



CHEMONICS INTERNATIONAL INC.

## **COMPETITIVENESS STRATEGY FOR THE SANTIAGO REGION**

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## ACRONYMS

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ACIS	Asociación de Comerciantes e Industriales de Santiago (Association of Commerce and Industry of Santiago)
ADOZONA	Asociación Dominicana de Zonas Francas (Dominican Free-Trade Zone Association)
AIREN	Asociación de Industrias de la Región Norte (Northern Industrial Association)
APEDI	Asociación para el Desarrollo, Inc. (Association for Development)
BHD	Banco Hipotecario Dominicano (Dominican Mortgage Bank)
B2B	Business to Business
CBI	Caribbean Basin Initiative
CST	Cut, Sew and Trim
DR	Dominican Republic
EU	European Union
GDP	Gross Domestic Product
GODR	Government of the Dominican Republic
IDSS	Instituto Dominicano de Seguros (Dominican Insurance Institute)
INFOTEP	Instituto Nacional de Formación Técnico Profesional (National Professional Technical Formation Institute)
ISA	Instituto Superior de Agricultura (Agricultural Institute)
IT	Information Technology
NAFTA	North American Free Trade Agreement
PROCIGAR	Asociación de Productores de Cigarros de la República Dominicana (Cigar Producers Association of the Dominican Republic)
PROSEDOCA	Productora de Semillas Dominicanas, C. por A. (Dominican Seed Company)
PUCCM	Pontificia Universidad Católica Madre y Maestra (Catholic University)
SEA	Secretaría de Estado de Agricultura (Secretary of Agriculture)

SWOT	Strengths, Weaknesses, Opportunities and Threats
USAID	United States Agency for International Development
UTESA	Universidad Tecnológica de Santiago (Technical University of Santiago)
WTO	World Trade Organization

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## Executive Summary

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## Executive Summary

The Association for Development of Santiago (APEDI), together with the other leading business associations of Santiago, have developed jointly this competitiveness strategy for Santiago and its region as an input to Santiago's Strategic Plan. In this effort they were assisted by J.E. Austin Associates, a subcontractor to Chemonics International under a USAID-funded program of assistance that is also helping develop a national competitiveness strategy and a competitiveness strategy for the national horticultural cluster.

Leaders from six of Santiago's key industry clusters met and applied competitiveness tools so as to develop practical, action-oriented strategies for the tobacco/cigar, apparel/leather, construction, tourism, health and education clusters. This effort has identified ways to increase the future prosperity of the region through better business strategies, industry cooperation, investment promotion, infrastructure development, policy reform and investment in human resources.

The *cigar/tobacco* cluster — already the world's leading exporter of cigars — will implement a competitiveness strategy to improve trademarks and certificates of origin, promote a “Cigar Country” image for Dominican cigars, seek enforcement of intellectual property rights, develop locally grown, high-value inputs such as specialty tobacco-leaf wrapper and promote investment by companies in the machine-rolled segment of this market.

The *apparel* sector will implement a competitiveness strategy to migrate from “807” labor supply to offering “full package” services, attract investment in critical supporting industries, invest in workforce development and support reforms leading to improved energy, infrastructure and logistics. The leather sector is also migrating to higher value leather products related to furniture as well as apparel and footwear.

The *tourism* sector will implement a competitiveness strategy to capture greater value from business tourism, enter the ecotourism market and take advantage of “diaspora” tourism by leveraging strong regional linkages to Dominicans residing in New York. A project is underway to create Santiago's first international-quality hotel and to attract the interest of a major international hotel-chain operator.

The *construction* cluster is adapting new technologies for low-income housing while working with the financial sector to develop financial products that can make such housing more accessible. They are also participating in finding solutions to Santiago's infrastructure constraints related to water, sewage and transportation.

The *health care* cluster is planning to invest in a major new hospital to target the market of Dominicans who now go offshore to seek medical services by utilizing world-class technology and well-trained doctors. The cluster will also be working on education and training initiatives for nurses, technicians and paramedics while supporting reforms in social security tax legislation.

The *education* cluster is seeking to improve its linkages to the private sector and to upgrade its services related to workforce development while also exploring linkages with international institutions and access to online sources of training.

Competitiveness analysis at the cluster level has identified a number of broader constraints related to skills gaps, infrastructure deficiencies and the environment. Leaders have agreed to focus on 12 high-impact initiatives that will be of benefit to all clusters. These projects include support for the new Cibao International Airport and neighboring knowledge park, completion of the beltway to the north of Santiago, development of cargo port facilities along the northern coast, ecological rescue of the Yaque River, investment in water and sewage infrastructure, resolving the trash collection problem, investing in education and workforce development, establishing decentralized supply centers for oil, gas and electricity, improving urban infrastructure and supporting low-income housing solutions.

Vision statements, strategies and action plans with short, medium and long-term goals are presented in this report for Santiago as a whole and for each industry cluster. Other results of this effort have been the publication of the most comprehensive set of quantitative analyses on the region ever published, entitled *Santiago en Cifras*, which will contribute greatly to regional development planning and subsequent monitoring and evaluation. This analysis quantified the under-investment of both the banking sector and the government in the region as well as the low levels of educational enrollment.

The competitiveness challenge is also a leadership challenge. There is a need to coordinate the efforts of Santiago's different business associations, to unify the formal and informal leadership structures around a common vision and to coordinate the regional competitiveness strategy with efforts at the national level. This effort has made an excellent start to the competitiveness program but the ability to implement planned initiatives requires reinforcement. At the same time, the positive response from the private sector in Santiago is encouraging. Strong interest has also been expressed by other secondary cities in using the Santiago Regional Competitiveness Strategy as a model to guide their own competitiveness-enhancement process.



## **SECTION I**

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### Background and Objectives

## SECTION I

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### Background and Objectives

In 1999, four of Santiago's leading civic associations came together to create the Strategic Plan for Santiago. The Association for Development of Santiago (APEDI), the Chamber of Commerce, the Association of Industries of the Northern Region (AIREN) and the Association of Commerce and Industry of Santiago (ACIS) cooperated in the endeavor, in which the provincial and municipal governments were also involved. Subsequently, APEDI agreed to oversee the development of a competitiveness strategy for Santiago.

APEDI requested and received technical and financial assistance for this effort from USAID. J.E. Austin Associates was contracted to provide technical assistance under an ongoing program of assistance led by Chemonics International. This program included a larger national competitiveness strategy effort, led by Antonio Rodríguez-Mansfield, and a Horticultural Cluster Competitiveness strategy led by Monitor Company. Santiago's Competitiveness Strategy is therefore an effort related to a larger regional strategic-planning exercise and also to a national competitiveness initiative. Presented below are key short and long-term objectives for this activity.

*The ultimate objective is improve quality of life by improving the competitiveness of Santiago's industry clusters.*

As illustrated in Diagram I-A, presented on the following page, the objective of the exercise is to improve the quality of life for people in the region through sustainable development. To do so requires the design and implementation of strategies aimed at enhancing the competitiveness of Santiago's key industry clusters. By focusing on strategic markets, learning about customers, introducing innovation and understanding competitive positioning, industry clusters serve as the basis for creating better jobs and generating the wealth of a region.<sup>1</sup> The process also involves building social capital needed to generate consensus around priorities and to create a shared vision around concerted action. Finally, it requires building the economic infrastructure necessary to achieve these strategies.

*The immediate objective was to bring together Santiago's leadership to formulate a competitiveness strategy for the region.*

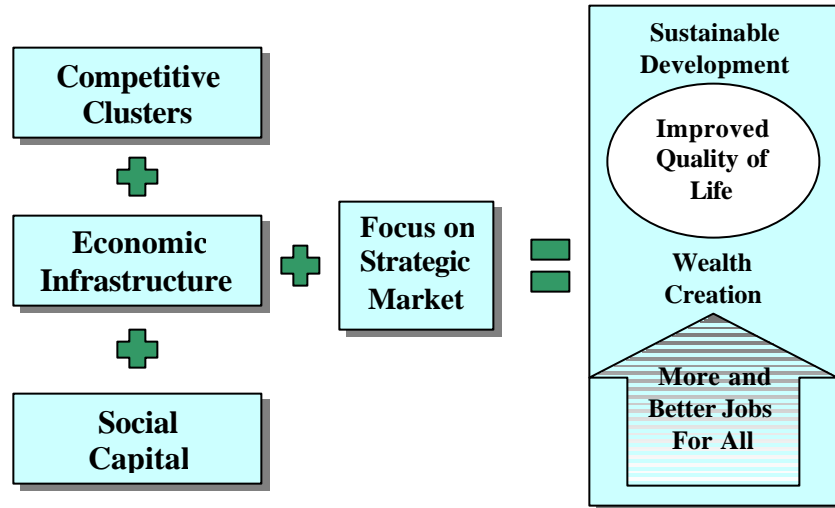
The objective of the exercise was to bring together the leadership of Santiago to assess the competitiveness challenges facing the city and region in a rapidly changing economic environment and to formulate a consensus around a common vision, shared objectives and priority initiatives. A second objective was to assist several key industry clusters in formulating competitiveness strategies.

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<sup>1</sup> See, for example, Fairbanks and Lindsay, *Plowing the Sea*, which explores the interaction between competitive clusters and prosperity. Michael Fairbanks served as an advisor to the horticultural cluster competitiveness exercise associated with this project.

The process began in November 1999 when APEDI convened leaders from different industry clusters and hosted a workshop led by J.E. Austin consultants Kevin X. Murphy and Dr. John Ickis. These individuals then worked together to design and execute the following methodology, which was carried out in conjunction with many civic and business groups.

**Diagram I-A: Competitiveness Model for Santiago Region**



## **SECTION II**

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### Methodology

## SECTION II

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### Methodology

*The methodological approach taken to develop the regional competitiveness strategy was highly participatory; hundreds of “Santiagueros” provided inputs.*

To guide the overall competitiveness process, a Vision and Strategy Group was formed, led by Manuel José Cabral and Felix García. Competitiveness cluster groups were then created in each of five major economic sectors: manufacturing, agribusiness, tourism, construction and services. Finally, the Competitiveness Technical Support Group was formed with representatives from Santiago’s major business, public sector and educational organizations.

A large circle of Santiago citizens participated in workshops open to the public, wherein APEDI and J.E. Austin Associates presented the findings of the Regional Competitiveness Assessment in April 2000 and the subsequent strategy in July 2000. Inputs from these sessions have been incorporated into the work that follows. In all, nearly 200 of Santiago’s citizens were involved directly in the development of Santiago’s Strategic Plan or indirectly participated in analyzing and providing feedback.

The result of this process is the detailed analysis that follows of Santiago’s competitiveness challenges, the competitiveness strategies for each of five industry clusters and the regional competitiveness vision, strategy and initiatives, including 12 high-impact initiatives that have been established as priorities by the leadership of Santiago.

The Competitiveness Vision Group and Technical Support Group analyzed regional economic data and identified the major industry clusters of Santiago and the region. These included tobacco, apparel, construction, tourism, services, leather and non-tobacco agribusiness.

