

# Economic Development

## Key Findings

While there are a wide range of societal needs throughout the state of Baja California Sur, these cannot be adequately addressed without the creation of new and better jobs, as well as economic growth. Nevertheless, these priorities need to be balanced with the environment, social justice, and community-building in mind. Currently, 60% of the state's territory is in protected areas, putting a great deal of pressure for development on the remaining 40% of land.

Baja California Sur has the seventh-largest state economy in the country.<sup>1</sup> The state GDP showed an annual average growth of 3.5% between 1993 and 1998. However, because of insufficient federal funds and the need to address the growing demand for public services and infrastructure, the state government needs to increase its own revenues to continue its impressive growth rates. In addition, health and education issues must be addressed at the same time as job creation to ensure a well-trained and healthy workforce.

Why has the state experienced economic growth without an equally impressive investment in economic development? The evolution and structure of the state's GDP over the past several decades reflect natural, historic, economic, and land use conditions, as well as the main economic trends in Baja California Sur, which includes a growing tertiary sector (financial services, insurance, community, social and personal services, and trade, restaurants and hotels) that is linked to economic forces outside of the state's economy. The current pattern is characterized by a declining share of the primary (agriculture, livestock, fishing, and mining) and secondary (construction and manufacturing) sectors in the GDP, and growth in the tertiary sector. By 2000, the majority of the state's economically active population (EAP) was centered in the tertiary sector (68.32%), and the primary sector had declined to 14.94%.

The resulting social consequences of this trend have included increased participation in the labor market, particularly by women.<sup>2</sup> Accordingly, women's increased participation in the workforce has brought social challenges, including a need for an increased number of day care centers.

During this same timeframe, Baja California Sur attempted to develop through the modernization of agriculture, growth in tourism, and the development of an extensive fishing and marine commerce sector. Unfortunately, these efforts were not undertaken in a sustainable manner, and neither environmental nor regional social dynamics were taken into consideration. Modernized agriculture occupied and

devastated the state's valleys; tourism was associated with irreversible changes to the coastal landscape; and extensive fishing and marine commerce depleted resources and endangered local species.

Economic development in Baja California Sur continues to be dependent on availability of renewable natural resources, primarily water. Tourism, agriculture, and fisheries are all affected by the diminishing groundwater resources in Baja California Sur. Desalination is being considered as the next solution, but water distribution infrastructure must be repaired and upgraded to ensure that additional resources are not wasted.



There are other energy issues to consider if Baja California Sur is to grow sustainably. First of all, natural energy sources, such as oil, natural gas and hydro, which are abundant in other states in Mexico, are not found within the state. Therefore, there are no distribution systems (i.e. pipelines), making production and distribution very expensive. Second, Baja California Sur is the only part of the country that is not connected to the main electricity grid,<sup>3</sup> which has forced a reliance on local power stations at Punta Prieta in La Paz. A geothermal electricity plant is planned for Santa Rosalía, but there is no estimated timeframe for its completion.<sup>4</sup> Growing demand for electricity – from industrial, commercial, and residential sectors – will quickly challenge the state's available resources. Finally, the necessary desalination facilities mentioned above will require substantial energy to operate; existing infrastructure will not be sufficient in the short or medium term.

In the coming years, Baja California Sur faces a number of unique challenges as it confronts the need to diversify its economy to adjust to new economic realities and changing market conditions. Avoidance of “Cabosanlucazation” is a major concern among some residents to alleviate the possibility of overcrowding and the creation of new slums, the destruction of natural habitat, and shortages in natural resources. Migration issues are also of particular concern to the region, as over 30% of the population is migrants, with an additional 5% of the population consisting of transitory migrant labor during the high season. Promoting small-to mid-sized enterprises (SMEs) would allow the state to make the most of its human and natural capital, including better distribution of wealth among diverse sectors in the local population.

Foreign direct investment (FDI) has become an important part of the state’s economy, most notably for the tourism sector. From 1994-2001, Baja California Sur received approximately 0.4% (US\$262.5 million) of Mexico’s total FDI. Of the 987 enterprises that invest in the state, 74.3% are from the US. Most of this foreign investment is in the service sector, which represents 75.4% of FDI, the majority of which is directed toward tourism-related accommodations and services. Not surprisingly, foreign investment is focused primarily in the municipalities of La Paz (34%) and Los Cabos (63%)<sup>5</sup>, although Loreto is a future target for foreign investment. Recent articles in the USA Today, Christian Science Monitor, San Diego Union-Tribune, Arizona Republic, and in Canadian news publications acknowledge a “Baja housing rush” focused on Loreto.<sup>6</sup>

Although Baja California Sur has a booming tourism sector, as long as the state continues to have a steady inflow of migrant labor willing to work for extremely low wages, employment opportunities will continue to be scarce and poorly paid. Statewide, 54.9% of the population over the age of twelve is economically active, and the unemployment rate is just 2.3% on average.

