

# Baja California's Community Based Needs



**EDUCATION**

**HEALTH**

**COMMUNITY DEVELOPMENT  
AND HUMAN SERVICES**

**ECONOMIC DEVELOPMENT**

**ENVIRONMENT**

**CULTURE AND THE ARTS**

**2003**

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# Preface

The International Community Foundation (ICF) has worked since 1990 with U.S. donors, large and small, to promote philanthropy and cross-border giving throughout the Americas and Asia. Much of its grantmaking has been strategically focused to support Baja California non-governmental organizations (NGOs). Similarly, Fundación Internacional de la Comunidad (FIC), ICF's sister foundation, has been working since 2001 to foster a culture of philanthropy in the State of Baja California among Mexican individuals, corporations and area foundations.

Beyond FIC, a variety of successful philanthropic initiatives currently exist in Baja California, such as the capital campaigns of **CETYS Universidad-Mexicali** and **Fundación Esperanza**. Other philanthropic efforts include **Televisa's TELETON** and **Mattel's annual golf tournament**, both of which benefit the **Hospital Infantil de las Californias**; **Gigante supermarket's Redondeo**, the annual golf tournaments for the **Fronteras Unidas Pro Salud** and the **Asociación Gilberto** and the charitable giving of a few select families throughout the state. Nevertheless, Baja California's philanthropy is limited and needs to grow and evolve over the coming decades in order to fully address the region's most critical needs.

These needs and societal challenges have grown exponentially over the past decade, given the high level of migration experienced by Baja California, the Mexican state with the highest level of immigration after Quintana Roo. This migration from rural parts of southern and central Mexico has contributed to unplanned growth and the spread of squatter communities or *colonias populares* where many of the region's social problems are most pronounced.

Baja California's per capita income of \$9,575<sup>1</sup> on a purchased price parity (PPP) basis is higher than

most other Mexican states (national average \$7,495<sup>2</sup>), and the official number of people living below the poverty line is only 12.4%<sup>3</sup> (compared to 63% in Oaxaca, 62% in Chiapas, 59% Guerrero, Hidalgo 57%).<sup>4</sup> However, these statistics mask the fact that the number of the state's poor is, in fact, growing, as a result of migration from Mexico's poorest states. This is evidenced by the fact that Ensenada has a per capita income of \$5,388, and Playas de Rosarito a per capita of \$5,353, reflective of the high influx of migrant labor being drawn to these communities in recent years. While this is so, federal assistance and foreign aid dollars for social programs remain focused in the country's migrant-sending regions of Mexico instead of looking ahead at a region like Baja California where the problems and social challenges are moving. The net result is that Baja California is faced with a growing number of unfunded mandates as the state's population grows and public infrastructure needs become more pronounced; the state's public education falls further behind, unmet health care needs grow; migrant families are stretched beyond their endurance; urban sprawl erodes the region's quality of life; persistent and unabated environmental problems grow in number; funding for the arts, culture and other civic organizations grows more limited and challenges in promoting a civil society across the state become more pronounced.

For many migrants, Baja California has long been viewed as the transit point for those wishing to enter the United States in search of work. Yet, with the post-9/11 tightening of the border, an increasing number of these migrants are making Baja California their home.

In response, Mexican federal and state governments are undertaking a variety of initiatives to improve Baja California's business climate so as to encourage foreign investment, tourism and high value-added jobs to the region while enhancing the state's basic infrastructure (roads, energy supply, water availability).

1) CONAPO. Indices de desarrollo humano, 2000

2) Ibid

3) XII Censo General de Población y Vivienda 2000/INEGI

4) US. Department of Agriculture, "Food Assistance and Poverty in Mexico", *Agricultural Outlook*, December 2000

These initiatives lack full public participation or active input from non-profit organizations, so manufacturing facilities continue to be built without fully assessing the urban development or environmental consequences. Also, the benefits of tourist projects, such as Escalera Náutica and other costal developments, have not fully been assessed, neither for the communities they are intended to serve nor for the impacts on fragile marine and terrestrial eco-systems along the peninsula. In this context, a stronger independent sector and increased civic participation in long-range planning decisions of the region is needed now more than ever.

Though the needs across Baja California are great, so too is the will of non-profit groups and foundations to make a difference. Today there are about 500 non-profit organizations (NGOs) in Baja California committed to improving the quality of life in the region<sup>5</sup>. These organizations have a wide range of innovative programs ranging from educational enrichment on children's issues, drug abuse prevention and rehabilitation, environmental and health education, caring for the elderly, community development, regional planning, micro enterprise development and cultural outreach in marginalized communities throughout the state.

Baja California's NGOs undertake their work with limited resources, stretching their pesos as far as possible, and often work without access to computers or the Internet. In fact, in 2001 private Mexican philanthropy – from individuals, corporations and foundations combined – accounted for a mere 6.3 % of income for non-profits with another 8.5% coming from government.<sup>6</sup> The balance, 85% of non-profit revenues, came from direct fees, other businesses and from foreign sources (government, foundations, individuals). Non-profit leaders lack knowledge of available funding sources outside traditional domestic channels make it difficult to respond to priority needs in the communities they serve. As such, many critical community needs go unmet or are underfunded because of lack of communication among

non-profit groups with complementary goals but within different sectors. For example, education NGOs fail to collaborate fully with health and environment non-profit leaders on common concerns. This needs assessment gives Baja California non-profits an opportunity to think more holistically in promoting sustainable communities, so that those devoted to environment, to health, to education and to community development can get out of their area-based “silos” and begin working together as so many of the issues that they face have common root causes.

Beyond the benefits that will be derived by area non-profits, this needs assessment is ultimately intended for donors with an interest in making a difference in Baja California. Towards this end, prior to initiating this project, ICF and FIC asked potential donors throughout California and Baja California about impediments that have traditionally precluded or limited giving in the region. Several common themes emerged, ranging from a lack of knowledge of worthy non-profit causes, an unfamiliarity with priority needs and, in the case of US donors, limited reliable U.S.-based intermediaries to assist them south of the border. Mexican potential donors, several cited their inability to receive a charitable deduction for gifts to some NGOs. Some U.S. and Mexican donors to Baja California raises concerns about a lack of transparency among non-profit organizations, particularly relating to financial reporting for charitable donations. Ambiguity of Mexican laws concerning responsibility of NGOs and tax benefits from donations further compounds the problem.<sup>7</sup> From U.S. and foreign corporations operating maquiladoras in Baja California, ICF and FIC learned that many of the corporate-giving departments, corporate foundations, or parent company owners were not oriented towards giving abroad or were unfamiliar with the needs and opportunities in the Baja California communities where they had a presence. Also, few companies have taken advantage of new laws resulting from provisions

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5) An estimate 500 non-profit organizations are identified in Baja California but not all are registered as legal entities or Asociaciones Civiles (A.C.s)

6) Mexico-Philanthropy Report-2002, Washington Times, April 2002

7) Wilken (2002).

under the U.S.-Mexico Tax Treaty of 1996 that allow U.S. businesses carrying part of their operations in Mexico to make charitable contributions in the communities where they operate and receive a tax deduction, provided that the recipient Mexican NGO meets certain criteria and the company has Mexican sourced income which is an issue for some maquiladora operations as they are for all practical purposes cost centers.

ICF and FIC see a compelling need to inform potential donors of the priorities and opportunities in Baja California if philanthropic giving is to dramatically increase. Similarly, U.S. donors need to be more sensitive to the binational interdependencies that exist along the California/Baja California border in the areas of education, health, environment, community development, economic development and cultural exchange. Also, Southern California and Baja California non-profits need to work more cooperatively than they presently are doing to assist in attacking some of Southern California's pressing societal concerns, such as teenage alcohol, drug abuse, and gang violence, at-risk youth, re-entry of undocumented migrants, health education and trans-boundary environmental concerns.

ICF and FIC came together to expand the concept of civil society binationally by undertaking this combined needs assessment and survey of Baja California's non-governmental sector. We began in early 2002 to listen and learn more about community-based needs in Baja California urban and rural communities by interviewing a majority of major non-profit organizations. Community forums (encuentros comunitarios) held in every major city of Baja California ensured feedback from the public, private, and non-profit sectors. Additional focus groups were organized in marginalized squatter communities of the state, the indigenous native communities in the Valle de Trinidad and San Antonio Nécua, and with civic leaders living in San Quintín/San Vicente further analysis was undertaken in Bahía de Los Angeles.

Key donors for these extensive efforts include **Sempre Energy-México**, the **Walton Family Foundation**, **The William and Flora Hewlett Foundation**, **Alliance Healthcare Foundation**, **The Reinhart Family Foundation**, **U.S.-Mexico Philanthropy Partnership**, and **Synergos Institute**. This publication is the result of their support.

Through this publication ICF and FIC seek to develop a baseline identifying priority needs in Baja California; increase donor awareness of the multitude of non-profits involved in community-oriented initiatives; and increase the level of transparency and accountability of non-profits to garner increased donor confidence in the United States and Mexico. Our hope is to encourage new philanthropic initiatives and volunteerism across Baja California.

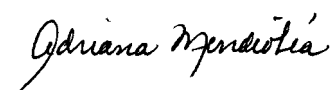
We anticipate that where pressing needs have been identified this publication will spur social entrepreneurs and venture philanthropists to team up for new non-profit organizations, or prompt existing groups to re-position themselves in relation to needs. We hope that the U.S. and Mexican governments will use this publication to identify ways to form more active partnerships with U.S. and Mexican foundations. We also expect to encourage non-profits on both sides of the border to tackle priority issues that cannot be solved by government alone.

ICF and FIC view this needs assessment as a work in progress. Accordingly, our intent is to track philanthropy and volunteerism on a yearly basis to measure long-term improvement. It will be an important catalyst for increased charitable giving, social innovation, and more binational collaboration of civic leaders to improve the quality of life in this unique region of North America.

Sincerely,



Richard Kiy  
President and CEO  
International Community  
Foundation



Adriana Mendiola, PH.D  
Director General,  
Fundación Internacional de la  
Comunidad, A.C

# Needs Assessment Executive Summary

## Education

### Education Needs

- The drop out rate remains high among children and youth in rural areas and squatter communities (colonias populares).
- Existing public schools also need improvement in equipment such as computers, desks and better sanitary facilities.
- There is a pressing need to improve access to public school by constructing facilities closer to newly established communities and when this is not, possible make transportation options more readily available for students in rural areas and squatter communities throughout the state.
- Baja California is lagging behind in preparing its youth for today's rapidly changing global economy.
- There is an urgent need for more pre-schools, as well as schools for secondary and higher education.
- Greater support for educational and vocational training opportunities for the disabled is needed.
- More vocational training with ties to business for internships and post-employment opportunities at all levels is also needed.

### Education Philanthropic Opportunities

#### Giving

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- A range of programs to help keep children in school longer, including paid internships, mentoring, relationships to higher education, as well as parent education.
- Investments in pre-school education, especially in the squatter settlements, where most mothers work in the maquiladoras.
- Donation of environment in particular, computers to public schools.
- Expand the level of public-private partnerships to strengthen public schools, especially those serving low-income communities.
- Create programs to reward teaching excellence and innovation, such as mini-grants to fund staff development or innovative educational projects for students.
- Provide private funding for teacher training.
- Provide private investment in schools, especially in infrastructure (including computer hardware/software) and new programs to encourage learning in science and technology.
- Aid in developing and implementing special education programs.
- Provide transportation for children in rural areas and comunidades populares to attend school and take advantage of enrichment programs.
- For native indigenous children in Tecate and Ensenada, who often travel 2-3 hours to attend even primary school, there is a critical need for an indigenous cultural/education center and shelter to serve as a "home away from home."

## Volunteerism

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- Tutoring and after school programs, so that students will not have to repeat a grade.
- Mentoring programs.
- Strengthening parent involvement in schools.

## Binational Partnerships

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- Strengthen educational exchanges between California and Baja California, working with U.S. INS to overcome current post 9/11 obstacles.
- Establish "adopt a school" programs between California based and Baja California based public schools.
- More binational partnerships between universities and public schools.
- Sponsor educational visits by residents from the other side of the border.

# Health

## Health Needs

- More hospitals, trained medical personnel, medical equipment and medicine are needed. The need is especially acute in the municipalities of Playas de Rosarito and Tecate, as well as rural areas of Ensenada, San Quintín and Bahía de Los Angeles.
- Mental health facilities are sorely lacking.
- HIV/AIDS and Tuberculosis (TB) are on the rise in Baja California and present unique binational challenges as infectious diseases such as these do not respect international boundaries.
- Drug abuse and alcoholism are also of great concern throughout the state. Drug use has reportedly gone up since 9/11 with tightened security at the border.
- While there are numerous rehabilitation centers in Tijuana, residents are concerned about their quality, and other communities are concerned about shortage of rehabilitation facilities. Also, not enough emphasis is placed on drug prevention.
- Health education is recognized as lacking in all of the communities surveyed in the areas of sexually transmitted diseases, infectious diseases, and nutrition.
- While significant progress has been made with the community promotoras in the area of reproductive health, additional work is needed.
- In the agricultural areas, such as San Quintín, occupational health education for the farm workers in the field is also pressing.

## Health Philanthropic Opportunities

### Giving

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- Support for additional health education campaigns in the areas of preventative health, nutrition, family planning and reproductive health, sex education, cancer prevention, occupational health and safety, and cardiovascular health.
- Additional support for substance abuse prevention programs and rehabilitation centers.
- Provide support for expanding mental health services.

- Funding of fixed or mobile clinics to provide greater access to care and early detection of treatable diseases, particularly important in rural areas.
- Increase funding opportunities for those NGOs that are currently reaching or providing outreach to populations most at risk (e.g. women's organizations, those working with maquiladora workers, reproductive health, TB, HIV/AIDS).

## Volunteerism

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- Launch a culturally sensitive, effective educational campaign about sexually transmitted diseases.
- Health education that includes importance of clean water, sanitation, and nutrition as well as expand the promotoras' activities from reproductive and prenatal care to these other areas.
- Public awareness campaign for the disabled and the mentally ill.

## Binational Partnerships

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- The lack of modern equipment and technicians to operate them provides opportunities for in-kind donations in hardware and medical expertise by Southern California area physicians and their medical groups.
- Cross border opportunities exist to provide "promotor" training to males in Baja California, in the areas of health/nutrition, education, domestic violence, and parenting modeled after efforts by **Latino Health Access** in Orange County.
- Opportunities exist for the **Gay and Lesbian Funding Partnership** in San Diego to support HIV/AIDS awareness campaigns in border communities of Baja California.

# Community Development

## Community Development Needs

- More public spaces are needed where residents, especially youth, can safely engage in recreational and educational activities.
- Domestic violence and child abuse are of concern in many of the communities, and many expressed the need for programs to empower women, such as the establishment of more women's centers.
- Addressing the needs of the less advantaged, such as migrants and indigenous populations, the disabled, and the elderly is another challenge facing communities throughout Baja California.
- Rapid growth coupled with a lack of urban and regional planning is leading to unhealthy and unsustainable communities throughout Baja California.
- As Baja California's migrant population grows, building a sense of community becomes increasingly difficult without active civic engagement and an educational campaign on civic values and pride.

## Community Development Philanthropic Opportunities

### Giving

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- Support the creation of community learning centers (CLCs) in marginalized communities.
- Invest in community development programs and rehabilitation projects in colonias populares.
- Invest in health and education programs for the indigenous communities.
- Help start and invest in youth programs in squatter settlements/colonias populares and migrant workers' camps.

- Invest in leadership development of local nonprofit leaders and the organizational capacity of nonprofits, especially toward community building and promotion of civil society.
- Capacity-building for NGOs, especially in the area of fund-raising and management.
- Promote the establishment of more drug abuse prevention campaigns.
- Reunification programs tied to productive employment and micro-enterprise programs in sender communities of origin, to curb the tide of migration to the border region.
- Innovative solutions to land tenure issues in squatter settlements.
- Support youth outreach initiatives for children currently living in Baja California's prisons with their inmate parents.
- Create a prisoner re-entry program/half-way house in Tijuana, Tecate and Mexicali for former inmates from both U.S. and Mexico correctional institutions with a focus on life-skills, vocational training, transitional employment, temporary housing and assistance to get these individuals integrated back in their communities of origin wherever that might be (Jalisco, Oaxaca, Michoacán, etc.).

## Volunteerism

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- Expand the successful promotora model to one focused on men addressing the wide range of issues that are currently inadequately addressed, including domestic violence and safe sex.
- Involvement with neighborhood groups in maintenance of public spaces and services.
- Clean-up campaigns: one-way of building the sense of community is to develop civic pride. A clean-up campaign, modeled after "**I Love A Clean San Diego**," can be launched in Tijuana, Playas de Rosarito, and Ensenada. A similar campaign for inland municipalities and communities can be designed with community leaders' input.
- Involvement of parents in education.
- Mobilize volunteers, especially the retirees (since they have ample work and life experience) for educational and recreational programs.
- Educational programs against substance abuse (drug and alcohol).

## Binational Partnerships

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- Establishment of a youth oriented outdoors program similar to the Boy or Girl Scouts; Boys and Girls Clubs or YMCA and YWCA for street kids as well as disadvantaged children from marginalized communities from throughout the state.
- Binational campaign against teen-age sex, substance abuse, especially against under-age drinking.
- Tijuana natives now living in San Diego need to be encouraged to re-discover their community of origin by finding meaningful ways to give back through donating their time, money and expertise.

# Environment

## Environment Needs

- Rapid growth of Baja California continues to put a strain on the state's scarce natural resources. Lack of proper sewage, pavement, and drinking water continues to plague many of the marginalized communities in both urban and rural areas.
- Improperly treated sewage continues to pollute water, while unpaved roads create dust that pollutes the air.

- Contaminated water, coupled with lack of access to potable water, makes residents susceptible to water-borne diseases.
- Unplanned growth threatens to diminish green areas near urban centers, and the state's rich marine resources are also under pressure due to unsustainable or planned use of these resources.
- Creation of more protected areas, as well as better management of those that are already classified as protected, are two important environmental goals for the state.
- Environmental education remains a top priority. Environmental education is particularly needed in the areas of: water and energy conservation; recycling, promoting a broader understanding of the Tijuana River watershed; pollution risks (air, water, hazardous waste), conservation of protected and threatened area, environmental and occupational health, particularly for farm workers. Also, there is a need to educate state and local elected officials making major public policy decisions impacting the environment.

## Environment Philanthropic Opportunities

### Giving

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- There is a pressing need to do much more in the area of environmental education (EE) at all levels (pre-school, K-12, and adult), supporting existing organizations while at the same time encouraging other initiatives to take hold, particularly in communities such as Tecate and Bahía de Los Angeles which have smaller populations but face emerging environmental threats and challenges.
- Support for the establishment and maintenance of conservation areas in previously unprotected areas. Here a system of State Parks, which could be promoted by Baja California NGOs and developed in collaboration with the California State Park system, could provide long term, consistent management of green space.
- Forming a series of green corridors around the state's historic mission sites, as contemplated by the **Camino Real Misionero de las Californias, A.C. (CAREM)** project would link cultural and natural resources throughout the length of the peninsula.
- Priority conservation areas, including wildlife corridors in the Ambos Tecate area, San Pedro Martir and Bahía de Los Angeles need to be given priority.
- More private funding for conservation is necessary as Mexican federal funding for conservation is nominal and priorities are oriented to other defined "biological hotspots" throughout the Republic of Mexico.

### Volunteerism

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- Develop training programs for volunteers who could promote environmental education. More community members of Baja California must be prepared to be the "promoters" for environmental education.

### Binational Partnerships

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- Expand binational partnership initiatives in an effort to conserve Baja California's natural resources and to promote a planned growth strategy.
- Expand binational educational opportunities for sustainable management of natural resources. These include training courses for successful and sustainable eco-tourism, as well as training for scientific research conducted to ensure the healthy management of the natural resources in the region.
- A system of State Parks, could be promoted by Baja California non profits in collaboration with the California State Park system which could provide long term, consistent management of green space.
- Create a new non-profit modeled after the National Parks Foundation in the United States to provide additional staffing support and funding to Baja California's national parks.

# Economic Development

## Economic Development Needs

- There is a need for greater support for micro-enterprise development especially in the face of maquiladora cutbacks and closures.
- Institutions that provide training courses for future entrepreneurs are considered crucial.
- More long-term regional planning and feasibility studies are needed to promote "smart" urban and industrial growth with an emphasis on long-term water availability, viable eco-tourism projects, and sustainable fisheries and agriculture.
- Baja California's work force is ill prepared to remain globally competitive.
- Improved economic statistics at the local/regional level to better access the state's economic competitiveness.

## Economic Development Philanthropic Opportunities

### Giving

- Support for local chambers of commerce and strategic planning organizations (**Tijuana Trabaja**, **Ensenada 2025**, **CDEM**, etc.) to undertake long range planning studies aimed at accessing the region's economic competitiveness as well as identifying emerging economic development opportunities.
- There is a compelling need for philanthropists to get more involved in helping to shape Baja California's strategic vision for its economic future. Key opportunities include funding studies to better assess the potential impacts (positive and negative) of the proposed Escalera Náutica project and assess the potential of eco-tourism in the Tecate area, Sierra Juárez, and Bahía de Los Angeles, and in general coordinating joint transborder opportunities from tourism.
- Funding opportunities to incentivize "sustainable fishing" ventures with indigenous communities.
- Opportunities also exist to support micro-credit finance programs, particularly among those workers that lost their jobs in the maquiladora sector.
- One of the greatest contributions that donors can make to stimulating economic development in Baja California is by investing in education and improving the potential of tomorrow's workforce.

### Volunteerism

- Opportunities exist for larger, more established companies to more pro-actively support the long-term economic viability of Baja California by sharing lessons learned with small businesses and newly established micro-enterprises.
- The Baja California business community needs to actively involve themselves in planning the long-term economic future of their state working through organizations such as **Tijuana Trabaja**, **Visión Ensenada 2025**, **CDEM**, the **Tecate EDC**, and **CCE in Rosarito**.

### Binational Partnerships

- Opportunities exist for expanded partnerships with business associations and chambers of commerce in Southern California to promote economic development of the region.
- Strategic economic alliances need to be formed between communities in Baja California and their respective sister cities in Southern California to convert these binational civic relationships into longer-term economic opportunities for the state.

# Culture

## Culture Needs

- Arts and cultural programs are under-funded and such activities have not been actively promoted to encourage participation from the general population.
- Good museums exist but more could be done to promote greater access for the state's disadvantaged people, particularly children and youth.
- There is a need for cultural and arts enrichment programs in the state's public schools.
- There is a deficit of libraries throughout the state.
- Many performances and other cultural events are out of reach of marginalized communities, as their residents lack either the financial resources to attend, or viable transportation options.
- There are few outlets for creative works where communities can express themselves. In some communities, such as Ensenada, Tecate and Bahía de Los Angeles, community leaders feel that they are not making the best use of the existing cultural resources in the community.
- Baja California is not fully taking advantage of its rich cultural diversity, including its indigenous native and migrant communities and its Chinese community. Also, the indigenous languages of many of these communities are phasing out.

## Culture Philanthropic Opportunities

### Giving

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- Cultural enrichment programs in schools and outreach programs in colonias populares.
- More funding for libraries.
- Construction of more cultural centers for the overlooked population in Baja California.
- Native indigenous children in Tecate and Ensenada will greatly benefit from cultural centers dedicated to their culture.
- In Mexicali, a "Chinese cultural and historical center" could offer an excellent opportunity to celebrate the rich cultural history brought to the Mexicali Valley from Chinese immigrants.
- Support for the creation of community museums in the native indigenous communities as well as other towns, ranches and sites of particular historic or cultural interest.
- Donation to facilitate transportation to museums and other cultural attractions for the state's neediest children and youth.
- Support for elders of Baja California's indigenous communities to teach their native languages.
- Investment in Baja California's national parks with the construction of nature interpretative centers so that residents can better appreciate the rich biodiversity that their state offers.
- Promote the establishment of a Mexican national parks foundation to support improved staffing and other resources to these national treasures. Such a foundation could be modeled after the National Parks Foundation in the United States.

## Volunteerism

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- Numerous opportunities exist for musicians, artists, writers and poets to volunteer their time in support of cultural enrichment programs in the public schools, including outreach opportunities to the state's most rural and marginalized communities.
- Opportunities also exist for leading field trips for under-privileged children to museums, sporting and cultural events.

## Binational Partnerships

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- Great cross-border philanthropic opportunities exist in promoting greater access to San Diego area museums and the funding of visiting exhibitions in Baja California.
- More efforts should be made to expand the level of cross-border cultural visits and tours. Many of Baja California's museums, especially community museums, could greatly benefit from collaborations with US museums, NGOs and academic institutions.
- Binational collaboration to create bilingual exhibits, websites, journals, workshops and festivals aimed at promoting cultural exchange between the two countries.
- Sports exchanges are another venue through which Baja California and California can develop a binational partnership.
- Cultural exchange programs that are modeled on the Sempra Energy International School Exchange Program (discussed in Section A, Education), could stimulate children's interest in culture.
- Partnership opportunities also exist to have Mexican NGOs collaborate with the California Missions Studies Association to promote the idea of forming a series of green areas around the state's historic mission sites, as contemplated by the **Camino Real Misionero de las Californias, A.C. (CAREM)**. Such a project would link cultural and natural resources throughout the length of the peninsula.
- Binational academic exchange programs carried out in collaboration with the INAH and civil associations such as **CAREM** and **CUNA** designed to document and preserve Baja California's cultural heritage.

# Introduction

Located on the Northwest corner of Mexico bordering the U.S. counties of San Diego and Imperial counties and extending over an area of 27,070 square miles along a peninsula that bears its name, Baja California is a rich and diverse state. Geologically, it is a continuation of California with the Baja California peninsula bounded on the west by the Pacific Ocean and on the east by the Sea of Cortez otherwise called the Gulf of California.<sup>1</sup> Like California, Baja California has a long and rugged coastline. The state also has an incredibly rich biodiversity and a growing population.

In fact, after Quintana Roo, Baja California is the fastest growing state in the Mexican Republic with a growth rate of 4.15% between 1990 and 2000. Of Baja California's "official" population of 2.6 million people, nearly 80% are concentrated in just two metropolitan areas, Tijuana and Mexicali, and 92% are living in urban communities.<sup>2</sup> What is often overlooked by official statistics is the under-counted "floating population" of migrants that stay in Baja

California temporarily for eventual travel to the United States, and the growing number of migrant transplants living in unincorporated squatter communities or migrant worker camps, as in the case of San Quintín, many of which are not fully accounted for in Mexico's current census tracts.<sup>3</sup>

Largely because of its agricultural sector, located in the Mexicali and San Quintín Valleys, and the maquiladora sector and its proximity to major labor markets in the west coast of the United States, Baja California commands the lowest unemployment rate and amongst the highest per capita incomes among any of the Mexican states averaging \$9,812 versus the national average of \$7,495. For these reasons, Baja California has become the top destination for migrant workers coming from poverty-stricken indigenous regions of Central and Southern Mexico including Oaxaca, Guerrero, Michoacán, and Chiapas. In fact, Baja California's net migration was the highest of any state in the Republic of Mexico, at 8.47% over the past decade.<sup>5</sup> Because of the state's long-standing attraction as a destination for would-be migrants, only 19.8% of Baja California's population can now be considered native.<sup>6</sup> In 2000,

only 12.8% of recent migrants had been in the state for at least 5 years. In other words, 81.2% arrived since 1995.

This recent migration has resulted in a growing number of poverty-stricken communities in Baja California, as reflected by the fact that the municipalities of Ensenada and Rosarito have per capita incomes of \$5,388 and \$5,353, respectively—well below the national average of \$7,495 (see Table A-1). In

**Table A-1:**  
**Population & Per Capita Income of Baja California by Municipality**

MUNICIPALITY	POPULATION	PERCENT	PER CAPITA INCOME PPP (USD)
Tijuana	1,292,993	49.4%	\$9,812
Mexicali	788,843	30.1%	\$11,855
Ensenada	390,719	13.1%	\$5,388
Tecate	83,401	3.3%	\$6,750
Playas de Rosarito	70,218	3.2%	\$5,353
State Average			\$9,575
National Average			\$7,495
Total	2,626,174	100%	

Source: CONAPO, INEGI, 2000. Population figures do not include some squatter settlements where population growth has been the greatest.

1) Richard Feinberg and Gretchen Schuck, "San Diego, Baja California and Globalization: Coming from Behind," Los Angeles: Pacific Council for International Policy, October 2001, page 3

2) State of Baja California statistical indices, April 2002

3) Mexico's 2000 census enumerated 97.4 million residents, up from 81.2 million in 1990, but most observers believe there was an undercount, so that Mexico had at least 100 million residents in 2000 (UC Davis, Migration News, July 2001, Volume 8, Number 7).

4) State of Baja California, Secretariat of Economic Development

contrast, Tijuana's per capita income is \$9,812 and Mexicali reaches \$11,855, but even in these municipalities, many growing pockets of poverty that are uncounted for, therefore not reflected in the official statistics.<sup>7</sup>

For example, according to Mexico's National Council of Population (CONAPO)'s Human Development Index (HDI) of 2000, Tijuana ranks among the highest in human development (see Table A-2).<sup>8</sup> However, according to the Social Development Secretariat (SDS), the eastern part of Tijuana is one of the most marginalized areas in the state.<sup>9</sup> Other areas identified by the SDS as most marginalized were San Quintín, Isla de Cedros, Valle de Ojos Negros-Valle de la Trinidad, San Felipe-Puertecitos, and Valle de Mexicali.

**Table A-2:**  
**Human Development Index (HDI)**

MUNICIPALITY	HDI
Tijuana	0.778
Mexicali	0.842
Ensenada	0.785
Tecate	0.796
Playas de Rosarito	0.825
State Average	0.823
National Average	0.789

Source: CONAPO, *Indíces de Desarrollo Humano*

It is also noteworthy that in the municipalities of Ensenada and Playas de Rosarito, the HDI is *lower* than the national average. Although no official figures are available, it is believed that approximately 500,000 people, or about 20% of population in the state live at or below the minimum wage which, as of January 2002, was 42.51 pesos/day or about US\$4.25/day.<sup>10</sup> Despite these pockets of poverty and wide gaps between municipalities, the state of Baja California is perceived by some as a well-to-do state

that has little need for public or private assistance. As this needs assessment shows, this could not be further from the truth, and neglects the growing impact that migration is having on the state, particularly from some of Mexico's poorest, most economically marginalized states.

Studies have shown that most migrants arriving to Tijuana come with the intent of ultimately crossing the border into the United States, and this has contributed to the transient nature of the border communities such as Tijuana, Playas de Rosarito, and Tecate. Despite these intentions, according to Mexico's Census Bureau, INEGI, 43% of the new arrivals ultimately do remain in Baja California. A significant number settle in Tijuana and the adjoining cities of Playas de Rosarito, Tecate, Mexicali, Ensenada, and San Quintín, finding jobs in either the region's agricultural, maquiladora,<sup>11</sup> or tourist/service sector. For those that do stay, living in Baja California can be quite costly, as it ranks among the regions with the highest cost of living in Mexico outside of Mexico City, Cancún and other border cities such as Juárez and Reynosa. The cost of living is so high that employees in some sectors including civil service and maquiladora are paid a so-called "border allowance" to supplement their wages.<sup>12</sup>

Indeed, in 2002 Baja California's maquiladora workers made slightly more than the national average: 228.8 pesos/day (US\$28.80) versus 219 pesos/day (\$21.9). Only three other Mexican states' maquiladora workers make more on average: Tamaulipas, Chihuahua, and Nuevo León.

This ranking of earnings, however, only tells part of the story, as maquiladora workers include three general types of employees: unskilled workers (obreros), technicians (técnicos), and administrative/managers. As such, the "average earnings" for a "maquiladora employee" includes all three levels – not necessarily a specific indicator of the employees most at-risk of not being able to afford the canasta básica by the Bank of Mexico, otherwise defined as the cost

5) INEGI, 2000; State of Baja California statistical indices.

