**ABBREVIATIONS AND ACRONYMS**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BF</td>
<td>Board-foot</td>
</tr>
<tr>
<td>CA</td>
<td>Central America</td>
</tr>
<tr>
<td>CENAME</td>
<td>National Metrology Center (Centro Nacional de Metrología)</td>
</tr>
<tr>
<td>CIEN</td>
<td>Center for National Economic Studies (Centro de Investigaciones Economicas Nacionales)</td>
</tr>
<tr>
<td>CITES</td>
<td>Technology innovation centers (centros de innovación tecnológica)</td>
</tr>
<tr>
<td>CNEE</td>
<td>National Electric Energy Commission (Comisión Nacional de Energía Eléctrica)</td>
</tr>
<tr>
<td>CONCYT</td>
<td>National Science and Technology Council (Consejo Nacional de Ciencia y Tecnología)</td>
</tr>
<tr>
<td>DR-CAFTA</td>
<td>Dominican Republic-Central American Free Trade Agreement</td>
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<tr>
<td>EU</td>
<td>European Union</td>
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<tr>
<td>FDI</td>
<td>Foreign direct investment</td>
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<tr>
<td>GAP</td>
<td>Good Agricultural Practices</td>
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<tr>
<td>GBP</td>
<td>Good Business Practices</td>
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<tr>
<td>GDP</td>
<td>Gross domestic product</td>
</tr>
<tr>
<td>GPP</td>
<td>Good Processing Practices</td>
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<tr>
<td>ICA</td>
<td>Invest Climate Assessment</td>
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<tr>
<td>IFC</td>
<td>International Finance Corporation</td>
</tr>
<tr>
<td>INGUAT</td>
<td>Guatemala Tourism Institute (Instituto Guatemalteco de Turismo)</td>
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<tr>
<td>LAC</td>
<td>Latin America and the Caribbean</td>
</tr>
<tr>
<td>MFH</td>
<td>Microfinance institution</td>
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<tr>
<td>MRGC</td>
<td>Metropolitan Region of Guatemala City</td>
</tr>
<tr>
<td>MSME</td>
<td>Micro, Small, and Medium Enterprises</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Government Organization</td>
</tr>
<tr>
<td>PIPAA</td>
<td>Integral Program for Agricultural and Environmental Protection</td>
</tr>
<tr>
<td>PPP</td>
<td>Public Private Partnership</td>
</tr>
<tr>
<td>PRONACOM</td>
<td>National Competitiveness Program (Programa Nacional de Competitividad)</td>
</tr>
<tr>
<td>QI</td>
<td>Quality infrastructure</td>
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<tr>
<td>R&amp;D</td>
<td>Research and development</td>
</tr>
<tr>
<td>SENACYT</td>
<td>National Science and Technology Secretariat (Secretaría Nacional de Ciencia y Tecnología)</td>
</tr>
<tr>
<td>SME</td>
<td>Small and medium enterprise</td>
</tr>
<tr>
<td>SPS</td>
<td>Sanitary and Phytosanitary Standards</td>
</tr>
</tbody>
</table>

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Note: Volume 2 contains a comprehensive analysis of each of the above topics. Source citations can also be found in Volume 2.

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SME Development in Guatemala

I. INTRODUCTION

1. With a multiethnic population of about 13 million and a per-capita GNI of US$2,610, Guatemala is the largest economy in Central America. Since the signing of the Peace Accords in 1996 that ended the 36-year civil war, Guatemala has made significant progress in undergoing the necessary reforms to lead to broad-based growth. Nonetheless, poverty rates and levels of inequality remain high and social indicators are low compared to countries with similar incomes. Overall poverty rates have declined from 56 percent in 2000 to 51 percent in 2006, but this rate is higher than many countries of a similar income level. Extreme poverty is high at about 16 percent and concentrated in rural and indigenous regions.

2. Similar to most of Latin America, in Guatemala small, and medium enterprises (SMEs) account for the vast majority of employment. The Guatemala Federation of Small and Medium Enterprises estimates that SMEs contribute 40 percent of GDP and 85 percent of employment (2009). The State of the Region (2008) report estimates that 80 percent of employment is in firms with less than 20 employees. Improving the performance of SMEs and increasing their participation in local and global markets can have enormous and positive economy-wide consequences. For example, measures that increase productivity, lower logistics costs, stimulate access to new technology, and integrate SMEs into value chains can all generate employment, raise incomes, and reduce poverty. Box 1 provides an illustrative case of the difficulties faced by a typical Guatemalan SME. While this report focuses on SMEs, most of the recommendations will also indirectly or directly benefit larger firms as well as microenterprises.

3. Based on multiple data sources, this report assesses the main obstacles that affect SME growth in Guatemala and provides policy options for improving the business environment and long-term competitiveness. The report begins with a diagnostic that employs a variety of analytical tools to determine the areas in greatest need of reform. Based on the diagnostic, the report covers the following critical areas in depth: transport and logistics, electricity, innovation and quality, human capital, access to finance, and business regulations. A transversal issue that arises is the integration of SMEs into value chains. Therefore, the study includes analyses of three illustrative sectors: agribusiness, forestry/wood processing, and tourism. While all of the recommendations should improve the performance of the Guatemalan economy, a few stand out as being particularly high priority for SME development. These recommendations were chosen based on a thorough review of all of the subject areas analyzed in the report and a qualitative assessment of the actions that are likely to have the largest impact on SME competitiveness. They are:

   • **Transport and logistics: address road security and improve key trade corridors.** The most serious problem found in the logistics analysis was the high levels of insecurity on the roads, going beyond the theft of cargo to even threats to drivers’ lives. Hiring private security costs trucking companies millions of dollars. A road freight security program could help address this problem by involving government security forces in the effort to control road safety and monitor informal markets where stolen goods are sold. Private companies could help by reporting crimes to authorities and sharing information. In
addition, as a result of inadequate infrastructure and related services in key trade
corridors, moving merchandise from production areas to final destinations remains quite
burdensome.

- **Innovation and quality: strengthen government institutions and facilitate knowledge transfer.** Designing more effective and better programs, particularly for knowledge transfer, with appropriate increases in funding for innovation and quality, and improving the governance and capacity in corresponding government institutions would not only lead to innovation-led productivity gains but also signal that innovation is a top priority for the Government. For SMEs in Guatemala, focusing on discovery, transfer, and adaption of technologies that exist internationally (or even locally but that are not systemically used) generally makes more sense than investing in new-to-the-world R&D. Matching grants programs can encourage technology adoption and innovation. Another effective mechanism is the creation or upgrading of technology innovation centers (CITEs in Spanish), which can facilitate the transfer of existing technologies/knowledge and address sectoral quality issues.

- **Human capital: increase private sector participation in the design of education and training programs.** Input from the private sector in the formation of policies and the design of programs will ensure their relevance. Establishing a feedback process that allows stakeholders to identify present and future needs of companies would increase the relevance of curricula and could decrease drop-out rates. Also study programs and internships that combine education with working experience would improve the transition from school to work.