Wages in Baja California Sur are higher than the national average. There are three tiers of minimum wages for Mexico, and areas are placed into one of the tiers based upon the cost of living in that area. Baja California Sur is in the top tier, along with Mexico City and other large cities, where the average wage is \$48.67 pesos per day (US\$4.59), as opposed to \$47.16 (US \$4.44) or \$45.81 (US\$4.32) per day in other geographic zones, as of January 1, 2006. Most people in the state earn between one and two times the minimum wage.<sup>7 8</sup>

The cost of living in Baja California Sur is significantly higher than in many parts of Mexico. The fact that the area depends highly on the supply of goods and inputs from the rest of the country and from the United States results in higher market prices.<sup>9</sup> Additionally, the insufficient and high cost of infrastructure, basic services, and utilities (water,

electric power, and roads) as well as high transportation, freight, and fuel costs affect individual consumers as much as businesses.<sup>10</sup>



Baja California Sur ranks low in access to financial services, especially banking in rural areas. The state has the third fewest number of bank branches in Mexico and only 0.31% of all credit card accounts.<sup>11</sup> Volatile interest rates, bank consolidations, and peso devaluations have caused instability in Mexico’s banking sector, yet there is still a high degree of confidence in banks. Mexico has improved its financial infrastructure since the 1980s crises by revising its bank investment and ownership regulations, creating a federal deposit insurance program, and revising regulations on credit union and savings cooperatives.<sup>12</sup> Yet, banks have not invested in Baja California Sur for reasons of cost (US\$400-600,000 to open a bank branch), transportation (bringing currency to the region by armored car, ferry, or plane), and lack of population (returns on investment are not high enough to justify opening a branch).<sup>13</sup> This lack of investment has caused economic losses for the state’s residents and businesses, as they experience missed sales, transportation cost and lost time, and missed money transfers.

Remittances are one of the largest sources of foreign income into Mexico – after petroleum and before tourism. Approximately US\$14.5 billion was sent by Mexican family members living in the U.S. to communities in Mexico. These transfers can be up to 30-50% of household income in many cases. Innovative financial transfer mechanisms are emerging, such as debit cards, phone transfers, and cross-border mortgages to help facilitate remittances, far beyond the expensive wire transfers that have dominated the market in the past. In the case of Baja California Sur, only 1.7-2% of the households in the state received remittances in 2000. This may, in fact, be due to lack of access to banking services, rather than lack of family members working in the U.S. This also affects emergency funding during natural disasters (such as Hurricane Marty in 2003), when family members were not able to send money locally, and roads to banking centers were damaged and unpassable.<sup>14</sup>

# 1. Tourism

Tourism is a highly-visible and powerful economic driver in Baja California Sur. Since 1988, the tourism sector has maintained a 20% average annual growth rate.<sup>15</sup> In particular, tourism that is focused on natural areas, also known as adventure tourism or ecotourism, is quickly evolving because of growing global demand.<sup>16</sup> Los Cabos is the most popular tourism destination in the state, with La Paz and Loreto close behind.

Tourism has also positively influenced infrastructure improvements and job creation as well. There are two ports dedicated to receiving cruise ship traffic; hotel, resort, and second home developments rely on seasonal tourist inflows; the three major airports in the state (La Paz, Los Cabos, and Loreto) have adjusted their flight schedules to accommodate visitors. From 1999 to 2003, service and tourism firms have created 3,706 permanent and 3,063 temporary jobs.<sup>17</sup>



Building on this early success, the Mexican government's national tourism agency, FONATUR, is aggressively promoting the "Proyecto Mar de Cortés," which will generate private investment for hotels, marinas, resort complexes, and adjacent infrastructure, such as roads, desalination plants, and other facilities that benefit the public. However, based on an assessment of the potential tourism landscape, Baja California Sur was considered to have a medium rating, with 66.5% of the entire territory rated as unfit for tourism; this places intense development pressures on the remaining 33%, mainly on the coast. Furthermore, the tourism potential in Baja California Sur is directly related to its high ecological values, which assumes that the development of tourism is essentially linked to nature, especially in the sierras, the coastline, and the islands.

