explored to the optimal level.

Moreover, Palestinian tourism does not have a recognized “brand” in the tourism market, since only a handful of firms attend international trade shows. Palestinian companies believe that food and hospitality along, with weeklong shopping opportunities, are their main selling points. However, in planning their trips, medium- or high-end international travelers do not typically give top consideration to these factors. Lack of government capacity and support in the Ministry of Tourism and Antiquities also puts the cluster at a disadvantage. The growth potential score for this category is shown in Table 10-8.

Recent Performance

Recent performance in tourism, as with other Palestinian economic sectors, has waxed and waned with the political situation. As indicated in Figures 10-5 and 10-6 and Table 10-7, both employment and exports were quite strong in 2000, declined precipitously from 2001 to 2003 (during the height of the Intifada), and began to rebound in 2005. Further growth is possible, with proper planning for alternative tour packages. Value added in the industry is \$15,744 annually, per paid employee.

FIGURE 10-5: EMPLOYMENT IN THE TOURISM INDUSTRY

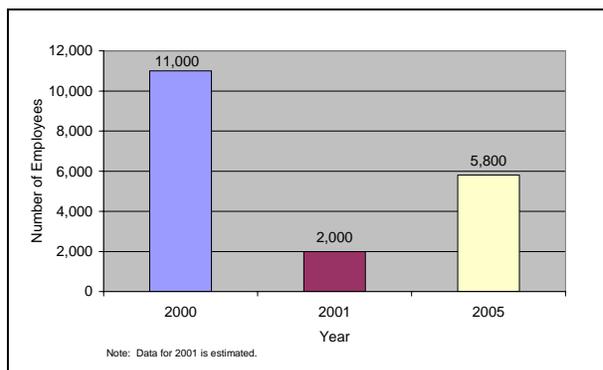


FIGURE 10-6: TOURISM REVENUES (EXPORTS)

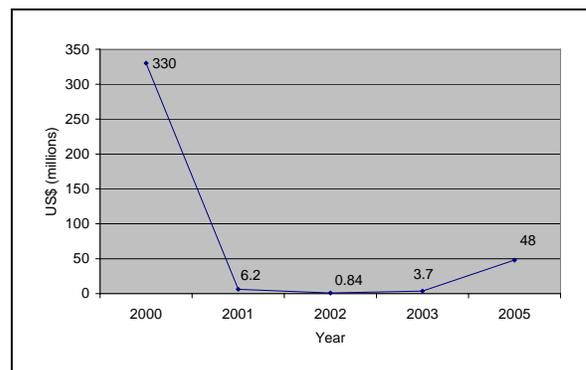




TABLE 10-7: SUMMARY OF RECENT TOURISM INDICATORS

	2000	2001		2002		2003		2004	
		Total	Change	Total	Change	Total	Change	Total	Change
Operating Hotels	91	84	(7.7)%	72	(14.3)%	75	4.2%	80	6.7%
# of Rooms	4,275	3,291	(23.1)%	2,997	(8.9)%	3,171	5.8%	3,301	4.1%
# of Guests	330,000	60,208	(81.1)%	51,357	(14.7)%	62,812	22.3%	100,184	59.5%
# of Guest Nights	980,000	184,857	(81.1)%	169,641	(8.2)%	199,275	17.5%	268,695	34.8%
% Room Occupancy	62.8	9.2	(85.7)%	10.1	9.8%	11.7	15.8%	13.5	15.4%
Total Receipts (\$mill)	226.3	6.27	(97.2)	0.84	(86.6)%	3.73	344.4%	n/a	n/a

Source: Ministry of Tourism and Antiquities

There has been no visible change in the cluster's product mix or in the geographical markets with regard to the source of tourists. The cluster does not offer any particular competitive advantage except the longstanding theme of pilgrimage tourism. The growth potential score for this category is shown in Table 10-8.