- **Integrate SMEs into value chains and foster their development.** Incorporating SMEs into value chains and improving “associativity” among SMEs broadens their access to markets and can lead to increased productivity through access to better technology, information, credit, and external services. The report provides recommendations on how to develop the forestry/wood processing, agribusiness (fresh fruits and vegetables), and tourism sectors to deepen SME participation. The analyses found that infrastructure, training, quality/certification, and coordination issues were transversal problems across the sectors.
Box 1: The Plight of a Typical Guatemalan SME

Consider a typical small enterprise in Guatemala, such as a chemicals company in Cobán in the department of Alta Verapaz. The owner faces a series of obstacles that challenge the firm’s ability not only to grow and succeed but even just to survive.

For example, if the firm started as an informal enterprise, the owner has to weigh the costs and benefits of remaining informal. Although he avoids taxation and the costs of registering by remaining informal, the opportunities for growth are limited since he cannot access formal financing and has to stay under the radar of government agencies.

Even if the owner decides that formalizing is the best option, the firm will still face many challenges to its growth. It may have difficulty finding and hiring personnel with appropriate skills and sufficient education. Paying to train these workers will be a burden, assuming relevant training resources are even available. Furthermore, the firm is likely using outdated equipment and technology. Accessing and adopting the latest technologies to improve its processes, products, and functions will be costly. Without making such improvements, the firm is unlikely to meet the quality standards that would allow it to reach new markets and buyers. Unfortunately, obtaining financing to make major investments could prove difficult if the firm is not eligible for loans or if banks see lending to finance technology upgrading as too risky.

The firm will also suffer from other external factors over which it has little control. It will have difficulty obtaining quality inputs at competitive prices, since it will not have economies of scale. Also, smaller enterprises in Guatemala pay some of the highest electricity prices in the region. Lastly, even if the firm were able to produce goods of adequate quality to reach markets outside of Cobán, it would be burdened with the high costs of paying freight security since highway crime is common.

The chemicals firm faces a series of market and government failures that threaten its survival. However, if it succeeds in overcoming these difficulties, it could join a cadre of SMEs that drive economic and job growth in Guatemala.

Source: Author’s elaboration.

II. DIAGNOSTICS

4. There is a growing body of analytical tools and information to identify priorities with greater precision. This report employs several, including surveys of investors and businesspeople, detailed benchmarking data, and a growth diagnostic methodology (Hausmann, Rodrik, and Velasco 2005). Table 1 summarizes the results of these diagnostic tools.

<table>
<thead>
<tr>
<th>Analytical Tool</th>
<th>Source</th>
<th>Priority Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveys</td>
<td>Enterprise Surveys</td>
<td>Informal practices, crime, political and macroeconomic stability, infrastructure (electricity), corruption</td>
</tr>
<tr>
<td>Benchmarking</td>
<td>Doing Business</td>
<td>Starting a business, dealing with construction permits, trading across borders (logistics), protecting investors</td>
</tr>
<tr>
<td></td>
<td>Global Competitiveness Report</td>
<td>Institutions, infrastructure, macroeconomic stability, education, finance, innovation</td>
</tr>
<tr>
<td></td>
<td>Growth Diagnostic Hausmann/Rodrick/Velasco Methodology</td>
<td>Human capital, innovation, micro risks (property rights, taxes, etc.)</td>
</tr>
</tbody>
</table>

5. The diagnostic instruments identify the critical areas in need of reform. If one looks at the recurring themes or those that were more firmly emphasized, the reform areas could be
grouped under the categories of infrastructure (logistics and electricity); business regulations and informality; innovation and quality; human capital; and access to finance, all of which are covered in this report. These subject areas were determined to be the most likely to impact SME growth and sustainability. In addition, macroeconomic and political instability, taxation and fiscal policy, crime and corruption, access to land, and disaster mitigation also arise as impediments to growth and SME competitiveness. These issues, although important, will not be addressed directly through the study. They have not been included for one of the following reasons: a) they are covered in some detail in a recent, separate World Bank report; b) their impact on SME development is less direct than the selected topics; or c) they are beyond the scope of this report.

6. A critical issue for SMEs that cuts across the topics identified by the diagnostic is the importance of integrating SMEs into value chains. Facilitating “associativity”—tighter associations or productive linkages between SMEs—and incorporating SMEs into value chains and clusters broadens their access to markets and can lead to increased productivity through access to better technology, information, credit, and external services. The study therefore examines three indicative and very relevant sectors in Guatemala—agribusiness, wood processing / forestry, and tourism—to corroborate the broad and aggregate diagnostic results and more specifically determine what issues are inhibiting those sectors’ growth and how SMEs can be further integrated into the value chains. The analyses highlight how the topics covered in other chapters are relevant to the value chains, as well as specific reform areas.

7. Given the relevance of the rural sector in Guatemala, no SME competitiveness study could ignore it: developing the rural economy is a critical and cross-cutting issue for SMEs. In Guatemala, about 50 percent of the population live and work in rural areas. Although Government interventions are often focused on rural areas, poverty, malnutrition, and illiteracy persist. Given the importance of the rural economy, developing specific interventions to improve rural development is integral to the country’s overall competitiveness. To help policy-makers design effective rural interventions, the study employs a mapping technology that categorizes municipalities in terms of poverty rates, cost of access to markets, economic potential and efficiency of production. The resulting maps could assist the Government in prioritizing investments in rural productivity improvement, market access, and poverty reduction.

III. THE INFRASTRUCTURE CHALLENGE

8. Deficiencies associated with infrastructure are a major binding constraint to Guatemala’s competitiveness and SME growth. Weaknesses were found to be particularly damaging in electricity and logistics, both of which are critical to encouraging investment.

Electricity

9. The impact of the performance of the power industry on the country’s competitiveness has become relevant over the last few years due to unexpected external and internal shocks which have significantly affected the cost and quality of service.

10. Supply. The composition of the generation of energy in Guatemala is primarily hydroelectric (35 percent) and fuel-oil (32 percent). Nominal installed capacity in 2008 was
2,197MW while maximum demand was 1,505MW. According to the Indicative Generation Expansion Plan 2008-2022 of the National Electric Energy Commission (Comisión Nacional de Energía Eléctria, CNEE), reserve margins were estimated to increase from 34 percent in 2008 to 56 percent in 2012, assuming Mexico can export up to 200 MW and that their prices are competitive in the Guatemalan wholesale market. Considering that the investments in new generation would be done by private companies, the feasibility of this expansion plan depends on the economics of new plants and the investment strategies and risk-taking policies of new investors. Recent estimates suggest that not all of the new generation included in the CNEE plan will be undertaken. A 2009 report prepared for the IFC found plans for 360 MW of new renewable energy and 472 MW of new conventional thermal by 2014. In contrast, the CNEE plan estimated 560 MW of new renewables and 567 MW of new conventional thermal by 2012.