These are the region's competitive advantages at the national and international levels.<sup>18</sup>

In addition, a better distribution of economic benefits from tourism is needed. State programs for small and mid-sized businesses would allow local entrepreneurs to participate at a higher level. For example, if FONATUR's proposed urban development plan is accepted in Loreto, which extensively expands the developable coastal zone north and south of town, local businesses in the town's center will suffer, as tourists seek services closer to their accommodations. In contrast, locally-owned businesses in Laguna San Ignacio are seeking language and natural history training, as well as business loans, to improve their service, provide additional jobs to fellow residents, and enhance overall quality of life in their communities.

State-funded marketing campaigns, such as the proposed "Route of the Missions" promotion, would be a welcome addition to encourage nature and adventure tourism. As one of the fastest-growing tourism sectors in the state, public funds could play a big role in solidifying Baja California Sur as a destination for nature tourism, much like the advertising campaigns for Costa Rica. Currently, public funds are only expended for traditional tourism – golf, hotels, sportfishing, and cruises.

# 2. Agriculture

In direct contrast to the tourism and construction industries, the agricultural sector in Baja California Sur is in decline. Over the past thirty years, both product volume and the surface area harvested have notably dwindled, although organic agriculture has increased. The main causes of this decline include misguided federal economic policies that prioritize certain crops over others, the scarcity and inefficient use of water, low levels of irrigation technology, and an inadequate rural infrastructure. Additionally, low market prices for basic food items, as well as an overabundance of commercial middlemen,<sup>19</sup> has exacerbated the problem. Over-exploitation of fresh water aquifers and agrochemical contamination are two results from the continued use of an outdated agricultural model.<sup>20</sup>

Currently, corn is the most widely planted crop in the state in terms of area. However, it is likely that other more technologically-intensive crops will soon displace corn in the region. The crop selection has changed as a consequence of limited water supplies, from highly-subsidized export products such as cotton – which in the seventies consumed a great amount of water in the Santo Domingo Valley – to other more profitable crops aimed at other markets (chickpeas, orchards and vegetables). The products consumed domestically (wheat and safflower among others) were changed to sorghum and alfalfa, which prevail to date. Although exotic crops demand excessive water, their

commercial value are high in the international market, and therefore, they continue to be grown, despite limitations in water resources.

As of the year 2000, approximately 12% of the state's permanent population works in the agriculture sector,<sup>21</sup> with an additional 20,000-25,000 migrant workers adding to that total during the high season.



### 3. Other industries

#### Construction

A strong component of the state's economy is the construction industry, resulting from its close links to the tourism and service sectors. The construction industry's contribution to state GDP has been on a constant incline in recent years, increasing from 0.05% of state GDP (approximately US\$26.9 million) in 1993 to 0.09% of state GDP (approximately US\$133.6 million) in 1999.<sup>22</sup> While this is so, construction workers earn some of the lowest wages in the state, as many of the laborers have been driven out of local agricultural areas or have migrated from other areas of Mexico and Central America. The workers are an inexpensive labor force for the industry as they are willing to work for wages that do not allow for a decent standard of living.<sup>23</sup>

#### Manufacturing

The manufacturing sector of Baja California Sur has experienced only modest development in recent years. Although manufacturing is not in direct decline, it has not developed significantly due to a lack of raw materials, as well as increased market specialization. The manufacturing sector contributed 6.08% of state GDP in 1993 (US\$35.2

million), while its contribution in 1997 was of 7.13% (US\$106.3 million).<sup>24</sup>

Almost half of the manufacturing sector is concentrated in the municipality of La Paz, with 553 of 1,340 registered manufacturing units. The sector consists mainly of small businesses, 91.5% of which have less than ten employees, and 55% have less than two. The number of larger *maquiladoras* has actually decreased in recent years, shrinking from eleven to eight between 1990 and 1999. However, the number of jobs within the sector during the same time period actually increased from 959 to 2,695, peaking at 2,703 in 1997.<sup>25</sup>

#### Mining

Presently, Baja California Sur is involved in a large number of mining operations, as the state is rich in a variety of natural resources. These include the largest salt mines in the world in Guerrero Negro, as well as the largest deposits of world-class quality calcium sulfate in the country.<sup>26</sup> Presently, the state is not a significant producer of metal ores, although in the past it was the country's most important copper producer,<sup>27</sup> and provided a significant contribution to economic development in the region and country by generating jobs and providing raw materials for other industries.<sup>28</sup> Santa Rosalía and La Paz both experienced mining booms during the early part of the 20<sup>th</sup> century that fueled economic growth.