TABLE 10-8: GROWTH POTENTIAL

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
International Market Outlook	<ul style="list-style-type: none"> Global tourism market is on a rebound after a sharp decline. Many developing countries are actively promoting tourism and attracting tourists globally. 	3
Competitive Position	<ul style="list-style-type: none"> Unique religious and cultural heritage offers a natural competitive strength. No other comparative advantage over regional competitors. Lack of a brand and collective promotion limits product exposure. 	4
Recent Performance	<ul style="list-style-type: none"> Performance has been volatile. A global downturn in tourism and the local political situation has led to sharp declines. The cluster recently witnessed a rebound. 	3



CLUSTER READINESS

Commitment

Five associations represent the tourism cluster, of which the Arab Hotel Association (AHA) is by far the most organized, with approximately 75 members. AHA currently offers members various training programs with the objective of filling the gap in trained manpower that developed during the last five years. In the meantime, the AHA is becoming self-sustaining by collecting some fees to conduct these programs. AHA staff includes a full-time Executive Director and one part-time support person in the office in Jerusalem. They also have a small office at Bethlehem University (Palestinian Hospitality and Tourism Resource Center or PHTRC), which has one part-time support person. AHA pays the Executive Director and the two part-time support persons.

Other associations include the Arab Tourist Restaurant Association (ATRA), which has requested assistance from AHA to reorganize itself in an effort to face such challenges as instability and lack of security; and the Arab Tourist and Travel Association (ATTA), which represents incoming and outgoing tour operators, as well as ticketing agents. A new association, the Holy Land Incoming Tour Operator Association (HLITOA), was created during 2005 in an effort to distinguish the incoming tour operators. Less organized associations include the Arab Tourist Guide Union (ATGU) and the Arab Tourist Transport Union (ATTU); their lack of organization reflects the scarcity of business during the last five years, during which guides have been unemployed and transport companies have had to relinquish their buses to the banks holding their loans or to sell their buses at less than market value.

Currently, all five associations are actively involved with the CWG. They have been receptive to the idea of the cluster and are willing to cooperate. To a limited degree, they have worked together as a group in trade fairs. These associations and stakeholders have collaborated with the USAID-funded DAI/ MAP program, as well as with the GTZ (Germany's aid organization). The cluster readiness score for this category is shown in Table 10-9.

Dynamism

This cluster seems to lack innovations in product and service offerings to meet evolving tourist preferences. The industry has operated in the pilgrimage segment for long and has not been able to take advantage of this niche market to explore other niche segments. Despite the presence of five associations, the industry is not productively organized to take advantage of the rebounding global tourism market.

However, the key associations have expressed their willingness to work together to promote this cluster collectively. Despite their initial skepticism, key firms and representative organizations have formed a CWG. In addition to the leaders of the five primary associations, the CWG includes hoteliers and tour operators from Jerusalem and the West Bank, and the PED team is encouraging firms in Gaza to participate. The group has met to discuss the needs, supply capabilities, and the cluster SWOT. Foundations are being laid for collaboration among these competing entities. The cluster readiness score for this category is shown in Table 10-9.

Critical Mass

Despite the sharp decline in tourism service providers, the cluster has a critical mass of cluster participants and supporting organizations. Past USAID efforts have helped to develop the cluster's



critical mass. For instance, the MAP Program provided assistance to firms as well as to a few associations within the tourism industry, including the Arab Hotel Association. One of the accomplishments of MAP was the creation of the PHTRC, a joint venture of the Arab Hotel Association and Bethlehem University. The Arab Hotel Association also has an agreement with the American Hotel and Motel Association. Through PHTRC, the AHA is able to conduct training programs on quality of service for West Bank and Jerusalem hotel and restaurant employees. AHA, HLITOA, and ATGU have established communication channels with their counterparts regionally with Jordan, Egypt, and Israel.

Universities and vocational training centers offer training and education in tourism. For example, Bethlehem University offers a two-year diploma and a bachelor's degree in tourism. The university also offers a master's degree program through Dublin University. The Pontifical Promotion Hospitality Section at Notre Dame in Jerusalem offers a few programs in hospitality, including a two-year diploma and afternoon classes for chefs; and employees in dining rooms, front desk, and guest services. Both institutions are willing to cooperate and increase the effectiveness of their programs to serve the cluster better. The cluster readiness score for this category is shown in Table 10-9.

TABLE 10-9: CLUSTER READINESS

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
Commitment	<ul style="list-style-type: none"> • Some history of collaboration in the past • Limited engagement from support organizations • Commitment to cluster beginning to emerge 	3
Dynamism	<ul style="list-style-type: none"> • Lack of innovation in service offering • Willingness to promote the cluster collectively 	2
Critical Mass	<ul style="list-style-type: none"> • Many firms and multiple representative organizations • Evolving relationship with supporting organizations, such as universities 	3

FACTORS SPECIFIC TO THE WEST BANK AND GAZA

The tourism cluster is labor intensive. Increased market opportunities therefore may lead to increased employment in the range of 500 to 1,000 workers in the short and medium term, if the social and political environment stays conducive to tourism. However, growth in tourism in the West Bank and Gaza is and will continue to be very dependent on cooperation between Palestinians and Israelis, and on the safety and security of locals and tourist. This cluster is extremely sensitive to border closure. See Table 10-10.