11. When firm capacity—the amount of energy guaranteed to be available at a given time or the amount that generators can deliver in a “safe” manner—is considered, estimated reserve margins dwindle substantially. Figure 1 highlights the significant difference between installed and firm capacity compared to peak demand for those same years. These numbers suggest that Guatemala must actively promote the execution of its generation expansion plans if adequate reserves are to be maintained and marginal generation costs are to fall.

![Figure 1: Peak Demand vs. Supply](source: Mercados Energéticos Consultores (2009)).

12. **Demand.** Electricity is a clear obstacle to the operation of enterprises. Reliability and the cost of the service remain key issues. While in 2003, 27 percent of companies interviewed for the Enterprise Survey indicated that access to electricity was a critical issue, this percentage increased to 47 percent in 2006. This is a serious deterioration, especially since entrepreneurs’ perceptions improved on almost all other investment climate dimensions. However, among its regional comparators, fewer firms suffered power outages than in most other countries. One of the possible explanations for the deterioration of enterprises’ perception of the electricity sector is that power outages have increased from 1.5 (2003) to 5 (2006) times per month. These outages accounted for an average loss of 6.1 percent of sales in 2007. In rural areas, the problem is particularly alarming – power outages cost up to 6.7 percent of sales and lasted an average of 37 hours per month compared to 8 hours in metropolitan areas.
13. The price of electricity is one of the highest in the region. This is due to high marginal costs of generation and due to the fact that Guatemala does not subsidize energy as heavily as other Central American countries, such as Nicaragua and Honduras. The low tariffs in those countries are considered unsustainable. These rates are a clear disadvantage for Guatemalan SMEs who suffer higher prices than their competitors in the region. Informal enterprises can pay residential prices and benefit from the social tariff (for consumption below a certain level). Large users are free to buy directly from generators or in the spot market. SMEs usually do not have this flexibility.

**Recommendations**

14. *Expansion plan.* Critical problems in Guatemalan electricity derive mostly from supply and high prices. Carrying out the Indicative Generation Expansion Plan will help lower the marginal costs of generation and maintain a reliable electricity supply. An updated timetable for the execution of the plan is needed, as well as a commitment to its progress.

15. *Renewables.* Investments in renewable energy, particularly hydro, are important not only to substitute the generation from fuel oil but also to push out of the market high-cost generation units. Also mini-hydroelectric projects may help improve coverage and reliability in rural areas. However, according to the government there is no information and training plan for rural communities on how to take advantage of hydro resources for electricity generation.

16. *Interconnection and the regional market.* It will be important to take advantage of the interconnection with Mexico, for instance through “firm energy” contracts between Mexican generators and Guatemalan consumers. Also, Guatemala should reinforce its transmission grid in order to be able to serve as a bridge between Mexico and the Electric Interconnection System for Central America (SIEPAC) backbone line.

17. *Social tariff.* The social tariff may have to be reoriented and refocused on the neediest. The current scheme is poorly targeted and costly, with huge inclusion and exclusion errors. Better targeting would mean the subsidies would be more effective with fewer resources. The savings could be used for planned investments in transmission and hydropower.

**Transportation and Logistics**

18. Weaknesses in transportation and logistics were a recurring theme cited in the diagnostics. Particularly burdensome are trade corridors from the agro-industry production areas to borders/ports and more generally from Guatemala City to borders/ports. Given the growing role of international trade in the economy, routes into and out of the country are critical to improving competitiveness. Also the extent of complementary services, such as cold chain infrastructure, warehousing, scale consolidation, licensing services, border crossing procedures, and so on remain questionable, adding to logistic costs and hampering competitiveness.

19. According to the World Bank’s comprehensive Logistics Performance Index, Guatemala’s absolute score improved between 2007 and 2009, but its ranking dropped 15 places. Performance was poor on border management and international shipping. Customs and border management is weakest at border crossings, and there is a lack of coordination among involved agencies (customs control, narcotics, and agricultural/public health control) that leads to
duplicated efforts. Surface transportation is another area of concern, particularly because of the high costs from crime and violence. The quality of the road infrastructure is also low, mostly due to inconsistent maintenance. The ports are a major access point for international trade, but they are constrained by their inability to accommodate larger vessels. Lastly, insufficient infrastructure and policies to support SMEs prevent their participation in global supply chains. Table 2 summarizes the major problems in logistics performance.

Table 2: Summary of Guatemala logistics factors problems

<table>
<thead>
<tr>
<th>Domestic Transportation</th>
<th>Highways</th>
<th>The growing demand requires network expansion and modernization. Growing maintenance backlog, and urban congestion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Trucking industry</td>
<td>Urgent need to enhance workers professionalization and firms development</td>
</tr>
<tr>
<td></td>
<td>Railways</td>
<td>They currently have no role</td>
</tr>
<tr>
<td>Gateways</td>
<td>Ports</td>
<td>Port weaknesses (like short draft) constrain ship size, increasing freight rates. Ample room for efficiency gains.</td>
</tr>
<tr>
<td></td>
<td>Airports</td>
<td>Some improvements needed to increase capacity</td>
</tr>
<tr>
<td></td>
<td>Border crossings</td>
<td>New crossings required; need to improve border operations efficiency</td>
</tr>
<tr>
<td>External Transportation</td>
<td>Maritime</td>
<td>Connectivity is not bad. A weak market and port deficiencies lead to operation based on feeder vessels. Some cartelization in reefer cargo.</td>
</tr>
<tr>
<td></td>
<td>Airborne</td>
<td>Good service in general, particularly express services</td>
</tr>
<tr>
<td></td>
<td>Surface</td>
<td>Good integration with other CA countries; with Mexico trade is unloaded-loaded at the border (on the Mexican side)</td>
</tr>
<tr>
<td>Business Logistics</td>
<td>Supply chain management</td>
<td>SMEs find obstacles in supply chain and logistics organization</td>
</tr>
<tr>
<td></td>
<td>Logistics operators</td>
<td>Good quality logistics services</td>
</tr>
<tr>
<td>Trade Facilitation</td>
<td>Control, inspections</td>
<td>Customs improving, but lack of coordination among entities performing controls at the border. Red channel too high</td>
</tr>
<tr>
<td></td>
<td>Security</td>
<td>A very serious issue in surface transportation</td>
</tr>
</tbody>
</table>

Source: Author’s elaboration

Key initiatives for a logistics agenda

Roads and highways:

20. **Increase the role of the private sector in providing infrastructure services.** There are several ways to promote public-private partnerships (PPPs), particularly on highways. The existence of a new legal framework—a new PPP Act, currently under discussion—might help in their implementation. The effectiveness of the new law will depend on its final form. There are many issues that will be relevant for the law’s actual impact, such as the independence of the regulatory entity, the level of approval required for PPP projects, the role of the controlling agency (Contraloria) with respect to the technical aspects, and the constraints for potential project renegotiation.