6) Consejo Nacional de Población (CONAPO), 2001

7) For budgetary apportionments at the state and local level, the Mexican Federal Government applies census statistics for population of those residents that have lived in a given area for 5 years or more. Given the high level of in-migration in Baja California, this results in a large portion of the state's

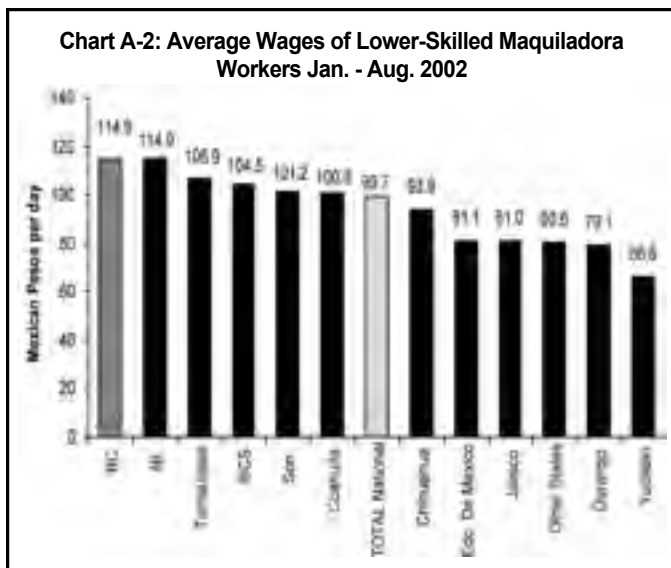
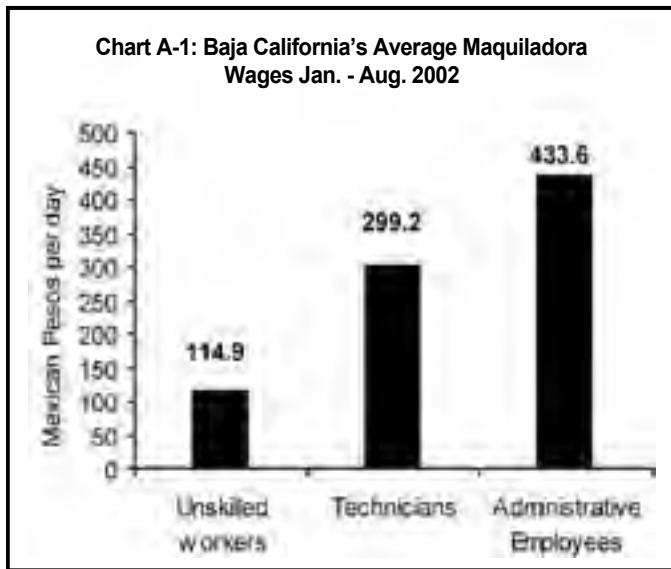
population being under-count and contributes to the budgetary pressures faced across the state for social services (education, health care, etc)."

8) Human Development Index is a measurement based on educational attainment, quality of housing and access to water, sanitary facilities and electricity, population density, and income.

of basic goods/services for an average Mexican consumer. [For details, see the Definitions Section page 96.]

As an example, in Baja California, the average “wages” for the three levels of maquiladora employees in 2002 were:

- 115 pesos/day for unskilled workers
- 299 pesos/day for technicians
- 434 pesos/day for administrative (Chart A-1)



For unskilled- and lower-skilled Baja California maquiladora employees, the average monthly wages ranges from approximately 2,470-2,960 pesos (depending on whether a 5- or 6-day work week is assumed). Additionally, according to Mexico’s Secretary of Labor (Secretaría del Trabajo), Baja California’s maquiladora workers earn on average 66.6 pesos/day of benefits beyond their base salary.

As illustrated in Chart A-2, this average wage for unskilled maquiladora workers is actually the highest in the country. Baja California’s high wages are, in fact, making it more difficult for maquiladoras to retain their competitiveness – leading many to consider relocating to other areas of Mexico or the world (particularly Asia).

Still, it is worth noting that even given Baja California’s high relative wage rates, the average unskilled worker is still not keeping pace with the cost of living as defined by the “Canasta Básica” (CB) with unskilled maquiladora workers in the state having lost approximately 13% of their CB purchasing power since 1994.<sup>13</sup>

The higher cost of living, coupled by the rapid in-migration to Baja California from poorer migrant sending states (e.g. Chiapas, Oaxaca, Guerrero, Michoacán, Guanajuato) has pushed incoming residents to fringe communities surrounding the state’s major metropolitan areas. This has contributed to the unplanned urban development found throughout the state.

The rapid growth of in-migration in Baja California has led to a rise in the level of unplanned urban development throughout the state. In particular, Tijuana has grown by over 6% with over 80,000 new residents arriving per annum, and its metropolitan area has expanded by 2.25 hectares per day.<sup>14</sup> Partly because of these trends, Tijuana now has the highest urban population density in Baja California with 1,043 people per square kilometer. This compares to the national average of 51.3 people per square kilometer. Although not as dense as Mexico D.F.

9) Gerardo Díaz Valles, “Desconocen Número de Marginados,” El Sol de Tijuana, September 14, 2002, 10A.

10) Gerardo Díaz Valles, op.cit.

11) The maquiladora sector represents manufacturing or assembly facilities that have historically operated under a preferential tax/duty regime for in-bond shipments of

components and raw materials that are ultimately intended for re-export.

12) Information obtained from FIC.

13) Ken Morris, Cross-Border Business Associates.

14) San Diego Dialogue--Forum Fronterizo, “The Global Engagement of San Diego/Baja California,” Final Report,

**Table A-3: Density of Population in Baja California Municipalities 1950-2002 (Source: INEGI) Persons per square kilometer**

YEAR	BAJA CA	ENSENADA	MEXICALI	TIJUANA	TECATE	PLAYAS DE ROSARITO
1950	3.2	0.6	9.1	47.0	2.0	
1960	7.4	1.3	20.6	119.0	2.7	
1970	12.4	2.2	29.6	244.7	5.9	
1980	16.8	3.4	37.3	331.4	9.9	
1990	23.7	5.0	44.0	536.9	16.7	
1995	30.0	6.0	49.9	708.1	17.5	89.9
1997	31.6	6.4	52.1	879.4	18.5	99.8
1998	33.2	6.6	53.5	930.4	19.2	116.1
1999	34.5	6.8	54.8	982.0	19.8	130.2
2000				1043.0		
2002	38.7	7.3	58.4	1114.0	25.0	151.5

(1) The Municipality of Playas de Rosarito was created in 1995

(5,643 people per km<sup>2</sup>), (see Table A-3) Tijuana's population density is well above the national average and higher than that of Los Angeles (916 people per km<sup>2</sup> in 2000). Even in rural areas, notably in the municipality of Ensenada (such as the Valle de Guadalupe), unplanned growth and sprawl is occurring, and will have significant long-term impacts.

Sadly, over 50% of the new in-migrant population locating in Tijuana ends up in squatter settlements without basic utilities such as potable water, sewage treatment, telecommunications or electrical hook-ups. The health, environmental and social challenges from this unsustainable growth are expected to become exasperated in the coming years unless immediate steps are taken to address these problems. Contrary to conventional wisdom, for many migrants to Baja California the cycle of poverty from Southern Mexico to the border is perpetuated. According to a recently published study entitled "*Quality of Life Declines in Big and Growing Cities*" by Brouckerhoff and Brennan, the increase of infectious disease and infant mortality is directly correlated to the crowding index in urban cities of the developing world.<sup>15</sup> As a

case in point, Tijuana has the second highest incidence of infant/child mortality along the entire U.S.-Mexico border.<sup>16</sup>

Beyond the problems of unplanned growth and the high in-flux of migration, Baja California's rapid urban expansion has also posed considerable challenges for state government officials. The officials are overwhelmed in their inability to address the educational needs of migrants, many of whom come with limited schooling and, in the case of indigenous migrants, speak little or no Spanish. These difficulties are revealed in

Mexico's census data, which illustrates that Baja California has lagged behind many of Mexico's other 30 states and the federal district of Mexico City in improving school attendance. In fact, Baja California dropped from 7th to 18th place--including Mexico City--in the percentage of children ages 6 to 14 attending school. While Baja California ranks 3<sup>rd</sup> in the nation in literacy,<sup>17</sup> illiteracy is a growing problem in the municipality of Ensenada with an illiteracy rate of 5.6%, because of the high influx of indigenous migrant farm workers from Southern Mexico to the agricultural fields of San Quintín and Valle de Guadalupe<sup>18</sup>.

Illiteracy problems are not limited to the state's native and migrant indigenous communities. In fact, not enough attention is being placed on the level of *functional* literacy among Baja California's students and employees in the workforce. Over 51% of Baja California residents have no more than 8.7 years of schooling. A recent study by the Organization for Economic Cooperation and Development (OECD) determined that over 50% of 15 year old students in Mexico had only achieved Level 1 literacy (from a

November 2000, page 8 quotes a figure of 65,000. Tijuana's planning agency, IMPLAN, has revised this figure in April 2002 to 80,000 new residents per year.

15) Brouckerhoff, Martin and Ellen Brennan. 1997. "The poverty of cities in the developing world." Policy Research Division Working Paper no. 96. New York: Population Council.

16) Mortality, 1999. INEGI-SSA/DGEI

17) Baja California's literacy rate is 96.5%.

18) The irony is that Ensenada also ranks #1 in the country for the number of scientific researchers per 1,000 inhabitants because of its high concentration of academic institutions and research laboratories.

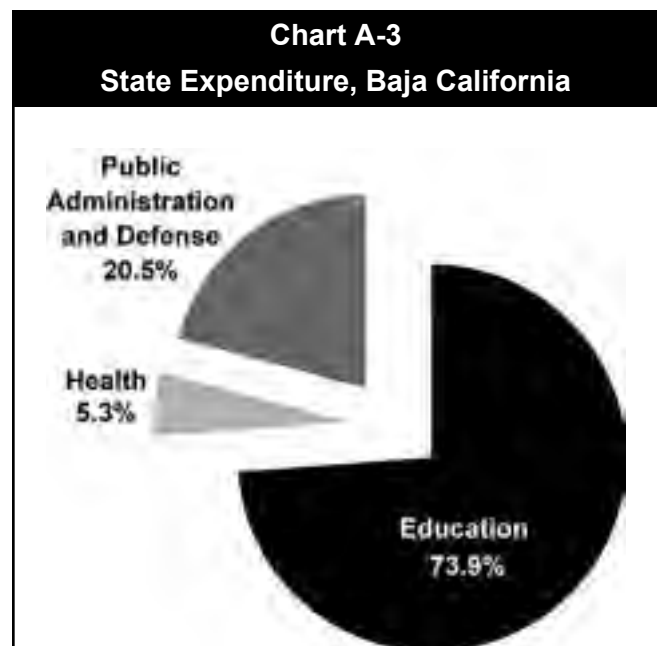
scale of 1-5)<sup>19</sup>. This is a cause for concern as the state increasingly is forced to compete with other emerging economies such as China that not only have more competitive labor rates but higher levels of educational attainment.<sup>20</sup>

Although efforts are being made to decentralize, Mexico has traditionally had a centralized form of government, with all major political and economic decisions have made from Mexico City. The border area, which has experienced massive population growth, has not received the attention it deserves from the federal government. This is partly due to the fact that much of the recent growth in the border region has taken place in outlying squatter communities. Although these communities are included in the census count, it is generally believed that the difficulty of accessing some of these communities leads to undercounting of the population in the urban areas as well as in rural areas.<sup>20</sup> The potential impact of the undercount on Baja California is that it does not receive funds from the federal government proportionate to its real population. As in the United States, the federal government and the state governments negotiate over the amount each state is allocated from the federal funds each year. One of the three criteria used to determine the amount of federal funds for states is population. At the negotiation table, unless the state government can precisely measure the population growth due to migration, it cannot convince the federal government of the need for additional funds.<sup>21</sup> Accordingly, border communities, such as Tijuana, may have been "short-changed" relative to their population growth and tax base. The reason is simple. The infrastructure (wastewater treatment, roads, potable water, utilities) has not kept up with the growth and demands. In fact, the Federal Government spends more on residents of most other Mexican states than on residents of Baja California. As Table A-5 (page 23) shows, on a per capita basis, Baja California receives only \$248 compared to a national average of \$256 in total government

spending. In turn, Baja California Sur receives \$432 and Oaxaca \$364 on a per capita basis.

With limited resources, the state government has designated a large portion of its budget to education (see Chart A-3). With almost three-quarters of its budget designated to education related expenses, other critical areas of public services, *health in particular*, have not received the resources that they need to meet the needs of the state's growing communities. Indeed, Baja California's expenditure on health as a percentage of its budget (5.3%) is much smaller than the national average, which is 9.6% (see Chart A-4).

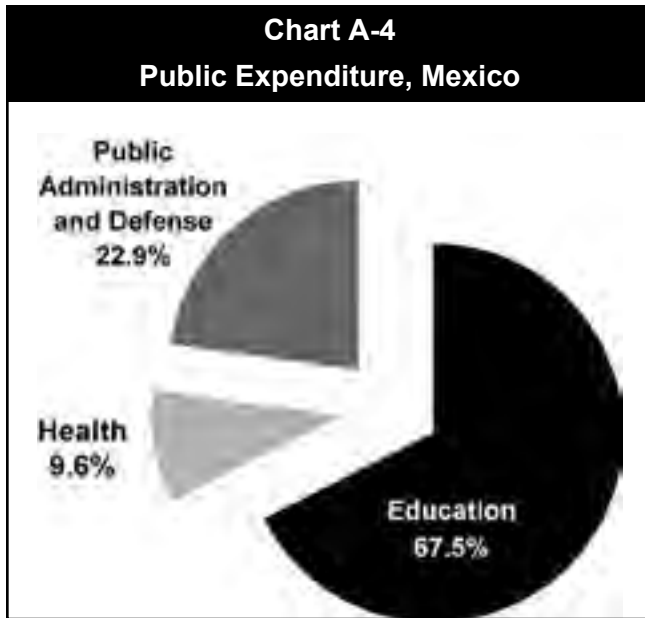
Apart from the lack of resources to respond to the rapid growth, Baja California cities must fight the negative image they have acquired over the years. The 1994 Colosio assassination in Tijuana, gang-land killings tied to the drug cartels, and news of corruption have created a negative impression of Tijuana and Baja California, adversely impacting tourism and business in general. Still, there are many positive elements in Baja California's communities, but these positive attributes are often not well publicized. In particular, more needs to be done to



19) OECD "Knowledge and Skills for Live Study-2000" 2001.

20) China's average level of educational attainment in urban areas is 9 years of schooling.

21) Personal communication with Rafael Alarcón, September 25, 2002.



promote "civic pride" and a sense of community in places like Tijuana, particularly given the high degree of in-migration from the interior of Mexico and the large number of people---over 50,000 people-- that constitute the city's floating population that comes and goes between San Diego and Tijuana everyday for employment and school.

### **Post 9/11 Impacts:**

Baja California's close proximity to the United States and its many foreign-owned *maquiladora* operations have historically permitted the state to easily absorb the in-flux of labor to the region with unemployment rates of 2.47% (national average=2.93%)<sup>22</sup>. In fact, the state's economy grew by 25% between 1994 and 1999, and it received the largest amount of foreign direct investment among Mexico's border states. Today it still hosts 35% of all maquiladoras in Mexico. During the 1990s, Baja California had the second highest rate of annual population growth in Mexico (4.15%).<sup>23</sup>

A number of recent factors, however, have led to a downturn in the maquiladora industry: the recent recession in the United States coupled with an over-

valued peso; relatively high cost of living in Tijuana; rising wage rates and energy costs in the state; imposition of Section 301 trade provisions under NAFTA<sup>24</sup>; and post-September 11<sup>th</sup> tightening of border security (and its resulting delays in cross-border trade) has led to a marked decline in the regional economy, leading to a decrease in the number of maquiladoras operating in Baja California.<sup>25</sup> In fact, 88 such facilities have shut their doors in an 18 month period from January 2001 to the summer of 2002. Between January 2001 and April 2002 total of 63,000 jobs were lost in Baja California's maquiladora sector, representing over a quarter (26%) of Mexico's total job losses for this sector.<sup>26</sup> All told, there has been an average 12% reduction in total employment among maquiladora facilities throughout the state. According to most analysts, many of these jobs, particularly in the consumer electronics sector, may never come back.<sup>27</sup>

The post 9/11 impacts have not been limited to the rising level of unemployment. Because of the tightening of border security, illegal crossings at the international border with the United States have proven more difficult. The result has been a noticeable rise in the number of would-be migrants that are staying in Baja California, resulting in increased delinquency and crime. Feedback from municipal officials and social workers in Tijuana, Tecate, Playas de Rosarito and Ensenada indicates that there has been a marked rise in the level of drug use since 9/11 due to the increased supply of narcotics on the streets of Baja California's urban centers and resulting lower costs.

### **Cause for Optimism:**

In spite of challenges faced by Baja California because of the downturn in the economy and ever-present influx of migrants, there are many bright spots on the horizon. First, despite the relatively high cost of living in the state (relative to other parts of Mexico), Baja California continues to attract foreign investment. In fact, Japanese-based Toyota and

22) Personal communication with Marcos Reyes, September 26, 2002.

23) Data current as of September 2001. Source: State of Baja California, Secretariat of Economic Development, 2002

24) INEGI 2000.

25) Section 301 provisions of the North American Free Trade Agreement (NAFTA) require manufacturers in North America, including Mexico, to have at least 50% North American content in order to qualify for NAFTA trade benefits. This has negatively impacted a disproportionate number of maquiladora operations in Baja California that rely on components from Asia. It has resulted in prevailing duty rates

Taiwanese-based Merry Yard Enterprises have both recently made announcements that they will be locating manufacturing facilities in the state. Also, Baja California has been diversifying its economic base and in recent years has attracted the film industry to the state. According to Mexico's National Filming Commission, \$930 million was spent in the country during 2001, with Baja California capturing the lion's share of this business thanks to the Twentieth Century Fox studios located in Playas de Rosarito where *Titanic* and *Pearl Harbor* were both filmed. In an effort to spur more tourism and business to the region, Tijuana has also recently broken ground on a new convention center to be located near the airport and border crossing in Mesa de Otay.

Efforts are also being made to make the state more economically competitive and to offer a cleaner and more cost effective energy alternative to industry and consumers throughout the state by making natural gas available (from local LNG plants as well as via a cross-border transmission pipeline). Ecogas in Mexicali, which is providing natural gas directly to homes and some businesses, is one successful example. Preliminary work has also begun for investment in wind power for use by the state's municipalities.<sup>27</sup> Investment is also being made to improve the state's telecommunications infrastructure, including the laying of over 1.86 billion cubic feet of fiber optic cable with linkages to San Diego.

Finally, there is now, for the first time in recent history, both the political leadership and will to promote greater cross border cooperation to address the wide range of shared educational, social, environmental, public health, and economic and community development challenges facing the bi-national region, comprised of the communities within San Diego and Imperial Counties on the United States side of the border and the Mexican communities of Tijuana, Tecate, Mexicali, Playas de Rosarito, and Ensenada. In addition, there are a

number of new government initiatives to respond to pressing community needs in Baja California. The state government's executive branch has just published its State Development Plan of 2002-2007, replete with analysis of the current situation in the state, identification of general goals and strategies, specific goals and strategic plans. Several initiatives are already under way, as described in each section of this report.

While much remains to be done, many of Baja California's close to 500 non-profit organizations are responding effectively to the array of socio-economic, environmental, and health challenges faced throughout the state. Important efforts are being made to promote a stronger civil society and increased volunteerism in communities throughout Baja California as demonstrated by the emergence of visionary public-private partnerships such as Tijuana Trabaja, Visión Ensenada 2025 and CDEM's Mexicali 2020 initiative.

Additionally, several Southern California-based non-profits are undertaking cross-border initiatives to make a difference in Baja California, such as **Project Concern's "Border Health Initiative;"** **Project Mercy's** home building in Tijuana; the **Coachella Valley Housing Coalition's** housing for Mexicali's poorest families; and **Planned Parenthood-San Diego** which is working closely with Tijuana based **Fronteras Unidas Pro Salud** to promote family planning and improved health conditions in impoverished rural and urban areas throughout Baja California. Valuable work is also being undertaken by **Rotary International, Lion's Club, and Flying Samaritans** as well as various faith-based organizations that contribute time and money to an array of causes in Baja California. These U.S. organizations work with Mexican NGOs as well as local and state governments.

The Fresno-based 501(c)(3) **Frente Indígena Oaxaqueño Binacional**<sup>28</sup> also actively provides funding and voluntary support to their brethren in

that have made continued production in Mexico cost prohibitive and has been another key reason for the closure of facilities in the state.

24) It is worth noting that Mexico's Secretary of Economy announced in July 2002 an elimination of duties for the maquiladora industry in the textile and electronics sectors in an attempt to help bolster this industry.

25) "Maquiladoras, víctimas del superpeso: Un motor del desarrollo que se está apagando," *El Universal* (Mexico, D.F.), 25 April, 2002, D6-D7.

the politically marginalized indigenous migrant communities of San Quintín as well as in squatter communities in and around Tijuana. Similarly, Imperial Beach-based **WiLDCOAST** is working in partnership with Ensenada-based Pronatura to empower fishermen in Bahía de Los Angeles to protect sea turtles, promote sustainable fisheries, and establish a protected area for their community. **Instituto de Culturas Nativas de Baja California (The Native Cultures Institute) (CUNA)** has created a medical assistance program for the native indigenous communities by coordinating the participation of volunteer doctors and health practitioners from both sides of the border. U.S. Doctors and medical professional and other volunteers have given of their time and money to support the Hospital Infantil de las Californias.

Thus, binational volunteerism is alive and well on the border, limited though it may . For example, all five of the municipalities in Baja California have established sister-city relationships with at least one city or county in California to forge stronger partnerships and provide border volunteering opportunities, yet these relationships are not being fully taken advantage of (Table A-4).

Renewed interest in the U.S.-Mexico border is manifested in a new donor collaborative managed by New York-based **Synergos Institute** and led by the **Ford Foundation, Hewlett Foundation, Mott Foundation, Houston Endowment** and others. The goal of this **U.S./Mexico Border Philanthropy Partnership** is to work with the more than 20 existing border community foundations to strengthen their boards and staff, develop effective programs, increase their asset base and broaden their ability to serve their respective border communities. This effort will help ICF and FIC become more viable and empower other California and Baja California communities to partner with ICF and FIC to establish funds for the benefit of communities in this region.

**Table A-4: Sister City Relationships Between Baja California and California Communities**

Baja California	California
Ensenada	Redondo Beach
	Riverside
	Oceanside
Mexicali	San Bernadino
Rosarito	Solana Beach
San Felipe	Hayward
Tijuana	San Diego

26) The higher than normal plant closure and job reduction rates in Baja California is indicative of the state's high concentration of consumer electronics manufacturers that have been hard hit by the U.S. recession and are in a sector with low margins and strong global competition from low wage manufacturing countries such as China.

27) Enrique Garcia Sanchez, "Baja Project Would Tap

Windmill Power," San Diego Union, April 26, 2002, page C.1.  
 28) <http://www.laneta.apc.org/fiob/>

**Table A-5: Mexican Federal Budget--Ramo 33 State-by-State Allocation for 2003**

Federal Entities	Total Population 2000 Census <sup>1</sup>	Ramo 33 Millions of Mexican Pesos <sup>2</sup>	Ramo 33 US Dollars Equivalent (USD = 10.25 Pesos)	Ramo 33 US Dollar Per Capita
TOTAL-MEXICO	97,483,412	255,845	\$24,960,487,805	\$256
BAJA CALIFORNIA SUR	424,041	2,095	\$204,390,244	\$482
CAMPECHE	690,689	2,951	\$287,902,439	\$417
GUERRERO	3,079,649	12,102	\$1,180,682,927	\$383
COLIMA	542,627	2,083	\$203,219,512	\$375
NAYARIT	920,185	3,437	\$335,317,073	\$364
OAXACA	3,438,765	12,824	\$1,251,121,951	\$364
QUINTANA ROO	874,963	3,115	\$303,902,439	\$347
CHIAPAS	3,920,892	13,704	\$1,336,975,610	\$341
DURANGO	1,448,661	5,038	\$491,512,195	\$339
ZACATECAS	1,353,610	4,704	\$458,926,829	\$339
HIDALGO	2,235,591	7,491	\$730,829,268	\$327
TLAXCALA	961,646	3,037	\$296,292,683	\$308
AGUASCALIENTES	944,285	2,899	\$282,829,268	\$300
SAN LUIS POTOSÍ	2,299,360	7,051	\$687,902,439	\$299
TABASCO	1,891,829	5,698	\$555,902,439	\$294
TAMAULIPAS	2,753,222	7,969	\$777,463,415	\$282
YUCATÁN	1,658,510	4,691	\$457,658,537	\$276
QUERÉTARO DE ARTEAGA	1,404,306	3,925	\$382,926,829	\$273
MICHOACÁN DE OCAMPO	3,985,667	11,101	\$1,083,024,390	\$272
MORELOS	1,555,296	4,249	\$414,536,585	\$267
SONORA	2,216,969	5,963	\$581,756,098	\$262
VERACRUZ-LLAVE	6,908,975	18,395	\$1,794,634,146	\$260
COAHUILA DE ZARAGOZA	2,298,070	6,053	\$590,536,585	\$257
<b>BAJA CALIFORNIA</b>	<b>2,487,367</b>	<b>6,321</b>	<b>\$616,682,927</b>	<b>\$248</b>
SINALOA	2,536,844	6,249	\$609,658,537	\$240
DISTRITO FEDERAL	8,605,239	20,933	\$2,042,243,902	\$237
CHIHUAHUA	3,052,907	6,940	\$677,073,171	\$222
PUEBLA	5,076,686	11,422	\$1,114,341,463	\$220
GUANAJUATO	4,663,032	9,735	\$949,756,098	\$204
JALISCO	6,322,002	12,485	\$1,218,048,780	\$193
NUEVO LEÓN	3,834,141	7,424	\$724,292,683	\$189
MÉXICO	13,096,686	23,749	\$2,316,975,610	\$177

Source: 1) INEGI, Mexican Census 2000;

2) Programa Económico 2003, Proyecto de Presupuesto de Egresos de la Federación, Secretaría de Hacienda y Crédito Público

# Assesment Methodology

The findings outlined in this publication are the result of both qualitative and quantitative research. As this was the first-ever such undertaking, the authors wished to establish baseline data for future comparison and evaluation. At the same time, it was extremely important to include input from various community members and the wisdom and analysis of local experts in various fields. In summary, the research was undertaken with the following methodology:

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1. A review of existing literature identifying priority needs in Baja California was undertaken including those areas where there are transboundary impacts. A literature search was performed including a review of documentation from non-profit institutions and academic institutions having published previous needs assessments as well as research undertaken by the multilateral agencies (World Bank, Inter-American Development Bank, UNEP, UNDP, PAHO, UNESCO, OECD)

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  2. "Encuentro comunitario" focus groups were organized in the key Baja California communities inviting a representative sample of civic leaders from the private, public, non profit and academic sectors with experience in the areas of education, health, environment, social services, community and economic development and culture.

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  3. Additional focus groups/field visits were organized with the tribal leaders of indigenous communities of Baja California and a select number of squatter communities in Tijuana and Mexicali to better identify needs and priorities from their perspectives. Also focus groups were organized with communities in San Quintín.

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  4. A validation of priorities was undertaken with professionals in each topical area of focus: education, health, environment, social services, community and economic development and culture.

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  5. Work now being undertaken by area non-profits was assessed in order to determine if critical needs were being met.

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  6. Key community based assets, needs, and gaps were identified and categorized in accordance to their relative importance

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  7. Many of the region's registered non profit organizations were profiled

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  8. Finally, solutions for philanthropic giving were identified.

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In the sections of this report that describe individual communities' needs, the words "encuentro participants," "community leaders," and "residents" are interchangeably used. While every effort was made to identify specific needs in individual communities, without question more work remains to be done. Also, due to resource constraints, some communities were not surveyed including San Felipe and other small towns in the Sea of Cortez with the exception of Bahía de Los Angeles. Another important community not specifically featured in this survey was the indigenous native community of the Cucapá, residing in the Lower Colorado River Delta. This argues for follow up work by ICF and FIC in the coming year.



Photo Credit: Centro de Comunidad, A.C. Colonia Tecolote, B.C.

Isla Cedros

Bahia de Sebastian Vizcaino

Santa Rosalita

# Education

## Key Findings

The most important challenges throughout Mexico in education are to improve academic achievement and access to higher education, and to narrow the gap between urban and rural, as well as public and private, schools.<sup>1</sup> Another key challenge is raising the overall level of educational attainment and the country's functional literacy rate. In the case of Baja California, the average level of schooling for its residents is 8.7 years. Yet, 51% have only rudimentary reading and writing skills. Additionally, Baja California faces some unique challenges due to the high in-flux of migrant families from the interior of Mexico who bring with them children challenged with malnutrition, illiteracy, unstable and often transient households, and parental pressure to work as opposed to attend school. Accordingly, the percentage of children who are not in school in Baja California is now somewhat higher than Mexico's national average in some of the state's municipalities. Access to secondary and higher education is particularly problematic for children and youth in rural areas, urban marginalized areas, and in indigenous communities.

Baja California's border communities have unique issues in education that they must contend with. One is the low rate of retention of students due to migration. Another problem is that of language as many migrant students from the interior of Mexico come to Baja California with limited Spanish language skills as their native tongue is often an indigenous language. A third problem is the shortage of daycare centers, attributed to the fact that an estimated 60% of workers in maquiladoras are young women of childbearing age, with a large number being single mothers.

Baja California also lacks educational resources outside its schools. As a case in point, Baja California only has 201 libraries as of 1999, for a population of

2,487,367 (i.e., one library per over 12,000 residents). The state of Nuevo León, which is considered to have a similar level of economic and social development to Baja California's, has 443 libraries for a population of 3,834,141 (i.e., one library per less than 9,000 residents).<sup>2</sup> The public libraries also lack up-to-date equipment such as computers. The downtown library in Tijuana has only five computers.<sup>3</sup> The **Universidad Autónoma de Baja California** (UABC) and the **Centro de Enseñanza Técnica y Superior** (CETYS) have been providing the general public with the use of internet and bibliographical material. Also, the Universidad Iberoamericana's campus in Tijuana is opening a new state-of-art library for the general public. However, universities cannot serve the population as a whole, especially the marginalized communities that have difficulty transporting their children to schools. Alternative ways to provide these resources are urgently needed.

## Education in Mexico: Overview

Unlike the United States, in Mexico the federal government is primarily responsible for formulating education policy. Efforts at decentralization are slowly taking effect, but currently the federal government remains the central decision-maker, together with the national teachers' union, on educational issues. This section therefore provides an overview of education in Mexico, outlining future challenges and opportunities for the non-profit and philanthropic sectors.

## The Salience of Public Education

In Mexico, an overwhelming majority of students receive primary and secondary education in public schools. In the case of primary schools, 94% of all Mexican students attend public institutions. Similarly, 93% of students attend public lower-secondary school (middle school or secundaria), and 78% attend public upper-secondary schools (high school or preparatoria).<sup>4</sup> It is therefore important that the government provide sufficient resources for public

1) While a study shows that private schools are better equipped and perform better at the basic education level, there has been a proliferation of poor quality "technical schools" in recent years. Some of these institutions even operate without registration with the Secretariat for Public Education (Ungerleider Kepler 2002).

2) Data from INEGI's website <http://www.inegi.gob.mx/entidades/espanol/fbcn.html> and <http://www.inegi.gob.mx/entidades/espanol/fnl.html>.

3) Morales (2001).