Recently, however, the mining sector has suffered proportionate reductions as a percentage of state GDP, most notably between 1988 and 1993 (see Table 12).<sup>29</sup>

Figure 17: Mining Sector in Baja California Sur and Nationwide from 1988–1993

Year	State GDP *in thousands of pesos	%	National GDP *in thousands of pesos	%
1988	\$231,008	12.7	\$6,234,506	3.7
1993	\$299,636	5.7	\$10,891,325	2.8

Source: National Accounts System, 1993-1999, INEGI, pg. 258

#### Cattle raising

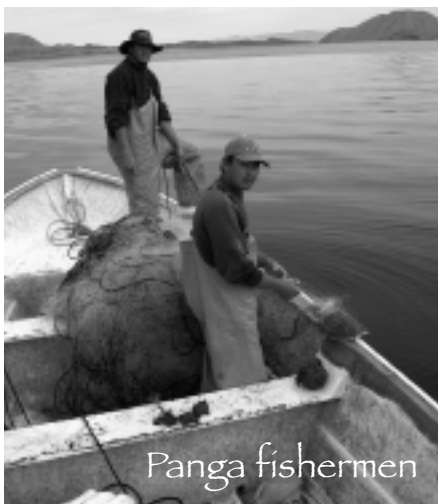
Cattle raising is a relatively common line of work for people living in the rural areas of the state, and is boosted by immigrants from other parts of Mexico and Central America who are willing to work for low wages. The main products of

the agricultural and cattle raising industries are pasteurized milk (fresh and packaged), various kinds of cheese (*cotija*, *asadero* and *panela*), yogurt in different presentations, corn and wheat flour in different presentations, chick peas, beans and packaged tomatoes, sweets and preserves, juices, tortilla and purified water, as well as feed and grains for meat- and milk-producing cattle.<sup>30</sup>

A recent development in this sector is dairy production, primarily from goats, which is boosting locally-generated livestock products. Seventy percent of these products are currently imported from other parts of Mexico. In addition, the state is well-suited for goat herding, which is more sustainable than cattle production because of the inputs needed for cattle.

## 4. Fisheries

Baja California Sur is one of the Mexican states where fishing activities have one of the greatest natural advantages. The state's coastline accounts for 22% of the national total, as well as 14% of the country's total amount of protected waters. The state offers a large amount of freshwater crab, lobster, squid, abalone, clam, conch, sardines, mackerel, and oysters, among others, for both commercial and recreational uses. Baja California Sur's share in the country's fishing production is one of the highest. It is mainly comprised of lobster and abalone that have high commercial value, accounting for 30% and 9%, respectively, of the total income generated by fisheries in the state.



During 2003, fishing was a significant source of food, jobs, and foreign currency for the state. Over 200 cooperatives and 393 companies (with a combined 2,490 small boats and 43 mid-sized vessels) participated in the industry, while just 687 permits for commercial fishing were issued. Authorities also issued 10,739 individual permits for recreational fishing and 1,192 permits for boats, primarily for sport fishing,

another revenue source for local fishermen. Statistics on artisanal fishing are not easily available, but it is important to note that fish provide a critical food source for coastal villages that have little access to roads.

Despite the wealth of the state's marine resources, the fisheries sector has not re-invested its profits in training or technological upgrades that could make operations more economically efficient and environmentally sustainable. This is due to a combination of factors, including social impacts of production (i.e. disorderly growth), an increased supply of fishermen migrating to the area, the inability of fishing co-ops to market their products abroad, overabundance of middlemen in coastal fishing, a lack of research related to the field, illegal trafficking of fishing resources, as well as Mexico's financial situation, which has led to extensive bank financing difficulties.<sup>31</sup>

According to a 2000 diagnosis of fisheries in the state, the major prevailing deficiencies are the deterioration of infrastructure, obsolete equipment, and a lack of a best practices program for processing.<sup>32</sup> Additionally, Baja California Sur shares a productive marine region with Baja California, Sonora, and Sinaloa, whose fishing fleets are in better operating conditions and are made up of a larger number of vessels. The result is that other states are able to extract resources from areas close to Baja California Sur's coastline. Furthermore, illegal fishing and poaching practices do occur along the state's coastline, which will inevitably lead to a further deterioration of natural resources.