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1 The project is named “Ley de Participación Público Privada en Materia de Infraestructura.” At the time of this report’s preparation, the law was under review in Congress.
21. *Trade corridors.* The corridor between Guatemala City and Puerto Quetzal should be completed, as well as improvements made to other main corridors around Guatemala City and links to agricultural production areas in the north. Private investment through concessions can help improve these corridors and should be promoted when possible.

**Surface Transportation:**

22. *Road freight security and protection program.* The program should be prepared by security forces. It should improve control of roads and informal markets, where stolen goods are sold, based on previous intelligence surveys. Firms may contribute by refining their personnel selection process, mapping crime and sharing results with authorities, loading trucks in ways less attractive to thieves, installing vehicle monitoring devices, and improving communications channels with security authorities.

**Ports:**

23. *New port legislation and institutional organization.* A new legal and regulatory framework will help enhance port performance. Some of the key issues for the new legal framework, which should be consulted with relevant stakeholders, are: (i) a centralized national policy and administration organization to optimize port sector resource utilization, (ii) incentives for private investment in infrastructure, (iii) long-term planning procedures, (iv) effective mechanisms for user participation, and (v) establishment of an adequate regulatory entity.

**Border management:**

24. *Coordination among border control agencies.* The integration of border control is a major challenge to facilitate trade. The involved agencies should coordinate joint inspections (customs, agriculture and food, narcotics, public health) to avoid repeated inspections.

**Logistics software and institutions:**

25. *Facilitate modern logistics activities.* Efficient business logistics need the support of regulations and promotional policies. Two initiatives are proposed in this regard: (i) facilitate warehouse access, particularly to SMEs, with logistics platforms being the most efficient way to do it; (ii) support the development of cold chain facilities, since Guatemala has a very small capacity of refrigerated chambers and they are mostly private (only 15 percent of total refrigerated warehouses capacity is for public use).

**IV. THE HUMAN CAPITAL AND INNOVATION CHALLENGE**

**Human Capital**

26. Low levels of education are a major obstacle to competitiveness. In Guatemala, it is estimated that an increase of one percent in the average number of years of schooling would increase productivity by about 0.33 percent. Human capital formation in Guatemala is dependent on both the educational system and available training programs.

27. *Education.* Basic education performance is low; in 2006, the average number of years of schooling for those between 25 and 65 was 4.8 years, which is much lower than other countries.

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2 Transport Intelligence (2009)
in the region (Figure 2). Available data suggests that education quality is poor and math test scores for secondary students are discouraging (only 6 percent had at least a satisfactory score). Given the low number of students that complete secondary education and enrollment in the sciences at the tertiary level, Guatemala is not positioning itself to compete in the knowledge economy.

28. One measurement of human capital of a country is the share of technical and professional workers in the labor force. Out of the labor force at the national level, 8.6 percent are technical and professional workers, and only 3.3 percent are located in rural areas. This ratio is relatively low in comparison to other countries. In addition, it can be a constraint to attract foreign investment, which needs highly-skilled workers for the development of added-value activities.

**Figure 2: Average Years of Schooling for Population Aged 25-65 (2005/2007)**

Source: WDI and SEDLAC

29. *SME needs.* According to focus groups conducted by CIEN (1998), Guatemalan entrepreneurs considered that the educational and training levels of the labor force did not meet their needs. In some cases, it was because worker skills were not sufficient, and in others, because required skills did not exist at all in the labor market. Entrepreneurs considered it important that in the future education be more oriented toward the needs of the labor force. In contrast, the education system was considered to be static and unresponsive to market requirements.

30. Enterprise surveys of the manufacturing sector in 2006 found that 28 percent of firms offered formal training to their employees, and the incidence of training increased with company size: 24 percent of small, 35 percent of medium, and 66 percent of large enterprises offered formal training. The incidence is much higher in exporting companies (68 percent), foreign ones (64 percent), and high-tech sectors (e.g., chemical and pharmaceutical companies: 70 percent). From an international comparative perspective, Guatemala again fares poorly. A study from the World Bank (2004) reported that 36 percent of companies in Guatemala deem that the supplied external training was not very relevant to meet their training needs. A separate study indicated that
the training offerings from entrepreneurial development service institutions did not match the
demands of micro, small and medium sized enterprises (Garrido, 2005).

Recommendations

31. Foster more access to education and strengthen its quality and relevance through the
building of competencies for the “diversified cycle”. A good starting point is the National
Strategy for the Development of Basic Strategies for Life created by the Ministry of Education in
2008. Consultations, validations, and technical reviews of the competencies framework and new
curriculums need to continue in order to bring the models to the classrooms. Greater private
sector participation in identifying basic competencies should improve the educational system.

32. Align educational inputs with required competencies, implementing a continuous
consultation process to address labor market needs. Matching job-related competencies with
curriculum, educational materials, teaching, training of teachers, and evaluations would help
students see education as relevant to their future success at work. This would likely reduce
school drop-out rates. In order to institutionalize a permanent feedback process, a forum is
needed to allow all stakeholders to identify the present and future needs of companies and
students and promote cooperation among participants.

33. Foster strategic partnerships with the private sector to improve education through
internships in companies. This recommendation is aimed at improving the transition from school
to the labor environment, promoting more relevant teaching, and greater hiring of graduates.

34. Train human capital for the knowledge economy. Strengthening the quality and relevance
of secondary education and training programs is clearly a priority for Guatemala, especially in
the short run. As part of a longer-term strategy to foster innovation (see section below),
scholarships for students to study in national and international undergraduate and master’s (and
possibly PhD) programs in priority subject areas could also help build the stock of human
capital. Another possibility is to strengthen university and technical programs in priority science,
technology, and engineering fields.

Innovation

35. Innovation is a key driver of economic growth and critical to increasing competitiveness.
This report uses a broad definition of innovation, one that encompasses technology absorption
and the adoption and upgrading of existing products and processes, including quality
enhancements. On most traditional innovation measures—number of patents, number of
scientific publications, R&D expenditures, and number of researchers in R&D—Guatemala
performs poorly in comparison to other countries in the region. On technology transfer measures,
performance is better. Although Government institutions exist to address innovation deficiencies,
such as the National Council on Science and Technology (CONCYT) and its implementing
agency, the National Science and Technology Secretariat (SENACYT), these institutions lack a
strong mandate, capacity, and sufficient resources. In terms of quality infrastructure, some
quality institutions are performing well, such as the accreditation body, but the norms body is
slow to adopt international standards and the metrology institute lacks adequate human
resources. In general, a culture that celebrates innovation and quality is weak in Guatemala.
36. The market failures and obstacles present in Guatemala imply that an unregulated and purely privately funded market for knowledge leads to sub-optimal outcomes. Regulations alone do not align private and social returns, which is why governments commonly supplement private innovation-related expenditures with public funds. This section focuses on policy recommendations in the following areas: leadership and institutions, knowledge transfer, and quality infrastructure. Complementary actions on the education front (as discussed above) are also critical.