4) López-Acevedo (2001).

education. Perhaps reflecting the government's awareness of the importance of education, 67.5% total public expenditures in 2000 were designated for education-related expenses. While public expenditure for education has increased significantly in Mexico over the last three decades, much of this increase has gone to tertiary (college level) education, even though over 85% of youths do not complete high school.<sup>5</sup>

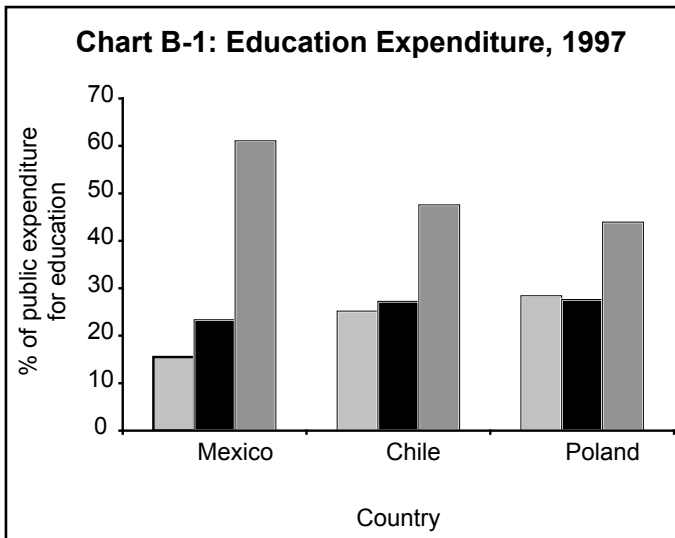
Like many other developing countries, Mexico's government allocates a much higher share of its budget to higher education than primary and secondary education. According to the World Bank (2001), in 1997 the Mexican government spent almost four times more money on students receiving post-secondary education as opposed to students in primary school. In most developed countries, the difference in public expenditure for primary and tertiary levels is much less pronounced. In Chile and Poland (both of which are in the same income group as Mexico), about twice as much is spent on students receiving post-secondary education compared to students receiving primary education. (See Chart B-1)

than those who work in other fields than education with a similar level of educational attainment.<sup>6</sup>

### Access to Education

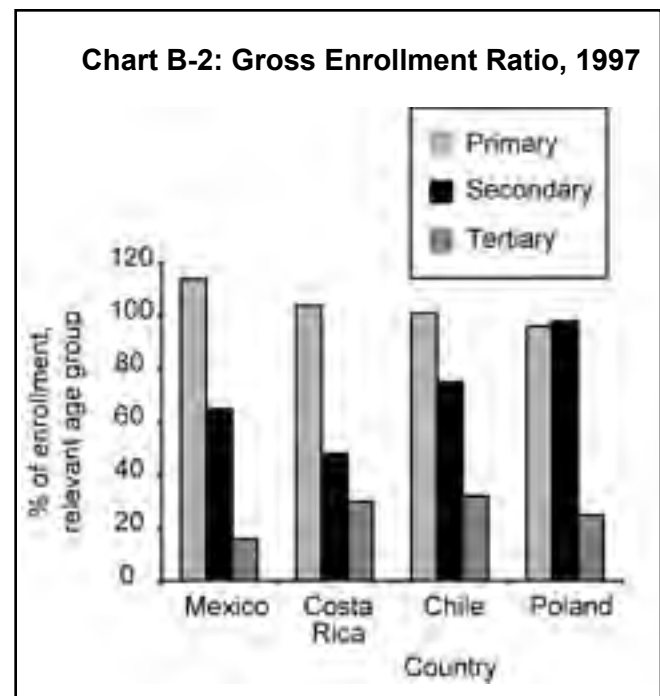
INEGI (2000) reports that nationwide about 92% of school-age children (age 6 to 14) attend school. However, according to the World Bank, about 35% of Mexican youth drop out after completing primary school. Indeed, according to Mexico's Secretariat of Public Education (SEP), since 1993 more than a million young Mexicans have dropped out of secondary school and another 930,000 ended their studies after primary school.<sup>7</sup> The situation is far better than in Costa Rica, which had a slightly lower income per capita in 1999 than Mexico, where less than 50% managed to go on to a secondary school. (See Chart B-2) On the other hand, in Chile and Poland, a much higher percentage of students proceed to receive secondary education (75% and 98%, respectively). In these two countries, as well as in Costa Rica, more than 25% of youths go on to post-secondary schools, while in Mexico only 16% do. In the United States, 97% of youths receive secondary education, and 81% receive higher

**Chart B-1: Education Expenditure, 1997**



Research shows that in 1999, Mexican teachers in public schools earned more than their counterparts in the private schools at all levels of schooling. Also revealing is the fact that Mexican teachers earn more

**Chart B-2: Gross Enrollment Ratio, 1997**



5) Unfortunately, the federal budget for education was lowered for fiscal year 2002 from 5% of GDP to 4% of GDP, while UNESCO recommends 8% (Muñoz 2002).

6) López-Acevedo and Salinas (2001).

7) Vega, Margarita, "Deserta el 25% en Secundaria," Reforma de Mexico, November 25, 1001, page 1A.

education. Nationally, the student/teacher ratio is 28 students per teacher, about average for a country at the income level of Mexico.

## Educational Achievement

Literacy has been advocated in Mexico since the 1920s, and this was the central objective of the government's programs until 1988. Reflecting this long-term emphasis on literacy, the illiteracy rate for both adults and youth in Mexico has continued to drop over the last decade.<sup>8</sup> On the surface this would appear to be good news. However, these improvements are largely illusory as Mexico lags behind other countries with a comparable GDP in its overall level of functional literacy. The OECD's PISA (Program for International Student Assessment) survey of 15-year-old students of its member countries (and some others) found that over 50% of Mexico's 15-year-olds are below the level of proficiency in reading that the OECD deems necessary for successful adult life in today's changing world. Indeed, the survey found that 16% of the 15-year old students in Mexico could not even perform the simplest reading tasks that required the reading skills for effective learning. In Poland, which has a similar capita income to Mexico, this percentage was only 9%.<sup>9</sup>

In addition, while literacy is the foundation of learning, mathematical and scientific knowledge has become increasingly important in today's world. Therefore, it is imperative that students are provided with opportunities for learning in these areas. According to the same OECD survey, Mexican students' average scores on mathematics and science tests were also well below the level deemed necessary for successful adult life in today's knowledge-based economy.<sup>10</sup> Their average scores for mathematics (387) and science (425) were below those required for performing the easiest tasks in these fields. They were, once again, much lower than Polish students that scored 470 for mathematics and 483 for science tests.

The referenced PISA figures suggest that, while significant progress has been made in Mexico to reduce illiteracy, there is much to be done in the area of education in order for the country to be ready for competing with other countries of similar income levels, and for its people to lead successful lives in the increasingly knowledge-based global economy.

Specific to Baja California, the state has a much higher literacy rate than the national average, with an average of 3.5% of adults being illiterate, even though over 6% have never gone to school. Only 1% of children at age 14 are illiterate. Again, however, it is important to emphasize that literacy is defined as only the most basic reading and writing skills. In this context it is worth noting, Baja California lags behind several emerging economies such as Thailand and China in levels of reading and math "literacy."<sup>11</sup>

The largest percentage of illiterate adults is found in Ensenada (5.6%), followed by Playas de Rosarito and Tecate with about 4% each. Only about 3% of Mexicali and Tijuana's adult are illiterate, reflecting the general tendency that urban areas have higher literacy rates. It should be mentioned, however, that these official counts do not reflect the most recent immigrants who arrive after the official surveys have been conducted. In Baja California, where the immigrant population has been rapidly increasing, the actual illiteracy rate might be higher than the official statistics indicate. According to one expert (Muñoz 2002), the actual illiteracy rate of Baja California is closer to 4.2%.

While illiteracy is not as serious a problem today as in the past, a large percentage of adults and youth still do not complete their secondary education, and therefore do not command the necessary life skills and level of functional literacy to effectively compete in today's knowledge-based environment. According to UNDP (2002), nationwide about 14% of students who enroll in the first grade do not reach the 5<sup>th</sup> grade. INEGI (2000) reports that only about 30% of children living with their parents completed

8) In Mexico, illiteracy is defined as inability to read and write a short note. This is only slightly different from the UNESCO and the World Bank's definition of illiteracy, which is "inability to write and read, and understand, a short sentence about daily life."

9) Information available at <http://www.pisa.oecd.org> (accessed on 09/27/02).

10) OECD (2000).

11) Lee and Barro (2000).

secondary education. Those who depend on other adults than their parents had an even higher dropout rate: only 22.6% managed to complete their secondary education. In Baja California, 23% of students in secondary schools have to repeat a grade. Every year, 8% of students in elementary school drop out of school before completing the grade at which they were studying (Muñoz 2002). Of the population of age 15 and over, 31% had only gone to primary school (and 13% did not complete it), and some (6.3%) had no education at all.

As of 2002, Baja California's average years of schooling is 8.7 years, well above the national average (6.5 years). In contrast, in the U.S., the average years of schooling is 12.9.

### **The Carrera Magisterial Program**

Public school teacher salaries have risen in large part thanks to the efforts undertaken between the federal and state government and the teacher's union since 1992, to reform the educational system. As a part of this effort, Carrera Magisterial, a voluntary program for teachers to submit to evaluation, was set up. Currently 83% of teachers are enrolled in this program. Teachers who receive satisfactory evaluations are rewarded by a salary increase. Teachers enrolled in this evaluation program can make as much as three times more than those that are not in the program. Teachers with more experience automatically receive 10% of the evaluation points for salary increase. As a result, a teacher's income can increase between 30 and 240%, depending on the rank within the program. Once a teacher receives a salary increase from the Carrera Magisterial it is extremely rare for him or her to lose it. About 10% of the nation's education budget is being used to carry out this program.

The effect of *Carrera Magisterial* is clear when we compare the salary of teachers in Latin America. As of 1998, a teacher with 10 years of experience in Mexico had the highest base salary of all the Latin American countries, while the starting salary for a

new teacher was about the same as teachers in Chile and Venezuela. In Mexico, a teacher with 10 years of teaching experience earns about twice as much as a new teacher.<sup>12</sup>

The question naturally arises, is the program working? One way to assess the quality of education is to compare test scores of students. In Mexico, math and Spanish tests are conducted to compare the performance of students. The program seems to be working, according to a study showing that 5<sup>th</sup>-grade students studying with a teacher enrolled in *Carrera Magisterial* had higher test scores in mathematics.<sup>13</sup> The impact of having a teacher in *Carrera Magisterial* was strongest for students in rural schools.

In Baja California, teachers receive a higher salary compared to the national average. This is because the state government supplements teachers' salaries to a larger degree than in other states. Even though Baja California teachers' salaries are higher than the national average, only 6% of teachers receive salaries higher than 15,000 pesos or US\$1,600 per month (Muñoz 2002).

### **Educational Inequalities**

The *Carrera Magisterial* program seems to be having a positive impact, especially in the rural areas. However, student performance is still highest at private urban schools, followed by public urban schools, public rural schools, community schools, and indigenous schools in that order. In both mathematics and Spanish, a study shows that students at private urban schools had a much higher score than the national average.<sup>14</sup> In Baja California, about 10% of primary level students attend private schools. According to López-Acevedo (2001), pupils at public urban schools did slightly better than pupils at public rural schools on average, followed by pupils at community schools. Students attending indigenous schools had the lowest scores on average in both math and Spanish. Private schools and public schools also differ significantly in terms of learning equipment, such as maps, computers, and video

12) Alvarez and Majmudar (2001).

13) López-Acevedo (2001).

14) López-Acevedo, *ibid*.

equipment available to students. Within public schools, the indigenous schools, once again have the least equipment, while the urban schools are the most adequately equipped.

This data is not surprising and mirrors educational challenges elsewhere in the world. Internationally, the variable most strongly associated with school success is the income and education level of a student's parents. Even compared to other countries, however, Mexico ranks among the countries with highest inequalities. According to Andretta (2001), there is a difference of 7.3 years of schooling between Mexico's richest 20% and the poorest 40%, and the poorest 10% of Mexicans have only one-third of educational attainment of the poorest 10% in Chile. This finding is of grave significance to Baja California, as the state has great inequality in its family income. It also means, however, that schools and the school systems can work together to equalize the playing field by investing more resources in schools serving lower income communities.

### Overview of Assets and Needs

In Baja California, just as in the rest of Mexico, an overwhelming majority of students attend public schools (see Table B-1).<sup>15</sup> As the level of education increases, a larger and larger share of students go to private schools. There are 48,492 students receiving higher education in Baja California. Of the 75% attending public schools, 51% are enrolled in the UABC (Universidad Autónoma de Baja California)

system. Almost half (48%) of students receiving a higher education major in administration or social sciences. About 38% major in engineering and technology related majors. Only 8% major in the sciences and health, 3% in education and humanities, 2% in natural sciences, and 1% in agricultural sciences.

### Resource Allocation

In Baja California, a larger percentage of public expenditure is dedicated to education than the national average. A full 73.9% of the state's budget is designated for education, compared to the national average of 67.5%. However, the state's budget is not sufficient for the provision of all the necessary repairs and improvements of existing schools and construction of new schools. Unlike the United States, municipalities in Baja California and elsewhere in Mexico have not until very recently had the ability to access long-term bond financing. Therefore, almost all of state funding for education is committed to teachers' salaries, with very little left over for facilities and equipment.

### Access and Quality

School-age children have ample access to primary education, particularly in the urban area of the state, but education stops here for over one-third of the children. Also, in the state's rural areas, even primary schools are limited as teachers are hard to find for such communities.

Baja California's children attend school at about the average national rate. Enrollment rates in Ensenada (just over 90%), Tijuana and Playas de Rosarito (just below 91) were below the national average of 92% (see Chart B-3).<sup>16</sup> Mexicali had the highest rate of enrollment of the five municipalities. The rate of enrollment among students between ages of 10 and 14 was slightly lower than those ages 6 to 9 in all

**Table B-1 Student Enrollment in Baja California, 2000**

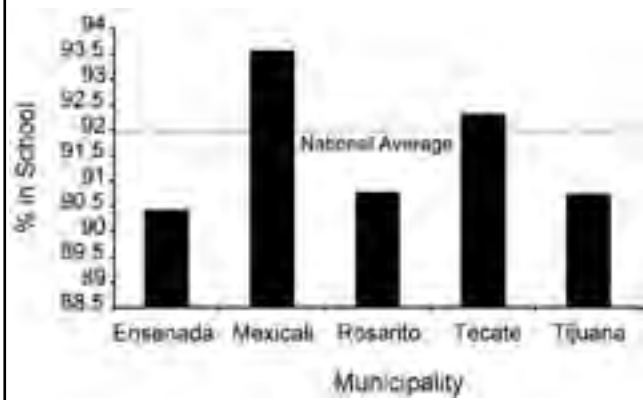
	NUMBER OF STUDENTS	PUBLIC	PRIVATE
Primary School	563,494	89.8%	10.2%
Middle School	129,554	90.0%	9.1%
High/Tech School	61,977	80.4%	19.6%
Higher Education	48,492	75.0%	25.0%

Source: State Government of Baja California (2002).

15) The figures cited below are drawn from Baja California State Government's website, [http://www.bajacalifornia.gob.mx/ped/ped\\_32d.htm](http://www.bajacalifornia.gob.mx/ped/ped_32d.htm) (accessed on 9/22/02).

16) This and the following statistical information was obtained by author using INEGI (2001). Percentages are rounded up (for .5% and higher) or down (for .4% or less).

**Chart B-3: School Attendance, Age 6 to 14**



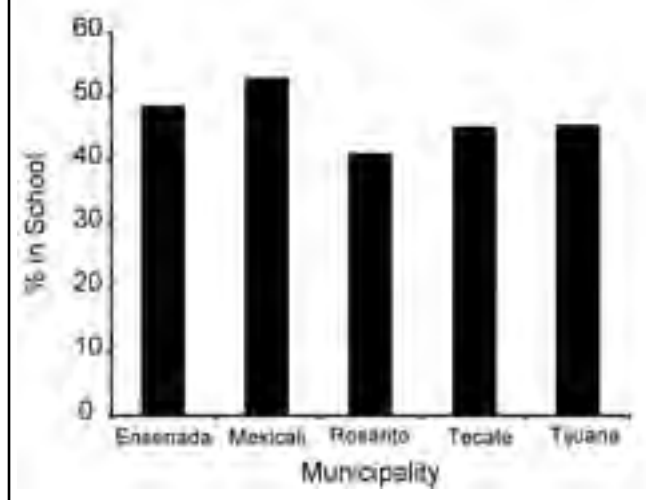
regions, highlighting the tendency for children to leave school after they complete primary education. (It is suspected that not all of those students aged 10 to 14 are attending secondary school, for some complete primary education at 14, due to late enrollment and grade repetitions.)<sup>17</sup> Almost 95.6% of students who enroll complete their primary education (Muñoz 2002).

On average, only 48% of youth between age 15 and 19 were attending school. In other words, about 50% of the school-age population completes their formal studies upon completing primary school. This is due largely to economic constraints (Muñoz 2002). Only 70.3% of secondary school students complete their education (Muñoz 2002). On the other hand, 18% of youth between age of 20 and 24 are attending school, which is a higher percentage than the national average. In Playas de Rosarito, almost 60% of youth between ages 15 to 19 did not attend school; the figures for Tijuana and Tecate were only slightly better (both almost 55%, see Chart B-4). Access to tertiary education turned out to be quite uneven among the five municipalities. Among those between the ages of 20 to 24, Mexicali had the highest percentage in school (23%), more than twice as high as Playas de Rosarito (11%). (See Chart B-5) Overall, Mexicali has the highest percentage of all age groups enrolled in schools in all categories. Mexicali has a longer-term, less transient population than many

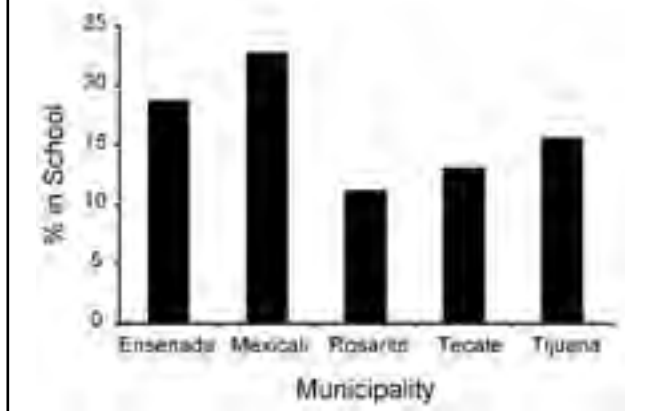
other areas of the state and it is possible that the concentration of public expenditure on education in Mexicali has to do with this municipality's higher enrollment rate.

The low rate of enrollment in higher education is at least partly due to the shortage of available classrooms and space in existing schools. In Tijuana, over 5,000 students who applied for public universities and colleges were turned down this year, because these institutions simply did not have enough space.<sup>18</sup> In response to this shortage, the state's education secretary has announced that the state college system

**Chart B-4: School Attendance, Age 15 to 19**



**Chart B-5: Enrollment Age 20-24, 2000**



17) López-Acevedo, *ibid.*

18) "Rechazan a 5 mil" by Zulema Flores. news article on internet news service frontera.info. Accessed at <http://www.frontera.info/edicionenlinea/notas/noticias/20020702/6757.asp>

will be expanded to accept 1,800 more students, and the state university, UABC, has also announced that it will offer 72 more classes.<sup>19</sup> However, these efforts will still not provide educational opportunities for all of the students who seek education at public institutions.

Nationally, 84% of primary teachers have the required academic qualifications. Nationwide, 28 students are assigned to a teacher in a primary school. The situation is about the same as in Costa Rica. In Baja California, according to the INEGI (2002), an average of 24 students are assigned to a teacher at the basic (i.e., primary and secondary) levels. According to Muñoz (2002), the teacher-student ratio varies greatly between private and public schools. While the classroom size is about 30 in public primary schools and 35 in public secondary schools, in private schools a teacher might have up to 50 students per classroom. In San Diego, 95% of teachers have their full credential, while classroom size varied from less than 20 in grades K-3 to about 30 in grades 4-6.

The national data shows that students in schools with better equipment and tools tended to do better at tests than students in school with little equipment. In particular, access to computers is increasingly crucial for student success in this informational age. In Baja California, there are very few computers in the public schools, and those that are available are often outdated beyond the possibility of upgrade.<sup>20</sup> In 1999 the state government, in partnership with the federal government and schools in Baja California, reached an agreement whereby for each participating schools, the federal and the state governments would provide 5 computers each and the state government would provide computer programs and training for teachers. The programs focus on secondary education, reading skills, and scientific knowledge. Still, many schools remain short on sufficient resources to provide essential infrastructure. A significant number of schools have inadequate sanitary and drainage

facilities and windows, and lack learning equipment such as blackboards and children's desks (Muñoz 2002).

For students who have access difficulties, distance education offers an opportunity to learn without having to commute long distance or having to move to another town to attend school. In Mexico, the Mexican Department of Education (SEP) has been offering televised educational programs since 1996 through its EDUSAT (la Red Satelital de Televisión Educativa).<sup>21</sup> These programs include Telesecundaria (secondary education through television), Distance Tertiary Education, Adult Secondary Education, and other programs for students as well as teachers of all levels of education. The programs are broadcast on satellite TV channels as well as on regular TV channel viewing throughout the country. In Baja California, the federal government has installed 232 satellite units, mostly in secondary schools. Almost 95% of secondary schools in the state now have a satellite unit to receive the educational programs.

While distance education programs offer learning opportunities to those who might otherwise not have them, televised programs by themselves cannot provide the same quality of education obtained in classrooms, as pointed out by one of the community leaders consulted for this study. Since there is no interaction between students and teachers when students learn on their own by watching the televised programs, there is no feedback from students, such as questions or quizzes, to assess whether they are indeed learning. Thus, demands for physical, as opposed to virtual, classrooms remain high throughout the state.

### **Areas Overlooked by the Current Educational System**

According to Morales (2001), Baja California's education policy places an overemphasis on social sciences and humanities at the expense of math and sciences. Muñoz (2002) reports that at the college/university level (Public and Private

19) "Receta Mejorada para la problemática." By Zulema Flores, information obtained from <http://www.frontera.info/edicioneslinea/notas/Noticias/20020702/6758.asp>

20) Morales (2001).

21) Information contained in this paragraph was obtained from communication with Virgilio Muñoz.

Institutions), 58.4% of students major in administration or social sciences, while 29.1% major in engineering and technology. Only 1.4% specialize in education and humanities, and approximately 5000 students specialize in education.<sup>22</sup> The relative neglect of math and sciences means that students are ill prepared for technical and science training at the higher levels of education. Teachers at the higher levels of education, such as technical schools, are not necessarily well prepared either. For example, Morales (2001) says that English comprehension, required for teachers at technical training schools, is quite low, and some of the technical schools are considered to offer a low-quality of education.

Tertiary schools also lack support systems for their students and graduates to succeed in careers after school. Morales (2001) argues that “[s]tudents graduating in highly sought after programs, such as electrical engineering, are often unable to use their knowledge due to insufficient opportunities for practical application. Accordingly, more internships and exchanges are needed.”

Few programs are currently available to provide the knowledge necessary for doing business on both sides of the border. There are positive examples of international exchange, such as the MEXUS program where students of the UABC and the CETYS universities take courses at SDSU and Southwestern College, and students of the latter take courses at the former two, for two years toward their Bachelor's degree in international business from both border universities. Additionally, the Federal College Lázaro Cárdenas and CETYS college offer an International Bachelor's program that takes students and professors

overseas. Exchange or international opportunities for science-majors, however, are not well developed.

A bright spot on the horizon is the recent establishment of the **Fundación UABC** which will permit this public university to raise badly needed resources for physical plant improvement, scholarships and additional resources to support its various educational programs. Like other private schools that have established endowment funds, the **Fundación UABC** hopes to successfully tap into the rich pool of alumni and businesses on both sides of the U.S.-Mexico border to support the growing number of students that are seeking to go on to college for a higher education.

Another overlooked educational need is the education of children who live in squatter communities. Because residents of these communities do not hold land titles, they cannot have public schools built in their communities.

Therefore children must commute to schools outside of their own communities. There is no census data on the dropout rate of children in squatter communities for the same reason (i.e., lack of official recognition), but anecdotal evidence, based on interviews with several squatter communities, has confirmed that the inconvenience of long commutes discourages children from attending school and contributes to higher dropout rates.

### **Needs of Children with Disabilities**

Children with disabilities in Mexico in general are disadvantaged in obtaining the education they need. In Baja California, as of the year 2000, there were 3,990 children of school age (5-14) with disabilities.



*Photo Credit: Centro de Comunidad, A.C.  
Colonia Tecolote, B.C.*

22) Of the rest of the students, 7.7% specialize in health sciences, 2.5% in exact sciences, and 0.9% in farming.

Of these children, according to Muñoz (2002), only about one-third are in the school system. There are 38 public schools for disabled children (called Centros de Atención Múltiple, or CAM) in the state of Baja California: 6 in Ensenada, 19 in Mexicali, 1 in Rosarito, 2 in Tecate, and 10 in Tijuana. There are no public programs offering financial assistance for disabled children such as scholarships and stipends. Those who need financial aid must seek it through NGOs or the CAMs. At the CAMs, children with different types of disabilities (e.g. deaf, blind, physically handicapped, developmentally delayed) are put together in the same classroom. Regretfully, most CAMs do not have trained personnel that can adequately address the diverse needs of individual children with wide-ranging disabilities.

Part of the reason why so many children with disabilities do not attend school is a reluctance on the part of parents, as well as of the schools, to incorporate them into the regular school system. This is attributed in part to the fact that there is a shortage of personnel trained to integrate disabled students into the regular schools. In addition, early intervention that might ameliorate potential disabilities are often not available to children. Special education programs lack basic infrastructure and trained personnel, as well as vocational training for the disabled and partnerships with businesses to provide jobs for their graduates. In addition, normally special education programs are limited to the initial years of education, which means that those who wish to continue their secondary education cannot do so. In general, there is a lack of culture of integration of the disabled into society.

### **Needs of the Indigenous Population**

Baja California's indigenous population is not included in Mexico's national study of the indigenous communities, possibly because the government researches only those municipalities with at least 30% of its population identified as indigenous. The focus of attention to indigenous population in Baja

California thus tends to be on the indigenous migrant population, not the state's native indigenous people. Indigenous people (migrants and native) constitute less than 2% of the state's population. However, there are increasingly more indigenous people living in Baja California. During the period 1990-95, Baja California's indigenous population grew annually by 4.1%, while at the national level the population grew by only 0.8%. The largest number of indigenous people lives in Ensenada (44%), followed by Tijuana (37%). Ensenada is the only municipality in Baja California where the indigenous population exceeds 5% of the total population of the municipality. The largest single group of indigenous people in Baja California is Mixteco, with about 14,000 statewide. Mixtecos are from the interior of Mexico the states of Guerrero, Oaxaca, and Puebla. Almost 70% of the Mixtecos live in the municipality of Ensenada (including San Quintín, San Vicente and the Valle de Guadalupe). A large proportion of the indigenous population works in the agricultural fields.

According to INEGI (2001), an overwhelming majority of the indigenous people (92%) in Baja California speaks Spanish. However, the figure for children of age 5 to 9 is much lower, with almost one quarter of this age group not speaking Spanish. Given that the census data does not cover people that have no fixed residence, and given that recent immigrants do not always find a fixed residence, it is possible that the actual figure is much higher. The fact that almost one in every four indigenous children of school age (5 to 9) does not speak Spanish poses a challenge to the teachers who have not encountered this problem in the past and therefore lack experience in helping these children.

The national survey of indigenous population (1997) also points to a potential educational issue for the children of the indigenous migrants. Nationwide, over 35% of children ages 6 to 11 in indigenous communities have never gone to school. Only about 20% of children ages 12 to 14 have completed primary school. Thus, children in indigenous

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communities in general have less access to education than the national average. Between this general tendency and the disruption of life due to migration, children of the migrant indigenous population in Baja California are at risk of receiving far less education than the rest of their age cohort. There is also a much more pronounced gender gap in educational attainment of the indigenous population than the national average, at every level of education. For example, for the population 6 years of age and older, about 25% of males have never gone to school, while 36% of females have never gone to school. The traditional roles children play in helping mothers at home and helping fathers in the field pose major obstacles for indigenous children to attend school.

Aside from basic educational needs, the native indigenous communities are increasingly at risk of losing their native languages. Fewer and fewer native indigenous people know how to speak their native language. In Arroyo de León, 170 miles southeast of Ensenada, efforts are being made to preserve the Kiliwa language with the help of the non-profit Instituto de Culturas Nativas de Baja California CUNA (The Native Cultures Institute), in a race against time as only five members of the tribe now speak the language.<sup>23</sup>

### Continuing Education

Few adults in Baja California are able to take advantage of continuing and adult education, although *maquiladora* workers can access secondary school education or literacy programs from the National Institute of Adult Education. Only 6.8% Baja California's population age 25-29 attend any

kind of schooling. For the population of aged 30 and over, this figure decreases even more, down to a mere 2.8%. This is in sharp contrast to the United States, where returning to school for college or a graduate degree after entering the labor market is quite common particularly given the rapid changes in technology and innovation in today's society.

The higher rate of continuing education in the United States is partly attributable to the outreach efforts of community colleges targeted at small and medium sized firms. Customized training, tailored toward employees of these firms, is still a new concept in Baja California, although some outreach efforts are now underway, as exemplified by those by the Consejo de Desarrollo Económico de Tijuana, A.C.

(CDT). Also, several *maquiladoras* have initiated "life skills" training for their workers but more must be done to create incentives for workers to take such classes including daycare and after-school program options for the children of employees.

One important program is the Binational Faculty Exchange Program that

the San Diego Community College District (SDCCD) established in partnership with the Dirección General de Centros de Formación para el Trabajo, a subdivision of the SEP, and funded by the Ford Foundation in Mexico. In 1999, SDCCD provided technical training, certification classes and staff development opportunities to more than 200 vocational educators on both sides of the border. Another program, the **Borderlands Workforce Development Project**, also through the initiative of SDCCD, offers more targeted training for the residents of Baja California, in partnership with five technical training centers in Tijuana, Ensenada,



UABC Campus, Ensenada. Photo Credit ICF

23) Garcia Sanchez, Jose Enrique. "Last of the Kiliwas: Baja Indian band struggles to survive civilization." Union Tribune June 13, 2002.

Tecate, and Mexicali. The SDCCD has also established an exchange program with a university in Mexico, but it is located in Jalisco, not in Baja California. There are, however, planned and ongoing college-level exchange programs between Baja California and San Diego. Programs already in place include an international business program offered to students of San Diego State University, Southwestern College, CETYS and UABC, and the exchange program of Iberoamericana University with the University of San Francisco and the California State University (CSU) at San Marcos. The program with CSU San Marcos includes a degree program in Borderland Pedagogy. There is also a pilot program for students studying international affairs, between the UABC economics school and SDSU's Gender Studies.

### **Preschool/Child Care**

The first five years of a child's life are critical for the development of cognitive and social skills. Children with a strong foundation are less likely to drop out of school and more likely to succeed in school. Early intervention can help to narrow the achievement gap between children from low and higher income families as it exposes children to language, books, and interactions that they might not be exposed to at home. It is therefore important that all children be given the opportunity to participate in preschool education.

Childcare in Baja California's border cities is an important issue, for about 60% of workers at maquiladoras are women, mostly between 18 and 24 years old, and therefore need childcare unless their family members can provide care. Given the transient nature of Baja California's population and the high proportion of recent migrants, this support from extended family is not an option for many as it is elsewhere in Mexico. Despite this need, according to Muñoz (2002), there was a major cutback in spending on public childcare facilities in the early 1990s. The

public sector directly covers only about 14% of the actual demand for childcare (Ganster and Hamson 1995). The rest of public childcare is offered through home-provided care, or through participative childcare centers. In the 1980s the IMSS (Instituto Mexicano del Seguro Social) established a cost-sharing program, where it would cover the initial costs of participative childcare centers and the maquiladoras or Asociaciones Civiles in low-income communities would cover daily operational costs such as personnel. The home care option does not offer educational programs, since the caretaker only receives 20 to 25 hours of training before she can open her house for childcare and thus lacks educational expertise.<sup>24</sup> Mothers who take their children to the home care facilities must pay the caretaker out of pocket.<sup>25</sup> Only children of the employed who pay social security contributions can receive childcare services at the participative childcare centers, and many are on the waiting lists for these services.

According to Muñoz (2002), of the pre-school-age children (i.e., ages 3 to 5), only 3.7% of 3-year-olds and 28.3% of 4-year-olds attend pre-school. In contrast, 75.2% of 5-year-olds attend pre-school. Baja California is 19<sup>th</sup> among Mexico's 32 federal entities (31 states and the Federal District) in providing pre-school education. Of the border states, only Chihuahua has a lower rate of pre-school age children enrolled in preparatory education programs. Even though the previous two state administrations (1989-95 and 1995-2001) have set the goal of providing a whole year of pre-school to all pre-school age children in Baja California, the goal has remained unmet.

The single biggest obstacle to providing pre-school is the cost. The IMSS simply does not have the resources to provide the infrastructure for all the children who are entitled to an IMSS-operated or participative (i.e., partially funded by IMSS)

24) Ganster and Hamson (1995), p.21.

25) The start-up cost for the home care is also provided by donation from the community and sometimes from maquiladoras. The government does not provide any financial assistance to the home care.

26) Morales (2001).

childcare center with educational programs. Although, some maquiladoras and industrial parks have contributed to building participative childcare centers, far more cross-border initiatives are needed to give Baja California's children the opportunity for early learning. One example of cross-border cooperation in the area of pre-school education is the **Montessori Institute of San Diego (MISD)**, which trains Mexican pre-school teachers and offers some scholarships for students from Mexico. Nearly 50% of teachers trained by the MISD are from Tijuana.<sup>26</sup> Currently, Tijuana has two pre-schools operated by teachers who have been trained in San Diego at the MISD and two Montessori Institutes to train teachers.