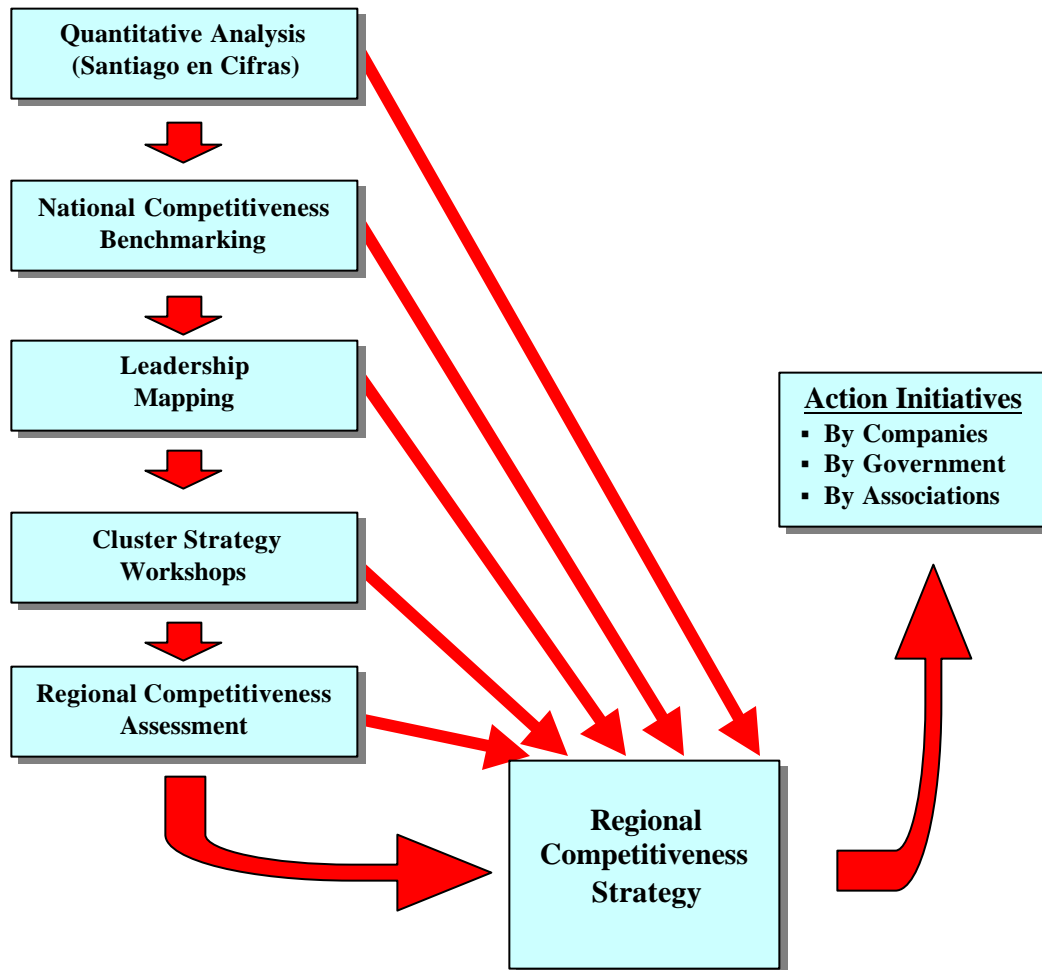
After meeting with leaders of the region, it was decided to focus in-depth on five industry clusters: cigars, apparel, construction, tourism and the services sector (health and education). As the national competitiveness project had chosen the agribusiness cluster for in-depth competitiveness work, the Santiago team chose to target other areas. In choosing to focus on these key clusters, the team took into account these sectors' impact on regional GDP, employment, exports and their potential impact for growth.

**Exhibit II-A: Major Economic Clusters of the Santiago Region**

1. Cigars and Tobacco
2. Textiles and Apparel
3. Construction
4. Health Services
5. Tourism
6. Tanneries and Leather
7. Commerce
8. Education
9. Non-Tobacco Agribusiness

Exhibit II-B illustrates the various inputs into the competitiveness strategy, which in turn led to the identification of specific actions to be undertaken by companies, industry clusters, government and business associations. The inputs highlighted in Exhibit II-B are described subsequently in more detail.

### Exhibit II-B: Santiago Competitiveness Strategy Methodology



1. The team published *Santiago en Cifras* – the most comprehensive quantitative and statistical analysis currently existing on the region.

Local consultants, led by Luis Ernesto Pérez Cuevas, conducted a comprehensive review of the statistical data available on the region and published *Santiago en Cifras* (*Santiago in Figures*) in March 2000. This report has contributed substantially to the analytical base of information for all of the stakeholders interested in Santiago’s economic development. A number of important and even surprising conclusions were reached, such as the low level of average educational attainment in Santiago and the net outflow of both fiscal and financial system resources out of the region. *Santiago en Cifras* is the most comprehensive and up-to-date source of statistical information on both the city and region currently in existence and as such will make an important contribution to the region in coming years.

*2. The national competitiveness benchmarking study informed the effort.*

J.E. Austin Associates was asked to use its benchmarking methodology to provide an objective and quantitative analysis comparing the Dominican Republic to other countries. This benchmarking was used to inform later analysis and to motivate creative discussion in the cluster strategy workshops.

*3. The team created a leadership map, providing a qualitative analysis for change.*

The team then developed a “leadership map” of Santiago to ensure that the process would be highly participative and that consultations would be undertaken with a broad spectrum of the local leadership. This involved a comprehensive review of key leadership groups and a determination of which individuals should be included in the dialogue process. The formal leadership map included board members of Santiago’s key economic and civil society institutions. This was supplemented with an “informal leadership map” based on an iterative process of consultation. This map was then cross checked with those who were already involved in the competitiveness and strategic-planning exercise so as to include those who had not yet been active participants.

*4. Cluster strategy workshops produced a regional competitiveness assessment.*

Intensive workshops with industry clusters resulted in a regional competitiveness assessment exercise prepared and submitted in April 2000. After consensus was reached on the assessment, the groups proceeded to develop vision statements, strategies and initiatives for action. The cluster-level strategies also identified a number of cross-cutting constraints that led to priorities for regional strategies and initiatives. Twelve high-impact initiatives were identified. These projects were vetted individually with leaders representing different sectors until consensus was reached.

*5. Santiago’s Regional Competitiveness Strategy was developed.*

The above inputs, in addition to further strategy workshops at the cluster level, created the basis for the vision statement, strategies and initiatives that follow. These items were presented at a workshop on July 7, 2000, in Santiago. Additional feedback was then incorporated into this document. Although the strategy culminated the strategic-planning process, the more important effort of implementation remains. As successful as it has been to date in bringing together myriad parties in the Santiago region, this effort will not be considered successful if it remains at the level of a study. For this reason, those working on this strategy have sought to mobilize leadership groups in Santiago for action over the coming months and years.

## **SECTION III**

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### Santiago's Competitiveness Challenges: Key Findings



## SECTION III

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### Santiago's Competitiveness Challenges: Key Findings

The development of cluster competitiveness strategies led to the identification of specific gaps and deficiencies in the economic infrastructure of the Santiago region. By first focusing on competitive industry strategies (see Section IV), the team was able to prioritize the key gaps and group these into a set of key competitiveness challenges.

In the diagnostic sessions, many of the most frequently cited weaknesses reflect problems that have a national dimension and thus can be addressed only in the national competitiveness strategy. These competitiveness challenges include:

- Weak basic services (electricity and energy)
- Deficient basic school system
- Deficiencies in transport infrastructure (ports, roads to the north)
- Lack of protection for intellectual property
- Outdated and ineffective labor and benefits legislation, such as taxes that do not produce benefits (e.g., IDSS at 10 percent of payroll)
- Underdeveloped legal security for investments (including land titling problems)
- Financial system that cannot provide long-term or competitively priced loans

At the regional level, Santiago faces the following key challenges:

- The challenge of globalization
- Insufficient investment in human capital
- Lack of decentralization
- Infrastructure deficiencies
- Poorly developed business environment
- Inadequately maintained physical environment
- The leadership gap

These regional challenges are described below in more detail.

#### **A. The Challenge of Globalization**

Several of Santiago's key industry clusters are dependent on artificial trade barriers such as the U.S. embargo on Cuba, which favors Dominican cigars, and the U.S. textile quotas favoring Dominican free-trade zones. Nearly 90 percent of cigar exports and nearly all clothing exports are destined for the United States, where they enjoy favored entry. However, the embargo against Cuba is not permanent and textile quotas will be phased out by the year 2005 under U.S. commitments to the World Trade Organization (WTO). The Dominican construction sector is also seeing new technologies being introduced by foreign companies. As barriers to trade and investment fall, Santiago faces the challenge of globalization.

## **B. Insufficient Investment in Human Capital: Education and Workforce Development**

The greatest current weakness in the economic platform for Santiago's competitiveness is the lack of investment in human resources, both at the level of basic education and in workforce development programs.

With regard to workforce development, no major training needs assessments are carried out either by industries or the educational community on a regular basis.<sup>1</sup> The major industry clusters have also not presented regular job forecasts or detailed articulations of job categories and the specific skill requirements needed. Linkages between the industries and their training providers are still weak and could be reinforced. The Government of the Dominican Republic (GODR) imposes a one percent payroll tax on all companies, which is provided to the National Professional Technical Formation Institute (INFOTEP) to provide relevant vocational training. The free-trade zone companies are using INFOTEP training courses and interact with the Institute frequently. However, the commonly held opinion today is to either abolish such taxes or transform the role of INFOTEP into a coordinating and normative body that qualifies training providers and administers funds. This transformation would allow for the development of a competing body of private sector training providers to emerge in a demand-driven fashion, which in turn would make more efficient use of resources. The trend towards outcomes-based investment in skills development is evident in places as diverse as El Salvador and South Africa.<sup>2</sup>

As for the educational system, *Santiago en Cifras* revealed that only 14.4 percent of people in Santiago are enrolled in primary or secondary education compared to a national average of 18.6 percent. In Puerto Plata, some 30.3 percent of the population is attending school. Competitiveness in the future will depend on investment in human capital much more than on natural resource abundance or physical infrastructure. Vocational training is also deficient. Industry clusters report a shortage of certain technical and mid-management skilled workers and also find that the universities are not as responsive as they need to be to the demands of the productive sector.

## **C. Lack of Decentralization**

*Santiago en Cifras* showed that while Santiago is home to 9.8 percent of the national population and provides a similar percentage of tax revenues, it receives only 7.4 percent of government investment. The inability of provincial and municipal authorities to manage even relatively simple tasks such as efficient trash collection is indicative of over-centralization. The current tendency in the Dominican Republic and in Latin America is towards greater decentralization of political and economic decision making.

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<sup>1</sup> An excellent needs assessment conducted in the early 1990s by the Agriculture Institute (ISA) found declining demand for general agronomic engineers yet an increasing demand for farm-level managers, agribusiness managers and deeper expertise in a variety of key technical areas. Training needs assessments for free zones had been part of USAID's assistance in the 1980s.

<sup>2</sup> El Salvador reformed its INFOTEP-type system. South Africa is instituting a one percent training tax on payrolls as of April 2000, but the private sector can apply to receive 80 percent of its contribution back if it uses qualified training providers or invests in its own workforce development program according to certain specified norms.

#### **D. Infrastructure Deficiencies**

Energy, road, port and airport infrastructure in Santiago is deficient. Although the highway to Santo Domingo has been improved, the highway to Puerto Plata is in need of upgrading. The peripheral road to the north of Santiago needs to be completed, and the conditions for an orderly expansion of the city must be created. Sewage and water systems are already inadequate to handle the pressures of the current population, and will be unable to sustain the impacts of future growth.

#### **E. Poorly Developed Business Environment**

A number of business environment challenges exist. Although most of these problems can only be addressed at the national level, their effects are felt throughout Santiago. For example, Santiago provides 11.3 percent of the national banking system's resources, which in turn holds only 6.23 percent of its total loan portfolio in Santiago. Furthermore, high interest rates hinder long-term investment. There is a need to strengthen commercial law and impartial judicial enforcement must be strengthened. The lack of adequate land titling and registration procedures inhibits many small entrepreneurs from accessing credit.

#### **F. Inadequately Maintained Environmental Conditions**

Santiago has problems with noise pollution, trash collection, pollution of the Yaque River, a poorly ordered urban transit system and a lack of parks and recreational areas.

#### **G. The Leadership Gap**

Resolving the last challenge may in fact lead to the resolution of all others: the leadership gap. To confront the above challenges, Santiago's leaders must jointly support a shared vision, shared priorities and institutional mechanisms for following up on the strategies and initiatives identified in this report. For a variety of reasons, the leadership of Santiago is less unified today than in the days when Don Victor Espaillat mobilized the region's leaders behind a series of initiatives that created the nation's first commercial bank, the PUCCM University, the Santiago Free-Trade Zone, Plan Sierra, ISA and many other private and public initiatives. There is a need to connect formal leadership organizations with the informal leadership structure, the latter of which is perhaps more influential than the former. Means of cooperation and consensus must be rebuilt, and those individuals willing to assume ownership of specific initiatives with the cooperation and support of others must be identified.

## **SECTION IV**

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### Regional Vision Statement, Strategies and Initiatives

## SECTION IV

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### Regional Vision Statement, Strategies and Initiatives

#### A. Vision Statement for Santiago in 2020

The leadership groups preparing this strategy came together around the following vision statement for Santiago, to be effective by the year 2020:

*To be the most attractive and appealing city among the Caribbean Islands and Central America; prosperous, competitive and with a high quality of life; with a transforming leadership capable of uniting efforts behind a shared vision; with proud residents who are shaping their own welfare; within a democratic environment of strong institutions; within a region characterized by its achievements and by balanced and sustainable development.*

To implement the above vision, the leadership group has developed the following strategy statement:

*To achieve integrated and competitive development over a 20-year period with a strategy of shared efforts among local government, business leaders and a trained and educated work force that is able to relate harmoniously and in a self-directed manner.*

#### B. Strategic Lines of Action

Five key strategic lines of action, identified by the vision group and flowing out of work done at the cluster level, include many initiatives aimed at improving the competitiveness of the industry clusters. These over-arching strategies include the following:

- Improve transport and logistics
- Make environmental improvements
- Invest in people
- Improve the business environment
- Create a livable city

Transport and logistics are increasingly critical to competitiveness in agribusiness, apparel, health and tourism. For example, the time-urgency of contracts with U.S. apparel manufacturers and retailers requires superior transport logistics for "just-in-time" inventory systems. Santiago will be focusing on air, road and maritime transportation improvements.