Recommendations

37. Leadership, vision, and a strategy. The first step to jumpstarting innovation in Guatemala is strong leadership. More importance should be assigned to innovation at the highest levels of government (e.g. at the level of the presidency), with a strong champion or champions that can foster coordination between CONCYT, line ministries (e.g. economy, agriculture, energy, and education), PRONACOM, the private sector, and academia and move the agenda forward. A clear vision and actionable strategy to attain the vision is also needed. Given the relatively undeveloped nature of Guatemala’s national innovation system, the strategy will have to take a gradual approach with feasible goals and targets for the short, medium, and long term.

38. Strengthen institutions. Strong institutions within the national innovation system are critical if Guatemala is to improve productivity, innovation, and technology transfer. Currently, an institutional structure exists, including CONCYT, the consultative commission to CONCYT, SENACYT, and the National Science, Technology, and Innovation Plan for 2005-2014. However, these institutions and frameworks are relatively weak, underfunded, and not strongly linked to other relevant stakeholders in the economy. Stronger leadership and a strategy (as mentioned above), as well as increasing the amount of funding to institutions that promote innovation and creating and strengthening international linkages are needed.

39. Focus on the facilitation of knowledge transfer. Focusing on the discovery, transfer, and adaption of technologies that exist internationally generally makes more sense for SMEs in Guatemala than does investing in new-to-the-world R&D. One way to facilitate technology transfer to the productive sector is through technology innovation centers (a.k.a. centros de innovación tecnológica or CITES). The aim would be to create new or upgrade existing centers to: (i) facilitate the transfer of existing technologies (off-the-shelf) to Guatemalan SMEs; (ii) address sectoral quality issues; (iii) identify bottlenecks and opportunities for further innovation of products and processes at the sectoral level; and (iv) facilitate the commercialization of new products. The above activities could occur in collaboration with other research centers (both national and international) and existing institutions where appropriate.

40. Strengthen quality infrastructure. The government can take action to strengthen the supply of quality infrastructure, such as allocating permanent financing to contract and train metrologists to operate existing equipment in the national metrology lab (CENAME). Improvements could also aim to address specific bottlenecks faced by the private sector. To identify such bottlenecks, analyses of priority value chains could be undertaken. Such analyses could identify things like whether certain industries have access to: a) relevant standards; b) accredited organizations that can award quality certifications; c) entities that can calibrate specialized equipment, etc.
41. **Demand for quality infrastructure.** While resources should be dedicated to areas where there is a clear demand from the private sector, efforts could also focus on stimulating demand and raising awareness within the private sector about the benefits of using quality infrastructure services. Often, firms are not aware of the importance and/or benefits of meeting product quality standards, especially if they want to become part of export value chains. Targeted seminars and workshops can raise awareness about the importance of quality. Matching grants to finance quality improvements in SMEs could also be considered.

V. **ACCESS TO FINANCE**

42. Weaknesses in Guatemala’s financial system are an impediment to SME development. The financial system is of average size compared with other countries in the region, but lags behind in the provision of credit to the private sector. The system is dominated by banks; microfinance institutions have grown in recent years reaching an estimated total of about 4 percent of the banking system’s credit portfolio and catering to about 16 percent of the population. The most relevant microfinance institutions in terms of lending are the close to 300 registered Savings and Credit Cooperatives, which provide a wide range of financial services.

43. The global financial crisis had a significant impact on the banking sector’s MSME portfolios. Micro-lending dropped by 14 percent year on year in August 2009, as mostly smaller banks reduced their micro-loan exposure. In addition to this reduction in supply of credit to MSMEs, recent surveys indicate that many MSMEs did not apply for loans due to perceived low economic viability of investments, elevated costs of credits and other loan conditions, and the perception that they would not be eligible for loans in general.

**Recommendations**

44. The overall level of credit in Guatemala is below its potential. This has a negative impact on economic growth and SME development, and has repeatedly led to the launch of government programs to foster the provision of funding through matching grants and other forms of government supported credit provision. Recommendations to deepen the financial system include:

45. **Adopt a National Inclusion Strategy.** A national inclusion strategy can increase access to financial services by non-traditional clients (SMEs, microbusinesses, and low income households) by determining reforms needed to enhance the available financial infrastructure, setting up a conducive framework for the deepening of the financial system, and providing short term incentives and technical assistance for the development of specialized products, processes and banking platforms. Examples for the successful development of such a strategy include Colombia, Brazil, Canada, and Peru.

46. **Promote the sound and transparent growth of commercially oriented microfinance institutions.** The growth and stability of microfinance institutions require an adequate legal, regulatory and supervisory framework that would encourage prudent accounting and risk management practices among larger institutions and eliminate market distortions between financial entities. However, the latest two draft laws on microfinance entities have not progressed and may yield limited impact. It is important to revisit this issue and quickly establish
the necessary legal and regulatory framework for these types of institutions without unduly hampering their sound growth.

47. **Improve the credit information infrastructure.** Areas for improvement include the development of a sound legal framework for the operation of credit bureaus in Guatemala; a stronger role for the Superintendence of Banks as a supervisor and regulator of the credit information market; the streamlining of public access to the public registry; the necessity of all system participants to provide complete credit data; and promoting awareness among the general public and credit information system participants on the culture of credit and the usefulness of credit information to evaluate credit risk.

48. **Provide technical support to banks and non-bank financial intermediaries interested in expanding outreach to MSMEs, and fostering reforms of the retail payment system.** This may include technical assistance on innovative technologies that could expand access. One example is branchless banking that allows broader access and growth beyond the bricks-and-mortar growth that is inherently limited by its cost. Financial support, if needed, should be in the form of second tier lending and take under consideration instruments that leverage resources and share risks, like partial credit risk guarantees.

VI. **BUSINESS REGULATIONS AND ADDRESSING INFORMALITY**

49. From both the Enterprise Surveys and the Doing Business indicators, inefficient government processes are cited as an impediment to formal operations and firm competitiveness. The quality of the business climate clearly has a significant impact on firm productivity, efficiency, and growth. An inefficient business climate and burdensome regulations can create distortions and discourage firms from formal operations.

50. Like most Latin American countries, the size of the informal sector in Guatemala is estimated to be large. In 2004, informal workers in Guatemala were estimated to make up 75 percent of the labor force and informal firms produced between 35 and 47 percent of production. Smaller firms often see formality more as another input into the production process, and therefore weigh the costs and benefits of becoming formal. Formality correlates with increased productivity, in part because formal firms have access to opportunities that informal firms do not, such as credit and exports.