### **Government Response to Education Needs**

In line with the Fox administration's emphasis on education, federal, state and local governments have begun to implement some programs aimed at improvement of education infrastructure. A federal-state partnership called Programa Escuela de Calidad PEC, (Quality School Program) was inaugurated with 1.2 billion pesos from the federal government and 400 million pesos from the state.<sup>27</sup> Baja California was the first state to form this partnership with the federal government. The PEC will benefit 243 schools in Baja California. The PEC is aimed at increasing community participation, both in financial resources and human resources, in education, as well as at improving instructional practices of teachers and promoting science and art education.<sup>28</sup>

At the state level, the Social Development Secretariat (SDS) has begun distribution of much-needed funds for improvement in school infrastructure to the state's pre-schools, primary schools, and secondary schools.<sup>29</sup> In fiscal year 2002, close to 8 million pesos or US \$800,000 will be designated to improve education infrastructure, with over 2.4 million pesos for Mexicali, 2.25 million pesos for Tijuana, and close to 1.6 million for Ensenada. Tecate will receive

853,271 pesos, Rosarito 424,185 pesos, and San Quintín 430,000 pesos.<sup>30</sup> Also, the State Education System has been making efforts to meet 100% of the demand for education, with construction of new schools and absorption of students by existing facilities.<sup>31</sup> Despite these efforts, however, newspaper coverage at the beginning of the school year in Fall 2002 suggested that educational demand still far exceeds the supply, both in quality and quantity, and government has a long way to go towards fully addressing students growing educational needs.<sup>32</sup>

### **Needs by Community**

**TIJUANA:** Tijuana residents feel there is a general shortage of good schools in their community and there is a tremendous need for more pre-schools and special education schools. The population of school-age children is expected to continue to grow in Tijuana and the municipal government calculates that it must build at least 51 pre-schools, 80 primary schools, and 25 secondary schools by 2004.<sup>33</sup> Schools are also thought to be short on resources and equipment, and concerns were raised about students from disadvantaged homes who must use their scarce resource for transportation and therefore are left without money for breakfast. Libraries are stepping stones to other educational opportunities, but they are in short supply in Tijuana. Tijuana residents expressed their interest in having sign language and Braille incorporated into official special education programs. Those who work with the blind pointed out the need for vocational training for adults who lose their sight due to diabetes. The residents of Tijuana also stressed the need for the business sector to form partnerships with educational institutions to support internship programs and technology for schools. In relation to this, they believe more vocational training and computer-based training opportunities are needed.

**PLAYAS DE ROSARITO:** Currently, Playas de Rosarito does not have a public library for a population of over 63,000. The construction of a

27) Alfredo Azcarate Varela, "programa Escuela de Calidad beneficia a 243 planteles en BC," *La Voz de la Frontera*, September 14, 2002, 11A.

28) An advertisement by the state government and federal agencies, published in *Siete Dias*, August 24-30, 2002, 29.

29) "Apoyos para fortalecer la infraestructura educativa," *El Mexicano* September 14, 2002, 18A.

30) These figures were provided by Celina Borbón Garcia, of Baja California state government.

31) "Busca SEE atender 100% de la demanda educativa," *El Mexicano* August 24, 2002, 16A.

library is viewed as critical in promoting the educational enrichment of the city's population young and old. The community also lacks schools and daycare facilities for disabled children. Lack of vocational training schools is also a problem, particularly for those young people that have recently lost their jobs due to layoffs at maquiladoras.

**ENSENADA:** Reflecting the greater reliance on tourism and fishing than manufacturing in this municipality, the residents feel the need to strengthen environmental education, cross-cultural exchange with the United States, and putting a greater emphasis on learning English. Residents are concerned about the high dropout rate. Residents are aware that more extensive educational outreach is necessary to get parents involved in education, especially the migrant parents. Residents believe that such outreach should also focus on indigenous people, both native and migrant. The stronger awareness of such needs in Ensenada is not surprising, given that this municipality has the largest share of indigenous people in Baja California. Ironically, Ensenada also has the highest ratio in Mexico of residents per capita with Ph.D.s.

Another area where residents feel work is needed is in teacher motivation. They believe that teachers would greatly benefit from cross-cultural exchanges. Residents felt that the barrier to teachers' motivation was the teachers' unions. In the rural areas of Ensenada, school-age children are found in the field, working along adults. There is a strong need for educational and other services for these children.

**TECATE:** The residents of Tecate are aware of the problems in educating a highly mobile population. They believe that education is needed beyond schools, particularly in the areas of health, sports, and civic participation. Health education, especially occupational health and safety training, is needed particularly for farm workers, as the national government provides little of it. Environmental

education is also an area where demand far exceeds supply.

The educational challenges of indigenous children are well recognized by area residents. Many of the indigenous children stay away from home during the week to attend school, to save the long 2 to 3 hours commute from their communities. There are presently no secondary schools in the area's five indigenous native communities.

Additionally, motivating teachers was recognized as a priority issue. Currently, absenteeism among teachers is a chronic problem, and teachers do not adhere to the class schedule. Parents also need to be more involved in educating their children. The dropout rate in the rural areas was identified as an issue: after children complete primary school, the expectation in the rural areas is for the children to work in the fields, not to continue their education. Also, the current educational system limits children to certain schools in the geographically defined area, thereby limiting their opportunities for advancement.

While residents did not voice concern about access to primary school, they feel that there is a shortage of pre-school, vocational training courses, and university-level academic offerings. Currently, vocational training is offered by some of the NGOs such as Casa Hogar and Rancho Milagro. Also, the Autonomous University of Baja California (UABC) has an engineering program at its Tecate campus, as does the private Tecnológico de Baja California, but these campuses are just not enough to meet current demands. They also feel that they would greatly benefit from learning centers equipped with computers and internet access.

**MEXICALI:** Community leaders expressed concern that their vulnerable and migrant populations lags behind in education and that there are insufficient resources to aid students with limited financial means. There is also a recognized shortage of qualified professionals working in adult literacy. A lack of transportation for secondary and preparatory

32) For example, August 24<sup>th</sup>'s *El Mexicano* reports that classes did not begin on time in 95 schools in Baja California. The August 24-30 issue of *Siete Dias* reports the negative effect of lack of air-conditioning on students in the hot inland areas.

33) Navarro (2002), 3.

34) Presently there are 11 primary schools, 3 secondary schools, 5 preparatory schools and one continuing education program in San Quintin.

school students in rural areas results in the high dropout rate. Residents also feel that educational infrastructure in general is quite limited, partly due to the fact that a very large percentage of the state's education budget is spent on salaries and benefits, leaving little for school improvement such as installation of computers. Education in ethics and gender equality, as well as alternative education, needs to be promoted. Community leaders proposed more linkages between educational institutions for professional development of the educators, the creation of distance education centers, and the promotion of a philanthropic culture among the business sector.

**SAN QUINTIN:** San Quintín, with a permanent local population of over 52,000, has a pressing need for additional schools as its existing institutions are at over-capacity<sup>34</sup>. Also there is a "floating population" of approximately 35,000 migrants—principally from the states of Oaxaca, Guerrero and Chiapas—which presents unique challenges as the majority of migrant children that are in the community do not attend school between the harvest months of April and August.

**BAHIA DE LOS ANGELES:** Bahía de Los Angeles has a population of 600. It has one kindergarten and one primary school. Secondary school is offered through a TV system known as "telesecundaria," with no permanent professors in charge of the students. The educational quality is therefore questionable. The lack of proper secondary and preparatory school facilities causes the emigration of many youths from the community. Together with the youths, many parents decide to leave the town to establish temporary or permanent residence elsewhere, mostly in Guerrero Negro, Ensenada or Tijuana, where schools can be found. Once educated, most youths are reluctant to return to Bahía de Los Angeles where job opportunities are scarce. Thus the community faces a continuous loss of educated human resources for the further development of the town. Although, education of the youths can be

supported and incentivized by scholarship programs, such programs must be linked to the development of job opportunities in town. In particular, technical training programs related to commerce, services and tourism activities, together with English courses, have been identified as critical educational needs by the community.

## Philanthropic Opportunities

### Giving

- A range of programs could be funded to help keep children in school longer including paid internships, mentoring, relationships to higher education, as well as parent education.
- Invest in pre-school education, especially in the squatter settlements, where most mothers work in the maquiladoras.
- Expand the level of public-private partnerships to strengthen public schools, especially those serving low-income communities. The needs are especially great in science and technology education and computer training.
- Create programs to reward teaching excellence and innovation, such as mini-grants to fund staff development or innovative educational projects for students.
- Provide equipment including computer to public schools.
- Provide private funding for teacher training.
- Provide private investment in schools, especially in infrastructure and new programs to encourage learning in science and technology.
- Aid in developing and implementing special education programs. For example, the **Asociación Tijuana en Apoyo al Sordo** in partnership with UABC has organized a sign language degree program. These programs can benefit from a wide range of financial and material support.

- Provide transportation, such as buses, for children in rural areas and comunidades populares.
- For native indigenous children in Tecate and Ensenada, who often travel 2-3 hours to attend even primary school, there is a critical need for a indigenous cultural/education center and shelter to serve as a "home away from home."

### **Volunteerism**

- Tutoring and after school programs so that students will not have to repeat a grade. Since school buildings are being used all day (morning shift ends at 12 and afternoon shift ends at 5), volunteers would need a place to conduct the tutoring sessions outside school. Partnership with community institutions and businesses to secure rooms for tutoring would be one way to facilitate after-school learning.
- Mentoring programs for indigenous native and migrant children/youth, modeled after those in place in U.S. to encourage minority students to aspire to go on to higher education.
- Strengthening parent involvement in schools.

### **Binational Partnerships**

- Strengthen educational exchanges between California and Baja California. A good example of an exchange program is the partnership between the **Children's Museum of San Diego**, the **Centro Cultural Tijuana (CECUT)** and the **Instituto Municipal de Arte y Cultura (IMAC)** called Fiesta Mexicana which brings children from both sides of the border to the Children's Museum to participate jointly in activities that encourage them to interact individually on both a formal and informal basis. [Note: Recent post 9/11 in US INS policy may make such educational and cultural exchanges difficult].
- Establish adopt a school or sister school programs between California based and Baja California based public schools, modeled after programs already

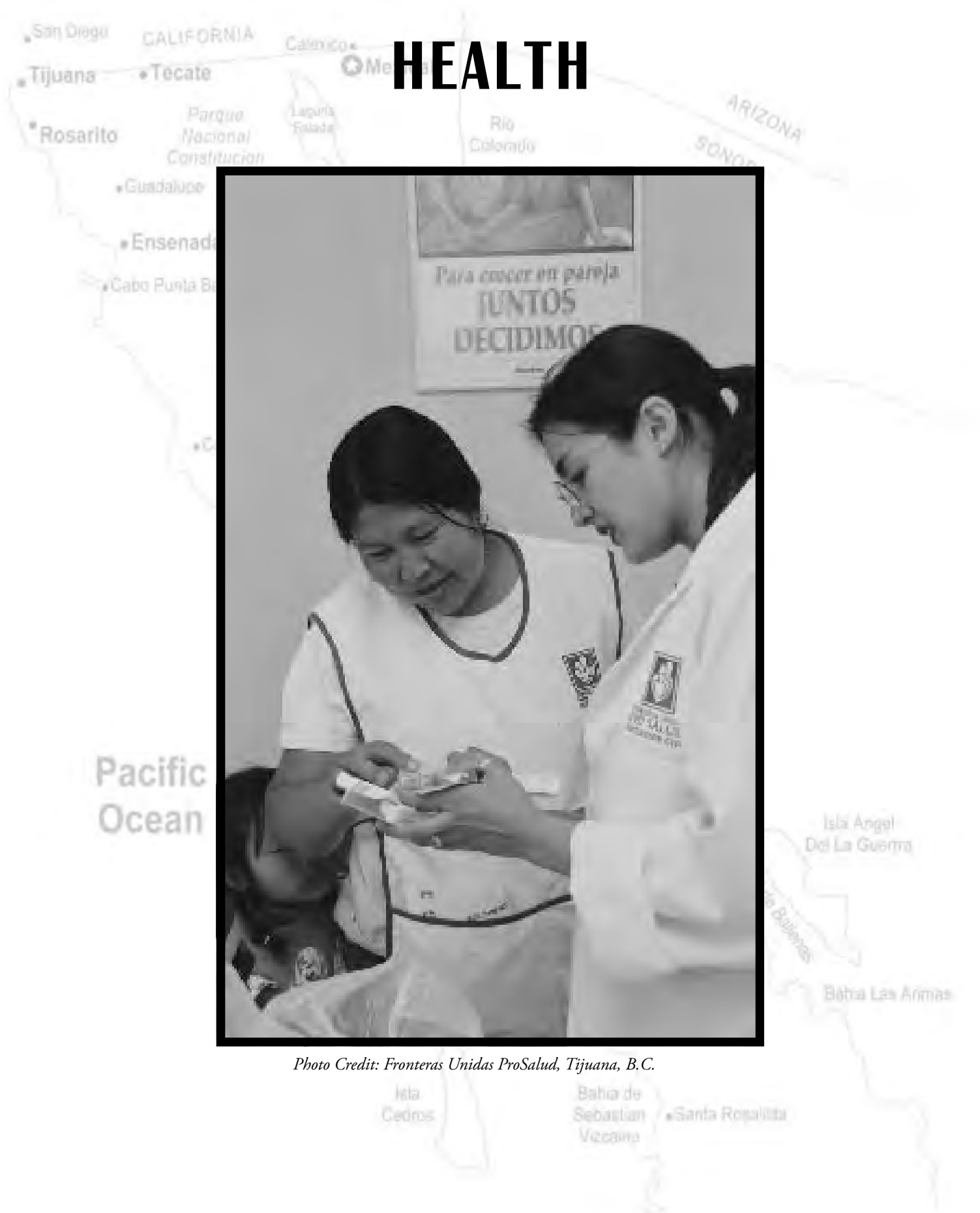
organized by groups such as **Rotary Clubs** and **Lions Club**.

- More binational partnerships between universities and public schools. An example is the History Fair of Tijuana and San Diego where students from the **Universidad Autónoma de Baja California (UABC)** and the Sistema Estatal de Educación participated along side with students from **San Diego State University (SDSU)** and the **San Diego School District**.
- Sponsor educational visits by residents from the other side of the border. **The Centro Cultural Tijuana (CECUT)** and the **Centro de Humanidades A.C.** organize tours of museums in San Diego and Los Angeles which could benefit many more Baja California residents than they are currently serving.

# HEALTH



*Photo Credit: Fronteras Unidas ProSalud, Tijuana, B.C.*



# Health

## Overview of Assets and Needs

Baja California's health conditions are worse than in the rest of Mexico and compare unfavorably with corresponding statistics on the U.S. side of the border.<sup>1</sup> Access to basic health care and the quality of care both need greater attention. The leading causes of death in Baja California, and throughout Mexico include heart disease, cancer, and diabetes. The high incidence of these diseases has important public health implications, as many of them are preventable with diet and lifestyle changes and are curable with early detection and treatment.

Given Baja California's high influx of migration from several of Mexico's poorest states over the past decade, the rising incidence of water-borne and other infectious diseases (including TB and HIV/AIDS) is understandable, yet worrisome. The rise in infectious diseases worries health professionals in the U.S. and Mexico because large numbers of people travel back and forth across the international border on an annual basis—some 55 million northbound crossers at the San Ysidro/Tijuana border crossing and 35 million at Mexicali/Calexico. Additionally there are some 50,000 daily border commuters from Mexico, many working in the hospitality and food service industries where personal hygiene is paramount. Indeed, two of the eleven health topic areas identified by the U.S.-Mexico Border Health Commission as top priorities for the border region are reducing the incidence of HIV/AIDS and immunization against and reduction of the incidence of infectious diseases.<sup>2</sup> Other key health concerns in Baja California include a growing incidence of respiratory illness, diabetes, malnutrition, substance abuse, as well as deficiencies in serving the state's disabled and mentally ill residents. Finally, greater attention to occupational health issues is critically needed for the state's

maquiladora sector as well as its agricultural workers. This section outlines these key needs.

## Key Health Problems

### Water-Borne Diseases

As a large number of the border area's new housing lacks adequate access to clean water, water borne diseases, such as Hepatitis A, create serious health problems in the area. For this reason on the U.S. side of the border, Hepatitis A is two to three times more prevalent along the border than in the United States as a whole.<sup>3</sup>

According to INEGI (National Institute of Statistics, Geography and Informatics: 2000), Baja California has the highest percentage of housing classified as "poor quality" in Mexico, surpassing even the poorest of Mexican states.<sup>4</sup> In Tijuana, 50% of all new housing is built in settlement otherwise known as colonias populares, with inadequate infrastructure including water and water treatment. As of 1995, only 55% of Tijuana's residents had access to sewage disposal services.<sup>5</sup> Lack of clean water and sewage disposal and treatment facilities also leads to a higher incidence of death by intestinal infections. According to Ganster (1999: 31), "[i]n all U.S. border states, only 2.7% of infant deaths are explained by intestinal infections; in Mexican border states, the figure is approximately 39%." In the summer, dehydration also becomes a major health problem.

### HIV/AIDS and Other Sexually Transmitted Diseases

Death from HIV/AIDS used to occupy a lower place on the list of causes of death in Mexico. In 1991, it occupied the 12<sup>th</sup> place for population aged between 15 and 64. By 1995, it had climbed to ninth place. As of January 1997, over 55% of AIDS patients had died.

Baja California has the second highest rate of death from AIDS among Mexican states and Tijuana has

1) Bennett (2002).

2) Bennett (2002); U.S.-Mexico Border Health Commission (2001). The key areas identified by the Commission that are not discussed extensively in this report are injury prevention and oral care.

3) Information obtained from <http://bphc.hrsa.gov/bphc/borderhealth/>

4) The quality is determined by the material used. Houses built using materials such as cardboard and cloth are considered "poor quality."

5) Guzman y Silvan (2001).

the highest rate within the state.<sup>6</sup> Tijuana's incidence of AIDS is the highest of all the Mexican border municipalities (4.8 cases per 100,000), although still much lower compared to neighboring San Diego, which has the highest incidence of AIDS of all U.S. border counties (27.5 cases per 100,000).<sup>7</sup>

Several risk factors increase the incidence of AIDS and other sexually transmitted (or blood borne) diseases, such as Hepatitis B and C, on both sides of the border.<sup>8</sup> Seasonal workers who might have acquired the diseases on the U.S. side of the border transmit them to the Mexican side when they return. U.S. residents who cross the border to access the sex industry might transmit, or acquire, the diseases. Specific to AIDS/HIV, stigmatization of the disease complicates prevention efforts. Furthermore, at present, there are insufficient prevention campaigns in place in Baja California, and few reach the state's most heavily affected population –gay and bisexual men. Moreover, greater availability of illegal drugs increases the chance that a contaminated needle infects drug users. It is worth noting that AIDS patients are especially vulnerable to TB and other diseases due to their weakened immune system.

### **Tuberculosis (TB)**

Throughout Mexico, there are 17.5 cases of TB per 100,000 people, compared to 5.8 cases per 100,000 in U.S.. Within the U.S., California has the third-highest rate of TB (9.7/100,000), and over 50% of the cases occur in the foreign-born population.

According to the Secretaría de Salud, Baja California has the highest rate of TB infection of all Mexico states as of 2002. TB in the border area is of utmost concern since treatment requires many months of consistent medication and infected individuals who travel back and forth across the border tend to neither complete the treatment, nor are submitted to various treatment regimens. Many on the Mexican side of the border also tend to stop taking the drugs as symptoms disappear, without completing the

treatment. The result is that the TB strains infecting them can become drug resistant.

### **Respiratory Problems**

In Baja California, a rate of 491.5 cases of asthma per 100,000 habitants were observed in 1998. Nationally, 5 to 10% of children are believed to suffer from asthma.<sup>9</sup> Nationwide, 32.8% of hospital visits for children aged 1 to 4 and 17.1% of visits of children aged 5 to 14 were related to respiratory diseases. In 2001, an overwhelming majority (62%) of hospital visits in Baja California related to respiratory problems. More than half of these cases were reported for children under 9. An astonishing 77% of hospital visits by children aged 1 to 4 were related to respiratory diseases, and 73% of visits of children aged 5 to 9 were related to respiratory diseases. The mortality rate from severe respiratory illness in Baja California is higher than the national average for children ages 0 to 5.

Although it is difficult to trace the origin of respiratory diseases to specific sources, it is known that respiratory problems such as asthma are related to air pollution. Given the air quality problems in both Tijuana and Mexicali it is easy to appreciate why both cities have the highest number of reported asthma cases among Mexican border cities.<sup>10</sup>

Baja California's border region is prone to air pollution for various reasons. Mexicali, for example, has the worst air quality in the entire U.S.-Mexico border due largely to agricultural and industrial activities. Playas de Rosarito has the CFE (Federal Electricity Commission) power plant which continues to burn fuel oil with a high sulfur content and degrade air quality in this coastal community. Air quality continues to be threatened even though it is now supplied with natural gas via a recently constructed pipeline. In addition, the traffic congestion at the border further pollutes the air, as well as the movement of heavy trucks that burn diesel. In 1999, over 800,000 cargo truck crossings were observed at the two border crossings on the

6) Lomelí (2001).

7) Ganster (1999), p.31.

8) The following analysis is from Warner (1999).

9) Perras (2001).

10) The number of reported asthma cases in 2000 was 5,158 in Tijuana; 5,049 in Mexicali followed by Matamoros with 2,806 reported cases.

Mexico: Frontera Norte Saludable: Comisión de Salud Fronteriza Mexico-Estados Unidos, Sección de México, July 2002.

California-Baja California border.<sup>11</sup> The San Diego-Tijuana border crossing is the busiest the world with 57.8 million crossings per year. The congestion at the border often means thousands of cars idling for 45 minutes or more, releasing pollutants in the air.<sup>12</sup>

## Diabetes

**T**he U.S.-Mexico Border Health Commission reports that diabetes cases are projected to increase three-fold in Mexico between 1997 and 2025.<sup>13</sup> In 1999, according to the Secretaría de Salud, diabetes was the third most common cause of death following heart disease and malignant tumors, killing 45,632 people, or 46.5 per 100,000 people. According to the Pan-American Health Organization, diabetes mortality in the border region is almost 50% higher than in the rest of Mexico. Diabetes mortality is particularly high in Mexicali, with 47.9 deaths per 100,000 reported in 1997.<sup>14</sup> In the same year, diabetes mortality in California was 16.4 per 100,000. The state of Baja California's diabetes mortality in 1997 was 37.1 per 100,000. Considering that the national average for 1997 was 37.1 per 100,000 and that it has rose to 46.5 per 100,000 in 1999, it is obvious that the diabetes mortality rate in Baja California is rising.

Studies in the U.S. have shown that Type 2 diabetes, which is found more often in Mexican Americans than in other populations, is associated with many risk factors such as hyper tension and obesity, and that Mexican Americans are more likely to suffer from some adverse complications including renal failure, amputations, and peripheral vascular disease.<sup>15</sup> Uncontrolled diabetes also makes it difficult to treat infectious diseases such as TB.

## Malnutrition/Obesity

**A** much higher percentage of children in Mexico under age 5 are malnourished compared to Costa Rica and Chile, the two countries in Latin America with similar income levels. World Bank data for 2001 showed that, measured by weight, only 1% of

Chilean and 5% of Costa Rican children under 5 were malnourished, compared to Mexico's 8%. Measured by height, 18% of Mexican children under 5 were identified as suffering from malnutrition, compared to 2% of Chilean and 6% of Costa Rican children. In Baja California child malnutrition is particularly pronounced among migrant families, but in general there is a lack of information about the importance of nutrition. According to one Ensenada civic leader, "We all know how to eat, but we do not know how to eat healthy." This is one of the reasons why obesity and Type 2 diabetes are now becoming prevalent among children in Baja California. In general, it is evident that the state's high incidence of diabetes, among all ages, is at least partly attributable to the lack of knowledge about nutrition.

## Substance Abuse

**A** ccording to the National Council against Addictions (CONADIC in Mexico), in 1993, 3.9% of Mexico's population between the ages of 12 and 65 responded that they had used illegal drugs at some time in their life. In 1998, the percentage rose to 5.27%. Of the male population, almost 12% responded in 1998 that they had used illegal drugs at sometime in their life.<sup>16</sup> A 1997 study by the Mexican Secretariat of Health suggests that drug use has increased not only in the high-income sectors but also beyond. The availability of drugs in Mexico particularly in the border towns, has impacts beyond the border. According to the Drug-Free Border Coalition, alcohol, marijuana, methamphetamine, and, increasingly, club drugs such as Ecstasy are the substances of choice on both sides of the border, with the average first-time experimentation now frequently in the early- and even pre-teens.<sup>17</sup>

Tijuana has a drug consumption rate nearly three times the national average. According to a 1999 study, 14.7% of Tijuana's population had consumed illicit drugs at least once in their life compared to 5.3% for Mexico as a whole.<sup>18</sup> Also, Tijuana leads the nation in the consumption of marijuana (13.42% of

11) San Diego Dialogue (2000), p.13.

12) The congestion worsened after 9/11. SANDAG (2002), quoted in Baeza (2002).

13) United States-Mexico Border Health Commission, 1999.

14) Information obtained from PAHO website (<http://www.fep.paho.org/newdiabetes/English/default.htm>).

15) *ibid.*

16) Information obtained from CONADIC website (<http://cenids.insp.mx/conadic/epidemiol.htm>) on August 2, 2002.

17) Kjos (2002).

18) Secretaria de Salud (n.d.), cited in Kjos (2002).

the local population); cocaine use (4.62%); and inhalants (1.07%). This high rate of drug abuse can be attributed to Tijuana being the major crossing point for drugs to the United States.

Additionally, the La Mesa prison in Tijuana has a very high number of its inmates—over 70%—that are drug addicts<sup>19</sup>. Tijuana is not the only city in Baja California that faces an increasing problem of drug addiction; Playas de Rosarito community leaders reported that 6% of Playas de Rosarito residents are drug addicts, and that drug use has increased dramatically in Mexican border cities after 9/11, due to tightened security checks at the border, resulting in an increased supply of drugs remaining in Mexico. In addition, drug traffickers increasingly use drugs instead of cash for payment, therefore contributing to greater drug use.

There are at least 50 programs for drug rehabilitation in Tijuana, but not all are registered with the government and few of them have staff with formal training. This has prompted local officials to begin a crack down of unregistered facilities. In Tecate, there are 10 centers for drug rehabilitation, but only 4 are registered. It is believed, however, that those that are not registered could register if they had more resources.

Tecate, home to the brewery of Tecate beer, is believed to have a high rate of alcoholism. Teenage drinking poses a particular problem in a town with little infrastructure or outlets (e.g. sports facilities, organized youth groups, etc.) for youth. In some parts of the town, children as young as 8 are reported to be drinking.

## Mental health

Mental health is another area where Baja California residents express a need for more services. There are at the moment no facilities in Playas de Rosarito, Ensenada or Tecate to treat psychiatric patients and the facilities in Tijuana, Mexicali and Ensenada are inadequate.

## Occupational Health

Occupational health issues of maquiladora workers have been raised by health professionals and others concerned about workers' well-being, but little progress has been made in terms of educating both the management and the workers about the importance of this issue. A vast majority of workers in maquiladoras are exposed to a variety of substances that pose health risks. Kamel and Hoffman (1999) state that "exposure to these substances without proper protection can cause cancer, reproductive problems, skin diseases, vision problems, respiratory impairments, gastrointestinal and nervous disorders, and headaches and fatigue."<sup>20</sup>

In addition to the exposure to substances that pose health risks, the risk of work-related injury is another concern, especially for inexperienced employees who work on the assembly line. Injury to fingers, hands and feet are believed to be the most common injuries in these plants. Some, particularly the larger, plants provide necessary protective gear such as gloves and masks and offer occupational health courses, but others, especially the smaller plants, do not necessarily or always comply with health regulations, putting workers at risk.

Agriculture workers also experience occupational health risks through exposure to pesticides. Studies on agricultural workers have indicated that workers are rarely given information about the health risks of pesticides and that they usually do not wear protective gear while working in the field.<sup>21</sup> The USEPA has just begun to offer an occupational health education program for promotoras in Mexico who in turn will educate agricultural workers, in 2002.<sup>22</sup>

## Cancer Screening and Prevention

Throughout Baja California there is an alarming mortality rate from malignancies such as breast, cervical and uterine cancers that are highly treatable if detected early. Cervical cancer, in particular, which can be entirely prevented with regular Papsmear

19) Baeza (2002). Though not fully addressed in this report, the problem of prisoner over-crowding has been a serious problem in Baja California. In the case of Tijuana's La Mesa prison, there were over 6,700 inmates living in a facility designed for 1,200 with an additional 425 children living in the prisons with their incarcerated parents. On August 20<sup>th</sup>, 2002, the State of Baja California moved to address this problem by transferring 2,200 inmates to a new state-of-the-art prison facility located in El Hongo (east of

Tecate). Also, the State of Baja California moved women and children living in the prison to area shelters. The recently completed El Hongo Penitentiary will strictly control access and the use of drugs by inmates. Source: Sandra Dibble, Anna Cearley, "Lawless Tijuana prison seized : 2,200 of La Mesa's inmates moved to new Baja facility," San Diego Union Tribune, August 21, 2002, A1

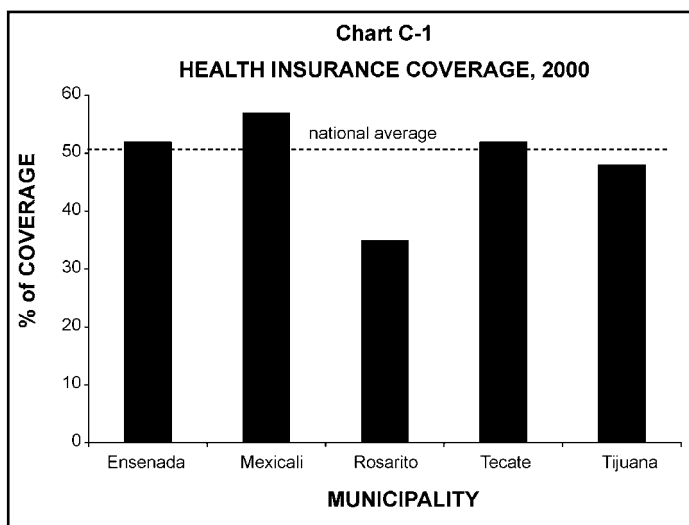
exams, continues to kill 115 women per year in the state. Nationally, the Secretariat of Health reports that mortality from cervical cancer fell from 25 per 100,000 women for ages 25 and over in 1990, to 19 per 100,000 in 2001. On the other hand, mortality from breast cancer has risen since the early 1990s, from about 13 deaths per 100,000 women for ages 25 and over in 1990 to about 15 deaths in 2001. Still, cervical and uterine cancers continue to be the leading cause of death for women ages 25 and over in Mexico. In Baja California the mortality rate from breast cancer is higher than the national average, with about 17 death per 100,000 women ages 25 and over. Some organizations, such as Fronteras Unidas Pro Salud and Medicina Social Comunitaria have highly effective outreach programs for women, promoting the importance of screening for these diseases, but more remains to be done to reach the thousands of women who are not receiving these services. Here more could be done to support **Fronteras Unidas Pro Salud** and **Medicina Social Comunitaria**, as both organizations are providing a valuable community service.

### Resource Allocation

During the 1990s, Mexico's public expenditure on health was 2.8% of its gross national product. Even combined with private spending on health the total only reached 4.7%. In other countries, at comparable developmental levels, total health expenditure averages around 6% (World Bank 2001). According to Mexico's Secretariat of Health (2002), Baja California's public expenditure on health is lower than the national average at a mere 2.3% of gross domestic product (GDP). In other Latin American countries the average is about 3%, while in the U.S., this figure is 5.9%. On a per-capita base, Baja California ranks among the lowest in terms of public expenditure for healthcare for the uninsured. Mexico City spends twice as much of its public expenditure per capita on healthcare, both for the insured and the uninsured.

### Access to Healthcare

Health care services in Baja California as well as the rest of Mexico are traditionally a government responsibility through the IMSS, ISSSTE, and other governmental health networks (and through the SSA for the uninsured). Workers in the private sector are covered by the IMSS and federal government employees are covered by the ISSSTE. State government employees are covered by state-sponsored ISSSTE programs. Private health insurance is relatively minimal, with less than 4% of the population estimated to be covered by private health plans.<sup>23</sup> In 1995, 51% of the population in Baja California had health coverage, the same as the coverage rate throughout Mexico (see Chart C-1). Within the state, Mexicali has the highest coverage (57.5%), followed by Tecate and Ensenada (51.7%). In Tijuana and Playas de Rosarito less than half the population has health coverage (47.9% for Tijuana and 35% for Playas de Rosarito) (Lomeli 2001). At the state level about 44% of children aged 5 to 14 do not have health coverage. In California, about 20% of children do not have health insurance. In San Diego County, 35% of Hispanic children do not have health or dental insurance.<sup>24</sup> For this reason, a growing number of U.S. Latino patients from Southern California are crossing the border to access culturally competent and affordable medical services



20) Kamel, Rachel and Anya Hoffman. 1999. Maquiladora Reader. Quoted at Corporate Watch's website, <http://www.corpwatch.org/issues/PID.jsp?articleid=692>.