Major environmental improvements will also be targeted. There is a need to recover the polluted Yaque River, to improve the trash collection systems, to develop parks and to work on noise abatement.

Perhaps the most important strategic line of action is that of investing in people through basic education, higher education and workforce development initiatives. This concept has been a

common theme reiterated by all industry clusters. Future growth industries will be more knowledge intensive and existing industries need to become more Internet and e-commerce savvy.

Another strategic line of action will be to support national as well as regional initiatives designed to improve the business environment, such as better land titling and registry systems.

The final strategic line of action is creating a vibrant and livable city. This will enable the region to attract international investors and retain local talent.

### C. Priority Initiatives

The above strategic lines of action have led to the identification of 12 priority, high-impact initiatives. These initiatives resulted from work at the cluster level and were also the end product of an iterative process of engagement among Santiago's leaders. Some of these initiatives, such as the international airport, are already well underway. Others, such as the Information Technology Park, are still in the planning stage. Still others are being supported by various cluster and regional development projects. For example, the apparel industry is exploring linkages to centers of excellence in the United States and the Brazilian government is helping Santiago with an urban education initiative.

#### Exhibit IV-A: Major Initiatives in Santiago

Strategies	Initiatives
Improve Transport and Logistics	<ol style="list-style-type: none"> <li>1. International Airport</li> <li>2. Completion of the beltway to the north of Santiago</li> <li>3. Development of a cargo port at Manzanillo</li> </ol>
Make Environmental Improvements	<ol style="list-style-type: none"> <li>4. Ecological rescue of Yaque River with treatment plans and monitoring systems</li> <li>5. Investment in water and sewage infrastructure</li> <li>6. Effective and efficient trash collection system</li> </ol>
Invest in People	<ol style="list-style-type: none"> <li>7. Improve primary, secondary and tertiary education</li> <li>8. Implement human resource development initiatives</li> </ol>
Improve the Business Environment	<ol style="list-style-type: none"> <li>9. Establish decentralized supply centers for energy, gasoline and natural gas in the northern region</li> <li>10. Improve land titling, registry and information systems</li> </ol>
Create Livable City	<ol style="list-style-type: none"> <li>11. Urban infrastructure initiatives: <ul style="list-style-type: none"> <li>▪ Downtown renewal and traffic pattern realignment, tunnel, historical center, municipal parks, etc.</li> <li>▪ Park system (Ecological Park "Cumbre", Barranquita, Archeological Park Jacagua, Central Park at site of current municipal airport)</li> </ul> </li> <li>12. Support low-income housing initiatives</li> </ol>

Based upon the listing of initiatives in Exhibit IV-A, Santiago has created the following set of short, medium and long-term goals:

*Short-term goals for 2005:*

- Establish public services that resolve problems with:
  - City traffic system (roads, traffic patterns)
  - Mass transit
  - Electricity and energy
  - Solid waste disposal
  - Potable water and waste water systems
  - City beautification
- Establish system for environmental management of Yaque River
- Strengthen institutionalization of local government with security and respect for human rights
- Promote citizen education and civic consciousness
- Establish statistical information system and incorporate it into the national competitiveness benchmarking system
- Promote the competitiveness of key sectors:
  - Tourism
  - Leather, wood, apparel-textiles
  - Construction
  - Tobacco
  - Commerce
  - Education
  - Health care
- Develop technological infrastructure to support competitiveness
- Develop human resource formation systems for technical and vocational levels
- Strengthen territorial framework

*Medium-term goals for 2010:*

- Reach higher levels of quality of life through:
  - Preventative health care network, reducing maternal and infant death rates and malnutrition
  - Reduce illiteracy to minimum levels and consolidate technical and vocational training and post-secondary training
  - Develop of low-income housing programs
  - Improve per-capita income and reduce poverty
  - Consolidate Santiago as center of commerce, service and culture

*Long-term goals for 2015:*

- Achieve stabilization of the watersheds around Santiago

## **SECTION V**

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### Competitiveness of Selected Industry Clusters in the Santiago Region



## SECTION V

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### Competitiveness of Selected Industry Clusters in the Santiago Region

The basis for Santiago's future prosperity and its ability to invest in the improvements mentioned in the previous section will depend on the competitiveness of its existing and future industries. Therefore, the competitiveness initiative was devoted primarily to analyzing and recommending initiatives to improve the competitiveness of these industries.

Competitiveness is not defined as the ability of the region to compete on the basis of its raw materials, cost of labor or other domestic resource costs. Rather, it is based on the ability to strategically position the industries in attractive markets and with attractive products that can generate improved wage levels, profitability and wealth, translated into higher standards of living for the average citizen.

The international and national economic environments are characterized by globalization, liberalization, privatization and increasing emphasis on knowledge-based sources of competitiveness. Santiago's key industry clusters must therefore understand these changes as they affect their specific industries and formulate proactive strategies and initiatives to ensure future competitiveness.

#### **A. Cigar and Tobacco Cluster**

Santiago is home to the Dominican Republic's only competitiveness champion. The country enjoys the number one position in world market share in hand-made premium cigars.<sup>1</sup> In recent years it has recorded gross exports of up to US\$200 million, although there is a high import content. It has contributed to the success of free-trade zones and benefited from them. The industry, together with cigarette manufacturing and raw tobacco export industries, is a key employer. After an unprecedented boom in the mid-1990s, the industry suffered a downturn as demand leveled off and prices declined.

The industry self-assessment, using gap, SWOT and competitive diamond assessments, revealed surprising weaknesses. The DR is almost entirely dependent on the Cuban embargo-protected U.S. market. The industry has not made great inroads in Europe where it competes with Cuba, which still enjoys a global image as the producer of the highest quality cigars in the world, despite good results for the DR in blind taste tests. Cuba also exercises more control than the DR over distribution channels. Mergers and acquisitions are putting U.S. companies and brands into the hands of European firms with vested interests in the Cuban brands. With a few notable exceptions,<sup>2</sup> the industry serves as the back-office production site for international brands such as Davidoff and others.

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<sup>1</sup> Some cigars are made in the free-trade zone of La Romana and elsewhere, but the bulk of tobacco and cigar production takes place in the Santiago province and surrounding areas.

<sup>2</sup> E. Leon Jimenez, with a long and illustrious tradition dating back more than a century, is a prominent example of a company building its brand name and distribution network in the United States.

Domestically, the industry is highly dependent on the import of “capa” – the wrapper that is the most expensive part of the cigar and which itself is made out of very specialized and carefully processed tobacco leaf. Cuba produces its own wrapper while the DR imports nearly all the wrapper it uses from sources like Cameroon and Connecticut. General Cigar, which began trials for the production of wrapper tobacco in 1979 (with the support of leaders like then Minister of Agriculture, Hipólito Mejía), have not proven successful. The country spends US\$60 million per year importing wrapper. New bio-technologies are emerging that could help in the process of research, development and adaptation. Opinions differ on whether wrapper can be successfully developed in the Cibao, but the payoff to the industry and the country would be quite high if this were to happen.

Another opportunity is to promote investment in the export of machine-rolled cigars. Although this is a different business than that in which most cigar manufacturers currently engage, there are economic and technological reasons that may justify the movement offshore of this industry from the US to the DR.

The industry is still dependent on relatively low-wage labor and will need to invest in research, development, machine operation and maintenance, technology adaptation, investment promotion and market development if it is to compete in the future with Cuba, which has made a strong investment in research and training to support its cigar industry.

The social capital of the industry appears to be quite good. The principle exporters have demonstrated the ability to work together through PROCIGAR, the national industry association, to undertake a number of practical initiatives to date, including the development of the “Cigar Country” brand and the promotion of the Dominican image globally. They have been less successful at getting government authorities to protect intellectual property. cheap imitations made in Puerto Plata are sold to tourists and damage the DR's image as a producer of quality cigars.

#### **A1. VISION 2020 for Tobacco and Cigar Cluster**

*The Dominican cigar will be number one in image, quality and market share in the world market based on both care of craft and advanced technology, with highly specialized and qualified human resources, ecologically sound production systems and effective cooperation between government and producers, who together will convert the Dominican “puro” into a symbol of tradition, pride and prosperity for the nation.*

### Exhibit V-A: Tobacco and Cigar Cluster Strategies and Initiatives

Strategies	Initiatives
Develop and protect brands and trademarks and protect intellectual property	<ul style="list-style-type: none"> <li>▪ Develop a joint effort initiative between PROCIGAR and the Ministry of Justice to enforce, protect and strengthen trademark protection regulations</li> <li>▪ Promote Dominican cigar production as part of a broader tourism package</li> <li>▪ Continue PROCIGAR's investment in the international image of "Cigar Country" via publicity campaigns</li> <li>▪ Launch publicity campaign, with PROCIGAR support, aimed at issues of trademark law infringement</li> <li>▪ Reinforce the use of quality guarantee trademark by PROCIGAR's members</li> <li>▪ Review legal and regulatory framework for cigar production</li> </ul>
Attract investment with potential for high impact	<ul style="list-style-type: none"> <li>▪ Focus on the development of machine-rolled cigars and the development of wrapper production ("capa") as well as trade development of leading brands</li> <li>▪ Promote private investment in Dominican cigars and in research and development</li> </ul>
Transfer technology to basic producers	<ul style="list-style-type: none"> <li>▪ Through public-private cooperation for extension program, promote the diffusion of technology</li> </ul>
Invest in human resources	<ul style="list-style-type: none"> <li>▪ Improve specialized training program through partnerships with ISA</li> <li>▪ Curriculum development targeted towards industry needs</li> </ul>
Strengthen competitive position of Dominican cigars	<ul style="list-style-type: none"> <li>▪ Promote direct sales from companies to final consumers</li> <li>▪ Establish strategic alliances to improve channels of distribution</li> <li>▪ Increase participation in the EU market through an intense advertising campaign aimed at publicizing the quality of DR cigars</li> <li>▪ Focus on strategic promotion in high-potential markets.</li> <li>▪ Publicize blind test taste results of DR cigars to boost Dominican recognition in world markets</li> <li>▪ Establish market intelligence and business support systems at PROCIGAR</li> </ul>

#### A2. Strategic Lines of Action and Initiatives

The strategic lines of action for the tobacco and cigar cluster are to develop and protect brands and trademarks, attract high-impact investors, transfer technology to basic producers, invest in human resources and to strengthen the competitive positioning of Dominican cigars in world markets.

The key action initiatives and their timing are as follows. They are to be carried out by PROCIGAR unless otherwise specified and financed by the contributions of members.

*Short-term actions (1 Year):*

- Develop a joint effort initiative between PROCIGAR and the Ministry of Justice to enforce, protect and strengthen trademark protection regulations and brief the new government to elicit support
- Launch publicity campaign to consumers to reinforce cigar trademark importance.
- Continue PROCIGAR's "Cigar Country" campaign to differentiate product
- Reinforce certificate of origin program with quality control
- Establish mechanisms allowing for e-commerce and Internet sales; expand visibility of PROCIGAR and member websites through numerous portals
- Work with new SEA officials to strengthen research and extension systems aimed at small producers, exploring new private-public cooperation models
- Prepare workforce development plan/human resources plan and distribute to local education and training providers specifying skills gaps and training needs

*Medium-term actions (1-2 Years):*

- Promote private sector research into domestic production of wrapper
- Work with new GODR authorities for agriculture and investment promotion to target investors in machine-rolled cigars
- Begin direct sales by Internet
- Review legal and regulatory framework affecting cigar production, investment and trademarks
- Promote diffusion of technology among producers in cooperation with Ministry of Agriculture
- Diversify strategic alliances to gain more control over distribution channels in the United States
- Target Europe for market diversification and publicize results of blind taste tests and advertising campaign

*Long-term actions (3-5 Years):*

- Launch new products with local wrapper and Dominican brand names
- Target direct distribution
- Expand Internet sales
- Facilitate start-up operations for machine-rolled cigar industry
- Improve specialized training programs at ISA with support of GODR and donor community

## **B. Textile (Apparel, Leather Goods and Free-Trade Zone) Cluster**

Within the context of the U.S. quota regime, the DR is the world's fourth largest exporter of apparel to the United States in terms of both square meter volume and value. The free-trade zones have been a principal motor of development for the Santiago region. Most of the garment exports of the DR originate in the northern part of the country and Santiago is home to many leading companies. Built on the private investment model and promoted by APEDI under the leadership of Don Victor Espailat, the Santiago Free-Trade Zone Corporation is one of the country's biggest success stories. It has earned major revenues that are now being re-invested in the new international airport. Other free-trade zones have developed in the region. This is a key driver of the economy, exports and employment.