51. The most common method for addressing informality is to improve the business climate. Beyond addressing informality, a well-functioning business climate can encourage investment. For example, rules that establish and clarify property rights can reduce the costs of resolving disputes and permit the use of land as collateral. The *Doing Business* report and a related 2008 Doing Business Reform Memo detail specific recommendations across 10 dimensions of the business climate. Recommendations on starting a business (for which Guatemala ranks 156th out of 183 countries) are highlighted below. Given that the *Doing Business* indicators only evaluate a subset of regulations that affect businesses, the Government should consider the implementation of comprehensive regulatory reviews to eliminate unnecessary and costly bureaucratic requirements. This could include both reviewing existing regulations and establishing a process to assess new regulations prior to their implementation. The process could be a modified version of the Regulatory Impact Analysis tool used in many developed countries.
Starting a Business Recommendations

52. *Doing Business* measures the procedures, time and cost necessary to start and formally operate a business. As of June 2009, it took 11 procedures, 29 days and 45.4 percent of GNI per capita, plus 23.5 percent of GNI per capita as minimum capital, to start a business in Guatemala City. This ranks Guatemala 28th in Latin America and the Caribbean region out of 32 countries.

53. In 2006, a one-stop shop was introduced for business registration and housed in the commercial registry. Agents from the commercial registry, the tax administration, and the social security administration participate in the one-stop shop. Unfortunately, although it officially still exists (and despite an estimated US $250,000 investment from the Ministry of Economy), the actual use of the one-stop shop has declined considerably, in part because citizens have the option of performing all of the registration processes independently and the one-stop shop has not been promoted adequately. Consequently, the number of days to register a business increased from 26 to 29 days between the Doing Business 2009 and 2010 reports. Part of the problem with the one-stop shop is that each agency applies its own unique identification number to firms which hinders the harmonization of systems. The tax administration and social security institute, both of which have modernized and digitized their systems, have begun to harmonize their systems. Also, some users indicate that the commercial registry gives less priority to applications submitted through the one-stop-shop, increasing delays for entrepreneurs.

54. Modernize and digitalize the systems in the commercial registry to permit the harmonization of their systems with those of the tax and social security administrations. The commercial registry, tax, and social security administrations collect the same sets of documents; therefore the information in the tax and social security administrations is secondary and repetitive, based on the initial information and documents already filed in the commercial registry. The whole set of information should be transferred internally and automatically between institutions without requiring clients to do so. Not only would shared systems make the process easier for clients, it would also help ensure that firms are complying with registration and operational requirements. For example, currently a firm that closes is likely to inform the tax administration of this, to avoid paying further taxes, but may not inform the commercial registry where it would owe a fee. Greater coordination among the agencies would permit having databases that are harmonized and more accurate, allowing for more efficient enforcement of policies and more accurate accounting of business activity.

55. Make online registration possible. Making registration electronic is one of the most effective ways to speed start-up. Online start-up works best in countries with reasonably high Internet penetration and laws allowing electronic signatures. The commercial registry already uses electronic signatures, and with over 1,320,000 internet users in 2007\(^3\) (10 percent of the population), Guatemala is well positioned to make company registration available on-line.

VII. Prioritizing Rural Investments

56. Developing the rural economy in Guatemala is a critical and cross-cutting issue for SMEs. While the preceding sections of the report cover key issues for both rural and urban

\(^3\) International Telecommunications Union, 2007
producers, this section takes a more direct look at the rural sector given its importance in terms of employment and lagging human development indicators. Specifically, this section outlines an instrument that can help policymakers prioritize rural investments.

57. Mapping technology and a variety of data are used to divide rural Guatemala into a “typology” of micro-regions that differ according to their characteristics, problems, and potential for development. The typology is based on relevant criteria, including climate and topography, production, access to roads and markets, off-farm job opportunities, population density, gender distribution and the presence of various institutions (formal and informal), such as credit providers. The analysis takes advantage of the availability of rich biophysical data on Guatemalan geography and a detailed geo-referenced household survey to construct the typology. The data sources are combined using a “stochastic profit frontier” approach to estimate the efficiency and potential of local farmers.

58. Guided by this typology policymakers can design poverty reduction programs adapted to each micro-region's particular combination of developmental challenges. The aim is to create a guide to poverty reduction that can help Guatemalan policymakers better understand what works in various situations and why.

59. The framework and methodology allow municipality-level mapping along the following four indicators: incidence of poverty, cost of access to markets, efficiency levels of local producers, and economic potential of the area. Then by combining those maps, the methodology identifies where and what type of interventions should take place in each municipality. For example, areas of high poverty, high cost of access, low economic potential and low efficiency should be considered exclusively for social assistance. In contrast, areas with high poverty, high economic potential, high access costs, and low efficiency, should be considered priority areas for better rural roads and knowledge transfer on production. And so on with other combinations of the four indicators. Figure 3 presents an example of one of the combined maps.
Figure 3: Classification of rural regions based on agricultural potential, efficiency, and poverty

Source: Authors’ elaboration.

60. This breakdown allows governments to improve the effectiveness of their interventions—the where, how, and what of their interventions. An important caveat of the resulting maps is that although they can be helpful for guiding policy decisions, they should not be considered in isolation. The maps do not account for all the inputs that should inform policy-making or region-specific idiosyncrasies, such as conservation areas or national parks (with the exception of the Reserva de la Biosfera Maya), and do not consider past and ongoing interventions.

61. This methodology has been applied with success in Peru and Ecuador. In Peru, the National System of Public Investment uses the typologies to set priorities in its interventions. Moreover, at the upcoming American Network of National Investment Systems to be held in Lima, the Peruvian experience with the typologies will be presented to regional representatives.

VIII. ANALYSIS OF SELECTED VALUE CHAINS / CLUSTERS

62. This section looks at three illustrative sectors with growth potential and a significant concentration of SMEs—forestry/wood processing, agribusiness, and tourism—to determine what is inhibiting their growth and how SME participation can increase. The analyses identify cross-cutting issues, many of which are covered more generally in other chapters, and highlight specific reform areas. The analyses found that roads, electricity, training, quality, and access to

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4 Examples of idiosyncrasies include: parts of Chimaltenango and Sacatepéquez showing as low potential even though these regions are known for export-oriented vegetable production; heterogeneous conditions in Petén that are not fully captured given the size of the micro-region; and the existence of deserts in the Zacapa, Chiquimula and El Progreso mixed in with higher potential zones.
finance were transversal problems across the sectors. Each analysis found that logistical infrastructure, especially the security of roads, is a major impediment to sector growth. Lack of adequate electricity was found to be a critical constraint especially for SMEs in the wood sector. All of the analyses reported that increasing the capacity of SMEs through training was necessary to improve their productivity and their ability to access new markets. Training could cover management skills, marketing, new production processes and technologies, quality, etc. Increasing the quality of their products and obtaining certifications was seen as particularly critical, especially for small agricultural producers.

63. Associativity, meaning tighter associations or productive linkages between SMEs, is also a key way to improve value chains. This can generate economies of scale in terms of access to training, purchasing power for inputs, gathering market intelligence, crafting joint marketing and branding strategies, meeting quality certification and sanitary/phytosanitary requirements, lobbying for improved public services such as local roads and infrastructure, exporting in bulk, etc. Greater associativity among SMEs could benefit the cluster development of each of the three sectors studied.