Not all fishermen are so short-sighted. Nine fishing cooperatives, which include 500 fishermen in ten villages in the municipality of Mulegé, have been certified by the Marine Stewardship Council for their sustainable practices related to the Pacific Red Rock Lobster (*Panulirus Interruptus*) fishery. Highly valuable, this commodity has a global market, including Europe, which is more sensitive to eco-labeling. The certification process took three years to complete, but because 90% of the product was exported, it was important to local fishermen to add the certification to their marketing program. As of July 2005, the cooperatives were regulating their catch, sending results to government agencies, and enforcing size limits and poaching rules.<sup>33</sup>

## Needs by municipality

### 1. Comondú

Comondú's economy consists largely of agriculture and cattle-raising activities. To foster economic development in the municipality, educational and training opportunities need to be made available to workers so that they can learn technologies and techniques for increased efficiency, as well as ways to make production more sustainable.<sup>34</sup>

Reorientation of agricultural activities is crucial to reduce water consumption and to make agricultural activities profitable.

Comondú's vast coastline enjoys a wealth of sea life. Unsuccessful government efforts to create aquaculture businesses for shrimp, fish, and giant Pacific oysters have led to local attempts to cultivate native pearl oysters instead. Many coastal communities depend on the sardines, shrimp, squid, red crab, and abalone fisheries for revenue; rockfish, swordfish, and tuna fisheries are in decline in the area.<sup>35</sup>

With regards to tourism, a historical, cultural, and ecological model could be developed by creating a corridor that makes the most of the region's semi-desert biodiversity and characteristics.<sup>36</sup> Unregulated ecotourism and recreational use are on the rise, highlighting the need for a tourism plan for the area.

## 2. La Paz

The municipality enjoys an extensive coastline along the Sea of Cortez where aquaculture, ecotourism, and adventure tourism activities, such as trekking, sport fishing, kayaking, and camping, are possible. Coastal fishing must be subjected to rigorous fisheries management, and the resources available could foster projects for farming some species.

The natural landscape that exists in the city of La Paz contains significant potential for additional tourism development. Ecotourism projects that take advantage of the desert landscape, virgin beaches, marine fauna, and cave paintings could be an effective development tool. Also, fixing up and promoting historical and cultural sites (such as the missions, mines, and towns with age-old traditions and customs) could help La Paz to attract new tourists, and hence create jobs for its growing population. Additionally, the region is suited to and has experience working in high-quality handicrafts.

Fishing has been one of the most important industries in the past. From the late 1800s to the mid-1900s, pearl fishing dominated the regional economy. In 1940, when this fishery collapsed, local fishermen switched to shark, but by 1950, this fishery had also collapsed. It was only after 1950, that La Paz became the tourist destination that it is today.<sup>37</sup> As to the city's fishing activities, the city's scientific and technological infrastructure, its human capital, and 37.3 miles of coastline are well able to support expanded aquaculture activity. However, native aquaculture species must be fostered as an alternative to crops such as pearls, but only if adequate environmental impact assessments and monitoring programs are in place.

Financing and micro-credit programs are also needed to



La Paz coastline

support the financial needs of development projects. Additionally, the area between the city's *malecón* and its historic core needs to be visually integrated and redeveloped, with a balance among buildings, roads, green areas, and La Paz Bay. Remodeling of the coastal *malecón* must also continue, while other works need to be undertaken to restore and preserve buildings deemed to be historical monuments in the city (including *Teatro Juárez*, the *Palacio Municipal* [City Hall], and historic homes), which will, in turn, help to enhance cultural activities.<sup>38</sup>

In rural areas of La Paz, poverty, marginalization, and scarce job alternatives trigger the migration of the young population to urban centers, limiting the feasibility of carrying out alternative productive projects in rural areas. In view of these problems, local productive projects that add value to primary production should be supported. Designing and operating technological and financial tools that are accessible to the population will bring educational and training possibilities to the region.

Rural communities need better information and training, exacerbated by poor communication between institutions and residents when devising development strategies. Further, the lack of a cohesive development strategy has led to a lack of productive opportunities for job and revenue creation. The obvious result is increased poverty, high rates of migration, and damage to the local ecosystem.