However, the garment export sector is highly dependent on the US quota regime, which is set to expire in 2005 as the Multi-Fiber Agreement is phased out under the WTO mandate to convert quotas to tariffs per specified time horizons. The vulnerability of the industry is evidenced by three years of declining growth, which turned negative last year in the face of continued competition from Mexico (favored by NAFTA) and from countries not affected by quota ceilings, such as Honduras.<sup>3</sup> That stated, in April 2000 the U.S. Congress approved extension to the Caribbean Basin Initiative (CBI), which offers parity with certain provisions of NAFTA to CBI producers. As of October 2000, the DR will probably be able to resume its earlier growth path of 15-18 percent per year.

It is expected that, after quotas expire, much of the industry will shift to "low-cost Asia" — places like China, India and Pakistan, where low-cost labor and high volume will attract a cluster of related and supporting industries. But competitiveness will depend on more than low cost. Pressures in the U.S. retailing industry are creating new competitive advantages for firms that are able to integrate their information and logistics systems into those of major retailers. This means that quality, service, flexibility, turnaround time, responsiveness and dependability will be key elements to competitiveness and will require the adoption of seamless interconnection with buyer IT systems. The Dominican industry must also move to offering "full package" products, and beyond cut, sew and trim (CST) services. Leading companies in the DR and Honduras are even now developing computer-aided design capability to offer a fuller range of services to their clients.

To be competitive in the future, firms will need to move from assembly to full package service delivery. However, this transition will not be easy. The evolution will require much higher levels of risk and working capital. It will also require managing more complex operations, coordination of supplies, direct acquisition and ownership of materials and bearing risk for industry "charge backs." Many companies will fail to make the transition.

Another key factor to future competitiveness will be the ability to attract a critical mass of international investors in specialized areas such as yarn, cloth, finishing, dyeing, buttons, labels, hangers, plastic and other inputs. This will require a targeted investment promotion program. Yet

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<sup>3</sup> Immediately after this report was written, the CBI enhancement, which provides parity with NAFTA for certain categories of garments, was approved by the US Congress. CBI will provide a window of opportunity to achieve competitiveness prior to the expiration of quotas.

the Santiago region is less attractive to international executives than some other locations, as it lacks a world class bilingual school, five-star hotels and good recreational facilities.<sup>4</sup>

As a more recently emerging cluster, the free-trade zone leadership has not yet come together as closely as might be needed to address the impending challenges. The industry has cooperated to lobby before the U.S. Congress and interfaces with INFOTEP<sup>5</sup> on workforce development issues. The industry finds that educational and training providers, in general, are not responding to the rapidly evolving needs for middle management, supervisors, technical staff and computer-proficient professionals.

The Santiago region has several tanneries. Although the domestic industry for leather products is being displaced by imports, there is a growing leather product export industry in the free-trade zones. There is a growing market not only for leather apparel but also for leather products related to supplying offshore furniture and even automotive industries. The industry has strong backward linkages. Local tanneries, for example, provide important leather inputs. However, there are also important ecological implications of this industry with regard to the Yaque River.

The region does not yet have a service-export firm or a knowledge park. The only firm exporting services is that of Codetel, the telephone company. PUCCM is proposing to build a knowledge park at a free-trade zone site to be located on land next to the new international airport. Unfortunately, graduates of the PUCCM “Telematics” concentration have to leave Santiago to find good jobs. Many regions less developed than Santiago (even in Africa) have already begun to develop an export-of-service industry. If this offers a “next generation” solution to free-trade zones in the region, it would require a private investment model that has proven superior do government-led models. Just as Santiago’s free-trade zones are more successful than those of San Pedro (DR), a Santiago knowledge park using a private model could be more successful than the government-led “Parque Cibernético” of the capital.

## **B1. VISION 2020 for Textile Cluster**

*The textile and apparel cluster will be competitive through its ability to offer the full package of quality products and services from design to final products using advanced technology and highly qualified human resources contributing in important ways to industrialization, modernization and national prosperity.*

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<sup>4</sup> San Pedro Sula, Honduras, a city of similar size to Santiago in a country with lower per-capita income, has a closer airport, better clubs, better restaurants and first-class hotels such as the Intercontinental.

<sup>5</sup> Funded by a one percent payroll tax, INFOTEP is a government-related agency charged with providing vocational training services relevant to the needs of the private sector. Evaluations are mixed on its effectiveness but services are being actively used by the free-trade zone cluster.

### Exhibit V-B: Textile Cluster Strategies and Initiatives

Strategies	Initiatives
Migrate from 807 to “full package” service provision	<ul style="list-style-type: none"> <li>▪ Develop local capacity for design and product development</li> </ul>
Undertake training and education initiatives in priority areas	<ul style="list-style-type: none"> <li>▪ Develop programs to articulate training needs to schools, institutes and universities</li> <li>▪ With support from industry association, develop and distribute information on best practices in order to improve industry-based free-trade zone training programs</li> <li>▪ Pursue strategic alliances with international and national centers of research and training institutes such as local universities, training centers and technical schools</li> </ul>
Promote strategic investment	<ul style="list-style-type: none"> <li>▪ Attract investors in supporting industries</li> <li>▪ Promote conditions for investment in dyeing and finishing of woven fabrics of 100 meters to implement a yarn forward strategy based on parity with Mexico</li> </ul>
Promote Access to the US Market	<ul style="list-style-type: none"> <li>▪ Continue to promote joint effort by companies, the GODR, and ADAZONA to lobby for improvement of CBI extension legislation</li> </ul>
Improve labor climate	<ul style="list-style-type: none"> <li>▪ Continue to foster good relations with unions and employees</li> <li>▪ Support modernization of labor laws</li> </ul>
Support reforms in vital input sectors	<ul style="list-style-type: none"> <li>▪ Promote reforms leading to a cost-efficient energy sector</li> <li>▪ Support reforms of financial sector resulting in competitive costs of capital</li> </ul>
Adopt exacting international standards for quality, service and technology	<ul style="list-style-type: none"> <li>▪ Promote technology acquisition</li> <li>▪ Promote the strengthening of information and communication technology capacities within the industry</li> <li>▪ Support the development of technologies associated with marker making, design, finishing, trims and packaging</li> </ul>
Promote related transport infrastructure	<ul style="list-style-type: none"> <li>▪ Solve the problem of port capacity at Puerto Plata</li> <li>▪ Support efforts to create deep water port facilities at Manzanillo</li> <li>▪ Support development of the new international airport</li> </ul>

#### B2. Strategic Lines of Action and Initiatives

The strategic lines of action for the textile cluster are to migrate — as an industry — from “807” labor shop contracts to full-package service provision, to implement training initiatives, to promote strategic investment, to continue to promote access to the U.S. market, to improve the labor climate, to support reforms in vital input sectors, to improve quality, service and technology standards and to promote related transport infrastructure.

The key action initiatives and their timing are as follows. They are to be carried out by the Santiago Free-Trade Zone Corporation and by ADOZONA, unless otherwise specified, and financed by the contributions of members.

*Short-term actions (1 Year)*

- With other CBI countries, lobby for a lifting of the ceiling on exports to the United States of products made with Caribbean cloth from US yarn
- Initiate, with investment promotion authorities of the new government, a targeted campaign to attract strategic investors in related and supporting industries (especially dyeing, finishing and accessories)
- Prepare assessment of training needs and communicate to local universities and vocational training institutes (INFOTEP, etc.)
- Explore linkages to centers of apparel excellence in the United States, such as Auburn University, Georgia State University and the University of North Carolina
- Continue to foster good labor relations
- Support current legislation to modernize labor laws
- Commission feasibility study for establishing export of service industry in Santiago including identification of US firms interested in providing contracts

*Medium-term actions (1-2 Years)*

- Support completion and utilization of new international airport
- Develop new education and training programs with local and international training providers
- Continue and expand investment promotion program to target apparel related companies
- Support establishment of knowledge park by the new international airport
- Identify firms in the United States interested in sourcing non-apparel leather products

*Long-term actions (3-5 Years)*

- Support efforts for port development in Manzanillo and improving the efficiency and costs associated with maritime transport
- Support reforms leading to cost-efficient and reliable energy sector
- Support reforms in financial sector leading to competitive costs of capital
- Prepare for 2005 quota phase-out with clear plan of action for post-quota competitiveness



### C. Construction Cluster

A major construction cluster has built up in the Santiago area, and includes engineering firms, construction companies, building-supply commercial centers, furniture manufacturers, ceramics producers and a host of related industries. The regional impact of this cluster is similar in nature to the commercial cluster. Santiago serves as a regional hub that extends to Haiti and even beyond to neighboring islands.

The construction cluster developed to serve several major markets. One was the large construction and public housing projects that were a hallmark of the Balaguer years. Another market has been the growing private demand for commercial building and residential housing to accommodate growth. A third has been from the coastal investment in hotels and related infrastructure fueled in large part by European investment. A fourth market is in the regional Caribbean area, neighboring islands and Haiti, where construction clusters are less developed and Santiago serves as a supplier of materials and services.

The construction cluster may be seen, in part, as a foreign exchange generator. Much of recent tourism construction has been financed by European investment and much of the demand for private housing is fueled by remittances from Dominicans in the United States.

The cluster is beginning to feel the effects of globalization as new technologies are introduced from abroad and new strategic alliances are formed between domestic and international companies. Advances in materials, technologies and construction methods offer to reduce the cost of low-income housing substantially. The cluster needs to monitor these trends and to aggressively adopt and adapt them to stay competitive.

Improvement will also require close coordination with the financial sector to develop creative mechanisms for financing in an environment characterized by scarcity of long-term finance at reasonable rates. Strong linkages between the construction industry and financial groups like the Asociación Cibao, BHD Group and others have always existed, and continued financial engineering will be required to create effective demand.

There is also a need to invest in human resources for a continued supply of excellent architects, engineers, managers, supervisors and other professionals with good technical skills such as electricians and plumbers.

The industry cluster needs to cooperate to develop markets beyond the Santiago area, to export engineering and architectural services (directly and virtually via the Internet), to adapt new technologies, materials and methods, and to develop initiatives for industry workforce training and development. The industry will need to work closely with its education and training providers to respond to current challenges. However, the cluster itself, on the surface, does not seem to have mechanisms of coordination although one supposes that informal dialogue and coordination take place behind the scenes.

## C1. VISION 2020 for Construction Sector

*The construction cluster will be nationally recognized for its high level of efficiency and its ability to provide solutions for expanding housing into middle and lower-middle strata of the market, thereby guaranteeing sustained growth above the national average and important contribution to regional GDP, based on standardization of processes, market information, human resource quality and effective integration in an ecologically stable context meeting industry norms.*

### Exhibit V-C: Construction Cluster Strategies and Initiatives

Strategies	Initiatives
Promote cooperation	<ul style="list-style-type: none"> <li>▪ Strengthen cooperative mechanisms for construction cluster through cooperative projects</li> <li>▪ Establish inter-sector strategic alliances</li> <li>▪ Encourage new enterprises offering specialized services</li> </ul>
Formalize the legal and regulatory framework for construction sector	<ul style="list-style-type: none"> <li>▪ Review the legal and regulatory framework to enhance contractual protection</li> </ul>
Facilitate adoption of leading edge technologies for construction	<ul style="list-style-type: none"> <li>▪ Develop a program for application of leading-edge technology</li> </ul>
Develop highly trained human resources	<ul style="list-style-type: none"> <li>▪ Conduct annual survey of training needs and create a forum for dialogue with universities and technical institutes as to coordinate training programs and curricular upgrades with a particular emphasis on technicians and craftsmen</li> </ul>
Develop market for low-income housing	<ul style="list-style-type: none"> <li>▪ Work with the government and financial institutions to lower the cost of financing and improve affordability</li> <li>▪ Design in cooperation with local companies a program of market development for construction of low-income houses and apartments</li> </ul>
Promote needed regional infrastructure	<ul style="list-style-type: none"> <li>▪ Develop a market intelligence system covering regional contracts, technology and suppliers</li> <li>▪ Explore e-commerce options within the cluster such as the development of a vertical B2B portal for the construction industry</li> <li>▪ Support private investment to finance needed infrastructure projects</li> </ul>

### C1. Strategic Lines of Action

The strategic lines of action for the construction cluster are to promote better cooperation within the industry, to formalize the legal and regulatory framework for the sector, to facilitate the adoption of leading-edge technologies, to develop highly trained human resources, to develop low-income housing solutions and to support the approval of needed regional infrastructure.