**Forestry / Wood Processing**

64. Guatemala has a land area of 10.8 million hectares, roughly forty percent of which is forest. Two-thirds of the forest is designated as conservation forest, but the line between conservation and production areas is blurred as deforestation driven by agricultural encroachment/fires and illegal logging continues on a significant scale. Another major factor pressuring the forest resources is the pervasive poverty in the country. For an estimated 75 percent of the population living below the poverty line, the forest is a source of much needed firewood. Due to shortcomings in the electricity grid as well as high electricity tariffs, some businesses also use firewood for their energy needs. As a result, over 95 percent of all wood removed from Guatemalan forests (roughly 17 million cubic meters) is used as firewood. The pervasive forest exploitation for social purposes not only contributes to deforestation but also reduces the opportunities for commercial/industrial exploitation of the forest.

65. **Primary Processing: Natural Forest Extraction Value Chain Analysis.** The value chain for timber harvesting can be divided into six value-adding activities:

1. Logging roads (construction and maintenance);
2. Demarcation;
3. Felling/Bucking;
4. In-forest hauling (cutting already felled trees into smaller pieces and moving them to collection points);
5. Loading and transportation; and
6. Administration and overhead

66. **High transportation costs:** A typical logger’s value chain (see Figure 4) shows that apart from the stumpage paid to timber owners, which constitutes 45 percent of the value chain,
charges associated with moving timber by hauling (25 percent) and transporting it to the client (14 percent) constitute most of the remaining costs. Guatemala is a very small country compared to most timber producers such as Canada, Russia, USA, Chile, Brazil, etc. Yet, its hauling and transportation costs constitute a major share of the costs of delivered timber. This is mainly due to the poor road infrastructure across the country, especially in the highlands where most softwood is found—only an estimated 35 percent of the 14,000 km road infrastructure is paved. In the particular example illustrated below, the total cost of hauling and moving timber from the forest to a mill 20 kilometers away is estimated at Q0.38 per board foot, or US$20 per m³. This is in line with global forestry averages but the transportation distances of 20 km from forest to mill in countries such as Canada, Russia, and USA are unheard of unless mills are located within forests. This indicates that the per kilometer-ton unit cost of moving timber in Guatemala is not competitive internationally.

Figure 4: Value Chain for Natural Forest Timber Extraction, Chimaltenango

67. Secondary processing. The majority of firms in the secondary processing sector are small enterprises that process softwood with low technological capabilities. Apart from a handful of backward integrated processing firms, most manufacturers must rely on volatile supplies of raw materials from third party suppliers. Product quality is generally low and value addition is limited.

68. While it is typical in any part of the world for millers to be influenced by the construction materials market, in Guatemala most millers appear to be almost completely focused on this market. 6 As a result, the price benchmark of lumber by and large corresponds to the construction material market needs. By the same token, the quality benchmark of lumber supplied by millers is the one that is satisfactory to the construction material industry. This characteristic of the local supply chain creates major problems for the high value-added wood processing industry.

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6 Influenced, among other factors, by the fact that markets for other product classes such as pulpwood do not exist.
Guatemalan mills do not supply what is generally known in developed markets as ‘grade’ lumber that can be turned into multiple wood processing applications of high value. Instead, by catering to the construction materials market that has low lumber quality requirements, Guatemalan softwood mills sell mostly non-grade lumber. Parts of logs that would otherwise go for pulp and other industries in developed markets are actually turned into lumber in Guatemala.

69. This approach allows for maximizing lumber recovery, but these recovery rates are at the expense of lumber output quality. As a result, this setup is inadequate to meet quality requirements of medium-to-high value adding home/office furniture industries. In this context, millers are anticipated to continue their legitimate short-term profit maximizing decisions by combining volume sales for the construction material lumber and limited but high margin sales for other products such as tomato box assembly.⁷ At least three strategies can be envisaged that could influence millers’ processing decisions in the direction of improved lumber.

- Reduce the cost of harvesting and moving timber from forest to mill. Guatemalan pine logs are some of the most expensive compared to other countries and the value chain shows that a significant portion of log cost is generated by poor access to and from forests. While some private sector companies can influence cost reductions by building their own roads within or close to forests, such investments are considerable for most forest owners.

- Stimulate investments in industries for processing waste wood biomass chip/shavings/waste intake, such as pulp, charcoal, etc. Such investments are anticipated to increase the value of timber biomass and may influence the economics of sawmilling towards lumber production in increasingly better quality than currently produced.

- Increase the competitiveness of the secondary processing industry so that it can provide sufficient price and volume incentives to the milling industry for the improvement of its lumber offerings.

**Agro-industry: fruits and vegetables**

70. Guatemala has a strong agricultural production and export record. It is the second largest sugar exporter in LAC after Brazil and the world’s fifth largest banana exporter. It is a major exporter of cardamom, plantains and fresh pea pods. And it is one of the market leaders in specialty coffees. About three-quarters of its products are exported to the US and the rest to Central America and some to Europe.

71. Guatemala has a dual agricultural production structure. Sugar, bananas and some other related fruits are produced on large estates; some of which are directly connected to US based companies such as Del Monte. Coffee, cardamom and fruit and vegetables are mainly produced by agricultural small and medium-sized enterprises and smallholders.

72. **Changing Markets.** During the last twenty years, agricultural production and marketing have seen important changes. As in all other countries in Central America, Guatemala’s

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⁷ Tomato box margins range between 30%-40%.
supermarket sector has grown very fast. The growth of supermarket share of agricultural produce marketing has introduced important changes in production and marketing. The supermarkets have centralized procurement, are buying more directly from producers (SME and smallholders) and have introduced their own food safety and voluntary quality standards. Producers have adjusted fairly easily to those changes in the local retail business.

73. The country also had to deal with rapid changes in its export markets because of quality standards in particular in the fresh fruit and vegetable sector (sanitary and phytosanitary standards - SPS, Food and Drug Administration and US Department of Agriculture regulations, EurepGAP requirements, trade specific and private standards). Unfortunately, Guatemala has not been all that successful in adhering to international SPS standards. An SPS compliance program was introduced and a private-public institution PIPAA (Integral Program for Agricultural and Environmental Protection) was created to reduce the pesticide problem. Although the situation improved, Guatemala remains the country with the largest percentage of US border detentions (13 percent in 2007).

74. A large number of exporters, however, continue to buy from wholesale markets and intermediaries without much control over the origin of supply. This produce runs the risk of being detained at the US borders for phytosanitary reasons, which hurts Guatemala’s already poor reputation. As a result, much of the Guatemalan produce is still sold through brokers and distributors with consequently lower prices than competitors selling directly to US supermarket chains. Unless across the board measures are taken to increase SPS and food safety compliance, the whole of Guatemala’s fruit and vegetable export sector will continue to suffer some of the negative consequences of non-compliance.