21) <http://www.american.edu/TED/MEXPEST.HTM>

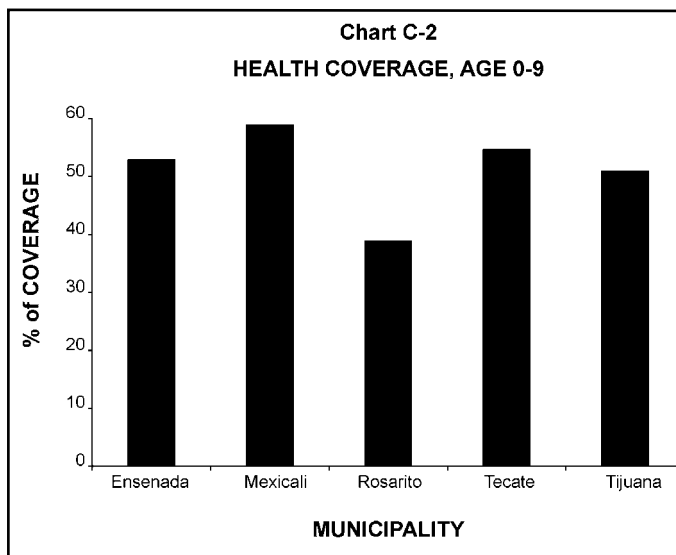
22) "EPA helps Mexico launch national pesticide safety training program." Accessed on May 8 at [http://www.epa.gov/epahome/headline\\_040802.htm](http://www.epa.gov/epahome/headline_040802.htm).

23) Bennett (2002).

in Tijuana, contributing to the overall pressure on an already over-burdened health care infrastructure for the state of Baja California.

According to INEGI (2001), children in Playas de Rosarito are the least covered by health insurance: less than 40% of children from the ages 0 to 9 have health insurance, compared to over 50% in the rest of the state. Even in Mexicali, where the largest share of children are covered by health insurance, the coverage does not reach 60% (see Chart C-2). This translates into almost 320,000 children statewide who do not have health insurance. Considering the significant health risks to infants, the low rate of coverage for the young children in Baja California remains a serious concern.

Sadly, Baja California has the highest rate of infant mortality among the Northern Border states of Mexico (19.3 per 1000 births). This rate is even higher than the national average (14.5 per 1000 births).<sup>25</sup> As demonstrated in Table B-1, Baja California's 0-5 years old children have higher mortality rates from diarrhea and severe respiratory infections than the northern border states' average. In the case of respiratory infection, mortality rate surpasses that of any other state in the northern border area, and it is also higher than the national average.



At the national level, Mexico has about 1.2 doctors per 1000 people, and 0.8 hospital beds per 1000 people. The doctor/population ratio is similar to other countries at a comparable level of economic development in Latin America, but these other countries have more hospital beds per capita than in Mexico (World Bank, 2001). In U.S., there are 2.7 physicians per 1000 people, and 3.7 beds per 1000 people.

Baja California has even fewer doctors and beds than the national average: 1.15 doctors per 1000 residents, and 0.6 beds per 1000 residents (see Table C-2).<sup>26</sup> It ranks the dismal 4th from the bottom among the 32 federal entities in terms of the number of clinics. The hospitals' occupancy rate is much higher (80.6%) than the national average (68.4%), reflecting the relative shortage of hospitals in the state. A higher than national average (2.6%) of those hospitalized die in hospitals (3.1%).

	Infant Mortality (per 1000 birth)	Mortality Rate from Diarrhea	Mortality Rate from Severe Respiratory Infection
Mexican National Average	14.5	14.5	10.7
Northern Border Average	16.9	16.9	9.2
<b>Baja California</b>	<b>19.3</b>	<b>19.3</b>	<b>12.1</b>
Mexicali	17.5	17.5	8.9
Tijuana	20.1	20.1	14.6
Coahuila	8.7	8.7	6.1
Chihuahua	14.0	14.0	8.8
Nuevo León	11.2	11.2	3.3
Sonora	12.6	12.6	5.4
Tamaulipas	10.4	10.4	5.3

### Needs by Community

**TIJUANA:** Community leaders' biggest concern is with substance abuse and drug addiction in particular. Many mentioned educational outreach to the youth in the community to prevent and eradicate use of drugs as the highest priority. Other high priority

24) United Way of San Diego, cited in Baeza (2002).

25) Comisión de Salud Fronteriza México-Estados Unidos (U.S.-Mexico Border Health Commission) Sección de México, 2002, p.67.

26) Data obtained from <http://www.inegi.gob.mx/entidades/espanol/fbcn.html>.

**Table C-2 Hospital Beds and Physicians, Mexico, Chile and US (2000)**

	Baja California	D.F.	Nuevo Leon	National Average	Chile	US
Hospital beds/1000	0.6	1.9	0.95	0.8	2.8	3.7
Physician/1000	1.15	2.7	1.3	1.2	1.2	2.7

*Source: Comisión de Salud Fronteriza México-Estados Unidos, Sección de México, 2002, p.67.*

issues for community leaders were better trauma response; public health education and preventive care; expansion of medical coverage; reproductive and sexual health care and education; and more drug rehabilitation facilities. Overall, a great emphasis was placed on health education, from disease prevention to nutrition to sexual education. Additionally, community leaders in health services feel that prevention and early detection of diseases such as cervical cancer and diabetes needs to be actively promoted. Education on dental care, to prevent cavities, is also important especially for young children. A study conducted by the Centro de Promoción found that 50% of school children surveyed had cavities.

Other health issues that Tijuana residents feel are important were provisions of up-to-date medical and laboratory equipment; a vision care program; professionalization of the medical services; and maternal and infant health care. It was also pointed out that those Tijuana residents who do not have access to the IMSS can go only to the Tijuana General Hospital, which is crowded and the waiting time is very long. Seeing a specialist for medical care is also very expensive. With its rapidly growing population it is estimated that 8 more public medical clinics must be opened within the next three years, leaving 211 positions to be filled.<sup>27</sup> Since the municipal government does not have sufficient resources to provide all of these services, private-public partnerships will play an important role in assuring that quality care is provided to more residents.

**PLAYAS DE ROSARITO:** There is a critical need for a hospital, as the community has grown

rapidly over the last 10 years. Traditionally, residents of Playas de Rosarito went to Tijuana to receive medical care. With the growth of Tijuana itself, however, it is increasingly difficult for Playas de Rosarito residents to receive satisfactory medical care in Tijuana. The residents fear that if there is no new hospital in the next five years the lack of medical care will create chaos in their community. Currently, there is a committee that is trying to raise funds to build a 12-bed hospital for the city.

Playas de Rosarito residents also feel an urgent need for a health clinic that specializes in rabies, as the community is seeing an increasing number of stray dogs. Also needed are mental health services and a senior center. As mentioned earlier, substance abuse is also a growing concern.

**ENSENADA:** Ensenada has many hospital beds. However, most of the local residents go to Tijuana for major medical services. They cite the shortage of trained medical care staff in the local community. Given its large rural area, Ensenada relies on the government to send medical students to the rural areas to provide care. However, residents pointed out that the students are often sent without enough medicine to address the needs. As in Playas de Rosarito, there is a concern that drug use has increased since 9/11.

The health effects of pesticides are a problem in agricultural areas, most notably in San Quintín, and especially among its migrant workers. Many of these migrant workers come from Oaxaca, one of the poorest areas of Mexico, where toilet and diapers are still not standard household items. Many do not speak Spanish. Thus, health education for these

27) Navarro (2002), 1.

immigrants needs to be specifically designed for them, and there is a great need for community promoters who speak the indigenous languages. Intoxication from hazardous materials is a serious problem in this agricultural area. There is a need for occupational health education, and here, too, promotoras comunitarias could play an important role. Promotoras are also needed for nutritional education.

The residents also feel a need for mental health services, drug abuse prevention and services for HIV/AIDS patients.

**TECATE:** The General Hospital in Tecate is small, and the facilities are very limited (6 beds for women, 1 room for 3 men, and only 1 incubator for babies). Most patients must go to Tijuana for medical services due to lack of space in the local hospital. Tecate also lacks mental health services. Educational outreach is lacking in health issues in general, and HIV/AIDS is a growing problem in the community.

Residents expressed their concerns about the growing problems of teenage pregnancy and alcoholism, especially salient in marginalized communities. These communities are particularly vulnerable to water borne diseases, as they lack basic infrastructure, and drug abuse is more pronounced. It is believed that 3% of Tecate's children (aged 12 and under) are drug addicts. Common problems of migrant populations are TB, hepatitis, diabetes, and malnutrition. Many of these problems can be alleviated or avoided by health education, but Tecate lacks NGOs specializing in health education.

A less pronounced, but possibly serious, problem is sexual abuse of children, especially street children, by visitors from the U.S. side of the border. (See Section C for more information on child abuse.)

**MEXICALI:** Mexicali is believed to have the highest rate of TB infection of all Mexican cities.<sup>28</sup> The principal needs the community leaders expressed were preventive care and follow-up, public education regarding health and health programs, and linkages

between the private and public sector and civil society. Residents also pointed to the difficulty in administrating donated equipment and materials as well as a lack of consistency in programs for the poor, and a lack of capacity of medical professionals.

**SAN QUINTIN:** Among the most immediate health care priorities for this community is addressing the needs of the migrant worker population that arrives between the months of April and August generally not covered under the government health programs (IMSS, ISSSTE, and ISSTECALLI). Migrant worker health care concerns are, more often than not, simply not attended to. This is particularly disturbing as both children and adults face environmental health risks due to their exposure to pesticides in the fields.

Of critical importance to civic leaders is the high incidence of alcoholism and drug abuse. Though some rehabilitation centers do exist, most are over-capacity so they are unable to fully address the communities' needs which are exacerbated each spring by the arrival of migrant farm workers.

**BAHIA DE LOS ANGELES:** Many of the health problems in the community are related to the lack of a proper source of water. The only well in town provides a small amount of water daily, occasionally reported to be contaminated by fecal matter. The town lacks a proper area for containing garbage, which is disposed out of town in the open air, and frequently blown back into the town by the wind. Other problems are related to the lack of health education, related to women's health, sexually-transmitted diseases, nutrition, and family planning.

Health services in Bahía de Los Angeles are provided by a federal "Centro de Salud" (Health center), operated by the Mexican Health Secretariat. The Center is commissioned to an intern physician, usually a young practitioner who, by serving as an intern, satisfies his "social service" education requirements. The young age of the physician, his lack of experience and short stays in town, make local

28) BC Health News, March 25, 2002.

community members (particularly women) reluctant to consult him for any care beyond first aid. Indeed, in a survey taken in 1997, women in the community expressed that the community's most urgent health need was to have "someone to talk to about women's health problems." A private physician, living in town approximately 20 years offers medical services (including obstetrical care), but more as a social service than as an established regular health service, as the main business of this physician is sport fishing. The third source of health services has been the sporadic visits of the **Flying Samaritans**, which have helped with dental care, ophthalmology, gynecology and other specialties. For further services, people in Bahía de Los Angeles must travel to Guerrero Negro, Ensenada and Tijuana.

The Health Center lacks medicines even for urgent first aid such as aid for rattlesnake bites, common in the area. The Flying Samaritans have helped with this problem, providing the health center with medicines, although the medicines provided are often expired as they are obtained through donations.

In summary, the Bahía de Los Angeles's health needs include a proper and well-equipped health care center, improved municipal services, and extensive health education programs.

## Philanthropic Opportunities

### Giving

- Support for additional health education campaigns in the areas of preventative health, nutrition, family planning (reproductive health), sex education, cancer prevention, occupational health and safety, and cardiovascular health.
- Substance abuse prevention programs and rehabilitation centers.
- Mental health services of all kinds –expanding hospitals' abilities to provide inpatient and outpatient services and introducing more mental health

professionals into community clinics and community centers.

- Funding of fixed or mobile clinics, in partnership with local organizations or authorities to provide greater access to care and early detection of treatable diseases, particularly important in rural areas.
- Increase funding opportunities for those NGOs that are currently providing outreach to populations most at risk (women's organizations, those working with maquiladora workers, reproductive health, TB, HIV/AIDS.)

### Volunteerism

- Launch a culturally sensitive, effective educational campaign about sexually transmitted diseases.
- Health education that includes importance of clean water, sanitation, and nutrition (expand the promotoras' activities from reproductive and prenatal care to these other areas)
- Public awareness campaign for the disabled and the mentally ill. There are already some NGOs working on these issues. We can build on their effort, perhaps in partnership with U.S. NGOs.

### Binational Partnerships

- Significant cooperation between the Californias on health issues has occurred, thanks in part to the work of **Project Concern**, which consists of fostering binational partnerships and collaboration and providing technical and capacity building opportunities for service providers in the California-Baja California region since 1996. Also, collaborative work has occurred between **Planned Parenthood of San Diego** and **Fronteras Unidas Pro Salud** in the area of reproductive health and family planning issues but more action is still needed. In particular, there is a lack of modern equipment and technicians who can operate them. The public medical services, under which the large majority of Mexicans are treated, lack trained personnel because of low salaries. In-kind donations in this area and binational

exchanges in medical education will have an immediate impact on the quality of care Baja California residents receive.

- Opportunities exist to have the Orange County based **Latino Health Access** provide “promotor” training to males in Baja California, in the areas of health/nutrition, education, domestic violence, and parenting as they are already providing similar training assistance to communities in San Diego, Los Angeles, and Chicago. Here it is worth noting that **Project Concern** has implemented men’s health education/outreach programs in Baja California since 1994, through its local partner, **Medicina Social Comunitaria**, but these efforts have been modest in nature and could benefit from additional financial support.
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# COMMUNITY DEVELOPMENT AND HUMAN SERVICES



*Photo Credit: Fundación Esperanza, A.C., Tijuana, B.C.*

# Community Development and Human Services

The border communities of Baja California face a particular challenge with a fast-growing transient population. Baja California's population has been growing at about 5% per year during the last decade. Less than 48% of Baja California's residents declare to have been born in the state. In Playas de Rosarito and Tijuana, less than 40% were born in the state, while in Mexicali the native population reaches 60%. According to one study, it is estimated that Tijuana alone has a "floating population" of over 50,000 with a large number commuting to and from San Diego County.<sup>1</sup> Many of these "floaters" find their civic allegiance split across the international border. As long as the migrants and the "floaters" view Baja California as a step toward crossing the border, or as a place for temporary work, creating a "sense of community" remains a difficult task. With one of the highest degrees of in-migration in Mexico, among the highest priorities is establishing a sense of community. The absence of a sense of community is apparent in the high incidence of littering in the border communities. Resolving the region's tenuous land tenure issue in many squatter communities is a key ingredient to building this sense of community, but this is only a first step.

The lack of a sense of community has partly to do with the fact that the recent immigrants to Baja California have strong ties and financial obligations to their families in the interior of Mexico where they are from. Many maquila workers, housekeepers, construction workers, as well as those in the agricultural sector in Baja California send money home to their families in the interior of Mexico. They do so in spite of their low wages--the average wages at maquiladoras are about 1.5 pesos a day, not enough to cover basic needs. What is the implication of this in communities like Tijuana, San Quintín, Playas de

Rosarito when entry-level workers send so much of their paycheck back home? This question is particularly relevant given the high cost of living in Baja California relative to the rest of Mexico. In the ICF/FIC "encuentro" in Ensenada, it was revealed that workers in San Quintín are living in squalid conditions because the majority of their paycheck goes back to communities in the interior, such as Oaxaca.

To further complicate matters, the lack of decent and affordable housing and available infrastructure (potable water, sewage, electricity, telecommunications) coupled with the high cost of living and limited child care options for a growing number of the state's migrant population results in increased social tension. These problems are further exasperated by the limited number of parks or open spaces available for families and youths to enjoy. Over 30% of Baja California's population is under 5 years of age. As such, most residents are unified in the need for meaningful programs for young people including safe recreational areas.

The strength of the Mexican family and the emotional support and security that individuals receive from a cohesive family group is one of Mexico's biggest assets. Yet with transience and overcrowded squatter communities, families across Baja California are succumbing to rising stress, resulting in mental illness, domestic violence, child and elder neglect, drug abuse, delinquency, and crime. Most at risk are young people living in colonias populares and indigenous native communities where poverty is prevalent, support networks are nominal or non-existent, and the need to escape the struggles of everyday life is ever-present.<sup>2</sup>

Across the state, interviews with civic leaders revealed a wide range of problems impacting children and their families. Problems that are becoming more commonplace throughout Baja California include drug use, child abuse and neglect, and domestic violence. Available governmental resources to address

1) Many workers in San Diego County live in Tijuana and many of Tijuana's key business and government leaders live in San Diego, commuting daily and often crossing the border several times a day.

2) In the squatter community of Maclavio Rojas, children as young as eight are getting hooked on drugs, with glue being frequently used to escape the pains of hunger.

these growing challenges remain limited. In this sense, Baja California faces many of the same burdens of other U.S. border communities that are subjected to unfunded social mandates to provide health, educational and other social services to incoming migrant populations from the interior of Mexico.

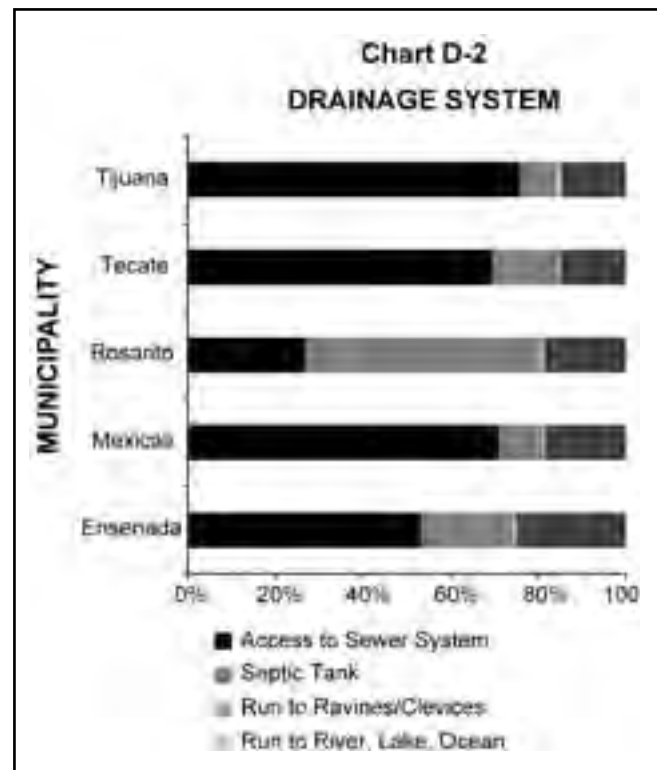
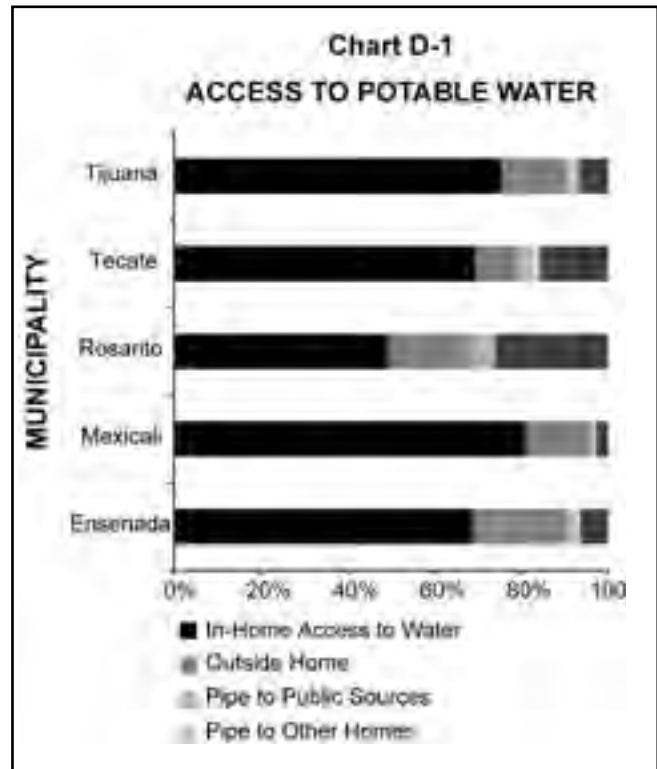
As Baja California's migration-related societal problems continue to grow, the institutions capable of addressing these growing needs are ill prepared to meet the growing demands on their staff and resources. This section highlights some of these growing community concerns and what some groups are doing to address these needs.

### Key Findings

#### Housing & Urban Planning Issues

While Baja California faces a wide range of community development issues and concerns, the lack of adequate housing and supporting infrastructure, including safe drinking water, sewage and basic utilities remain top priorities. It is worth noting that presently 73.8% of homes have in-home access to potable water, while 69% of homes have connections to the public sewage system. That is, over one-quarter of homes are lacking access to these basic services.<sup>3</sup> The situation in Ensenada and Playas de Rosarito is especially alarming (see Charts D-1 and D-2).

In Ensenada, about one-quarter of homes have no drainage to dispose of human-produced wastes. In Rosarito, over one-quarter of homes have no access to potable water. It should be remembered that these official statistics are conservative, including only regulated housing units and exclude "illegal" squatter settlements. The omission is worth noting because the number of squatter communities has grown exponentially in the communities of Tijuana, Playas de Rosarito and Tecate in recent years.



3) Information obtained from 2000 Census data. Of the rest of the homes, 15.5% have access to potable water outside their homes. About 3% have access to potable water through pipes and hoses connected to public faucets and hydrants or to other homes. 6.5% have no access to potable water.

According to Tijuana's planning agency, IMPLAN, today approximately half of the urbanized area in Tijuana is unregulated, and fifty percent of the area originated as illegal settlements. Some illegal settlements have been regulated and basic infrastructure has been built, but about thirty to forty percent of the area remains squatter housing without proper title and without basic infrastructure.<sup>4</sup> The result is a growing number of working poor in marginalized communities with squalid living conditions giving rise to a marked increase in infectious diseases and other social ills including child abuse/neglect, domestic violence, drug abuse, a high incidence of children dropping out of school and juvenile delinquency.

Land shortage has created tension that has in some occasions led to direct occupation of federal lands. Sometimes leaders of the direct occupation are arrested and residents of the occupied lands are relocated. CORETT (Comisión para la Regulación de la Tenencia de la Tierra) is the federal agency in charge of regulating land, which has a state branch, CORETT. Some occupied lands are legalized through the CORETT and, once they are legalized, have rights to the public services. The occupied lands that are not legalized do not receive any public service such as electricity and sewage, or paved roads. In Baja California, a state agency, Inmobiliaria Estatal, is responsible for buying up vacant land and making it available to poor residents for housing. However, critics argue that the agency levies prices and interest rates that are too high.<sup>5</sup> For many workers, their income is too low to qualify for a housing loan.<sup>6</sup> **Fundación Esperanza** is a Tijuana non-profit organization that operates community-based loan

funding to finance self-help home building and renovation. The loan fund has had great success, but is very small in scale and could be greatly expanded or replicated in other communities. The housing shortage is evidenced not only in urban areas such as Tijuana, but also in San Quintín and Valle de Guadalupe, where agricultural workers, of Mixtec, Zapotec and Triquis indigenous origins from the interior of Mexico, are looking for housing alternatives to the labor camps as they increasingly settle in the area instead of returning to their hometowns at the end of each growing season.

### Child Abuse and Neglect

In 1995, there were less than 15,000 reported cases of child abuse in Mexico. The number is much smaller than in the U.S.. For example, in California alone, where there are legal requirements mandating school and social service professional report suspected abuse and neglect, there were more



*Children in squatter community, Easternmost section of Tijuana. Photo Credit: ICF*

than 660,000 reports of child abuse in 2000. Awareness about reporting has only recently begun to grow in Mexico and as such the number of reported child abuse cases is growing, particularly in border communities like Tijuana and Tecate.

Although data on child abuse is difficult to collect, according to the director of Baja California's Social Agency for the Family (DIF), in the first 9 months of 1999, the DIF handled 1,344 complaints of child abuse or abandonment in Tijuana. As many as 13 children were placed in DIF's shelter facility in Tijuana over one weekend. In Mexicali, an average of 15 children with serious physical or emotional problems arrive weekly at the DIF's shelter.<sup>7</sup>

4) The City of Tijuana and the State of Baja California are working proactively to prevent the creation of colonias populares and have successfully stopped 14 land invasions in the past year. They are also working to relocate up to 1,000 people that are currently in communities that are in high risk zones that are vulnerable to flooding and landslides. Source: Sandra Dibble, "Evictions on Tijuana hill turn messy Outcry follows; critics question city's motives," San Diego Union Tribune, August 21, 2002, B1

5) Information obtained from Mexican Labor News and Analysis 7(1), January 2001. "Baja Police Arrest Mexican Housing Activists," by David Bacon.

6) A comment from Carlos Graizbord, June 2002.

7) Speech by Rosalba Magallón de Gonzales Alcocer, cited in Binational Workshop on Children in the San Diego-Tijuana Border Region (1999).

Of greater concern is the rising incidence of child neglect, a function of limited day care facilities and after-school care. Accordingly, there are a growing number of latch key kids across the state of Baja California with little or no supervision. This problem is particularly prevalent in single head of household families. As one resident of Tijuana conveyed to ICF, "If community organizations don't get to our young people first, one can guarantee that gangs and drug traffickers will."

## **Domestic Violence**

Based on feedback from community leaders at "encuentros" in all of the state's major cities, domestic violence and abuse against women was reported as a growing concern. This is validated by government statistics provided by the National Secretary of Health which in 2001, reported that a total of 465 persons were hospitalized due to domestic violence in Baja California. Further, ICF and FIC's field research has revealed that the incidence of domestic violence is most prevalent in comunidades populares where the pressures of maintaining a household and a family are the greatest. Aside from some effective but very small community-based women's organizations that offer counseling, there are virtually no services for abused women in the state. Legal advocacy, counseling, confidential shelters, as well as counseling for male batterers are all pressing unmet needs.

## **Prisons and Prisoner Re-entry Issues**

For decades Tijuana's La Mesa prison was, according to Mexico's Human Rights Commission, one of the worst prisons in the world. Until recently, it was home to over 6,700 inmates living in a facility that is built for only 1,200. What's more it was also home to over 425 children that lived in this facility with their incarcerated parent(s). Thankfully, the Mexican government recently relocated these children to shelters.<sup>8</sup> Through this move it is hoped that efforts will be made to work

with these children so as to break the cycle of crime and incarceration with the next generation. Also, an often unnoticed problem that Tijuana and Mexicali must contend with is the large number of deported Mexican undocumented ex-convicts from U.S. Federal and California state prisons.<sup>9</sup> Presently, upon release, these former inmates are being deported across the border in Tijuana and Mexicali without any prisoner re-entry support. As such, instead of transitioning to a new productive life, many of these former inmates find their way back into a life of crime/illegal activities in communities like Tijuana where over 70% are deported and, more often than not, eventually find themselves back in prison on the U.S. side of the border.

## **Public Places**

Among the most commonly cited problems is the lack of local, urban and regional "safe" or "secure" public places and parks for families and youths to enjoy their free time. In fact, in the case of Tijuana it has been cited as having the least amount of "green space" of any major city in North America. Accordingly, for many Baja California residents, San Diego is seen as an escape valve and a place to turn when looking for recreational places of enjoyment for the family. Ironically, outside of Tijuana, Baja California is blessed with rich biodiversity, the pristine Sierra Juárez mountain range, including two national parks (Parque Nacional Constitución 1857 and San Pedro Mártir), several important protected areas (e.g. Colorado River Delta and Valle de los Cirios with a land mass of 2,813,197 hectares), critical open space in and around Tecate with threatened and endangered species, and beaches along the Sea of Cortez and the Pacific Ocean. For a variety of reasons, however, residents of Baja California are not fully taking advantage of these valuable natural resources.

According to SEMARNAT, there are an average of 2,500 visitors to Parque Nacional Constitución 1857, which is located within 2 hours driving distance from

8) Lawless Tijuana prison seized, San Diego Union, August 21, 2002, A1

9) In California alone, there are over 21,500 Mexican undocumented inmates currently in state prisons.

10) The California Condor reintroduction efforts are being coordinated by the Los Angeles Zoo, San Diego Zoo and SEMARNAT.

Tijuana, Ensenada and Mexicali. Similarly, only 250 visitors a month visit Parque Nacional San Pedro Mártir, which is ironic given the fact that this park is receiving international attention due recent binational efforts to reintroduce the California Condor to this region of the state.<sup>10</sup> Further development of eco-tourism, renovation of national park facilities, improved transportation, marketing, and special outdoor programs for low-income urban families, are all possible solutions to the current under-use of the state's rich environmental resources. In this regard, the recent announcement by the municipality of Ensenada to invest in public parks is welcomed news. The Municipal Institute of Sports announced that half a million pesos, (U.S. 50,000) will be invested in the renovation and improvement of Ensenada sports facilities.<sup>11</sup> Rural areas will also benefit from investment in improvement and creation of sports facilities, with approximately 1.3 million pesos, (U.S. \$130,000) earmarked for this end. More initiatives, both public and private, for these purposes will greatly benefit Baja California's communities.

### **Lack of Attention to the Elderly**

A typical problem cited across all Baja California communities was the lack of attention to the elderly. In fact, governmental resources in this area remain scarce and there are few non-profit organizations currently addressing the needs of this segment of the population. This situation is particularly worrisome for those older than 70, as insurance coverage for this age group is not as extensive as for those under 70 across all municipalities. In Rosarito, less than 40% of elderly in this age group are covered by insurance. There are a few notable exceptions including Ensenada-based **Casa Hogar del Anciano**, operating for 47 years. Still, more attention needs to be given in these areas along with the need to educate the public about respecting the elderly, providing shelters for the elderly and indigent and also promoting re-training of elderly and older working adults.

**Table D-1:  
Disabled Population by Municipality**

Tijuana	14,629
Mexicali	12,798
Ensenada	5,748
Tecate	1,189
Playas de Rosarito	739

Source: INEGI (2001), 2000 census data.

**Table D-2:  
Disabled Population by Type of Disability**

Motor	19,559	55.7%
Mental	6,161	17.5%
Visual	5,714	16.3%
Audio	4,217	12.0%
Speech	1,178	3.4%
Other/unspecified	458	1.3%

Source: INEGI (2001), 2000 census data.

**Table D-3:  
Disabled Population by Age Group**

0-9 years old	19,559	9.2%
10-19 years old	6,161	10.6%
20-29 years old	5,714	10.7%
30-59 years old	4,217	31.9%
60+ years old	1,178	37.0%
Unspecified	458	0.6%
Total	35,103	100%

Source: INEGI (2001), 2000 census data.

### **Addressing the Needs of the Disabled**

In Baja California, at least 10% of people older than 60 report having some disability. In 2000, there were a total of 35,103 people within Baja California

11) "Utilizarán recursos del Ramo 33 en Infraestructura deportiva," La Voz de la Frontera, September 14, 2002, Ensenada section.

with a known disability (see tables D-1 to D-3). The most common disability is motor (56%), followed by mental (17.5%), and visual (16%). More than a third of those disabled are 60 years or older. Unfortunately, the needs of disabled people have not been adequately addressed in Baja California, nor in Mexico generally. Wheelchair accessibility is limited on most sidewalks and buildings. There is no legal framework for disability rights, and consequently very few public programs. Thus, most services and education for the disabled are undertaken by small, mostly volunteer organizations. Many of these groups do a wonderful job: for example, **Rancho Sordo Mudo** in Tecate is a high quality school for the deaf, while **Fundación de Apoyo para Niños Especiales, A.C.** in Tijuana offers support and education for families of disabled children. Yet these small programs do not come close to meeting the needs of all disabled members of the communities in Baja California.



*Members of Paipai tribe, San Isidoro, BC. Photo Credit: ICF*

### **Addressing Native Indigenous Community Needs**

As there are now only about 1,000 to 1,500 native indigenous people remaining in Baja California, the needs of this important community are often over-looked. In fact, in recent years, the government's emphasis has been on the growing number of indigenous migrant people that have come from places in the interior of Mexico such as Oaxaca. Nevertheless, the needs of this community are very real as the native indigenous people try to preserve their way of life, their rich cultural traditions, languages and oral history. Efforts are already under way, with NGOs such as **Instituto de Culturas Nativas**

de Baja California (The Native Cultures Institute) (CUNA) promoting the preservation of indigenous cultures, but more support for these efforts is needed.