*Short-term actions (1 Year):*

- Strengthen mechanisms for industry cooperation
- Propose amending recent tourism legislation to include Santiago for incentives under new policies
- Develop a program for monitoring regional contracts, technology and suppliers
- Support needed infrastructure projects for Santiago and help get them on the priority agenda of the recently elected government
- Work with financial sector to design new products expanding access to low-income housing by low-income groups

*Medium-term actions (1-2 Years):*

- Explore and implement B2B e-commerce options
- Begin annual survey of training needs and create forum for communicating these to universities and technical institutes
- Review the legal and regulatory framework for the construction industry

*Long-term actions (3-5 Years):*

- Implement major infrastructure projects for Santiago with local industry participation (northern peripheral road, sewage systems, port development, etc.)

## **D. Tourism Cluster**

Most Dominicans do not associate the Santiago region with tourism because most people associate tourism with beaches — something that Santiago does not possess. However, the Santiago tourism cluster has been one of the most active groups participating in this competitiveness exercise. Led by Miguel Angel Pimentel and Francisco Rodriguez, the tourism cluster has identified a number of opportunities for building the tourism industry in the Santiago region.

First, a very important business tourism segment associated with the booming free-trade zones located in the region exists. Presently, Santiago suffers from a shortage of high-quality hotel rooms in the area. The existence of good lodging and recreation infrastructure helps to attract and to support foreign investment in free-trade zones and is linked to an overall competitiveness strategy for the region. Marriott and Crown Plaza are looking at one possible investment and another investor is planning to build the 337-room Hotel Cibao.

Second, Santiago already attracts visitors who come to the beaches but wish to explore the island. Santiago offers a number of attractions related to cigar, cigarette, rum and coffee factories as well as museums. The surrounding country is already a draw for beach tourists wishing to visit the mountains. It is estimated that 36,000 tourists visited Santiago's Monument and 78,000 tourists visited local cigar factories in 1999.

Third, the region can be marketed as a destination in itself by focusing on ecotourism, adventure tourism and recreational tourism. The central mountain range has the highest peak in the Caribbean and a protected national park. Specialized segments of the market can be targeted who are interested in non-beach recreational activities or who wish to have a combination of experiences.

Fourth, the Cibao Valley has the strongest linkages with the US-based Dominican community and this offers the opportunity to provide for their holiday needs.

A number of forces are contributing to the potential growth of the tourism sector in Santiago. These factors include:

- Construction of the Cibao International Airport
- Impact of CBI extension legislation on free-trade zone growth
- Growth of demand for ecotourism
- Recent legislation on declaring new areas as tourism development sites
- Growing needs of returning Dominicans resident abroad visiting and retiring

However, significant obstacles exist, including:

- Lack of inclusion of Santiago city in current tourism legislation drafts
- Poor city image
- Energy problems

- Lack of tourism education: “a poorly treated tourist alienates 18 others while a well-treated tourist attracts only five”
- Chaotic transportation
- Financial costs and access to long term credit at reasonable rates.

## D1. VISION 2020 for Tourism Cluster

*Santiago will be a clean and beautiful city with great regional tourism potential able to exploit commercial, occasional, circuit and destination tourism and will have the most beautiful parks and gardens of the Caribbean.*

### Exhibit V-D: Tourism Cluster Strategies and Initiatives

Strategies	Initiatives
Support key private investment	<ul style="list-style-type: none"> <li>▪ Support project to develop five-star hotel</li> <li>▪ Attract leading international hotel chain to invest in the region</li> </ul>
Ensure adequate legal, regulatory and policy framework for inland tourism	<ul style="list-style-type: none"> <li>▪ Ensure Santiago's inclusion in tourism legislation</li> </ul>
Target specific and diversified market niches	<ul style="list-style-type: none"> <li>▪ Business tourism initiative</li> <li>▪ Eco-tourism initiative</li> <li>▪ Dominican diaspora (returning residents abroad)</li> <li>▪ Circuit tourism (attracting beach tourists)</li> <li>▪ Internal tourism (growing Dominican middle class)</li> </ul>
Improve Santiago and its region in its attractiveness as a tourism destination	<ul style="list-style-type: none"> <li>▪ Supporting current initiatives related to parks, golf course, recreation, transportation improvements, trash services, etc.</li> </ul>
Develop improved marketing capability	<ul style="list-style-type: none"> <li>▪ Put hotels and destinations on-line and develop web-based marketing for the region</li> <li>▪ Develop a web-based communications system to help maintain linkages with Dominican diaspora, to understand their needs and to serve them better during their visits to the region</li> </ul>
Promote needed regional infrastructure and investments	<ul style="list-style-type: none"> <li>▪ Support Cibao International Airport and road, water and sanitation projects.</li> </ul>

## D2. Strategic Lines of Action

The strategic lines of action for the tourism cluster are to promote better cooperation within the industry, to support key private investments in tourism, to ensure Santiago's inclusion in government legislation covering the sector, to target five specific niches, to improve the attractiveness of the offerings, to develop improved marketing capability and to support needed improvements in supporting infrastructure such as transport, water and sanitation.

*Short-term actions (1 Year):*

- Conduct Santiago tourism strategy session among leading stakeholders
- Strengthen mechanisms for industry cooperation
- Establish web site for Santiago tourism and assist local hotels, museums and destinations in having a presence on the site
- Develop marketing plans for five key niches: eco-tourists, business executives, circuit tourists, diaspora and internal tourism
- Support completion of Santiago's Airport and also a five-star hotel
- Support improvements/development of museum network (rum, tobacco, coffee, archeology, etc.)

*Medium-term actions (1-2 Years):*

- Implement marketing plans
- Develop e-commerce capability for regional hotels and destinations
- Begin education campaign
- Support beautification of city

*Long-term actions (3-5 Years):*

- Support major infrastructure projects for Santiago with tourism sector inputs (northern peripheral road, sewage systems, roads to the mountains, etc.)
- Develop parks and gardens with reputation as among the most beautiful in the Caribbean

## E. Services Cluster: Health Care

The region has boasted a number of excellent and even world-recognized doctors and researchers over the years such as cancer researcher Dr. Sergio Bencosme. Building on the experience of a cluster of successful private-sector clinics and medical groups (Clínica Corominas, Centro Médico Cibao, Materno-Infantil, Santiago Apostol and the dynamic La Unión Médica), a project has begun to develop the “Hospital Metropolitano” on the highway to Santo Domingo just outside of Santiago. A high-quality hotel would be located near the site as well. This project will seek to serve local people, to offer services to people who currently leave the country for medical attention, to Dominicans living abroad and to others in the Caribbean region.

The diagnostic skills of Dominican doctors is regarded as being very good. The quality of nursing and the reliability of electricity, however, are more worrisome. By investing in staff, infrastructure and medical equipment, those involved in the project hope to offer international-quality service for certain operations and treatments at a competitive cost.

The presence of such a hospital and hotel will increase the overall attractiveness of the region and have important developmental implications. Eventually, the availability of adequate medical care can also attract a retirement community. At the moment, residents who can afford to do so often go offshore for regular medical checkups and for major operations.<sup>6</sup> There is thus a local market and it is likely to grow.

In terms of social capital, the medical community has exercised important civic leadership in the past through the contributions of people like Dr. Salomon Jorge, Dr. Franz Josef Thomen and Dr. Juan Jose Battle. The cluster will have an important role to play in the future of Santiago.

In terms of competitiveness, the cluster lacks a strong local network of suppliers of key services and technologies. It has also not traditionally targeted the most sophisticated and demanding consumers nor has it offered a full array of services. However, medical schools in the country are better than average and have consistently attracted international medical students. The project offers important possibilities even while presenting challenges for upgrading the industry. The emergence of a competitive health care industry would be greatly assisted if employers and employees were able to devote the current 10 percent payroll tax to private insurance programs rather than on the government IDSS program. IDSS goes virtually unused by those paying for it because the quality is notoriously bad.

### E1. VISION 2020 for the Health Care Cluster

*Santiago will be a center for specialized health services, with highly trained human resources, strengthened by strategic alliances, dedicated to a shared vision, recognized for leading-edge technology, advanced infrastructure and strategic positioning and will gain preference among the most demanding clients of the Central American and Caribbean region, attracting those who receive medical attention in the United States.*

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<sup>6</sup> Two of Santiago’s top 10 leaders were traveling abroad for this purpose during the week this summary was being written.

### Exhibit V-E: Health Care Cluster Strategies and Initiatives

Strategies	Initiatives
Broaden the health cluster	<ul style="list-style-type: none"> <li>▪ Initiate process of strategic planning among private health care providers in the cluster with broad participation including professional associations and technology suppliers</li> <li>▪ Cluster members to implement a strategic plan</li> </ul>
Support innovative entrepreneurial initiatives	<ul style="list-style-type: none"> <li>▪ Create a collaborative environment among entrepreneurs to foster the building and equipping of the Hospital Metropolitano de Santiago</li> <li>▪ Support start-up of new international airport</li> <li>▪ Support improvements of physical infrastructure of local hospitals and clinics of the cluster</li> <li>▪ Support reforms leading to reliable generation and distribution of electrical energy</li> </ul>
Improve regional training	<ul style="list-style-type: none"> <li>▪ Private health care providers will work with PUCCM, UTESA and INFOTEP to implement a demand-oriented curriculum upgrade of training programs for nurses and paramedics</li> </ul>
Support the upgrade and acquisition of health care technology	<ul style="list-style-type: none"> <li>▪ Develop program of acquisition and use of some of the most advanced information technologies in the health care industry</li> <li>▪ Develop cluster program of identification and information exchange leading to acquisition of improved diagnostic and other technologies and a collaborative referral system to make greatest economic use of these asset</li> </ul>
Promote effective cooperation for development of the health services cluster	<ul style="list-style-type: none"> <li>▪ Lobby to allow employers to replace their IDSS contribution with enrollment in private health care plans</li> </ul>

## E2. Strategic Lines of Action

The strategic lines of action for the health care cluster are to broaden and promote better cooperation within the health care cluster, to support entrepreneurial initiatives, to promote better regional training, to upgrade and acquire leading-edge technology and to promote effective cooperation.

### *Short-term actions (1 Year):*

- Strengthen mechanisms for industry cooperation
- Develop program for monitoring technology so as to be able to share specialized facilities and equipment, easing the arrival of such technologies to the region
- Support Hospital Metropolitano investment targeting high-end clientele
- Conduct training needs assessment and communicate to education and training providers
- Support social security reforms current being considered by Congress



*Medium-term actions (1-2 Years):*

- Explore and implement B2B e-commerce options
- Begin annual survey of training needs and create forum for communicating to universities and technical institutes
- Review the legal and regulatory framework for the construction industry
- Improve Internet-based information exchange among health care providers for technology identification, referral systems and cost-effective (perhaps joint) purchasing of supplies and pharmaceuticals
- Support start-up of new international airport

*Long-term actions (3-5 Years):*

- Improve quality of training programs for health support staff (nurses, paramedics, technicians, etc.)
- Work with insurance industry to improve private health insurance programs for employers and individuals
- Support reforms leading to reliable supply of electrical power

## F. Services Cluster: Education

*Santiago en Cifras* has documented deficiencies with the education cluster in Santiago. This cluster is key to the competitiveness of the other clusters and has been mentioned by all of the latter. It is recognized today that investment in human resources is the source of national wealth, far more than the presence of minerals, fertile soils or excellent climate. Santiago's future will depend on its ability to invest in its people.

The education cluster represents Santiago's leading educational institutions and also INFOTEP, the GODR program to provide vocational and technical training financed from a one percent payroll tax.

The deficiencies of the national educational system are well known and are not under the direct influence of the regional competitiveness project. However, the local industry clusters can work with the local education and training providers to improve education and can also launch workforce development initiatives.