## 3. Loreto

Although the population currently hovers around 15,000 people, the municipality of Loreto is at an economic crossroads – with “boom or bust” pressure for land speculation and development. The city of Loreto currently houses the most northern airport in the state, making it a

hub for tourism for northern Baja California Sur. In order to take advantage of this, the municipality has the potential to develop local tourism by breathing new life into the area's historical and cultural facets, modernizing its tourism infrastructure, and strengthening training for service providers.<sup>39</sup>

Training continues to be one of the major obstacles blocking the creation of small and medium enterprises, which represents a limitation to community development. Financing should be made readily available to the population to foster the creation of jobs, as well as micro-enterprises. Further, Loreto should be marketed as an attractive location for business investors who want to expand their operations or franchise, as there is a permanent need for jobs during low fishing and tourism seasons.<sup>40</sup>

Sport and recreational fishing are the foundation of the local tourism industry for Loreto. As stated by Harvard University researchers and local academics in late 2005, "The growth of tourism and resident populations in Loreto will increase the number of fishermen plying the waters of the region. Increased fishing effort will put additional pressure on fishing stocks that are already displaying signs of overexploitation...the current level of fishing effort is already putting resident communities of fish in jeopardy."<sup>41</sup> By diversifying into whale-watching and other alternative tourism opportunities, these fishing outfitters can decrease pressure on local fisheries and avoid a crash.

## 4. Los Cabos

The economic development of Los Cabos is built on hotel, resort, time share, and second home construction and sales, marketed to U.S. and Canadian ex-patriates and other seasonal foreign residents. These new residents are used to a certain level of service, which has opened new markets for "big box" retail stores, as well as a host of tourism-related businesses, such as restaurants, bars, and retail shops.

With that in mind, the municipality of Los Cabos could further improve its regional economy by further developing tourism opportunities that take advantage of its landscape along the coastline, including sport fishing and ecotourism. Foremost among the potential for ecotourism are such areas as the National Park at Cabo Pulmo, the thermal waters at Agua Caliente, and the Sierra de la Laguna Biosphere Reserve.

Beyond excellent weather conditions and pristine beaches, the area has notable experience in herb production, fresh produce, and organic fruit production, all of which are in high demand in the international market, but these products must be marketed properly to imbue them with greater value.

Furthermore, development of artisan activities would help to alleviate unemployment as well as to encourage additional tourism.<sup>42</sup>

## 5. Mulegé

Mulegé is a diverse region with a multi-faceted set of needs and attractions. The North Pacific region is considered the area with the highest production of commercially-valuable fisheries resources. Its lengthy 168-mile coastline and pollutant-free ecosystems are well-suited to strengthening and diversifying the region's fisheries and aquaculture activities. The region would benefit from modernizing its fleet through technological upgrades to nets and tracking systems. As illegal fishing continues to be a problem in the Gulf of California (attributed to a lack of institutional coordination combined with scarce enforcement resources and institutional corruption), channeling of additional funds for monitoring and enforcement activities would be effective methods of combating current problems.

On the Pacific side, abalone, Pismo clam, and spiny lobster are key fisheries for local fishing cooperatives; clam aquaculture is a new enterprise in the municipality as well as FEDECOOP, one of the largest fishing cooperatives in Laguna San Ignacio, received a Marine Stewardship Council certification for its sustainable practices related to spiny lobster; this is the first certification of a Mexican fishery.

The region also offers resources perfectly suited to the development of ecotourism, and historical and cultural tourism activities, possibly centered in Santa Rosalía. The tourism sector could be boosted through the building of hotels and bungalows, training of the local population in English, French, German and Japanese so that they can work as tourism guides, travel agents, and tour promoters.

For ecotourism, and the Vizcaíno Biosphere Reserve specifically, Green Globe 21 has certified local outfitter, Ecoturismo Kuyima, for its whale-watching and cave painting tours. This certification references Ecoturismo Kuyima's energy and natural resource conservation, its recycling and pollution prevention programs, its adherence to Green Globe's tourism standards, and sustainable practices that benefit the local community. Although the certification has not automatically increased revenue, it has increased the visibility of Ecoturismo Kuyima as a local tour outfitter in a competitive market in Laguna San Ignacio.

In order for any of the aforementioned programs to be successful, it is necessary that financial services be sufficient in the region to supply enterprises, both large-scale and micro, the necessary funds to finance their projects. Also, basic services (water, electrical power, sanitation) need improvement in order to be sufficient.