75. **Competitiveness issues.** At the production level, the main constraints are:

- A scattered production base for certain types of crops produced by smallholders and smaller SMEs, which generates high transaction costs;
- Non-compliance with SPS standards because of ignorance and weak government control of SPS norms;
- Lack of public sector research and extension. Most private research is done by the large agro-industrial sector while research and extension by the less capital intensive private sector is carried out on a piece-meal basis. Lack of research and extension has also resulted in low technology and poor training of many smallholders and small enterprises. Lately, the public and private sectors in collaboration with the international cooperation, are assisting farmers with the introduction of Good Agricultural Practices (GAP), Good Processing Practices (GPP) and Good Entrepreneurial Practices (GEP); and
- Lack of easy access to productive and commercial credit.

76. At the commercial level, the competitiveness issues are: (i) lower prices and insufficient access to high-end markets because of the lingering SPS and food safety issues; (ii) stagnating markets in the US for snow peas and broccoli; (iii) the need for legislation to create for-profit producer associations; and (iv) at the level of the supply and value chains, there is room for improvement in organization, coordination and management of many supply chains although there are also examples of cooperation and willingness to create a true value chain.
77. **Value Chain Promotion.** The private sector (farmers and exporters) needs to continue creating and leading product-specific value chains with strong participation from producer associations. The elected management of the value chains should: (i) develop a common vision and strategy; (ii) increase transparency to build trust amongst the links within the chain; (iii) introduce some form of professional management where needed; (iv) and promote and facilitate associativity.

78. The public sector (and international cooperation/NGOs) could then support the strategic activities of the value chains by carrying out or financing (for instance through vouchers) those activities that traditionally are part of the public sector role: (i) research and extension; (ii) training of value chain members (farmers, intermediaries) and eventually assistance with producer GAP, GPP, GPE and GlobalGAP certification; and (iv) developing regulations for standards, SPS and food safety norms within the value chain as well as enforcing those standards and norms.

79. At a more general level, there is a need for: (i) additional public-private sector funding for PIPAA to ensure its independence; and (ii) financing (through bank credit) of productive and commercial investments (irrigation, greenhouses, packing houses, cold storage, production technology, and SPS control) as well as mechanisms to provide producer or commercial credit guarantees within the supply chain.

**Tourism**

80. Guatemala offers a range of attractions, including beautiful lakes, beaches, volcanoes, and an impressive archaeological heritage. Tourism has high growth potential and is already the second largest source of foreign income after remittances, representing approximately 18 percent of total foreign exchange earnings in the country.

81. In recent years, several approaches have been used to try to develop and/or improve the tourism sector, including the creation of a national tourism cluster, tourism routes, marketing the country with different names such as “Alma de la Tierra”, “Corazón del Mundo Maya”, etc. Statistics show that these initiatives were partially successful and the number of visitors, foreign exchange earnings, and tourism-related jobs all increased. However, the number of tourists visiting Guatemala has grown at a slower pace than in most other Central American countries.

82. SMEs play a key role in the provision of services to tourists. They constitute the “life blood of the travel and tourism industry worldwide” (Erkkila 2004). Yet, improving the quality of their products and services can be challenging. In other tourist destinations, it has been shown that collaboration among SMEs is needed to achieve competitiveness and economies of scale.

83. **Geographic clustering or integrated community tourism.** Geographic clustering organizes individual local enterprises and encourages them to define a common strategic plan, producing synergies that reinforce everyone’s ability to attract and serve clients. Collaboration in the form of tourism clusters can help SMEs overcome the multiple challenges, such as destination branding, that would be prohibitive for individual stakeholders working in isolation. In some regions of Guatemala, SMEs are no longer interested in participating in clusters because of...
unsatisfactory past experiences. To move beyond such experiences, leadership of each SME tourism cluster is critical to its ultimate success and sustainability.

84. **INGUAT / Institutions.** The Guatemalan Tourism Institute (Instituto Guatemalteco de Turismo - INGUAT) plays an important role in tourism development in Guatemala. It oversees tourism policies and is a key actor in planning for the sector. INGUAT is funded through a 10 percent hotel tax, a percentage of airport departure taxes, and fines occasionally charged to hotels. According to stakeholder interviews, many consider INGUAT to be bureaucratic and out of touch with the needs of small and medium tourism ventures. A high number of SMEs are informal and are unsatisfied with INGUAT. The 10 percent tax is seen as an impediment to formalizing, especially since the resources are not perceived to come back in the form of benefits to their region. Stakeholders also complained about a lack of continuity across successive administrations and a lack of understanding of local needs.

85. **Security** is a concern for all international tourists. If security improved, tourism arrival numbers would likely increase significantly. Crime and theft in Guatemala has been identified by the WEF’s Global Competitiveness Index (2009-2010) as the most problematic factor toward conducting business in the country. According to the Travel and Tourism Competitiveness Index, Guatemala ranks 114 out of 133 countries on safety and security due to the reliability of police services, business costs of crime and violence, and the business costs of terrorism (WEF 2009). INGUAT’s Tourist Assistance Office (Assistur) in partnership with national police and local government has instituted preventive measures such as police protection of tour groups en route to tourism destinations, preparation of emergency plans, people assigned to address problems faced by tourists at main destinations, and preparation of a safety guide to be given to tourists at airports and hotels. Additional initiatives, however, still need to take place to guarantee the safety of tourists and curtail the image of Guatemala as an unsafe tourism destination.

86. **Marketing.** The sustainability of tourism businesses and clusters require solid marketing strategies. Relationships with organizations that promote community tourism can also help attract tourists looking for the type of unique experiences that Guatemala can offer. The internet is the major distribution channel for the travel industry; many travelers look for information online themselves instead of relying on a travel agency. If the information is not precise and reliable it can be counterproductive. Currently, the information found on the internet about Guatemala is scarce, disorganized, and often inadequate to organize a trip. Clusters can develop their own web pages and eventually create links to other clusters in Guatemala to convince tourists to stay more than one day. Improved country branding (“Marca País”), which is part of the functions of Guatemala Trade and Investment (GTI), can also help support tourism marketing efforts.

**Recommendations**

- **Geographic clustering or integrated community tourism.** Community tourism organized around a cluster is an effective way to create both direct and indirect employment at the local level. Tourism clusters should try to reach all members of the community, not just

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8 The Taiwanese Cooperation is currently funding a national tourist website through the Association of Tourism Operators in Guatemala.
the traditional tourism stakeholders such as hotels, transportation enterprises or restaurants, but farmers, producers, and service providers, as well.

- **Security.** Tourist security should be a priority at the community and local cluster level. Although safety and security issues loom large in Guatemala, safety for tourists could be treated within the clusters as a local or municipal priority to create “safe islands” that protect tourists. Community policing can be one way to address this issue.

- **Certification.** Initiatives to promote the certification of tourism enterprises, as well as potentially the certification of communities, could be supported.

- **Training.** Training courses for tourist enterprises, particularly in-situ, could be expanded. These could potentially include brand-building and marketing, management practices, customer service, production techniques, and/or case studies on national or international success stories.

- **Marketing.** Destination branding that differentiates the cluster is essential. Marketing of that brand, as well as marketing of individual enterprises, should be encouraged, particularly via the internet. Familiarization trips for journalists, tour operators, travel agents, etc. could also be considered.