### F1. VISION 2020 for the Education Cluster

*We will be a city of the educated, without illiteracy, with 100 percent primary education coverage and with access to secondary, technical and vocational education for the majority of young people, formed within a civic and municipal culture and with opportunities for quality post-secondary education that responds to the needs of sustainable development.*

#### Exhibit V-F: Education Cluster Strategies and Initiatives

Strategies	Initiatives
Support reforms in primary and secondary public education	<ul style="list-style-type: none"> <li>▪ Cooperate with national competitiveness initiatives related to education</li> <li>▪ Promote universal school attendance at the primary level</li> </ul>
Support linkages between industry clusters and education and training providers	<ul style="list-style-type: none"> <li>▪ Cooperate with industry clusters to develop responsive education and training programs</li> </ul>
Support teacher training programs	<ul style="list-style-type: none"> <li>▪ Improve and expand teacher training programs</li> </ul>
Develop initiatives focused on the most vulnerable sectors of the populace	<ul style="list-style-type: none"> <li>▪ Literacy campaign for employees</li> <li>▪ Pre-school programs</li> <li>▪ Special programs for low-income women</li> </ul>

### F2. Strategic Lines of Action

The strategic lines of action for the education cluster are to support primary and secondary education reform, improve teacher training programs, develop initiatives focused on the most vulnerable sectors and develop close linkages between the private sector and education and training initiatives.

*Short-term actions (1 Year):*

- Create industry cluster education committees
- Implement training needs assessments
- Work with national competitiveness initiative
- Provide recommendations to new government

*Medium-term actions (1-2 Years):*

- Institutionalize private sector-education linkages
- Develop plans and financing for teacher training programs
- Expand linkages to international educational institutions
- Develop and expand distance learning access
- Monitor educational indicators

*Long-term actions (3-5 Years):*

- Achieve 100 percent primary enrollment in the region
- Reduce levels of grade repetition to five percent
- Complete coverage for pre-school and primary school
- Establish teacher training schools
- Develop specialized technical/vocational training schools in cooperation with specific industry clusters
- Support reforms leading to reliable supply of electrical power
- Improve access to computers

## **SECTION VI**

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### Recommendations for Implementation

## SECTION VI

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### Recommendations for Implementation

Implementing the strategies outlined in Section V will require a number of key occurrences.

First, the formal and informal leadership groups in Santiago must be unified. The informal leadership structure has largely driven the priorities reflected in the 12 priority initiatives. These need to be incorporated into the Strategic Plan for Santiago being developed under the auspices of Santiago's business associations. Formal planning processes are necessary if Santiago is to emerge with regionally decentralized planning and implementation capability. The informal leadership and the directors of other key organizations such as the Santiago Free-Trade Zone Corporation and executives from the apparel industry need to support the formal strategic planning institutions of Santiago if such functions are to be institutionalized.

Second, there is a need to secure “ownership” of the major initiatives and accountability for the results among individuals and/or organizations that will implement them. The model to be used can be the historic model used by APEDI wherein 12 key leaders each took responsibility for a major corporate or civic initiative and received support from all of the others. APEDI will be seeking to organize this in the coming weeks and tentative people have already been identified who would be capable of leading each of the 12 flagship initiatives.

Third, Santiago's leading associations (including the Free-Trade Zone Corporation) must be brought together around the common vision and strategy and to find the appropriate steering mechanism for coordinating the implementation of these regional initiatives. Continued work is needed to reduce tension, avoid adversarial relations and foment cooperation.

Fourth, mechanisms of private-public dialogue must be institutionalized. The competitiveness exercise (and also Santiago's strategic planning process) has benefited from solid participation from the governor, legislative representatives and elected municipal officials. The recent national election means that there are new possibilities for exploring productive private-public dialogue. The president-elect has met with the Santiago leadership and expressed support for initiatives that would build regional competitiveness. These initial expressions of goodwill must be formalized and institutionalized into specific regional initiatives, budget decisions and actions.

Fifth, there is a need to coordinate the regional competitiveness initiative with the national initiative so that these efforts support each other and work towards building the overall competitiveness of the Dominican Republic and its regions.

The development of Santiago's Competitiveness Strategy has been an ad-hoc activity that has generated a great deal of local involvement. However, implementation and follow-up will be critical, and this will depend on Santiago's leaders.

## **SECTION VII**

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### Lessons Learned and Results

## SECTION VII

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### Lessons Learned and Results

#### A. Lessons Learned

The work to date has generated a number of tangible results, providing valuable lessons for regional competitiveness exercises.

*Lesson #1:* Lack of region-specific data for Santiago was a limiting factor and the production of an annual statistical review can contribute to effective dialogue by providing the region with good data. The team found that there were few good sources of regional data. As a result, it was necessary to go to numerous governmental, private and other sources. In some cases it was difficult to obtain data. This problem was overcome by using trusted allies with access to government officials. However, this was a very time-consuming activity.

*Lesson #2:* The formal regional leadership may or may not reflect the real — and often behind-the-scenes — leadership: both must be incorporated into competitiveness initiatives. In Santiago, the formal leadership structure included the governor, mayor and heads of the four major business associations: APEDI, ACIS, AIREN and the Chamber of Commerce. These groups were developing a strategic plan for Santiago, which would incorporate the competitiveness component funded under this project. However, the informal leadership structure was not involved in this process. Noticing the absence of some key leaders and leadership groups in the initial workshops, the team commissioned a "regional leadership map" and also used an iterative process to identify the key regional leaders whose support would be critical. The team then contacted these individuals and worked with them to broaden the consensus and leadership support for the regional competitiveness initiative. It was found, for example, that the Santiago Free-Trade Zone Corporation would play a major role in decisions regarding regional initiatives because of its accumulated financial resources.

*Lesson #3:* These exercises must always be able to adjust rapidly to changing externalities. Two-thirds of the way through the project, the U.S. Congress passed the CBI extension legislation. This substantially changed the competitive environment for Santiago's key apparel export industry by lifting U.S. import quotas, which had constrained industry growth in the DR. It also introduced new elements into the competitive playing field such as the ability to compete with regionally produced cloth made from U.S. yarn. As a result, the team had to refocus its strategies and initiatives with the local industry in light of the new situation. The legislation had been anticipated, but quick approval meant moving from a no-growth environment to a 12-18 percent annual growth path, opening the way for more aggressive investment promotion strategies.

## **B. Results of the Regional Competitiveness Initiative**

*Result #1:* The team has produced *Santiago en Cifras*, which is now regarded as the most comprehensive and authoritative source of data on the Santiago region in existence. Furthermore, there seems to be initial interest by local sponsors in financing an annual publication of this nature building on this format and using this first publication as the baseline data for measuring future progress. The region now has clear benchmarks against which progress may be measured. The regional leadership is now more aware of particular problems such as the under-performance of the educational system and also the net drain of public and private financial resources away from the region.

*Result #2:* The team developed a regional leadership map by assembling a matrix of the boards of directors of the major business associations, universities and civic institutions. This exercise yielded a list of 40 key leaders whose participation was invited. A further iterative process was used to come up with a list of ten key leaders (later expanded to 12) whose support would be essential for regional competitiveness initiatives.

*Result #3:* Broader support for national reform initiatives and for priorities emerging from the cluster and national competitiveness activity exist. For example, the cigar cluster in Santiago strongly supports reforms in the area of intellectual property rights and protection of name brands and trademarks as they are experiencing unfair competition from companies making cheap imitations of established brands. The apparel export sector in particular and the free-trade zone manufacturers broadly support privatization and modernization reforms that could lead to an improvement in the costs and provision of electricity. Access and cost of finance have also emerged as crosscutting issues, lending support to the reform and competitiveness of the banking sector. The need to attract investment in related and support industries in the apparel sector means broad support for improving the legal and enabling environment, including the enforcement of contracts. Finally, there is broad support for educational reform and workforce development in all major clusters. There is also support for labor and social reforms such as the reform of social security payroll tax regulations to allow for private provision of health care.

*Result #4:* Santiago's key industry clusters now have competitiveness strategies centered around a few key priorities that can lead to substantial impact on export revenues, regional economic growth and employment. The tobacco sector could see major results from developing locally produced wrapper, which has the potential to generate US\$50 million per year and create a large expansion in employment and value added. The attraction of investors in machine-rolled tobacco could generate increased demand for locally produced tobacco and spur further manufacturing jobs. The apparel sector will be seeking to attract a cluster of related and supporting industries to enable them to offer full-package services. The tobacco, apparel and health services clusters had not come together in such a focused way before. In addition, preliminary work was done with the tourism and educational clusters.

*Result #5:* Clear priorities have been established for regional flagship initiatives. These initiatives have been vetted with key leaders in the Santiago region. Key leaders in Santiago are now seeing whether individual leaders will take personal and organizational responsibility for each of these initiatives.