Today the population is made up of eight primary communities across the state (Santa Catarina, San José de la Zorra, La Huerta, San Antonio Nécua, San Isidoro, Ejido Tribu Kiliwas, El Mayor Cucapá, and Juntas de Nejí) and four main bands, the Paipai, the Cucapá, Kumiai, and Kiliwa. While each band has its own unique language and traditions, they share similar problems because of their isolation from urban areas of Baja California and lack of basic infrastructure and services such as potable water, sewage treatment, electricity. Among the hardest challenges is access

to quality schools. For most young families, this is the primary reason for leaving their community as their children have few opportunities to pursue their education without having to commute. In the case of communities such as Nejí, Kiliwas, or Santa Catarina, the commute can be upwards of two to three hours each way. Thus the lure to the urban areas such as Ensenada and Tecate is increasingly compelling.

Another key challenge for Baja California's indigenous population is finding productive employment opportunities that permit them to keep their land but maintain their traditional way of life. For some tribes this has been easier than others. In the case of the Cucapá, they have been permitted to continue fishing in the Colorado River Delta even though the area is now considered a protected biosphere reserve. In Santa Catarina, the revival of traditional activities such as the production of pottery, basketry, bows and arrows and other traditional arts for sale to the

handcrafts market has provided a new source of income for many artisans, most notably women. Efforts are underway also to promote the ecotourism value of the desert that they own by reproducing the now threatened big horn sheep. The Paipai and Kiliwa communities are now producing yucca extract for re-sale in Tijuana and the U.S. markets. Kumiai basketmakers of San José de la Zorra have found markets for their willow and juncus basketry; members of the La Huerta community have made efforts to leverage their knowledge of medicinal plants for the alternative medicine market. All of the tribes have expressed their interest in realizing their communities' great potential for eco and cultural tourism: attractive landscapes in a variety of ecosystems; abundant wildlife including bighorn sheep, mule deer, golden eagles and other types of fauna and flora; historic and prehistoric sites; indigenous traditions and knowledge of the land. Several of the communities have even initiated small tourism projects.<sup>12</sup> Still, these productive employment initiatives are under-funded and lack the scale to lift their communities out of poverty.

As such, the indigenous native people of Baja California remain among the poorest and most disenfranchised population of the state (along with the indigenous migrant populations in San Quintín/Valle de Guadalupe). Because of the distance from schools and the pressure to have their children work, the drop-out rate among indigenous native children is very high. For similar reasons, access to health care services is also quite limited, and key health problems include diabetes, drug abuse, alcoholism and teenage pregnancy. Accordingly, in addition to the lack of schools and lack of basic water/wastewater treatment, the most pressing community needs include health clinics; health, nutritional and sex education; and drug/alcohol prevention and rehabilitation.

An expressed need for indigenous native communities living near the Valle de la Trinidad (Santa Catarina, Kiliwas) and Tecate (Nejí) are boarding homes/cultural centers that would provide lodging for a

number of indigenous students who travel to the city for school, Monday through Friday, while maintaining their cultural traditions and way of life. For most tribal leaders, the establishment of such centers would go a long way towards responding to the basic needs that their communities have for pursuing a higher education while at the same time protecting their tribes from extinction.

### **Lack of Civic Engagement**

While there have been several recent efforts across the state of Baja California to promote the level of civic engagement, (through the work of organizations such as **Visión Ensenada 2025**, **CDEM's Mexicali 2020** initiative, **Tijuana's CDT**, and **Tijuana Trabaja**), still most community leaders, particularly those in Tecate, Playas de Rosarito, and Tijuana, express some frustration about the level of civic engagement.

At least for Tijuana, one of the reasons cited for lack of civic engagement is that a large segment of affluent residents and owners of businesses that operate in Baja California have a weak sense of belonging to the communities in Baja California as many are migrants themselves with ties back to their communities of origin or are now living in San Diego.

The result is that now some Tijuaneños seem more concerned about schools and community-based issues in San Diego than helping to address such issues in their community of origin. U.S. expatriates and retirees in beach communities such as Playas de Rosarito and San Felipe also have minimal involvement with their adopted communities, although there are some notable exceptions as evidenced by the work of service groups like **Rotary**, **Lions DAR** and others. Clearly, both business owners and new residents moving from the U.S. could do more for the communities on the Mexican side of the border and would benefit from giving to the communities, making them cleaner and safer for all residents and businesses.

13) "Recolectarán la basura en Tecate," *El Mexicano* September 14, 2002, 15A.

14) "Díaz Félix No Interviene ante la Contaminación," *El Mexicano*, September 15, 2002, 14A.

There are some positive signs of change in this direction in Baja California. In Tecate, for example, the Municipal Department for Cleanness recently called for residents' cooperation in cleaning up the solid waste that had been illegally dumped in the area's public roads.<sup>13</sup> The campaign was a combination of a call for volunteerism and an opportunity for environmental health education, as the department personnel emphasized the negative health effects of having solid wastes such as mattresses and furniture that easily convert into rodent heaven. In Playas de Rosarito, in contrast, the citizens' council is voicing concerns about the municipal government's inaction on beach clean-up.<sup>14</sup> As evidence by the successful beach clean-up campaigns in San Diego, clean-up campaigns are an effective way of starting civic engagement because of their low cost and easy access, as well as their visible effects. More public and private initiatives of this kind will help Baja California's residents, both new and natives to become more involved in their communities.

### Stray Dogs

Across the state of Baja California, the large number of stray dogs in urban areas is cited by most community leaders as a serious problem. Children are especially vulnerable to dog bites: according to a study by the WHO (Bulletin 71: 615, 1993), as 60% of humans suffering bites were children. However, human cases of rabies have declined drastically over the last two decades in Mexico, thanks to the federal government's initiatives. While there were an average of 60 reported cases of human rabies per year in the 1990s, the rate fell approximately 10 per year. In 2000, there was no reported case, and in 2001 there was just one case. According to a state health official, Baja California has been a rabies-free state for 20 years.<sup>15</sup> The anti-rabies vaccine is administered free of charge to pet owners. Additionally, several local organizations are working to address the stray dog issue, including the **Baja California Animal Shelter** in Playas de

Rosarito.<sup>16</sup> In Mexicali, the municipality recently passed an animal control law, primarily aimed at dogs, and local groups are working to create a free sterilization program.<sup>17</sup>

### NEEDS BY COMMUNITY

**TIJUANA:** Tijuana residents' two primary concerns, as expressed in our Encuentro, were the lack of public space and access (with efficient transportation) and the level of insecurity and crime. A recent study by **Tijuana Trabaja**, which interviewed 49 community members, came to the same conclusion.<sup>18</sup> The study points out that the high crime rate strengthens the feeling of insecurity, negatively affecting the community spirit. Many community leaders who participated in our Encuentro believe that the lack of public space for recreational activities such as sports and for educational programs is contributing to the high crime rate in the city as well as teen pregnancies and substance abuse. Residents recommended construction of additional open spaces and "secure" parks for children to play undisturbed. Such construction is especially important for the colonias populares to promote community integration.<sup>19</sup>

Additionally, there exists a need for more extensive and reliable public services such as water, electricity, pavement, and sewage. The unplanned growth of the city concerns many residents, as housing shortage becomes more pronounced and many residents continue to live in unsafe housing. The disabled population, the marginalized communities, and migrant population were mentioned as needing more support in this context.

Another issue area where community leaders feel more needs to be done is in family support. Domestic violence and street children are the two key issues in this regard. Some community leaders advocated educational programs on values and human development as a force against further violence.

15) "Vacunación Antirrábica, a partir del 22 del Mes" El Mexicano September 14, 2002, 7A.

16) (<http://www.planeta.com/planeta/00/0001baja.html>)

17) "Mexicali Gets Animal Control Laws," La Crónica, October 26, 2001. Articles by Magdalena López Crecer & José Manuel Yépiz Ruiz.

18) "Tijuana: las percepciones de una comunidad."

19) Navarro (2002), 4.

Other areas that Tijuana residents mentioned as their priority are promotion of the positive aspects of the city; construction of community centers for educational and medical use; more equipment for recreation; and capacity-building of the community promoters. Community promoters (or promotoras) are volunteers, usually residents of low-income neighborhoods, who have been trained by non-profit organizations to educate their peers about health, parenting, environmental or other issues. As a community outreach strategy, and a leadership development tool, the use of promoters has been very effective. The next step, as expressed by many non-profit leaders, is to further educate community promoters, so that they may assume greater leadership roles in their respective communities.

**PLAYAS DE ROSARITO:** Playas de Rosarito is faced with a wide range of community development issues as it has quickly evolved from a suburb of Tijuana to an incorporated municipality of over 70,000. The City of Playas de Rosarito is ill prepared to meet the community's diverse and growing needs. As cited in other sections of this report, there is neither a hospital nor a library in Playas de Rosarito and there is a real demand for such institutions in this fast growing city. Also there is a recognition that a wide range of programs are needed to integrate residents into a proper "community" as the high level of in-migration has fragmented what many once knew as their community. Furthermore, there is an acceptance that the government cannot do it all—here the philanthropic sector is seen as a valuable asset for assistance.

Throughout Playas de Rosarito, the problems are wide ranging from an absence of day care facilities and after school programs for the children of female maquila workers<sup>20</sup> to a limited number of "safe" public places for children to play and be with their families. Consequently, children's security issues remain a concern throughout the community. The problem of stray dogs was also cited as a major community problem that needs to be addressed.

As in other communities in Baja California, domestic violence is on the rise with much of this due to the high incidence of migration to the region. According to civic leaders, Playas de Rosarito has the highest incidence of domestic violence in the state.

In Playas de Rosarito there is an expressed need for programs to promote micro enterprise development to employ women, many of whom have been left unemployed due to the recent cut backs in the maquiladora sector.

Residents of Playas de Rosarito have also observed that there are several interest groups that require special assistance including disabled persons who have few if any facilities to address their needs. Moreover, Playas de Rosarito needs a women's center to address a wide range of issues, from legal rights to pre-natal care, day care, and family planning. Currently Mexico's Instituto de la Mujer de Baja California, A.C. does not have a chapter in Playas de Rosarito, but the **Instituto de la Mujer Baja California** was created in March 2002 and will soon have a chapter in each city in Baja California, which could benefit greatly from philanthropic giving.

Finally, there is a consensus that efforts need to be made to empower more community leaders in Playas de Rosarito—a common theme identified in other communities throughout the state.

**ENSENADA:** Ensenada has several community development needs that are impacting both its urban residents (predominately in the city center of Ensenada and surrounding suburbs) and its rural areas with a high concentration of both native and migrant indigenous communities. A common issue for urban and rural communities is taxation. The federal and state governments collect taxes on wages for social security, housing, and daycare, among other things, but, according to one community leader, a mere portion of the taxes collected are returned to the communities of San Quintín and Valle de Guadalupe. The Valle de Guadalupe produces 90% of Mexico's wine and at least 12 million cases of

20) Playas de Rosarito based Sharp Electronics, is the only maquiladora in town that provides daycare with the support of IMSS. The other 6 maquiladoras in Playas de Rosarito have yet to provide their own day care services. Those that are available are expensive for workers as the average cost is \$300 pesos/day for workers earning only \$600 pesos/day.

21) According to one civic leader, campesinos in San Quintin are sending on average US\$5,000,000 weekly back to their communities so not much is left for

investment or community building in San Quintin.

22) Workers who migrate from other states to Baja California are promised working conditions that are never met, but are dependent on these "leaders" to provide them with jobs, or more fields or crops to work with and thus continue to be exploited. (Fernandez 2002). For more information on CLCs, see Bennett (2002b).

brandy. Both are heavily taxed, but again, the local communities do not see the tax revenues returned to their communities. As noted in earlier sections, this is a concern shared among other Baja California communities as well. Among the challenges most frequently cited among community leaders for Ensenada's urban areas was the lack of public places or recreational areas for its children.

In the rural areas of Ensenada County, particularly San Quintín, a common concern expressed by several community leaders was the impact that migrant workers were having on their community as most send the majority of the money that they earn back to their communities of origin in the interior of Mexico, leaving little to spend in the local economy.<sup>21</sup> Their "leaders" also take a large portion of their wages as a fee for providing them with transportation and jobs.<sup>22</sup> Thus the majority of workers are not maintaining a decent quality of life.

Similarly, Ensenada confronts challenges with its native indigenous communities that are land rich but nevertheless remain poor. Education and decent jobs remain the largest obstacles to insuring a better standard of living for the people in these communities. In the case of the native indigenous community of San José de la Zorra, it is reported that children as young as the age of 8 can be found drinking beer. There are unique indigenous community issues in Peña Blanca/San José de la Zorra. Their key concerns include:

- Lack of basic infrastructure: when there is flooding residents must go into town on horseback.
- Elderly care is not very accessible for indigenous communities
- Access to Kuchumá, the sacred mountain for the native indigenous communities, is off limits as it is on private land.
- Micro-enterprise or productive employment projects are needed.

- Land tenure issues have been unresolved for over twenty years. Indigenous communities lost land to Ejido Cerro Azul and other ejidos in 1979. Indigenous tribes that once had 1,800 hectares now have only 2 hectares. This land also has potential conservation value.

As in other communities, there was an expressed need for promoting micro-enterprise development as well as promoting business education/entrepreneurial training for the community's youth. Here several business people in Ensenada called for an institution that will help create future business leaders.

In Ensenada, special attention needs to be given to programs for women in the areas of education, capacity building, health, psychological counseling, support to women farm workers as well as support to indigenous women to help them integrate into society.

**TECATE:** Among the strongest complaints among Tecate civic leaders was that absence of places for children/youth to go. According to residents there are few cultural or sports outlets for young people. It was noted that this need is greatest among street kids and children living in marginalized communities including isolated communities like the Rumorosa. The irony, of course, is that Tecate is blessed with thousands of hectares of open space and foothills yet residents are not fully taking advantage of their immediate surroundings, in part due to an absence of environmental education initiatives in the community and transportation options for under-served children.

Another key problem cited in Tecate was under-age drinking. According to one local resident, the problem is attributed to the fact that Tecate is a "beer town" and under aged drinking is socially acceptable and even considered macho. Also cigarettes and teenage pregnancy are serious problems in Tecate. Accordingly, health and sex education was deemed a priority.

**MEXICALI:** Community leaders identified five key community problems. They are: lack of infrastructure at secondary and higher level schools, especially in marginalized communities; the problem of public security (i.e., prevalence of violence both at home and on the streets); lack of awareness about community needs; drug addiction; and family disintegration.

Related to public security, community leaders pointed out that, even though it is illegal, women and children are often deported from the U.S. after midnight, which poses security risks to this vulnerable population, many of which are left without means of transportation or a place to sleep. On the issue of drug abuse, community leaders expressed their frustration at the fact that although Baja California has over 90 drug treatment facilities, these have not been effective at reducing or controlling the problem. Further, residents expressed concern over the growing number of single mothers without family support. Most of these women leave homes early in the morning, work for ten hours, and take a long commute home that often involves walking in the dark. This leaves children at home unsupervised. The lack of public places for the youth (and the elderly) to go to contributes further to this problem of lack of supervision of children.

Other problems that community leaders discussed included the increasing number of elderly who live without family support; migrant-related problems such as immigrants without identification papers, who cannot get a job, or immigrants who do not know about public services and require extensive assistance in obtaining access to public services; street children in the colonias; and lack of educational infrastructure for adult education.

**SAN QUINTIN:** With some 35,000 migrant workers and their families making up the community's "floating" population, San Quintín is unable to properly address the wide range of community development needs during the harvest months and

yet there are a wide range of problems including alcoholism, drug abuse, child neglect and family violence. Also crime is rising as the community continues to expand. In spite of the fact that San Quintín is an important agricultural region, civic leaders voiced concern that there are very few, if any, public parks or green spaces for families to enjoy for recreation.

**BAHIA DE LOS ANGELES:** Bahía de Los Angeles evidences a complete absence of urban planning and community pride. The streets and empty lots show a large amount of junked cars and diverse trash. The extreme weather conditions and water shortage make it impossible to maintain gardens or green areas. Overall, the town looks dusty, dry and dirty. The municipal government currently invests no resources in urban issues, keeping the town unattractive for tourism and frustrating the locals. Alcoholism and drug abuse aggravated by the fact that the region is a hot spot for narcotic traffic threatens adults and youths, while the traditional individualism of fishermen (fishing is the most important economic activity of the region) prevents a community spirit from developing.

Considering this situation, Bahía de Los Angeles has an urgent need for social programs focused on the promotion of community values, sports, local pride and urbanization. **Pronatura Noroeste - Mar de Cortés**, an environmental civic organization, has proposed the creation of a community resources center, to host these kind of social programs together with the promotion of sustainable use of the local marine resources.

## Philanthropic Opportunities

### Giving

- Support the creation of community learning centers (CLCs) in marginalized communities.<sup>24</sup> CLCs are equipped with computers with internet connection and various educational software on topics ranging from good parenting to obtaining

immigration papers to self-improvement, and a full-time facilitator who trains and monitors the computer users. Organizations as diverse as Chase Bank, Teléfonos de México, and Mexico's Secretariat of Social Development have sponsored CLCs, and the municipal government of Tijuana plans to build six, but more centers in Tijuana as well as in other communities will benefit Baja California residents.

- Invest in community development programs and rehabilitation projects in colonias populares.
- Invest in health and education programs for the indigenous communities. CUNA has already established these programs, but more funding is needed to meet the pressing needs, especially for technical training in the areas of health, education, environmental management, tourism, and business administration.
- Help start and invest in youth programs in squatter settlements, colonias populares and migrant workers' camps.
- Invest in leadership development of local nonprofit leaders and the organizational capacity of nonprofits, especially toward community building and promotion of civil society.
- Capacity-building for NGOs, especially in the area of fund-raising and management.
- Drug abuse prevention campaign.
- Reunification programs tied to productive employment and micro-enterprise programs in sender communities of origin, to curb the tide of migration to the border region.
- Innovative solutions to land tenure issues in squatter settlements.
- Support children/youth outreach initiatives for children currently living in Baja California's prisons with their inmate parents.
- Create a prisoner re-entry program/half-way house in Tijuana for former inmates from both U.S. and Mexico correctional institutions with a focus on

life skills, vocational training, transitional employment, temporary housing and assistance to get these individuals integrated back in their communities of origin wherever that might be (e.g. Jalisco, Oaxaca, etc.).

- Create a new non-profit modeled after the National Parks Foundation in the United States to provide additional staffing support and funding to Baja California's national parks.

### **Volunteerism**

- Expand the successful promotora model to one focusing on men, to address the wide range of issues that are currently inadequately addressed (with a male point of view) including domestic violence and safe sex.
- Involvement with neighborhood groups in maintenance of public spaces and services.
- Clean-up campaigns: one-way of building the sense of community is to develop civic pride. A clean-up campaign, modeled after "I Love A Clean San Diego," can be launched in Tijuana, Playas de Rosarito, and Ensenada. Similar campaign for inland municipalities and communities can be designed with community leaders' input.
- Involvement of parents in education.
- Mobilize volunteers, especially the retirees with ample work and life experience for educational and recreational programs.
- Educational programs against substance abuse.

### **Binational Partnerships**

- Establishment of a youth oriented outdoors program similar to the Boy Scouts or YMCA and YWCA for street kids as well as disadvantaged children from marginalized communities from throughout the state.
- Binational campaign against substance abuse, especially against under-age drinking.



*View of maquiladora facility in Playas de Tijuana. Photo Credit: ICF*



# Economic Development

While there are a wide-range of societal needs throughout the state of Baja California, these cannot be adequately addressed without the creation of new and better jobs and economic development for the region. Nevertheless, economic development and job creation priorities need to be balanced with issues such as the environment and building sustainable communities. The choice of economic development strategy for the region is important not only in its own right but also because the choices made impact all other areas this assessment is concerned with.

The border region has grown in population, in the number of jobs, and in the level of economic integration of the local twin-cities. However, the economic growth in the region has been largely dependent on creation of lower-paid, low-skill jobs which have attracted migrants from Mexico's southern states, and this economic growth has also brought some negative social and environmental consequences.

In Baja California, like other border states, maquiladoras have played a distinctive role in its economic growth. Most of the new jobs created in the border states of Mexico during the 1990s, and particularly since NAFTA, have been in the maquiladora industry. The average annual growth rate of maquiladora employment in the 1990s was 11%.<sup>1</sup> While the maquiladora industry has provided an increasing number of jobs in the border states, real wages have not risen, and in fact, have declined somewhat during the 1990s. In other words, maquila-dependent growth has not improved the standard of living in the region. The growth's impact on the environment (for example, air pollution and water

shortage) and on the society (for example, the rapid urbanization) has had a negative impact on the standard of living. The capacity of local governments to serve their citizens has also declined in the face of rapid population growth.

Why has the impressive economic growth not brought an equally impressive economic development to Baja California? The answer has much to do with the main economic activities the state has been engaged in during the 20<sup>th</sup> century: manufacturing, natural resources exploitation, and agriculture.<sup>2</sup> The state's manufacturing sector has grown largely due to the expansion of assembly plants and other light industries which rely primarily on unskilled labor. While the wage rates for unskilled workers within Baja California's maquiladora sector are no doubt much higher than alternative forms of employment in the state or elsewhere in Mexico, most workers struggle to make ends meet.

Exporting natural resources without a long-term development strategy has also caused the depletion of marine species such as abalone, and other extraction activities that have had or will have negative consequences to the region. For example, currently there is much concern over the massive exports of riverbed sand to California, as this could drastically diminish underground water replenishment during the rain season. Agriculture has depleted the underground water resources to the point that most coastal communities on the Pacific side have solid contents of around 800ppm in the well water. In short, these three primary economic activities in Baja California during the 20<sup>th</sup> century did not create a sustainable basis of economic growth, and are losing relevance in the global economy, which is based increasingly on knowledge and high technology.

In the coming years, Baja California 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. While this

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1) Gerber (2001).

2) The following paragraph draws extensively on Fernandez (2002).

is so, the region has several key competitive advantages, one of which is its location.

Strategically located next to California and within 100 miles of Southern California and the Port of Long Beach/Los Angeles, Baja California's principal economic sectors --Manufacturing, Tourism, Agriculture, and Services-- have, over the years, depended greatly on trade and cross-border commerce with neighboring Southern California. In fact, Baja California's close proximity to California and its dollarized economy was one of the key reasons why the state was largely immune to the economic problems facing Mexico during the economic crisis of the mid 1990's.

Although Baja California has the distinctive advantage of proximity to California, this does not guarantee that maquiladoras will stay in the region. Mexico faces competition with other nations with even lower labor costs, such as China, Thailand, and Guatemala, for the low-wage jobs that maquiladoras offer. The average hourly wage in Tijuana is \$3.52, compared to China's \$0.80. While Mexico and China started the 1990s with about the same amount of Foreign Direct Investment (FDI), in 2000 Mexico attracted only about one-third of FDI that China amassed that year (\$13.7 billion versus \$40.8 billion).<sup>3</sup> Some companies have already moved to other countries, leaving the entry-level workers in Baja California unemployed. According to a survey of the Japanese Maquiladora Association in Tijuana, of 71 member companies, 40% will reduce, eliminate or move their production away during the course of 2002.<sup>4</sup> Already, two large companies, Casio and Canon, have moved out of Baja California.

New programs need to be developed to re-train this lower skilled work force in Baja California to compete for the jobs of tomorrow. However, the communities are barely beginning to search for such programs. Long-term programs have not been the priority of elected officials who prefer three to six year programs that would have demonstrative results in time for

next election. As long as Baja California has the steady inflow of migrant labor willing to work for an even lower wage, maquiladoras might stay, but their contribution to the region's sustainable economic development is questionable. As such, Baja California's communities would benefit greatly from a critical assessment of the economic policy to diversify its economy and to achieve economic development that would provide long term benefit to all of its residents long term.

According to the State of Baja California, over 55% of the state's 2.8 million people are actively employed with the manufacturing sector, accounting for 28.7% of total jobs in the state. Commerce accounts for 16.07% and services (excluding Government) accounts for 8.46% of total jobs. Of those employed, 4 out of every 10 workers are women, with most employed in either the maquiladora or agriculture.

## Manufacturing

Much of the above mentioned growth has, until very recently, been fueled by the maquiladora industry, attracting U.S. and foreign multinational companies to establish assembly and manufacturing operations in communities throughout the state. All told there were 1,281 maquiladora plants in operation in Baja California employing 249,000 people effective September 2001. This represents 36% of all maquiladoras operating in Mexico and nearly 22% of the jobs.<sup>5</sup> However, Baja California has lost many of these jobs since 2001 as maquiladoras shift to other regions and countries.

Of Baja California's maquiladora operations, well over 63% of these facilities (801 plants) are located in Tijuana alone with 16% in Mexicali (206 plants) and 11% in Tecate (151 plants). The remainder of the maquiladoras or 8.6% is located in Ensenada (110 plants).

Baja California has attracted numerous large multinational companies with over 1,000 employees (in particular several Japanese and Korean

3) UNCTAD, World Investment Report 2001 online.

4) Fernandez (2002).

5) State of Baja California, Department of Economic Development, 2002

manufacturers such as Sony, Sanyo, Matsushita, Kyocera, Canon, Casio and Samsung and Lucky Goldstar), but the majority of the state's maquiladoras are small (with 50 employees or less) operated by U.S. companies located primarily in Southern California.

While the maquiladora sector had historically remained a mainstay of Baja California's economy, this sector is now under tremendous pressure due to a variety of factors including the recession in the United States, an over-valued peso, post 9/11 border delays, the state's relatively high cost of living, a rising crime rate and growing competition from lower cost manufacturing centers, such as China, Malaysia, Thailand, Ecuador, Guatemala and Honduras.<sup>6</sup> Since 2001, 88 such maquiladora operations have closed up shop in Baja California, with the majority of those being in Tijuana.<sup>7</sup> All told, about 63,000 jobs at the state's foreign-owned factories were eliminated between January 2001 and April 2002, according to government statistics. This represents a 44 percent drop, compared with a 6.4 percent employment contraction nationwide.<sup>8</sup>

Though the decline in Baja California's maquiladora sector is unquestionable, in recent months there have been several announcements of new facilities deciding to locate in the region, principally the Taiwanese based company Merry Yard Enterprises<sup>9</sup> and the Japanese auto manufacturer, Toyota.<sup>10</sup> The automobile sector is generally seen as providing higher skilled, higher value added jobs to a region. Toyota's new plant, thus, presents a new economic opportunity for Baja California that has in the past attracted consumer electronics manufacturers that are more vulnerable to global competition. In the area of philanthropy, Ciudad Juárez and Hermosillo have demonstrated a higher level of corporate giving/philanthropy among the larger auto makers (e.g.: GM, Chrysler, Ford). It is not clear how Toyota's presence might affect the level of corporate philanthropy in Baja California, but a positive sign is that the company's plants in the US have contributed

generously to the communities where they have a presence. Of course, much would depend on how Baja California would position itself to take advantage of this opportunity. For example, many Ensenada residents are opposed to the plan to build a railroad from Tecate to the port of Ensenada, due to its potential negative impact on tourism. The plan was announced by the Governor after reaching a confidential agreement with Toyota. This plan runs the risk of generating bitter conflicts if the local communities are left out of discussions, but if decisions are made with input from local communities, the planned railroad might instead create unique opportunities for collaboration between the state government, the private sector, and the local communities for the benefit of all here. It is crucial that the state officials and civic leaders together formulate a long-term development strategy that takes into account the various needs and interests of different communities within the state, that does not change for one election cycle to the next.

### **Other Industries:**

**F**ilm/Other Services: The move of Fox Studios to Rosarito in the mid-1990's has contributed to the economic development in Baja California due to the film related employment, tourism and increased exposure that it has brought to the state.

Biotechnology is another potential area of economic development for Baja California. Given Ensenada's high number of scientific researchers per capita, its agriculture, fisheries and wine industries, decent quality of life, and lower cost of living (relative to San Diego), Ensenada could become a magnet for R&D related investment by the biotech community in the United States although such investment to date has been limited to aquaculture. This coastal community would benefit from a serious evaluation of this opportunity and, if proved viable, should move ahead as a community, collaborating with government, especially in education, starting with English and biology labs at the grade school level.

6) MAQUILADORA FREE FALL: U.S. downturn, strong peso bring worst year ever to plants in Baja The San Diego Union - Tribune; San Diego, Calif.; Mar 27, 2002; Diane Lindquist;

7) Some of the larger maquiladora operations deciding to leave Baja California have included the Japanese consumer electronics companies, Casio, Cannon and ALPS; the French battery manufacturer, Saft; Korean based television and circuit board manufacturer, Kisho Electronics, which is

re-locating to the Philippines; and Poway, Ca based golf club manufacturer, Aldila, which is moving to China.

8) Ibid.

9) "Fox is all business | Mexican leader in Tijuana hears of maquiladora issues." The San Diego Union - Tribune; San Diego, Calif.; Apr 16, 2002; Diane Lindquist.

10) "Toyota will build factory in Tijuana | Plant to assemble Tacoma truck

## Tourism:

Since September 11<sup>th</sup> Baja California has also experienced a drop in the level of tourism. Tourism constitutes 7 percent of Baja California's revenue. In a normal year, more than 20 million visitors -- including tourists who come mainly from Southern California -- spend \$800 million in the state.<sup>11</sup> Since 9/11 Baja California has seen a more than 7 percent drop in overnight visitors from the previous year. Hotel occupancy fell 4.3 percent.<sup>12</sup> This downturn might not continue for long, however. Currently, the Mexican Congress is considering the approval of a new gaming law, and many developers are looking at casinos as the new gold rush for Baja California.<sup>13</sup>

According to Herzog (1999), the tourism industry is gradually changing from one controlled by small-scale local entrepreneurs to one in the hands of global multinationals (such as real estate companies, hotel chains, developers, cruise ships, and restaurants). In the 1990s, a number of large resorts were built in the beach communities of Playas de Rosarito and Ensenada, although not by hotel chains. There are, however, still many locations within Baja California whose tourism potential has not been fully realized.<sup>14</sup>

The Valle de Guadalupe, for example, with its nine wineries, community museum, and Misión Guadalupe, presents enormous potential as a draw for tourism. Vallecitos, in the municipality of Tecate, is known for its pictographs. To realize the full potential for tourism, more must be done to invest in these communities within the state. For example, local taxes and non-tariff barriers against Mexican wines burden the region's wineries.



*Olive stand, Punta Banta, BC  
Photo Credit: ICF*

While tourism brings a significant percentage of Baja California's income and state revenue, this sector faces several serious social issues, such as unsustainable tourism (for example, the regional automobile races of Baja 1000 and Baja 500, and commercial and residential dumping of garbage along the beaches).<sup>15</sup> Most of Baja California consists of ecologically sensitive areas and any development should address the issues of sustainability, use of local resources such as water, and pollution. The Peninsula, after all, is like the Galapagos Islands, with endemic species and unique habitats, and this fact should be

seen as an opportunity to develop unique eco-tourism destinations with a focus on conservation ethics. Another challenge is how to attract higher spending tourists, rather than teenagers and college students from the US who come mainly for drinking and who often behave irresponsibly under the influence.

Towards this end, Ensenada, through *Visión Ensenada 2025*, recently raised \$250,000 to contract a San Diego consulting firm to develop a long-term strategic tourism plan for Ensenada. By the end of 2002, the

community hopes to have a better idea of the projects and initiatives that will be necessary in order to become a true tourist destination in the region.

## Agriculture

While its importance to the regional economy has declined over the years, agriculture, livestock and fishing still represent approximately 4.2% of the state's gross regional product as compared to 2.5% nationally.<sup>16</sup> Also 8% of Baja California's workers over the age of 12 are employed in this sector.

Agriculture takes up 7.3 % of the state's total territory with most of this activity concentrated in and around the Mexicali Valley, which includes the community

beds." The San Diego Union - Tribune; San Diego, Calif.; Jan 4, 2002; Diane Lindquist;

11) "Baja' Californias tourism chief predicts full recovery, sees need for changes." The San Diego Union - Tribune; San Diego, Calif.; Jan 8, 2002; Diane Lindquist.

12) Ibid

13) Fernandez (2002).

14) For example, San Quintin: see <http://awrem.com/11305.html> for an example of how property owners are marketing their properties.

15) Herzog (1999).

16) Banco de Mexico, INEGI, 1997

17) Sources: Department of Public Education (SEP), Baja California, *Monografía Estatal, México, 1997*. (Baja California, State Monograph, Mexico, 1997).

of San Luis Río Colorado, Sonora. Key crops grown include: wheat, tomato, broccoli, grapes, olives, cotton, alfalfa, barley, dates, sorghum, and citrus fruit. Other products are exported to North America, Europe and Asia; they include chives, radishes, asparagus, melons, celery, lettuce, onions and watermelon<sup>17</sup>. In addition, there is a large agri-food sector that includes seed separation, wheat milling, vegetable packing and the wine industry located in the Valle de Guadalupe near Ensenada.