TABLE 10-10: CLUSTER READINESS

Category	Key Findings	Scores Scoring Range = 0 (very low) to 5 (very high)
Potential for rapid employment creation	With the right conditions, employment could expand.	5
Insensitivity to border closures	Arrival of tourists and ease of movement of tourists between attractions is sensitive to border closure.	2

ACTIONS TO ENHANCE CLUSTER COMPETITIVENESS

OVERVIEW OF THE CLUSTER'S SIGNIFICANCE AND POTENTIAL

Historically, performance of the tourism cluster has been a direct reflection of the political situation in Palestine. The potential for the cluster to rebound after years of repression should not be underestimated. In the years following the Intifada, the cluster has shown significant resiliency. This cluster has the potential to retain its prominence in the Palestinian economy because it stands to gain the most from improvements in the security situation.

Generally speaking, the service sector plays a leading role in the Palestinian economy. The strong cultural and religious heritage of Palestine provides a ripe environment for developing a tourism cluster that could make a significant contribution to growth and rapid employment generation. Revitalizing this cluster will require an effective combination of initiatives based on the following four pillars: (1) strengthening tourism marketing objectives; (2) supporting product development and competitiveness; (3) developing human resources; and (4) providing an effective institutional and regulatory framework.

PROPOSED CLUSTER INITIATIVES AND ACTIVITIES

Palestine is home to many tourist attractions, including Jerusalem, Hebron, Bethlehem, and Jericho. Yet despite its advantages and its importance to the economy, the tourism cluster in Palestine is performing at a level below its potential. To achieve reasonable growth in the tourism cluster that will, in turn, contribute to economic development and job creation, Palestine needs to make a significant investment of funds and efforts.

Palestine must focus on attracting high-yield tourists, developing niche products, enhancing the tourist experience, increasing international marketing, and improving infrastructure and the regulatory environment. In consultation with the CWG, a strategy for the cluster's growth has been developed. This strategy is designed to:

- Increase tourism receipts;
- Increase tourism supported jobs; and
- Achieve taxation yield to the government.



Access to Markets

Branding Palestine. This initiative is designed to increase Palestinian tourism market share in existing markets as well as explore new markets, since accessing new export markets is a recognized ambition of the cluster. The overall objective of this initiative is to position, brand, market, and promote Palestine as a tourism destination. Initiative activities include: (1) developing a marketing plan for the cluster; (2) promoting Palestine in target markets, by participating in selective exhibitions, trade fairs, and road and familiarization trips; (3) developing communication tools; and (4) promoting Palestine online.

Tourism Awareness Building Program. The educational system in Palestinian schools should include an awareness program integrated in the curriculum that shows the importance of tourism in Palestine. There is also need for a regional and international awareness program to emphasize that Palestine is safe. Throughout the instability during the last few years no tourist has been harmed in Palestine; on the contrary, tourists in Palestine are welcomed and safe. Furthermore, Palestinians are very hospitable. This initiative is designed to change the stereotype that Palestine is dangerous and unsafe for foreign nationals.

Access to Financing

Market Data for Investment Decision Making and Growth. This initiative will provide reliable, up-to-date information to Palestinian companies on a regular and timely basis. The PHTRC will be the initiative focal point and implementing arm. This initiative will assist PHTRC in conducting market surveys and statistics; it will periodically update findings and make the data broadly available through such media as the Internet, CD-ROM, and hard-copy formats.

Joint Venture Development Program. This project will work to stimulate joint ventures between Palestinian companies and international investors. The program will support trade and investment missions to target markets such as Europe, Asia, and North America. It will also fund conferences and promotional materials designed to attract foreign joint venture partners. The program will serve a matchmaking function between Palestinian entities (in both East Jerusalem and the West Bank) and foreign partners.

Long-Term Investment Capital Initiative. This initiative will seek to develop longer-term capital mechanisms for Palestinian tourism companies in both East Jerusalem and the West Bank by creating such mechanisms as loan-guarantee programs, venture capital funds, and long-term lending credits for the cluster. Currently there is almost no long-term loan capital for industry in Palestine, short-term rates are high, and collateral requirements are strict. The program will identify government, private, and donor funding sources.