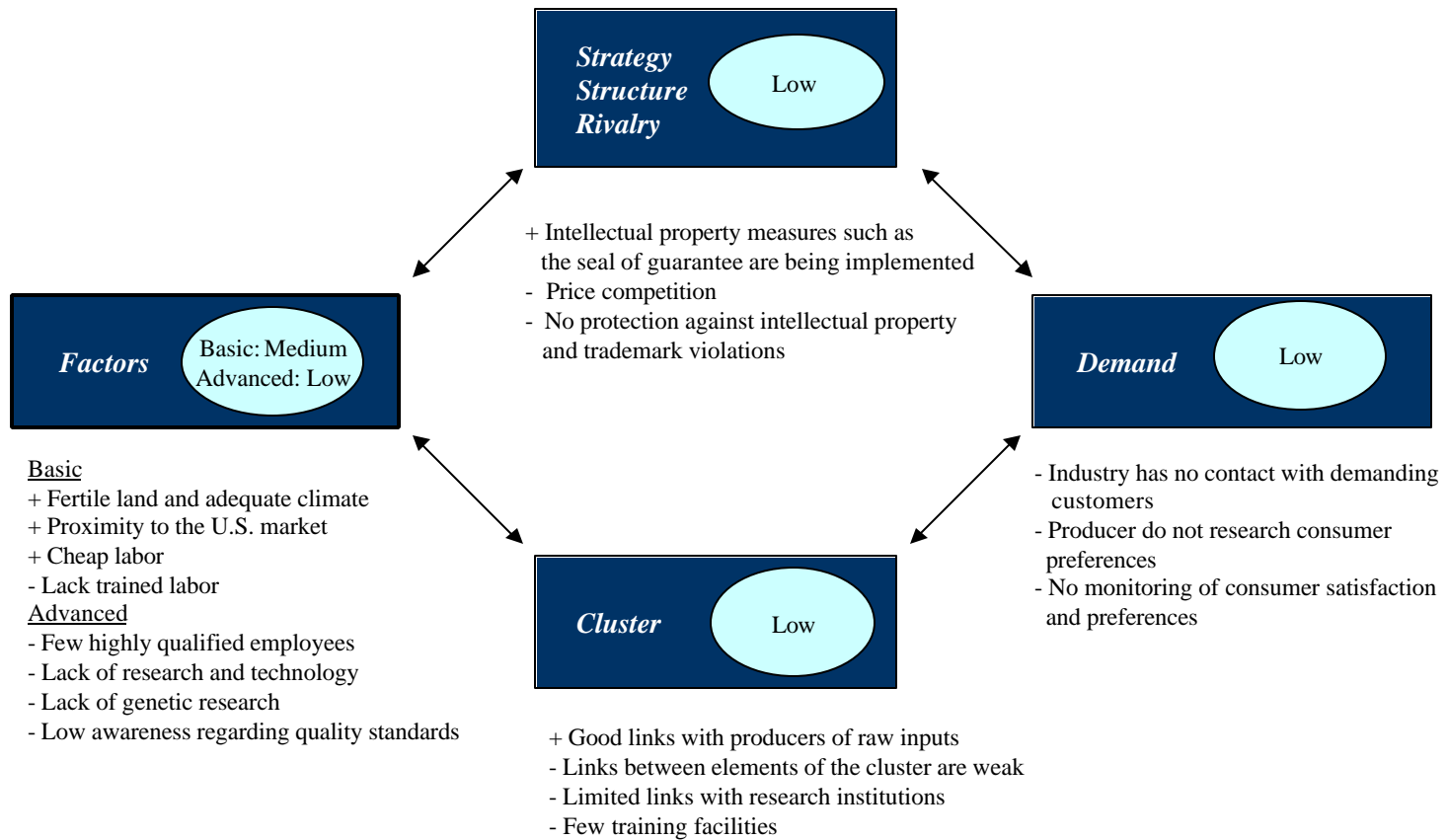
## **ANNEX A**

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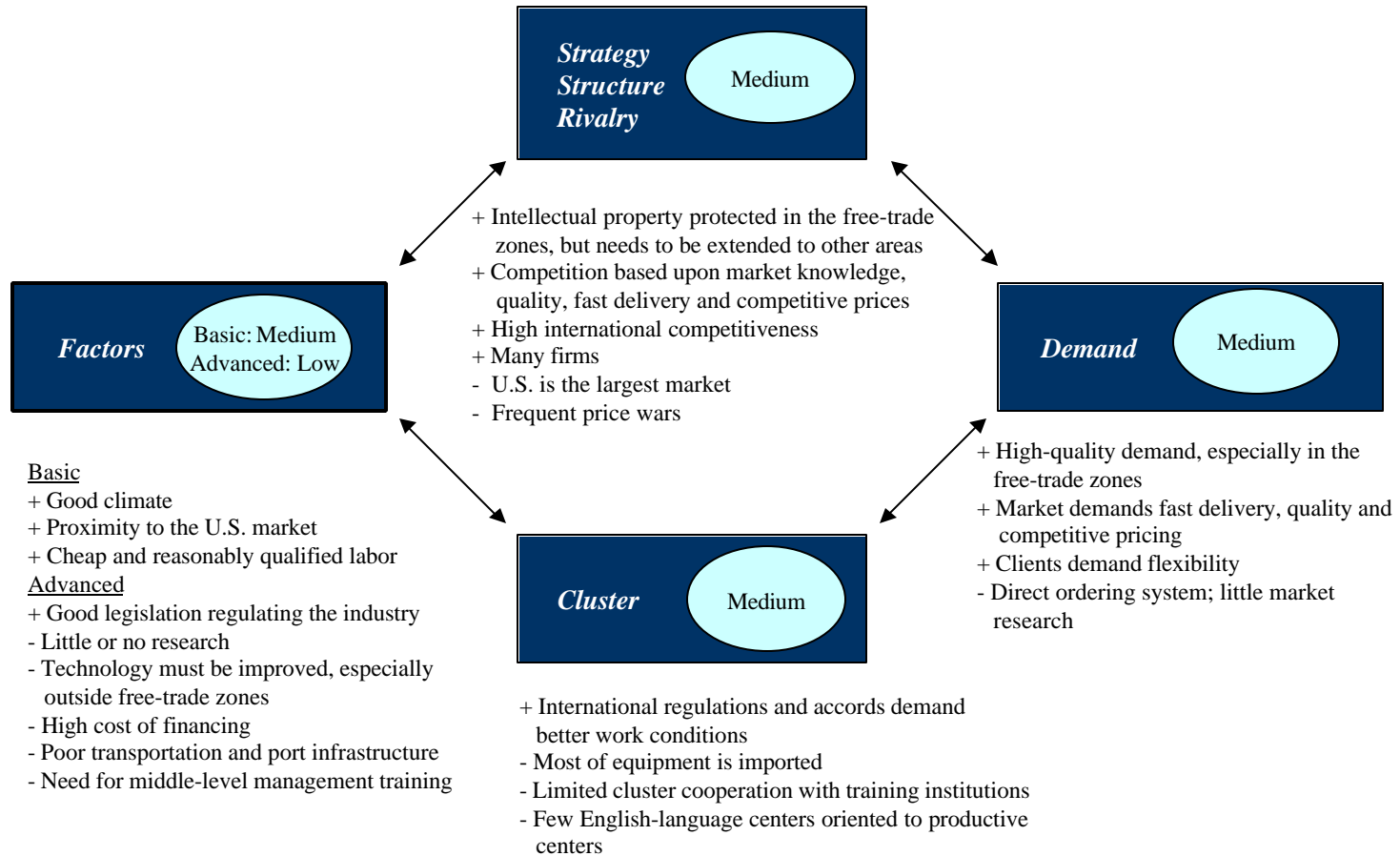
### Cluster Competitiveness Diamonds and SWOT Analyses