## Fisheries

Baja California is one of the Mexican states where fishing activities have one of the greatest natural advantages. Its coastline accounts for 12% of the national total, and offers a large (albeit much reduced compared to the past) amount of fish, mollusks and crustaceans such as *cabrilla*, sole, *vaqueta*, tuna fish, sardine, mackerel, *sargazo*, lobster, sea urchin and shark, among others.

Today, however, the fishing sector is on the verge of bankruptcy.<sup>18</sup> The large tuna boats have left Ensenada for Mazatlán and the smaller, old and obsolete fleet is trying to compete with the heavily subsidized operations of Europe and the U.S. The Mexican federal government has failed to promote the most sustainable fisheries-- oysters and mussels. Hundreds, possibly thousands of pangas (open-air fishing boats; the government does not know how many) fish close to the coast, often without permit or registration, sell on the black market, and continue to deplete the ocean, in violation of seasonal bans or size regulations. Sadly fishing for sharks and shark fins, for consumption in Asia, is now popular among the fishing community in Ensenada but, here too, this fishery is not sustainable.

## Needs by Community

**TIJUANA:** Tijuana's economy is largely dependent on maquiladoras, with about one-third of workforce employed in maquiladoras and another one-third

with jobs indirectly generated by maquiladoras.<sup>19</sup> This dependence makes Tijuana particularly vulnerable to downturns in the maquiladora industry, as currently observed. Tijuana's economy must become more diversified in order to enjoy sustained growth and development. Tijuana's community leaders stressed the need for more job opportunities and need for more vocational training. They emphasized the importance of training and paid internships for the youth in particular. It was suggested that Tijuana should promote itself more actively to attract both domestic and foreign investment.

Tourism is another area where more attention is needed for Tijuana's economic development. In *Tijuana Trabaja's* dialogues with community leaders, it was pointed out that tourism was once a major economic sector in the city, but no longer has a strong economic impact because quality tourist services have declined. For tourism, too, the city's positive image needs to be promoted more actively, and more investment is needed to attract tourists. Green areas and public plazas, museums, cultural exhibits, a stadium or a sports arena, and upscale hotels are some examples of projects to attract more tourists that can benefit greatly from more investment.<sup>20</sup> In the dialogues, construction of a convention center was also proposed as one way to strengthen Tijuana's economy, taking advantage of its proximity to San Diego.

**MEXICALI:** Community leaders pointed out the following priority concerns: the need for the public sector to promote efficient use of resources, such as water and energy, with educational programs on the use and conservation of these resources; the lack of civic participation in the supervision of use of public resources; the different needs of rural residents versus urban residents in terms of economic development; urban growth without negative impact on agricultural areas; the need to raise per capita income; development of human capital and need for a culture of productivity in both companies and in individuals;

18) This and the following information of this paragraph is from Fernandez (2002).

19) Navarro (2002), 9.

20) Navarro (2002), 12.

a need for a culture of community participation; lack of funding for implementing sustainable economic projects; and the need for a model to measure sustainable economic development.

**Bahía de Los Angeles:** The town has a high potential for developing low-impact sustainable tourism activities, based on the appreciation of its extraordinary landscape and wildlife. New opportunities for development of this kind of tourism activities will reduce the pressure on the already heavily impacted fishing resources, providing better income for the local population. At the same time, great care must be paid to the impact of bringing additional tourists to this ecologically sensitive region as this will lead to a greater demand for water, electricity, sewer and waste disposal capabilities and lead to other dangers including the prospect of unplanned development.

In all cases, tourism and fishing should be developed within the proposed marine national park framework, as a way of balancing sustainable use with conservation efforts. To do so, technical training (as briefly described in the Education section) and promotion of sustainable business are required. Feasibility studies to detect opportunities for sustainable business would help to find new directions for local economic development and reduce the pressure on fishing resources as well.

### Philanthropic Opportunities

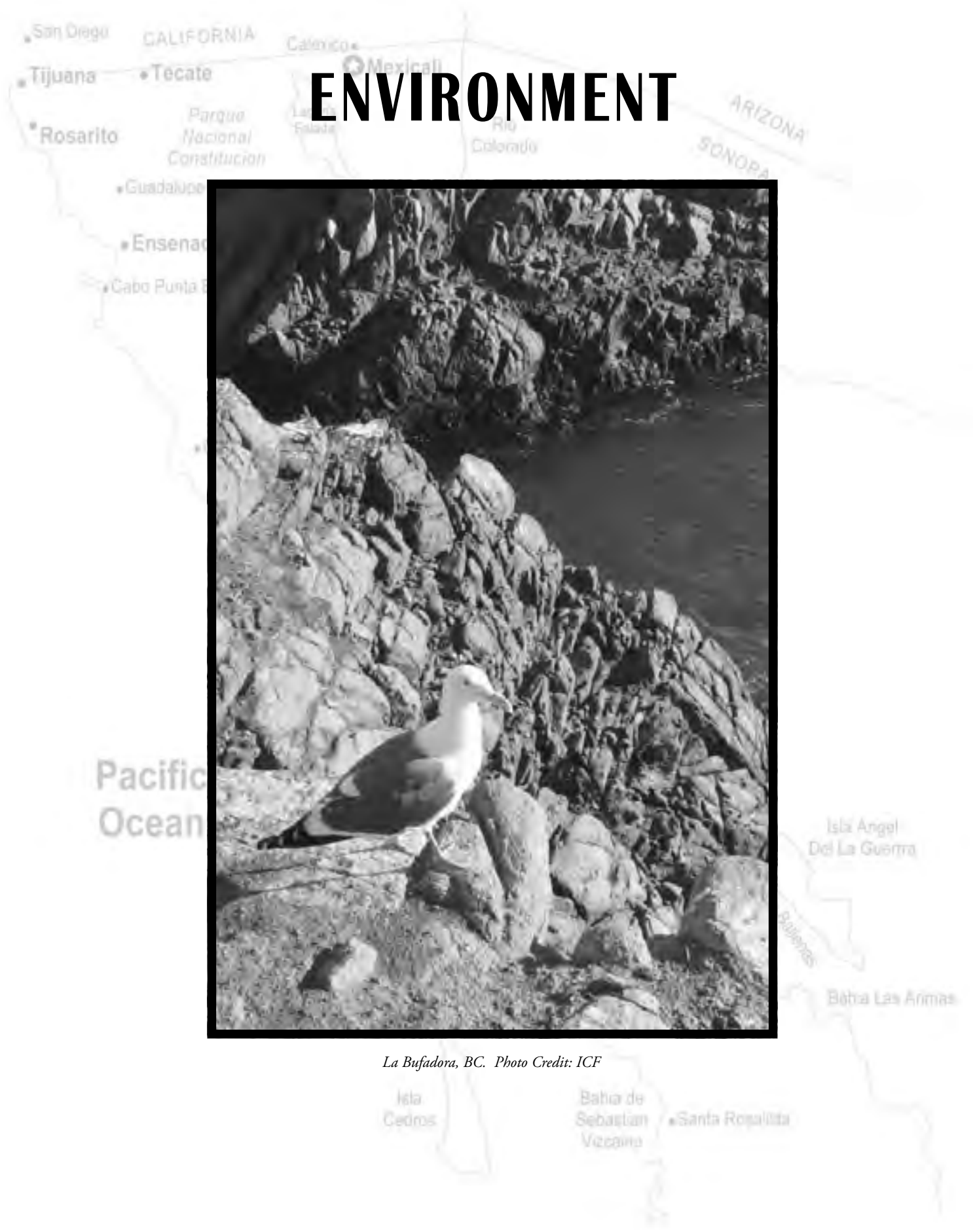
Though one would logically assume that most economic development initiatives could be reasonably funded through the private sector or government, there is a compelling need for philanthropists to become more involved in helping to shape Baja California's strategic vision for its economic future. It is imperative that the communities have well established development plans. Key opportunities include support for local chambers of commerce and strategic planning organizations (Tijuana Trabaja, Ensenada 2025,

CDEM, etc.) to undertake long range planning studies aimed at accessing the region's economic competitiveness as well as identifying emerging economic development opportunities. There is also a need for improved economic statistics at the local/regional level to better access the state's economic competitiveness. Similarly, funding needs to be sought for studies to better assess the potential impacts (positive and negative) of the proposed Escalera Náutica project and assess the potential of eco-tourism in the Tecate area, Sierra Juárez, and Bahía de Los Angeles, and in general coordinating joint transborder opportunities from tourism. There are also funding opportunities to incentivize "sustainable fishing" ventures with indigenous communities. For example, the Cucapá tribe has "grandfathered" rights to fish in the protected biosphere reserve of the Upper Gulf of California. Without positive incentives to engage in sustainable fishing, the efforts to maintain the biosphere reserve (for example, UABC - Ensenada's campus ongoing program to bring back totoabas) are unlikely to succeed in the long term. Opportunities also exist to support micro-credit finance programs, particularly among those workers that lost their jobs in the maquiladora sector. Additionally, one of the greatest contributions donors can make to stimulating economic development in Baja California is by investing in education and improving the potential of tomorrow's workforce.

# ENVIRONMENT



*La Bufadora, BC. Photo Credit: ICF*



# Environment

The border region's most acute environmental challenge is water management. Rapid population growth, as well as contamination of rivers and groundwater, implies that the region will not have enough drinking water for its residents in the near future unless innovative measures are taken to reduce demand and to reclaim or acquire alternative sources of drinking water. Another environmental problem of growing importance to the border area is air pollution, caused by both point (fixed) sources such as factories and power plants, and by non-point sources such as cars and trucks. Related to this issue is energy use and conservation. A third important issue is management of land, as urban sprawl threatens to expand into areas rich in biodiversity. Waste management on land also poses a health and environmental challenge to the region.

## Key Findings

### Water

At current growth and consumption rates, the water supply for many border communities is expected to be exhausted in 20 to 30 years (Spalding 2000). In Tijuana, the situation is more urgent, as it is projected that demand will overtake supply by 2004 if no new infrastructure is built to supply more water.<sup>1</sup> Tijuana currently imports up to 95% of water it needs. Tijuana's main reservoir, Rodriguez Dam, was reported to be at 15% capacity due to low precipitation in the spring of 2002, and together with a second reservoir between Tijuana and Tecate, there was water enough only to support the city for six months.<sup>2</sup> As demand for water continues to grow on both sides of the border, the level of dependence on imported water, as well as risk of acute water shortage, will continue to rise.

While efforts have been made to improve the aqueducts, storage system, and reclamation capacity, contamination of water sources and inadequate wastewater treatment facilities pose continuing challenge to maintain the water quality. Runoff from urban areas, as well as from agricultural areas, and illegal but extensive dumping of heavy metals and toxic chemicals in water further exacerbates the problem of water quality.

Water shortage and related water problems have been given great attention in the border cities of San Diego and Tijuana, but the region of San Quintín, in the municipality of Ensenada, also faces the problem of water shortage. The salinity of water downstream, and especially the areas near the mouth of the Colorado River, poses another challenge.

In the face of explosive population growth, the border region is in large part lacking infrastructure to provide drinking water and sewage systems to all of its population. Tijuana has the largest population that does not have access to potable water and a sewage system. In 1995, only 55% of Tijuana's residents (which at the time included those who lived in Playas de Rosarito) were connected to the sewage system.<sup>3</sup> In Ensenada and Tecate, the coverage reached only three-quarters of their residents (72% and 75%, respectively). The situation in Mexicali was slightly better, with coverage reaching 89% of its residents. In the same year, over 90% of Baja California's residents had access to potable water, but this still left about 175,000 people without access to the service. Since 1995, Tijuana's water supply has been expanded, and as of 2001, the CESPT (Comisión Estatal de Servicios Públicos de Tijuana) reports that 95.97% of the population now has access to potable water.

Those who lack access to potable water satisfy their need for drinking water by purchasing water from tankers. Sometimes, however, the water from the tankers does not meet sanitary standards for drinking water, causing health problems to those who drink it.

1) "Mexico looks to U.S. in water emergency" by Sandra Dibble. *San Diego Union Tribune* April 23, 2002.

2) Ibid.

3) This and following figures are from Guzman and Silvan (2001).

The lack of access to sewage system also poses health concerns, for many of those who do not have the access simply dig holes, or construct a drainage that ends in the open, as it is not connected to the sewage system. Thus untreated sewage seeps into the soil and water, causing pollution and threat to public health.

The wastewater issues have been a source of tension between San Diego and Tijuana. In addition to a high percentage of households without access to sewage system, not all of the waste water collected by the system is treated, since the amount of waste water far exceeds the capacity of Tijuana's waste water treatment plant. As much as 40% of water consumed in Tijuana is believed to be discharged untreated. The Tijuana River carries wastewater, some of it untreated, from Tecate and Tijuana to its mouth, located on the U.S. side, into the Tijuana Estuary, the only estuary that is functioning in Southern California. The ecological balance, as well as public health at the area's beaches, is threatened by water contamination.

The state water utility of Tijuana (CESPT) has a 20-year master plan to maintain and increase water and wastewater service coverage in the city, and it recently signed a loan agreement with the North American Development Bank (NADBANK). With the loan, the CESPT will expand its capacity to treat wastewater and improve the quality of treated water. When the project is completed, 92% of sewage will be collected in the Tijuana sewer system. While this project will contribute to water conservation as well as to the improvement of water quality in the Tijuana River (and subsequently the Pacific Ocean), it should be remembered that there is still a large segment of the population that is not connected to the sewage system in Tijuana it is critical that the sewage system be expanded to include this population promptly to curtail further water pollution.

A similar binational dispute over river pollution exists in Mexicali, over the Río Nuevo or New River that flows into the Salton Sea, the largest body of inland water in California and one of the most

important stops in North America for migratory birds.

It is hard to pin down the responsibility for contamination in the New River, as some contend that it is the U.S. industries, rather than Mexican ones, that pollute the water. Agricultural drainage, rich in nutrients, also contributes to algae blooms, which is one cause for fish dieing-off (as algae remove oxygen from the near shore area).

As the population continues to grow on both sides of the border, ensuring adequate water supply and quality poses a serious challenge to the region's policymakers. To meet the challenge, water recharge areas have to be identified on both sides of the border to avoid their elimination and potential aquifer contamination resulting from urban development. All the main rivers should be rehabilitated with an eco-hydrological approach.

## **Air**

Many border residents are currently exposed to health-threatening levels of air pollution (Ganster et.al. 2000). Air quality standards for ozone, carbon monoxide, particulate matter, and nitrogen dioxide are often exceeded in border cities. Of these, air pollution by particulate matter is most widespread in the region: except for San Diego, all the border cities where air quality is monitored are believed to suffer from air pollution problems related to particulate matter. In the border cities of California and Baja California, i.e., Imperial County, San Diego County, and Tijuana and Mexicali, ozone concentration exceeded the standards at least one day during 1998. Of these four cities, Mexicali has the highest incidence of pollutants exceeding standards for all the above-mentioned pollutants. Currently there is governmental monitoring of air quality for three of the municipalities in Mexico (Tijuana, Playas de Rosarito, and Mexicali).

One of the major causes of air pollution from particular matter is dust. Much of the dust is

generated from unpaved roads and squatter housing developments, where soil erosion is common as residents make unregulated cuts and fills in soil which, with rain, becomes muddy and subsequently becomes dust.

In Tijuana and Mexicali, many of the industries are in sectors that are characterized by heavy use of solvents. Solvents emit volatile organic compounds (VOC), pollutants of varied level of toxicity and flammability. Some of the VOCs are carcinogenic. However, whether solvents used in the plants located in these communities are carcinogenic is not known, given that in Mexico the VOCs are not monitored or regulated. The health effects of the VOC on the residents are also hard to measure, since the public health institutions do not have reliable statistical data health problems related to exposure to hazardous substances. Small enterprises, which occupy a large share of businesses in these cities, are completely exempt from registration and therefore from all types of emissions regulations.

The border crossings also generate pollution. At the San Diego-Tijuana border crossings, some 60,000 passenger vehicles and at least 1,600 heavy trucks cross the border each day.<sup>4</sup> The majority of trucks burn diesel, which is a major source of particulate matter less than 10 microns in diameter (PM-10) and nitrous oxides.

Another source of pollution is the power plant in Playas de Rosarito, which burns fuel oil with high sulfur content. U.S. EPA's data for 1999 shows that the standards for sulfur dioxide and PM-10 were surpassed in Playas de Rosarito for at least one day. There is also growing concern in Mexicali about the impact on air quality due to power plants that are planned in that community.

Aside from industrial and vehicular pollution, a considerable source of pollutants are the state's agricultural enterprises. These are concentrated in Mexicali, but a significant agricultural sector exists in the municipality of Ensenada as well. The use of pesticides and herbicides, as well as fertilizer, intensifies pollution in agricultural areas, contributing to the increase in PM-10. No data on Ensenada is available, but data from Mexicali shows that its air quality is worse than that of Tijuana.

Mexican air quality standards are in general somewhat lower than those used in California, except for lead and Nitrogen Dioxide. Using the Mexican standards, Tijuana exceeded standards for ozone (2 days) and PM-10 (3 days) in 1997. In 1998, the pollution exceeded standards for only one day for ozone, 3 days for PM-10, and 1 day for nitrogen dioxide. In Mexicali, by contrast, the pollutant level exceeded the standards for 27 days for ozone, 51 days for carbon monoxide, and 33 days for PM-10 in 1997.

**Table E-1 Comparison of Mexican and Californian Health-Based Ambient Air Quality Standards (average concentration level that should not be passed due to health concerns)**

	Ozone (O <sub>3</sub> )	Sulfur Dioxide (SO <sub>2</sub> )	Carbon Monoxide (CO)	Nitrogen Dioxide (NO <sub>2</sub> )	Particulate Matter (PM-10)	Lead (Pb)
California	0.09 ppm	0.04 ppm	9 ppm	0.25 ppm	50 µg/m <sup>3</sup>	1.5µg/m <sup>3</sup>
Mexico	0.11 ppm	0.33 ppm	11 ppm	0.21 ppm	150 µg/m <sup>3</sup>	1.5µg/m <sup>3</sup>

Source: Adopted from Border XXI Program Progress Report 1996-2000, Table 4-9, and California Air Resources Board website (<http://www.arb.ca.gov/aqs/aqs.htm>).

4) Ganster (1999), 43.

In 1998, the situation was no better: the standards were exceeded 30 days for ozone, 76 days for carbon monoxide, 30 days for PM-10, and 2 days for nitrogen dioxide. Mexicali's high levels of air pollution is also attributable to the dust kicked off of from its many dirt roads (45% of the municipality's roads are unpaved), and emissions from its fleet of 350,000 vehicles.<sup>5</sup>

## Energy Issues

The establishment of an increasing number of power plants along the Mexicali/Imperial Valley border concerns many residents of the border region, because of the potential environmental risk of air pollution and excessive water consumption.

Baja California, like California, imports much of its energy from other regions, with the exception of geothermal fields south of Mexicali.<sup>7</sup> As of the end of 2001, the geothermal and geothermal binary cycle plants generate about 33% of electric energy in Baja California.<sup>8</sup> About 29% of electric energy is generated from the thermoelectric power plant in Rosarito. The plant burns heavy oil and is, according to Sweedler (1999), "the largest fixed source of air pollution in the region."<sup>9</sup> The plant was recently expanded, however, and the extension uses gas and vapor for electricity generation. Border residents' environmental and health concerns about power plants have gained high resonance among high government officials. In fact the governors of all ten border states (Baja California, Sonora, Chihuahua, Coahuila, Nuevo León, Tamaulipas, Texas, New Mexico, Arizona, and California) have supported a joint declaration on June 22, 2002 that calls for the development of a joint environmental strategy for new border power plants.<sup>10</sup>

The electric power grid in Baja California is not connected to the main power system in Mexico. It is instead connected to San Diego near Tijuana and Mexicali. Baja California has a natural gas pipeline at Mexicali, which is connected to the U.S. side east of Calexico, California, and has been operated by a

private consortium led by Sempra Energy since 1997. Over time, as natural gas consumption in the state increases, it is hoped that a net reduction in air pollution will be experienced.

The high cost of energy is a shared problem for both Baja California and California. According to Quintero (2000), the natural gas price in Baja California rose 236% in year 2000. Mexicali also has high electricity rate during the summer, when the average temperature rises to over 90 degrees.<sup>11</sup> In addition, according to Sweedler (1999), Mexicali has energy-inefficient housing infrastructure and inefficient air-conditioning devices and, as a result, Mexicali has the highest per-capita residential energy use in Mexico. Although the CFE (Comisión Federal de Electricidad, the national electric utility) promotes energy-efficient appliances, the only financial incentive currently available is for the purchase of energy-efficient light bulbs.

Baja California's high-energy costs mean that energy conservation could result in significant savings for both residential and industrial. Still, at present, no serious efforts are being undertaken to promote such efforts.

While an increase in energy supply will no doubt contribute positively to Baja California's economy, and California's, Baja California's electricity demand is growing at about 7% per year, which means that demand will double in about a decade.<sup>12</sup> Although the CFE has successfully expanded generating capacity in Baja California from 1422MW in 1999 to 2163 MW by December 2001, it is estimated that the state will need another 2800 MW capacity by 2010.<sup>13</sup> The growth estimates have been made, however, without taking into consideration the possibility of energy conservation. Conservation measures can slow down this growth and ameliorate energy price hikes.

Another relatively unexplored area in energy policy is renewable energy. Like San Diego, Baja California relies heavily on fossil fuel sources that are transported

5) La Crónica (México), May 10, 2002. Quoted in Frontera Norte Sur, online news service.

6) Durazo (2002).

7) Quintero (2000) p.2.

8) Information obtained from CFE's website, <http://www.cfe.gob.mx>.

9) Quoted from Sweedler (1999), subsection titled "Electric Power in Baja California."

10) Durazo (2002).

11) This is the average temperature in July and August. In June and September the average temperature is around 85F.

12) Ruanova-Guinea and Larroque (2001), p.1.

13) Ibid., p.2.

from other regions, with the exception of the geothermal fields, as noted above. According to Sweedler (1999), other possible renewable sources of energy in Baja California includes micro-hydroelectric, biomass, wind, solar, and tidal. These renewable sources have remained unexploited largely due to the availability and relatively low costs of fossil fuel, as well as to the relatively high initial costs of renewable energy projects. The high capital costs are especially problematic for developing countries with lack of capital, and Mexico is no exception. For U.S.-based enterprises, however, Baja California can be an ideal place to experiment with new renewable energy-related technologies at lower costs than in California. Here, too, more binational cooperation could bear fruit for both sides of the border.

### Land Use and Biodiversity

The metropolitan area of Tijuana has been growing at a rate of more than 2.25 hectare per day. In Tijuana, there is only 2 square meters of green space per resident, when the recommended green space is at least 8 square meters per resident.

The growth of border cities has pushed the city limits towards the outskirts, where areas rich in biodiversity still remain such as in the case of Tecate. Some of these areas are protected areas or parks, but others do not have such designation. Even in the officially protected areas, lack of funding for administration and law enforcement of protective measures in the designated conservation areas pose significant challenges to maintaining the protected areas' natural habitat of protected areas. While many ecologically sensitive and vulnerable or at risk areas need to be

protected from urban development, some of these areas might be best managed by a development strategy that does not alter but adapt harmoniously to the natural environment.

Mexico is known as of the few "megadiversity countries"—a country which is home to at least one-tenth of the total number of species in the world. Mexico ranks first in terms of the number of reptile species, second in mammals, fourth in amphibians, eleventh in birds, and possibly fourth in angiosperms (plants that bloom).<sup>14</sup> Many of the more than two hundred species of plants and animals found in California that are listed or proposed to be listed as endangered, threatened, or rare by the U.S. federal or state governments are also found in Baja California.

Within Baja California, Bahía de Los Angeles, which belongs to the municipality of Ensenada, is known as one of the

most important "centers of biological activity" in the northwest of Mexico, and one of the most productive in the world.<sup>15</sup> Within the Bahía, there are 11 plants that are endemic to Baja California, and two that are endemic plants of the islands in the bay. There is also one endemic iguana species of the Grandes Islas Region. Five species of sea turtles that are listed in Mexico's endangered species list also inhabit the Bahía. Bahía de Los Angeles is also an oasis for birds that either visit the region for reproduction or make a stop there on their migration route. The Bahía and the canals of Ballenas and Salsipuedes have served as an important research area for scientists both from Mexico and abroad. The Bahía and its coastal waters form an integral part of ecosystem with the Grandes Islas region, which is a federally protected area. The



*View of Sea of Cortez from San Pedro Martir National Park.*

*Photo Credit: Cathy Lavin, Semptra Energy*

14) Guzmán and Silvan, op.cit., p.19.

15) Propuesta para la Creación del Parque Nacional "Bahía de los Angeles", Baja California" (2001). p.15. The following information about biodiversity is also taken from this proposal, pp.38-45.

16) The state's office of ecology has cancelled a race this year because its organizer failed to present the required environmental impact assessment. José María Castro Vidal, "Incumple con obligaciones promotora "Best in the Desert," Frontera September 12, 2002, section Deportes 3.

federal protection, however, only covers the islands themselves. It is therefore imperative that this region be managed with great care. Unfortunately, lack of planning and control of tourism and fishing, the region's two main economic activities, has caused some serious environmental damage. For example, the off-road vehicle races that are held in Baja California often raise concerns about their negative impact on the environment.<sup>16</sup> Currently several key environmental NGOs are working hard to ensure the preservation of this precious sanctuary (see the Philanthropic Opportunities section).

### Waste Management

Dumping of hazardous waste in Baja California has been extensive, and some of the dumps are located near heavily populated neighborhoods (Kopinak 2002). In 1999, 83,532 tons of hazardous waste (by Mexican standards) was sent from Mexico to the United States. From the United States, on the other hand, 254,537 tons of hazardous waste was sent to Mexico for recycling. Currently, the U.S. has a surplus of hazardous waste disposal capacity. In Mexico, unlike hazardous waste disposal facilities, the recycling facilities are not required to dispose of the hazardous material in a short time. Inadequate storage of hazardous waste by these recycling facilities can cause serious health consequences to residents in the neighborhood. It has been extremely difficult to compile data on hazardous waste in Baja California, although a major study on Tijuana is near completion (Kopinak 2002).

Municipal solid waste, or simply garbage, is another problem that is increasingly salient, due to the rapid population growth, spread of consumerist culture, and easy access to goods in the U.S. market on the border. According to Guzmán and Silvan (2001), the border region's per capita garbage production is double that of other regions in Mexico. Of the three largest municipalities in Baja California, Ensenada's residents produced the most waste per capita in 1997, followed closely by Tijuana, both producing more

than 1kg of waste per resident per day. In Mexicali, the figure was significantly lower, at 0.6kg per resident per day.

The garbage collection service has not been able to catch up with the increasing amount of garbage. In Tijuana, for example, 40% of the garbage collection vehicles need to be renovated, and the fleet needs to be expanded by 30% by 2004 just to maintain the current coverage.<sup>17</sup> In some areas, it is simply too hard for the collection vehicles to access the communities. The garbage left to the open air poses health threats, as it is carried into the air, or as it reaches drainages, clogging them, which sometimes cause flooding in the residential areas.

### Needs by Community

**TIJUANA:** Tijuana needs an extended coverage of sewage system, potable water, and more measures to conserve water. Residents' responses at our community meeting mirrors these needs, and they also pointed out the need for more paved roads, which, as pointed out above, would reduce the particulate matter in the air and thus air pollution.

The overwhelming majority of participants of our Encuentro Comunitarios emphasized the importance of environmental education. Other priorities include green space, resource conservation, keeping the city clean, conservation of the Tijuana River Basin, environmental disaster prevention and emergency response preparedness, and waste management.

**PLAYAS DE ROSARITO:** As Playas de Rosarito has grown, garbage disposal has become a major issue. The city needs a wastewater treatment facility, as the local economy depends on its beaches for tourism. Aside from the wastewater issue, maintaining the beaches clean is another challenge. The importance of clean beaches, as well as proper disposal of garbage, can be promoted through educational programs.

Related to the above point, placing trashcans was proposed as a way to keep the city clean. Here again,

17) Navarro (2002), 9.

there is a need for a public education campaign on keeping Rosarito tidy. As a way to finance the trash cans, it was proposed that the private sector sponsor them, as well as the educational programs.

As was referenced above, the thermoelectric power plant was mentioned as a major source of pollution, from the soot. Given the possible health impact of the plant, more research is needed to assess the degree of pollution caused by the plant and its impact on the local community, especially children who are vulnerable to respiratory diseases.

**ENSENADA:** Here, too, the need for a municipal land fill is a high priority for the region, as well as the need to optimize water use. Ensenada has one of the largest and most modern sewage treatment plants in Mexico, but all of the treated water is discharged into the ocean instead of directed for reuse. Also mentioned was the real opportunity to promote recycling.

Residents pointed out the lack of emergency planning and response for hazardous materials. Although officials in Ensenada participated in the 1997 training program, sponsored by the USEPA, for emergency response to chemical spills and related emergencies, there is no local emergency response group. Such groups exist only in Tijuana and Mexicali, according to EPA (2001). Residents believe that such a group should focus on prevention and equipment for clean up and response.

The key priorities for Ensenada, as its residents put them, are natural resources, environmental education, creation of green spaces and protected areas, and long-range planning for growth especially in the Valle de Guadalupe. The potential for ecotourism development, particularly at Punta Banda, was also recognized.

Ensenada as a municipality is responsible for environmental and development planning of Bahía de Los Angeles. In this sense, the proposed Escalera Náutica, which is a national plan to promote tourism through construction or renovation of marinas, has

created an opportunity as well as a challenge for the community to decide how it can balance conservation and development.

**TECATE:** Water issues dominated the discussion on Tecate's environmental needs. Aquifers are drying up: the residents used to have wells that were only 4 to 6 meters deep. Now they must dig to hundreds of feet. Water is increasingly contaminated: industry does not treat its wastewater (with the exception of Tecate Beer), and dumping is not closely monitored. Agricultural waste goes straight into the Tecate River. With seasonal flooding, a lot of waste flows into the city, causing problems of public health.

The indigenous population in Tecate has expressed particular interest in the water issues, as they are even more vulnerable to water shortage and problems associated with lack of wastewater treatment facilities than the urban residents.

Waste disposal was another issue of concern. There is a lack of civic participation to resolve pressing community issues, particularly related to garbage. People still throw trash everywhere, without concern for the environment or cleanliness of community. Abandoned cars also create additional problems.

A binational issue raised in the Tecate encuentro was the removal of sand from the Tijuana River Watershed in the Valle de las Palmas and the Rumorosa. Sand is being exported to the U.S., to San Diego's beaches. However, the removal is ruining the stream beds and fragile eco-systems of Baja California

**MEXICALI:** Community leaders in Mexicali identified clean public transportation infrastructure, dignified and environmentally sound housing, tackling serious public health problems, environmental education with emphasis on efficient use of resources, and sustainable industry with commitment to the community as the principal needs in Mexicali. They also identified the consolidation and strengthening of environmental organizations in the region as a priority. They also proposed the formation of a binational commission

to tie and manage financial resources to conduct a diagnostic study on the state of the environment, including the use of strategic resources, such as water and energy. Other considerations included the establishment of regional centers for control and final disposal of wastes, and a measure to control the biological infectious wastes and the disease-carrying animals.

**SAN QUINTIN:** In discussions with civic leaders environmental concerns were not high on their list of priorities, however, they should be, given the high incidence of environmental health problems attributed to the use and handling of pesticides by migrants. What civic leaders do remain sensitive to is the growing scarcity of water as well as the degradation, over time, of water quality.

**BAHIA DE LOS ANGELES:** Beyond the water and waste management issues, briefly commented in the Health section, it is important to acknowledge that the local economy depends on its marine resources, mostly through fishing and tourism activities. However, there is no administrative framework to regulate, protect, and plan the use of these resources. Since year 2000 **Pronatura Noroeste - Mar de Cortés** and **WiLDCOAST** have been promoting the creation of a 1.5 million acre marine national park in the area. The park will also promote and facilitate the local participation in decision making regarding the use and conservation of marine and landscape resources. Before this marine park is decreed, it is required to establish the Community Resources Center to serve as a base for park activities and promotion, develop the park management plan, organize the park's local administration council, train locals to serve as park managers and rangers, define the socioeconomic and biological baseline for the area, integrate a fund to support park activities and programs for at least five years, and develop financing tools to assure the parks' maintenance and operation in the mid and long term.