Access to Technology and Know-How

Promoting Management Information Systems: The tourism cluster lacks the appropriate business management, especially hotel and tour operator reservation and accounting systems. The purpose of this initiative is to facilitate developing and accessing such software.

Promoting E-commerce: E-commerce is an important tool in marketing. Hotels and tour operators should be able to market and sell tourism online. Appropriate Websites and search engines need to be developed with optimization.



Workforce Development and Capacity Building

Industry-Academia Cooperation Program. Delivering tourism products requires products and services. The purpose of this initiative is to develop an up-to-date curriculum that will provide hands-on skills. Although a few institutions provide such training and education, the private sector needs to be involved in the process. Coordination will determine the supply and demand. Furthermore, this initiative will promote internationally recognized training and professional certification programs to be conducted through the respective organizations. This will also contribute to strengthening the organizations and provide them with tools to achieve sustainability

Structure of a New Tourism Umbrella Organization. Five different organizations govern the Palestinian tourism industry. There is little or no cooperation or coordination among them. This initiative seeks to form an umbrella organization in which the tourism clusters and stakeholders work together to formulate a plan for increasing industry efficiency. This new body will be responsible for drafting the short- and medium-term goals and objectives for the cluster and for setting its strategic focus.

Capacity-building Program. Existing organizations in the tourism cluster need to serve their members through programs and services. This effort seeks to build the institutional capacities of these organizations so they can become strong and worthy representatives of the tourism industry in Palestine. Work under this program will include conducting comprehensive assessments of these organizations, setting associated development plans, and institutionalizing services programs within the respective organizations. In addition, the effort will include activities such as access to finance and technology, workforce development, and developing and updating marketing collaterals.

Supporting the Palestinian Hospitality and Tourism Resource Center (PHTRC). The PHTRC was created during MAP program to be the resource center for the tourism industry, especially in the areas of training and statistics. The Center has been active in training line employees and supervisors. This initiative will support the Center's ability to act as a statistical unit to the cluster and improve the training programs to include middle and upper management.

Policy and Regulatory Reform Initiatives⁸⁸

Tourism Legal and Regulatory Reform Program. The purpose of this initiative is to educate the cluster organizations and stakeholders in formulating a new regulatory system for the tourism cluster. The existing legal structure reflects outdated Egyptian, Jordanian, and Israeli systems and requires updating into a unified system, if tourism is to develop in a coherent manner and the cluster is to be managed effectively. Laws should establish the powers and responsibilities of MOTA and its relationships with other public sector organizations, NGOs, and private sector organizations involved in tourism, as well as conditions for licensing the various tourism enterprises. At the same time, the existing hotel classification system needs updating; the current one is based on the Jordanian system of 40 years ago.

Improving the Investment Climate: Investment incentives applicable to the tourism cluster are not competitive, either regionally or internationally. The current political environment is fragile and inhibits investments. Of particular concern is the favorable investment package from Israel. Since it encourages investment in the tourism cluster in West Jerusalem, it breeds direct competition with the West Bank. The incentive package offered to tourism related enterprises needs to be reconsidered. This initiative will support the cluster in its advocacy efforts to improve the investment climate.

⁸⁸ Ibid., p. 11.



PRELIMINARY ACTION PLAN

The following cluster action plan (Table 10-11) has been developed in consultation with the CWG:

TABLE 10-11: TOURISM CLUSTER ACTION PLAN

	Initiatives/Programs	2006				2007	2008
		Q1	Q2	Q3	Q4		
Access to Markets							
1	Branding Palestine		■	■	■	■	
2	Tourism Awareness Building Program				■	■	■
Access to Finance							
1	Market Data for Investment Decision Making and Growth			■	■	■	■
2	Joint Venture Development Program				■	■	
3	Long-term Investment Capital Initiative				■	■	■
Access to Technology and Know How							
1	Promoting Management Information Systems			■	■	■	
2	Promoting E-Commerce					■	■
Workforce Development and Capacity Building							
1	Industry-Academia Cooperation				■	■	■
2	Developing a New Tourism Umbrella Organization		■	■	■		
3	Capacity Building Program		■	■	■	■	
4	Palestinian Hospitality and Tourism Resource Center – PHTRC			■	■	■	■
Policy and Regulatory Reform							
1	Tourism Legal and Regulatory Reform			■	■	■	■
2	Improving the Investment Climate				■	■	■

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