## Cluster Competitiveness Diamonds and SWOT Analyses

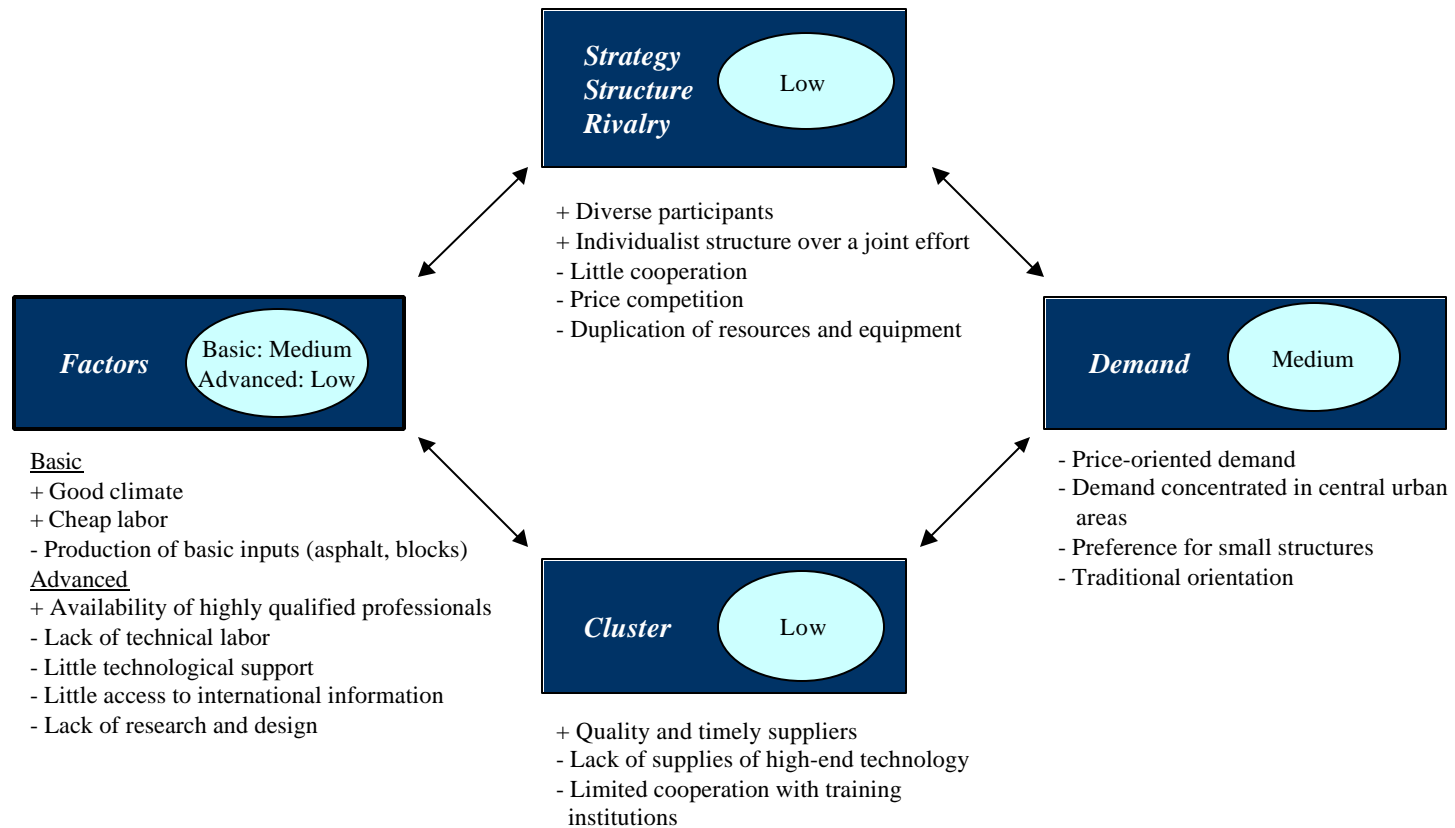
### TOBACCO: SANTIAGO COMPETITIVENESS DIAMOND



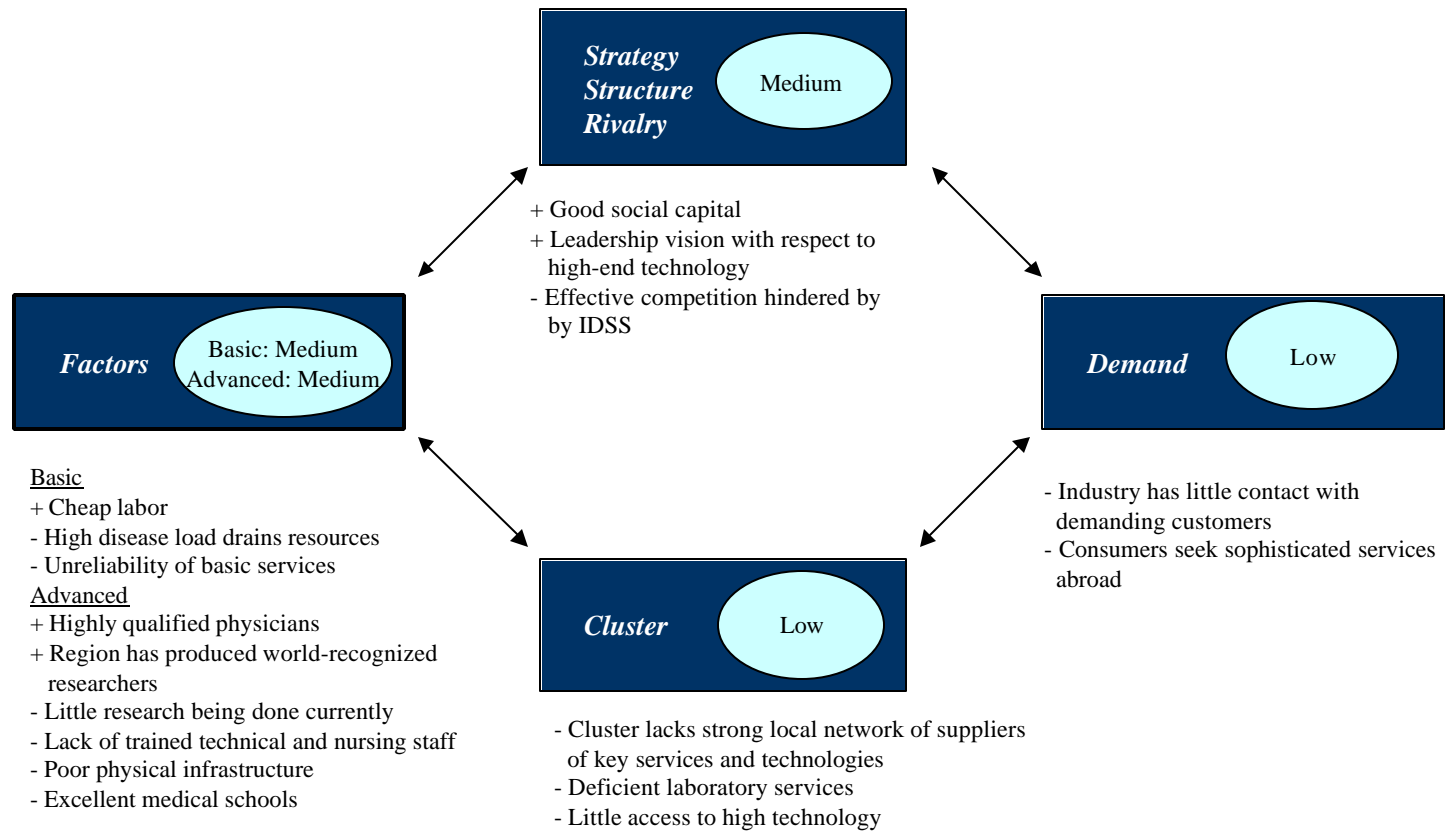
## TEXTILES: SANTIAGO COMPETITIVENESS DIAMOND



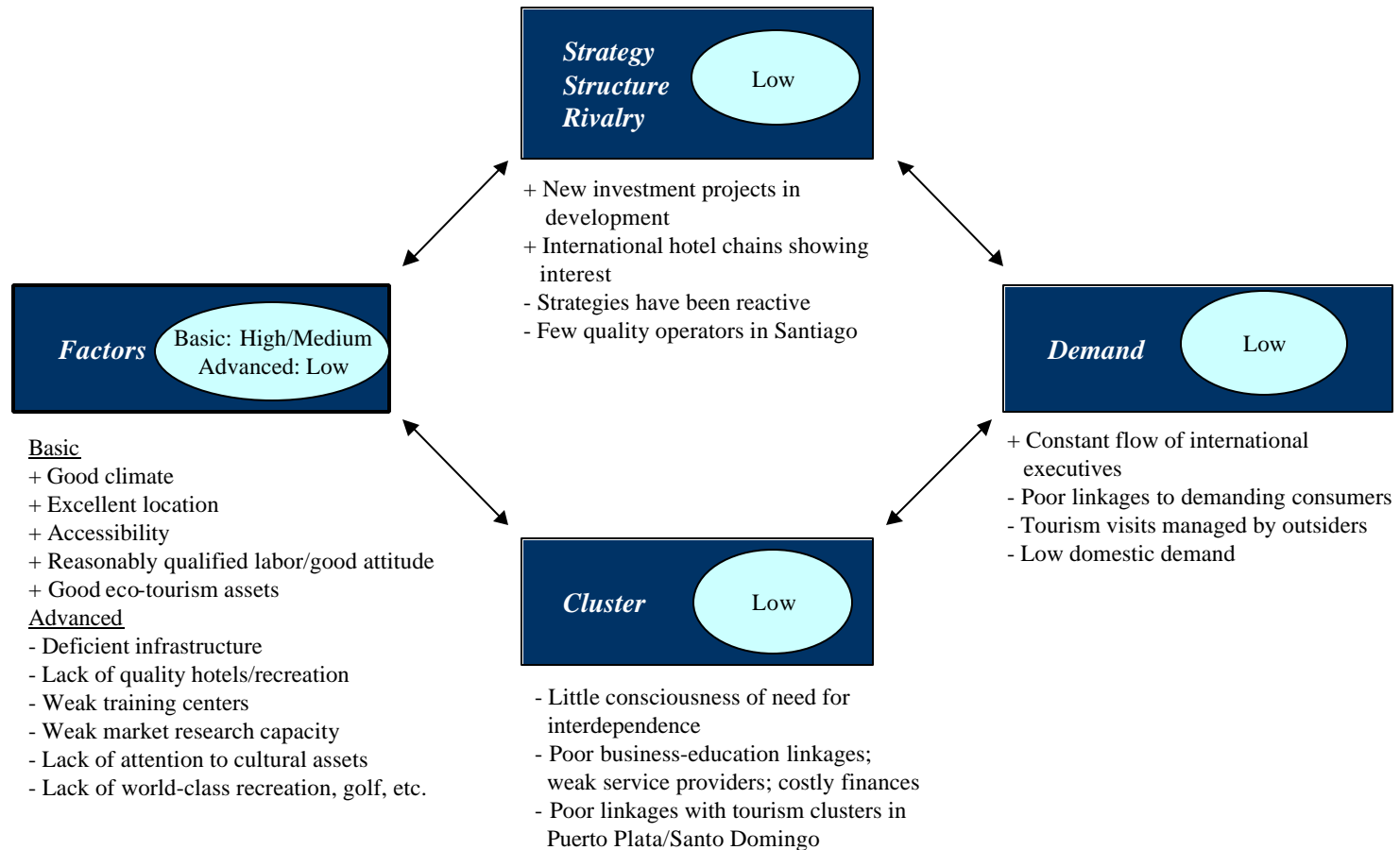
# CONSTRUCTION: SANTIAGO COMPETITIVENESS DIAMOND



# HEALTH CARE: SANTIAGO COMPETITIVENESS DIAMOND



## TOURISM: SANTIAGO COMPETITIVENESS DIAMOND



### Tobacco Cluster SWOT Analysis

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• High quality</li> <li>• Lower costs than Cuba</li> </ul>	<ul style="list-style-type: none"> <li>• Little control over channels of distribution</li> <li>• Perception of quality in international markets is worse than that of Cuban products</li> <li>• Little integration among producers</li> <li>• Little integration between producer and suppliers</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Use technology to boost the perception of quality of Dominican cigarettes</li> <li>• Approach the consumer through new strategies</li> <li>• Improve quality through the introduction of advanced factors</li> <li>• Obtain greater control over distribution</li> <li>• Increase penetration of the European market</li> <li>• Support the machine-rolled cigarette industry, which would be oriented towards the European market</li> </ul>	<ul style="list-style-type: none"> <li>• If the U.S. market becomes open to Cuban products, exports would be disrupted</li> <li>• Rise in anti-tobacco publicity</li> <li>• Tendency of the ownership of key industry players to be concentrated in the hands of European investors who have vested interests in Cuba</li> </ul>

### Textiles Cluster SWOT Analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Competitive package</li> <li>• A principal market (United States)</li> <li>• Positive image of the country and sector</li> <li>• Ability of the sector to meet the demands of the market</li> <li>• Availability of cheap yet good labor</li> <li>• Good regulatory framework</li> </ul>	<ul style="list-style-type: none"> <li>• Inefficient training facilities: training programs do not meet company needs</li> <li>• Formal educational system does not respond to industry needs</li> <li>• High energy costs</li> <li>• Low wages</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• New international airport</li> <li>• Textile parity</li> <li>• The European market</li> <li>• Strategic planning: strengthen links between the industry and related sectors to improve competitiveness</li> </ul>	<ul style="list-style-type: none"> <li>• Cuban competition</li> <li>• Excessive reliance on the U.S. market</li> <li>• End of the Multi-Fiber Agreement in 2005 will favor East Asian countries</li> </ul>



### Construction Cluster SWOT Analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Supply of cheap yet good inputs (cement, bricks, wood)</li> <li>• Availability of highly qualified workers</li> <li>• Availability of heavy equipment</li> <li>• Availability of land</li> <li>• Large demand for housing</li> <li>• Long-term financing available</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of heavy-duty transportation services at competitive prices</li> <li>• High cost of financing</li> <li>• Lack of technical labor</li> <li>• Abundant unskilled labor</li> <li>• Low contractual standards</li> <li>• No technical training centers</li> <li>• Inadequate regulatory framework and supervision concerning quality standards</li> <li>• Sixty percent of the sector is informal</li> <li>• Sector based on family-owned business with little organization</li> <li>• Lack of projects in urban infrastructure</li> <li>• Problematic legislation</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• High demand outside the region</li> <li>• Existence of Dominicans in the exterior in good economic situation</li> <li>• High population growth in the region</li> <li>• Attracting foreign capital</li> </ul>	<ul style="list-style-type: none"> <li>• Arrival of large international consortiums</li> <li>• Entrance of foreign professionals</li> <li>• High equipment taxes</li> <li>• Earthquakes in Santiago</li> </ul>

### Health Care Cluster SWOT Analysis

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• Well-prepared physicians with social sensibilities</li> <li>• Physical capacity installed or in process of being installed</li> <li>• Medical community leaders share a vision with respect to utilizing high-end technology</li> </ul>	<ul style="list-style-type: none"> <li>• Laboratories are not efficient</li> <li>• Poor infrastructure</li> <li>• Little research</li> <li>• Low wages</li> <li>• There is no database with medical information</li> <li>• Dependency on unreliable electricity supply</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• Santiago as a national health center</li> <li>• Dominican and other markets</li> <li>• Development of high-end technology</li> </ul>	<ul style="list-style-type: none"> <li>• Arrival of large international firms with the latest technology</li> <li>• Medical demands</li> <li>• High cost of high-tech equipment and financing</li> </ul>

**ANNEX B**

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Needs Analysis of Santiago's Economic Infrastructure

# Needs Analysis of Santiago's Economic Infrastructure

## A. Financial Infrastructure

The statistical work done by the team that produced *Santiago en Cifras* revealed that while Santiago has 9.8 percent of the national population, it receives only 7.4 percent of total central government investment. The National District, by contrast, receives 49.3 percent of total central government investment despite representing only 31.4 percent of the national population. A trend towards decentralization of financial tax and spending could help address this situation.

The study also revealed the net export of private financial resources out of the region. The province provides 11.3 percent of savings to the national commercial banking system, which in turn only holds 6.2 percent of its overall loan portfolio in the province. This situation can be addressed by both the private sector (more bankable projects, good ideas and capable entrepreneurs) and by the public sector (building economic and physical infrastructure that facilitates this private investment). The high cost of domestic finance was also cited by several industry clusters. This is a national-level problem beyond the scope of the regional effort. The savings-and-loan sector in Santiago, however, is relatively strong.

## B. Transport Infrastructure

The widening of the highway to the capital has reduced travel time between Santiago and Santo Domingo and is a welcome recent improvement. The major trunk highway to Puerto Plata is in poor shape and a project to widen and repair it is underway. This road was not finished prior to the 2000 presidential elections and there is some question as to whether the newly elected government will finish the project of a former government with the same zeal unless there is substantial pressure from regional leaders.

There is a need for larger port facilities in Puerto Plata. The underdeveloped Manzanillo area, near Monte Christi, appears to have better natural port conditions for larger ships than does Puerto Plata, but will require related infrastructure. The recently approved Cibao international airport has already begun its construction of the tarmac. Although initially controversial, it promises to increase the dynamism of at least four towns: Santiago, La Vega, Lycee and Moca. Land values in the vicinity have already increased. There are initial plans for PUCCM to sponsor a knowledge park on land that it owns adjoining the airport.

The completion of the beltway artery to the south and east of the city has been important to economic growth. However, it needs to be completed in the northern arc of the city as well. There must also be better planning and zoning for economic development. Traffic patterns and renewal of the city street system is also needed, especially in light of a 48 percent jump in car registry in two years, as documented by *Santiago en Cifras*. This has also contributed to noise pollution as drivers continue to use their horns for self-expression and purposes other than indication of imminent danger.

### C. Policy, Institutional and Other Business Environment Factors

It is beyond the scope of a regional competitiveness initiative to deal with national policy and related institutions. However, it is important to note that fiscal and governance decentralization will be a boon to Santiago if well managed by provincial and local authorities. Competitiveness of the garment and most other sectors is negatively affected by the energy situation, which is more expensive and less reliable than in competing countries. For example, one free-trade zone in Honduras depends entirely on the national energy grid. Costs of electricity in many countries average eight cents per Kwh., much lower than in the DR.

The social security payroll tax of 10 percent (7.5 percent of which is paid by employers) provides little, if any, benefit. Most funds go to the IDSS system for services people normally do not use because of notoriously poor quality. Giving employers the option to buy into a private insurance scheme would provide better employee benefits, contribute to national health objectives and help boost the emergence of a more competitive health care industry.

At a more controllable level, the private sector could make a notable contribution to the seeming inability of municipal authorities to collect trash, control noise and organize traffic patterns.

#### Exhibit A-1: Strategies for the Development of the Economic Infrastructure of Santiago

Strategies	Initiatives
Invest in human resources	<ul style="list-style-type: none"> <li>▪ Establish and/or strengthen specialized training centers</li> <li>▪ Create certification program in key technical skills</li> </ul>
Acquire Improved Technology	<ul style="list-style-type: none"> <li>▪ Develop, adapt, transfer and disseminate applied technologies that allow for the improvement of the aggregate value of the product and services of Santiago and the surrounding region</li> </ul>
Develop physical infrastructure	<ul style="list-style-type: none"> <li>▪ Modernize and improve airports and ports to include cold storage capabilities</li> <li>▪ Expand and improve the regional road system</li> <li>▪ Establish and develop a regional center of transportation and distribution for the Caribbean and Central America</li> <li>▪ Develop and improve urban services infrastructure in Santiago</li> <li>▪ Support private participation in infrastructure in much needed infrastructure projects</li> </ul>
Improve the business environment	<ul style="list-style-type: none"> <li>▪ Undertake a publicity campaign to promote Santiago's image and that of its services and products in the Dominican Republic and abroad</li> <li>▪ Promote and implement better and clearer business legislation</li> <li>▪ Promote environmental awareness and ecological conservation in the Santiago region</li> <li>▪ Promote the improvement of public security systems for Santiago and the region.</li> <li>▪ Support reforms in macroeconomic environment, legal and regulatory judicial system, labor environment, transparency, and personal security.</li> </ul>

Strategies	Initiatives
Strengthen investment attraction and promotion	<ul style="list-style-type: none"> <li>▪ Leverage other proposed publicity efforts</li> <li>▪ Creation of a Santiago Investment Promotion Office, either as a funded part of the national investment promotion agency or as an independent effort funded by the Santiago business community and local government</li> <li>▪ Establish a Santiago regional investment strategy to compete effectively against other regions in DR for investment</li> </ul>
Strengthen the export sector	<ul style="list-style-type: none"> <li>▪ Integrate and operate a information system aimed at providing market information and business resources</li> <li>▪ Organize and facilitate the local companies' participation in national and international business missions and trade fairs</li> </ul>
Facilitate access to financial resources	<ul style="list-style-type: none"> <li>▪ Support initiatives to lower the costs of access to finance such as making access to financial information more readily available and making access to foreign capital easier</li> </ul>
Invest in information technology	<ul style="list-style-type: none"> <li>▪ Support the acquisition and improvement of IT in free-trade zones</li> <li>▪ Attract investment in resources for IT training in local technical institutes and universities</li> </ul>