## Philanthropic opportunities

### Giving

- **Environmental Education.** While Baja California faces a wide range of environmental challenges, knowledge and appreciation for environment and conservation is generally lacking among the general public. Accordingly, there is a pressing need to do much more in the area of environmental education (EE) at all levels (pre-school, K-12, and adult), supporting organizations such as **Proyecto BioRegional de Educación Ambiental, A.C. (PROBEA)**, **Aldea Ecológica**, **Fundación La Puerta** and **Los Niños** in further promoting their programmatic missions while at the same time encouraging other initiatives to take hold, particularly in communities such as Tecate and Bahía de Los Angeles which have smaller populations but face emerging environmental threats and challenges. Key programmatic areas requiring EE attention include: water and energy conservation; recycling, promoting a broader understanding of the Tijuana River watershed; pollution risks (air, water, hazardous waste) and conservation of protected and threatened area. In San Quintín/San Vicente, there is a particular need to educate migrant farm workers about environmental health hazards as these workers and their families are being subjected to health risks that most remain unfamiliar with. Finally, there is a pressing need to initiate an environmental education program for state and local elected officials as often representatives are making major public policy decisions impacting the environment without being informed about the potential long-term impacts. Without question, through greater environmental education, Baja California will have a public and elected representatives that are more environmentally conscious and in a much better position to raise and debate concerns (pro and con) when environmental issues emerge or potentially environmental damaging projects arise.

- **Support for the establishment and maintenance of conservation areas in previously unprotected areas.** A system of State Parks, which could be promoted by Baja California NGOs and developed in collaboration with the California State Park system, could provide long term, consistent management of green space. Similarly, forming a series of green areas around the state's historic mission sites, as contemplated by the **Camino Real Misionero de las Californias, A.C. (CAREM)** project would link cultural and natural resources throughout the length of the peninsula. Many local communities are highly motivated to create or expand green space and restore wetlands around their water sources, particularly in riparian areas or watersheds on which they depend for a constant supply of water. The propagation of native plant materials should also be supported for both rural reforestation and urban green belts which would serve as models for appropriate landscaping principles. Already there are currently several proposals to create green and conservation areas near urban centers, such as the proposed Las Californias Binational Conservation area near Tecate as well as the proposed establishment of a marine protected area at Bahía de Los Angeles. Comprehensive rehabilitation of colonias, which is the approach taken by **Planificación A.C.** will also address environmental issues. Yet, for these projects to be successful, private funding will be necessary, as Mexican federal funding for conservation is nominal and priorities are oriented to other defined "biological hotspots" throughout the Republic of Mexico. Funding for these projects will ensure that Baja California's rich biodiversity is preserved and will also contribute to eco-tourism destinations that will promote greater economic development for the state.

### **Volunteerism**

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- Develop training programs for volunteers who could promote environmental education. As there is a great need for environmental education, many more community members of Baja California must be prepared to be the "promoters" for environmental education.

### **Binational partnerships**

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- Expand binational partnership initiatives in an effort to conserve Baja California's natural resources and to promote a planned growth strategy. There are already on-going partnerships, such as **Pronatura Noroeste - Mar de Cortés** of Ensenada and **WiLDCOAST** of Imperial Beach, but more partnerships, especially in environmental education, can be beneficial for residents on both sides of the border.
- Expand binational educational opportunities for sustainable management of natural resources. These include training courses for successful and sustainable eco-tourism, as well as training for scientific research conducted to ensure the healthy management of the natural resources in the region. The training, if offered in the communities themselves rather than in the U.S. will offer vocational education without the need to leave the community, and can lead to professional careers within the community. In this sense, learning centers such as the proposed Community Resources Center of Bahía de Los Angeles, will be a vital part of such a partnership. The learning centers will offer U.S.-based scholars (as well as those based in other countries or other regions of Mexico) who have been studying Baja California an opportunity to give back to the community where they have been conducting research.
- A system of State Parks, could be promoted by Baja California non-profits in collaboration with the California State Park system which could provide long term, consistent management of green space. At present there is only one state park and it is located in an urbanized area of Tijuana: Parque Estatal José María Morelos y Pavón. Many local communities are highly motivated to create or expand green space and restore wetlands around their water sources, particularly in riparian areas or watersheds on which they depend for a constant supply of water. The propagation of native plant materials should also be supported for both rural reforestation and urban green belts which would serve as models for appropriate landscaping principles.



*Children's Arts Workshop, Feria de Tijuana. Photo Credit: Bibiana Marciel*



# Culture

With its diverse natural resources including the flora and fauna of the desert, mountains, Pacific Ocean and Sea of Cortez, two national parks, rich cultural history and languages of its indigenous people and high level of in-migration from throughout the Republic of Mexico, the communities of Baja California have much to potentially offer residents and tourists alike.<sup>1</sup> Yet these cultural assets are neither being fully utilized nor effectively promoted.

Presently, Baja California has several fine museums and cultural centers, including Tijuana's cultural center (CECUT), Ensenada's Museo Caracol, and Mexicali's Museo Sol del Niño, which offer a wide range of exhibits and other cultural offerings for all ages. Presently Tijuana is in the process of building a new interactive children's museum called El Trompo.

However, interviews with civic leaders and middle and upper middle class parents from throughout Baja California, revealed a common sentiment; the best thing culturally about the state was its proximity to San Diego. This tendency to look north for its culture and sports, deprives Baja California and its residents of quality tourist related jobs and economic development opportunities, discourages investment in the state's existing cultural institutions, reinforces the lack of civic pride that people have in their communities, and contributes to the traffic and air

pollution so common along the San Diego/Tijuana border. For those less fortunate individuals living in the various marginalized communities of the state, there are few, if any, cultural or recreational outlets to speak of.

Accordingly, there is a pressing need for greater investment and appreciation in the arts, culture and sports throughout Baja California. Here the role of philanthropic partners is critical as the public sector will never be able to fully address the state's needs in this area alone.

## Cultural Assets

As noted, Baja California is blessed with rich cultural assets but more needs to be done to increase of access to the public, particularly among those less fortunate. This is particularly true in the case in Tijuana. The arts have flourished in Tijuana over the years. Recently, the city has become a magnet for emerging artists and musicians from throughout Mexico. Yet, few people on the U.S. side of the border



*Basketry, Kumiai community in La Huerta. Photo Credit: ICF*

know much about Tijuana's cultural renaissance.

The state of Baja California also has several archeological sites with the remains and pictographs of ancient indigenous communities, including Vallecitos near Tecate and Vizcaíno near Bahía de Los Angeles. Again, more could be done to promote these archeological treasures.

Only eight indigenous communities of Kumiai, Paipai, Cucupá and Kiliwa remain in Baja California with a total population of approximately 1,000 to 1,500. Collectively, these communities possess critical

1) More information on the native indigenous population as well as later immigrants from other parts of Mexico and from other countries can be found at [www.bajacalifology.org](http://www.bajacalifology.org).

2) Mexico has national parks designated for the Tijuana River and the Rio Nuevo/New River in Mexicali (Parque Nacional Rio Tijuana and Parque Nacional Rio Nuevo) but for all practical purposes these are parks that can be enjoyed by the community due to the environmental problems of both river bodies.

knowledge of tribal traditions and customs as well as the medicinal qualities of plants. The four indigenous languages are endangered cultural resources that urgently need attention. The **Instituto de Culturas Nativas de Baja California, A.C. (CUNA)** based in Ensenada has undertaken work in this area but more work must be done to preserve this unique cultural heritage.

Baja California has two principal national parks, Parque Nacional (P.N) Constitución 1827 and P.N. San Pedro Mártir.<sup>2</sup> Yet, staffing of these parks is minimal and the administrative budget for both parks is approximately US\$110,000 annually. In order to promote additional visitors and promote conservation of these resources there is an immediate need for visitor centers at both parks. The need is greatest at P.N. Constitución, as there are approximately 2,500 visitors per weekend coming to this park from Tijuana, Tecate, Mexicali and Ensenada. Other key protected areas/biosphere reserves in the state include Valle de los Cirios and the Colorado River Delta.

### **Museums/Cultural Centers**

The communities of Baja California face the task of preserving the traditional and local cultures while simultaneously integrating new cultural elements from other parts of Mexico, as migrants bring them, through their contact with California, where cultures of diverse ethnicities happily coexists. One of the venues for cultural appreciation and understanding is museums. In San Diego alone, there are over 90 museums. In contrast, in Baja California, there are only twelve museums.<sup>3</sup> Still, Baja California has several outstanding museums and cultural centers such as Tijuana's cultural center, CECUT where one can experience changing international exhibits and performances ranging from Latin Jazz to Classical music, as well as Omnimax films; the **Museo Caracol**, Ensenada's Museum of Science; and **Museo Sol del Niño**, Mexicali's children's museum. Also in Mexicali is the

**Museo Regional de la Universidad Autónoma de Baja California**, a university-based museum which offers a rich historical and archeological overview of Baja California along with periodic special exhibitions. In spite of these cultural assets, most museums in Baja California remain under-staffed and need additional resources. The needs are most pronounced at several community-based museums across the state, including the museums of Guadalupe, San Vicente, Bahía de Los Angeles, and El Mayor Cucapá.<sup>4</sup>

While not as well known as some of Mexico's world-renowned archeological/historical sites, Baja California has several important sites of archeological and historical significance. These include eighteen mission sites and three archeological zones, Vallecitos, Pearce Canyon near San Felipe, and Gardner Cave near Bahía de Los Angeles, as well as several historical monuments and buildings including the Tecate Railway Station and the Rosarito Beach Hotel. Yet, much remains to be done to preserve these cultural assets and limited resources are available for staffing and maintenance. Baja California's original historic mission sites--the predecessors of California's mission chain--are currently in various states of disrepair. At some sites, little remains but foundation lines, in others ruins are undergoing excavation and stabilization, while others are still functioning as churches. The National Institute of Anthropology and History (INAH) and the **Camino Real Misionero de las Californias, A.C. (CAREM)** (see page 79) are currently working for the conservation of the missions and their natural surroundings.<sup>5</sup>

Through additional investment, such sites would not only increase quality tourism to Baja California but also enrich the lives of area residents and increase the level of civic pride that Baja California residents have in their communities.

### **Libraries**

Throughout the state of Baja California there are only 201 libraries as of 1999, with total volumes

3) CECUT Tijuana; Museo Regional de la Universidad-UABC (Mexicali); Caracol, Centro Científico y Cultural, A.C, Ensenada; Museo de Ciencias de Ensenada Tecciztli de B.C; Museo Bahía de Los Angeles; Museo Valle Guadalupe; Museo de Estero Beach; Museo del Sitio Vallecitos; CECUT-Tecate; Museo Histórico Regional "Ex-Cuatrel del a Compañía Fija," Museo Sol del Niño (Mexicali).

4) Wilken (2002).

5) Wilken (2002).

of 1,280,221. This compares to 443 libraries and 2,595,720 volumes in the state of Nuevo León, which is deemed to have similar level of economic development. Nuevo León has one library per 8,655 residents; Baja California has one library per 12,375 residents.

While San Diego begins construction of its new Central Library at an estimated cost of \$140 million and works to modernize its 33 existing branch libraries, Tijuana's search for funds to create its first modern public library continues. Although the need for a modern, technologically equipped library in Tijuana has been recognized, bureaucratic red tape and an inability to find a central location have undermined past attempts. Recently, these barriers have been removed and work is now underway to build the first modern public library in Tijuana on the campus of the **Universidad Iberoamericana**. Yet the project, at a cost of \$2.5 million, to complete this project. Similarly, in Playas de Rosarito, additional efforts are being made to build a library in this new municipality. However, no capital campaign has yet begun.

## Music and the Arts

Because of limited budget resources little in the way of investment has been made in the area of music appreciation or the arts in Baja California's public schools. Some work is being done in this area by the San Diego based group, **Mainly Mozart**, but more is possible.<sup>6</sup> **Tijuana's Centro Cultural (CECUT)** "Casa de la Cultura" and the statewide **Instituto de Cultura de Baja California** are important institutions promoting the music and the arts. While these organizations are supported primarily by federal, state and municipal programs, they also welcome collaborations with international arts organizations and funding institutions.

Community-based arts organizations such as the **Orquesta de Baja California in Tijuana**, **Pro-Música Ensenada, A.C.** and the **Centro Guitarrístico de Ensenada** (Ensenada Guitar Center) promote

musical studies and concerts. Also, the **Citizen Movement for the Promotion of Culture** based in Ensenada has taken an advocacy role for increased arts awareness in the state.

A strong tradition of folkloric dancing rooted in central and southern Mexico exists throughout Baja California, taught primarily in schools. A variety of styles of Mexican music also continue to play an important role in popular culture, including mariachi, banda, trio and ranchera. However describe the rich, cultural diversity that exists in Baja California due to its large migrant population, more could be done to promote a large-scale regional festival such as the Guelaguetza in Oaxaca or the Cervantino en Guanajuato.

The native indigenous communities of Baja California also share artistic traditions (music, dance, pottery, basketry, games, beadwork and many other arts) with Native American groups of California and Arizona. Events to foster the strengthening of these ancient ties of culture are held annually in many of the indigenous communities and have also been carried out on a regional scale by **CUNA** in Ensenada and Tecate. Many rural towns organize annual town or ranch festivals (the most famous being the Fiesta de la Misión during the last weekend of May and the Santa Gertrudis Saints Day Festival), cabalgatas or horseback marches along historic routes, rodeos and other colorful aspects of popular culture. Migrant indigenous communities have imported many of their fascinating traditions from southern Mexico, particularly the Day of the Dead altars and celebrations.

## Public Art

In recent years, several innovative arts initiatives have been undertaken in Baja California, primarily focused in Tijuana. Among these includes **INSITE**, a binational public arts festival initiated in 1992 with the participation of more than 25 nonprofit and public cultural institutions in Mexico and the United States. This initiative is based on artistic investigation

6) The following three paragraphs are from Wilken (2002).

and the activation of urban space in San Diego and Tijuana. The heart of INSITE is the process of commissioning new projects by artists from throughout the Americas in the course of residencies in the San Diego-Tijuana binational region. Another important arts initiative is the **Border Arts Workshop** which has brought artists from both sides of the border since 1984 to promote awareness for the arts by addressing diverse points of view of life along the border. An important element of the Border Arts Workshop has been its efforts to introduce public art to Tijuana's colonias populares in an attempt to improve the quality of life of residents through visual arts.

Another innovative initiative is that of the **Committee of the Image of Tijuana (CIT)**, which seeks to change the image of Tijuana by emphasizing arts and culture, as well as important personalities from the communities, to inspire a sense of pride in Tijuana residents, especially children. Most recently it has installed the Tower of Hope, a monument against all forms of violence, in front of the **Hospital Infantil de las Californias** located in Mesa de Otoy thanks to donations from private individuals and entities. The CIT is also working on creating a "Path of Fame" where facts about important personalities from the community will be displayed.

### Needs by Community

**TIJUANA:** Although Tijuana has 22 municipal libraries with computers and one Braille reading room,<sup>7</sup> they are apparently not meeting the city's residents' cultural and educational needs. Residents expressed their interest in construction of a major public library and annex. In general, residents feel that cultural centers and other cultural infrastructure is lacking, and that of those cultural facilities and events that do exist, more information dissemination is needed. Access to cultural events is seen as limited, especially for marginalized communities. The immigrants from other parts of Mexico who bring their cultural traditions with them also lack

opportunities for cultural expression. In this regard, it has proposed that there be more venues through which communities can display their artistic and cultural expressions. Cultural programs oriented towards youth were also raised as important but lacking. In addition, residents mentioned the need for art scholarships for art professionals, long-term art projects, and historical archives.

**MEXICALI:** The importance of linking culture with the educational sector, with government and NGOs, as well as with specific industrial sectors, was emphasized by community leaders interested in cultural issues. Residents also pointed to the lack of publicity of existing cultural institutions as a key problem.

**ENSENADA** (including Valle de Guadalupe): Preservation of the cultural heritage of surrounding indigenous communities and the restoration of Punta Banda were raised as the priority cultural issues for Ensenada. At the same time, residents feel that there is a need to familiarize or "culturalize" migrant farmer workers who have recently arrived from rural parts of Mexico on basic facts about living in an urban center like Ensenada. This is based on the fact that many migrants from small rural villages are not used to using toilets or do not appreciate the need to throw garbage into trashcans. There is also need for greater coordination among NGOs in this growing area of concern.

In general, Ensenada needs more public places and cultural institutions. Also greater access to public transportation is necessary to area museums and cultural institutions, as these facilities are out of reach for most children living in marginalized and rural areas.

Throughout Ensenada, there is also a need for workshops focused on civic participation/volunteerism, and value of culture.

**PLAYAS DE ROSARITO:** There is a need for a library. The municipal budget for culture is very low.

7) Navarro (2002), 4.

If effectively promoted, culture could attract more tourism.

There is also a need for a "Casa de Cultura," as well as an effort to take "culture" to the comunidades populares. According to some residents, this was an initiative that was started by the past administration but has not been continued.

**TECATE:** Conservation of surrounding open spaces and preservation of the cultural heritage of the indigenous community were two priority issues raised by Tecate residents. It was pointed out that there is no diagnostic study of needs of the indigenous community, although indigenous communities need assistance to promote/preserve their culture. For the indigenous community, schools are logical places to promote culture but no one seems to be taking advantage of these opportunities.

According to local leaders, there is little appreciation of or investment in culture in Tecate. Tecate has a lot of archeological and other cultural assets, but the community is not taking advantage of them. For example, the Tecate train station has enormous tourist potential but needs to be re-built. (The current mayor is making this a priority.) Even though Tecate has a cultural institute, few people know it exists. More education/outreach is needed.

Some residents hope to promote the establishment of a theatre in Tecate as most residents currently go to San Diego to attend performances there. There is also a need to renovate and modernize the existing city library.

**SAN QUINTIN:** A common concern was the lack of cultural outlets for area residents. There is also an absence of public parks and recreation areas. Yet, as one of Baja California's poorest communities, investment in culture, the arts and sports receives little attention.

**BAHIA DE LOS ANGELES:** The cultural offerings in this small seaside town of 600 people is limited to the "Museum of History and Nature of Bahía de Los Angeles". This is a civil initiative,

independently maintained by private donations and books and souvenirs sales. The museum represents an interesting effort of the community to recover and honor its history and ancestors.

Occasionally, art exhibits and music concerts are organized, but attendance is restricted to foreigners and a small portion of the local community. The arrival of satellite technology facilitated the incorporation of satellite TV to the life of many local families, as well as internet to a few of the local business.

The community needs a strong cultural promotion program, which may include a book and video library, conferences and seminars, art exhibits, workshops and classes, and music classes (particularly for children). Production of a local newspaper or newsletter would also serve as a way of integrating the community and promoting cultural values.

## Philanthropic Opportunities

### Giving

- Cultural enrichment programs in schools and outreach programs in colonias populares.
- Funding for libraries. Recently, a campaign was launched to raise private funding for the **Tijuana Library at Universidad IberoAmericana (UIA)** with the support from ICF. Similar campaigns can be started in other communities to fund their libraries.
- Construction of more cultural centers for the overlooked population in Baja California. Native indigenous children in Tecate and Ensenada will greatly benefit from cultural centers dedicated to their culture. In Mexicali, a “Chinese cultural and historical center” could offer an excellent opportunity to celebrate the rich cultural history brought to the Mexicali Valley from Chinese immigrants.
- Support for the creation of community museums in the native indigenous communities as well as other towns, ranches and sites of particular historic or cultural interest. Full participation and training of local community members in collaboration with institutions and individuals that can provide long-term technical assistance is vital for the sustainability of these projects. Museums can often be embedded as a key attraction in a larger eco-tourism plan.
- Donation to facilitate transportation to museums and other cultural attractions for the state's neediest children and youth. In Ensenada, children cannot get to museums from schools due to lack of transportation. Donating buses can solve this problem.
- Support for elders of Baja California's indigenous communities to teach their native languages through schools in their communities or other channels. In order to rescue as much as possible of these languages, linguistic preservation projects bringing together native speakers, linguists and educators should be supported to develop curriculum and archival materials for future generations of speakers.

Technology (video, CD-Rom, etc.) is an important tool in the documentation process.

- Investment in Baja California's national parks with the construction of nature interpretative centers so that residents can better appreciate the rich biodiversity that their state has to offer. Another opportunity exists to promote the establishment of a Mexican national parks foundation to support improved staffing and other resources to these national treasures. Such a foundation could be modeled after the **National Parks Foundation** in the United States.

### Volunteerism

- Numerous opportunities exist for musicians, artists, writers and poets to volunteer their time in support of cultural enrichment programs in the public schools. Similar opportunities exist to provide such outreach to the state's most rural and marginalized communities.
- Opportunities also exist for leading field trips for under-privileged children to museums, as well as sporting or cultural events.

### Binational Partnerships

- Great cross-border philanthropic opportunities exist in promoting greater access to San Diego area museums and the funding of visiting exhibitions in Baja California. Accordingly, more efforts should be made to expand the level of cross-border cultural visits and tours. Many of Baja California's museums—especially community museums—could greatly benefit from collaborations with US museums, NGOs and academic institutions.
- Binational collaboration to create bilingual exhibits, websites, journals, workshops and festivals aimed at promoting cultural exchange between the two countries.
- Sports exchanges are another venue through which Baja California and California can develop binational partnership.

# Additional Research

While this needs assessment has provided a snap shot of key issues and problems facing Baja California and has offered some philanthropic solutions, on-going research and analysis will be required to measure progress made. Among the areas of Baja California Norte requiring additional attention by ICF and FIC is the Upper Río Colorado Delta and the coastal communities of San Felipe and Puertecitos along the Sea of Cortez. Similarly, additional research is necessary in identifying emerging issues including, but not limited to, the impact of new development projects such as the Escalera Náutica project on the ecology and economy of Baja California. Additional analysis is also necessary on sustainable eco-tourism related opportunities for the state.

Additional research will also be necessary to fully understand the trans-boundary impacts and inter-relationships with communities in neighboring California. With over 50,000 cross border commuters from Tijuana and over 55 million border crossings annually at the San Ysidro/Tijuana border, the problems of the environment, public health, education, crime, and substance abuse have truly become trans-boundary in nature requiring innovative binational solutions and responses from the public, private and non-profit sectors. Also, as a state with border communities, Baja California must contend with several societal problems and challenges that do not exist in the interior of Mexico. These include:

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- A high incidence of drug-related violence due to the constant power struggles between drug interests competing for control of the narcotics markets in the United States;
- 
- A prevalence of Southern California youth who cross the border to binge drink and get high on drugs with much less scrutiny or inhibitions than at home, degrading Baja California's image for more valuable tourism;
- 
- Multinational maquiladora operators that have, in some cases, come to Baja California to cut corners on environmental, health and safety standards to the detriment of Mexican workers and communities;
- 
- A persistent problem of child sexual abuse and teenage prostitution attributed, in large part, due to U.S. citizens who cross the border to prey on Mexican children and youth;
- 
- Irreparable damage to Baja California's fragile deserts caused by American and Mexican off-road enthusiasts;
- 
- Removal of sand from rivers in Baja California, exported to beaches in San Diego;
- 
- A large number of displaced Mexican citizens deported by the U.S. Immigration and Naturalization Service (INS), including undocumented former Mexican U.S. prison inmates returning to border communities without money or support to assist in re-integration into Mexican society.
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- A growing number of U.S. Latino patients from Southern California are crossing the border to access culturally competent and affordable medical services in Tijuana and this is contributing to an already over-burdened health care system in Baja California.
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Likewise, San Diego and Imperial Counties face their own set of challenges due to their presence on the border in areas such as the environment, health, and social services.

In an effort to better understand the above mentioned transboundary impacts on both communities in San Diego County and Baja California, in 2003 ICF will in partnership with the **San Diego Foundation** and with the support of the **Rockefeller Foundation**, undertake a follow up community based needs assessment on the San Diego County/Baja California region focusing on cross-border linkages and solutions.

As ICF and FIC view this needs assessment as a living document, your comments and suggestions are encouraged. In the coming years we will be looking to better understand the rapidly evolving role of NGOs in solving Baja California's most pressing issues and we will be looking to the communities that we serve for on-going feedback and new ideas.

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# List of Acronyms

A.C.	Asociación Civil (legally constituted non-profit organization in Mexico)
CAM	Centro de Atención Múltiple (Multiple Attention Center)
CAREM	Camino Real Misionero de las Californias, A.C.
CDEM	Consejo de Desarrollo Económico de Mexicali
CDT	Consejo de Desarrollo Económico de Tijuana
CECUT	Centro Cultural Tijuana (Tijuana Culture Center)
CEMEFI	Centro Mexicano para la Filantropía (Mexican Center for Philanthropy)
CESPT	Comisión Estatal de Servicios Públicos de Tijuana
CETYS	Centro de Enseñanza Técnica y Superior
CFE	Comisión Federal de Electricidad
CLC	Community Learning Center
CONADIC	Consejo Nacional de las Adicciones
CONAPO	Consejo Nacional de Población (National Council of Population)
CORETT	Comisión para la Regulación de la Tenencia de la Tierra
CUNA	Instituto de Culturas Nativas de Baja California (The Native Cultures Institute)
D.F.	Distrito Federal (Federal District)
DIF	Desarrollo Integral de la Familia, Social Agency for the Family in Mexico
EDUSAT	Red Satelital de Televisión
EPA	Environmental Protection Agency
FECHAC	Fundación del Empresariado Chihuahuense
GDP	Gross Domestic Product
IMAC	Instituto Municipal de Arte y Cultura (Municipal Institute of Arts and Culture)
IMPLAN	Instituto Municipal de Planeación (municipal planning agency)
IMSS	Instituto Mexicano del Seguro Social
INAH	Instituto Nacional de Arqueología e Historia (Mexican National Institute for Archaeology and History)
INEGI	Instituto Nacional de Estadística, Geografía e Informática

ISSSTE	Instituto de Seguridad Social al Servicio de los Trabajadores del Estado
LNG	Liquid Natural Gas
MISD	Montessori Institute of San Diego
NADBANK	North American Development Bank
NGO	Non-governmental organization
NAFTA	North American Free Trade Agreement
OECD	Organization for Economic Cooperation and Development
PAHO	Pan-American Health Organization
PAN	Partido Acción Nacional
PEC	Programa Escuela de Calidad (Quality School Program)
P.N.	Parque Nacional (National Park)
PRI	Partido Revolucionario Institucional (Institutional Revolutionary Party)
R&D	Research and Development
SDCCD	San Diego Community College District
SDS	Social Development Secretariat
SDSU	San Diego State University
SEMARNAT	Secretaría de Medio Ambiente y Recursos Naturales (Secretariat of Environment and Natural Resources)
SEP	Secretaría de Educación Pública (Secretariat of Public Education)
TELMEX	Teléfonos de México
TB	Tuberculosis
UABC	Universidad Autónoma de Baja California
UIA	Universidad Iberoamericana
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compounds
WHO	World Health Organization
YMCA	Young Men's Christian Association
YWCA	Young Women's Christian Association

# Definitions

## **Canasta Básica (Basic Food Basket):**

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Canasta Basica-alimentaria: Defined as the food that meets the minimum nutritional guidelines set by the Mexican Secretariat for Social Development (SEDESOL) for a family of four. In April of 2001 the “canasta básica” alimental was calculated by SEDESOL at approximately NP\$1,119 (US\$119) monthly. In 1994 the average cost of the “canasta basica-alimentaria” amounted to 44.7% of the minimum wage. In 1999 it took 76.4% of the minimum wage to cover the canasta basica. Because of the higher cost of living in Mexican border communities such as Tijuana and Mexicali, the adjusted minimum wage is higher than communities in the interior of Mexico. See definition of minimum wage for additional details.

Canasta Basica-Official: Defined by the Banco de Mexico as the cost of basic good and services for the average Mexican based on 80 essential items. A December 2000 hearing by Mexico's Senate put the cost of the official “canasta básica” at approximately NP\$3,300 monthly (US\$300).

## **DIF:(Desarrollo Integral de la Familia)**

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A charitable arm of the state and local governments throughout Mexico providing assistance to non-profit organizations dedicated to social services. Traditionally the head of DIF is the presiding First Lady of a given municipality or state.

## **Enrollment Ratio, gross:**

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The number of students enrolled in a level of education, regardless of age, as a percentage of the population of official school age for that level.

## **Enrollment Ratio, net:**

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The number of students enrolled in a level of education who are of official school age for that level, as a percentage of the population of official school age for that level. See education levels.

## **Functional Literacy skills:**

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The proportion of the adult population aged 16-65 scoring at level 1 on the prose literacy scale of the International Adult Literacy Survey (IALS). Most tasks at this level require the reader to locate a piece of information in then text that is identical to or synonymous with the information given in the directive.

## **GDP (Gross Domestic Product)**

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The total output of goods and services for final use produced by an economy, by both residents and non-residents, regardless of the allocation to domestic and foreign claims. It does not include depreciation of physical capital or depletion and degradation of natural resources.

## **GDP Index:**

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One of three indices on which the human development index is built. It is based on GDP per capita (PPP\$US).

## **GDP Per Capita (PPP US\$):**

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See GDP (gross domestic product) and PPP (purchase price parity)

**GDP per Capital (US\$):**

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GDP per capita converted to US dollars using the average official exchange rate reported by the International Monetary Fund (IMF). An alternative conversion factor is applied if the official exchange rate is judged to diverge by an exceptionally large margin from the rate effectively applied to transactions in foreign currencies and traded products.

**GNI or Gross National Income:**

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The sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad.

**Human Development Index (HDI):**

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A summary measure of human development. It measures the average achievement in a country in three basic dimensions of human development:

- A long and healthy life, as measured by life expectancy at birth;
- Knowledge, as measured by the adult literacy rate (with two thirds weight) and the combined primary, secondary, and tertiary gross enrollment ratio (with one-third weight)
- A decent standard of living, as measured by GDP per capita (PPI US\$).

**Illiteracy Rate:**

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Calculated as 100 minus the adult literacy rate. See literacy rate, Adult.

**Income poverty line, population below:**

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The percentage of the population living below the specified poverty line:

- \$1 a day---at 1985 international prices, adjusted for purchasing power parity (PPP)
- \$2 a day---at 1985 international prices, adjusted for purchasing power parity
- \$11 a day (per person for a family of three)---at 1994 international prices, adjusted for purchasing power parity
- Poverty Line--Mexico: Level at which family income exceeds twice the cost of the basic food basket
  - Poverty: Family Income is less than twice the cost of the basic food basket
  - Extreme Poverty: Based on the level of family income that is less than the basic food basket (see definition above, Canasta Básica).

**Infant Mortality Rate:**

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The probability of dying between birth and exactly one year of age expressed per 1,000 live births

**Literacy Rate, Adult:**

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The percentage of people aged 15 and above who can, with understanding, both read and write a short, simple statement on their everyday life.

**Literacy Rate, Youth**

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The percentage of people aged 15-24 who can, with understanding, both read and write a short, simple statement of everyday life.

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**Maquiladora:**

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he terms comes from the Spanish word *maquila*, which in colonial Mexico was the charge that millers collected for processing grain. Today a **maquiladora**, is a company used for the production of goods based on the temporary importation of raw materials and equipment for transformation in Mexico with subsequent export for distribution in foreign markets.

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**Maquiladora Wage Rate:**

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In October 2002, the average maquiladora wage rate for Baja California was 2.5 to 3.5 times the minimum wage.

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**Monthly Minimum Wage:**

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The minimum wage is the lowest amount that a worker is entitled to receive in cash for services rendered during a work shift. Minimum wages are established on the basis of economic zones and the employee's occupation. Minimum wages are set at least annually by the National and Regional Wage Commission, which represent labor, management and government. Effective January 1, 2002, the minimum wage in Zone A (Mexico City, Baja California, Baja California Sur, Acapulco, several large border cities and parts of Veracruz) is 42.15 pesos a day. By comparison, in Zone B (Monterrey, Guadalajara, Tampico, Hermosillo and some other medium-sized cities) the daily rate is 40.10 pesos, and for Zone C (the remainder of the country) 38.30 pesos. About 20% of Mexico's 40-million strong workforce receives the minimum salary.

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**Peso (Mexican):**

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Mexican currency. 1.00 US Dollars = 10.36 Mexican Pesos (MXN) effective January 1, 2003.  
(MXN=0.0965231 USD)

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**Population, total**

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Refers to the de facto population, which includes all people actually present in a given area at a given time. The population of Mexico is 97.36 million (2000 census). Baja California's population is 2.63 million. See page 1 of Introduction for additional details on Baja California demographics.

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**PPP (Purchasing Power Parity)**

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A rate of exchange that accounts for price differences across countries, allowing international comparisons of real output and incomes. At the PPP \$US rate (as used in this needs assessment), PPPUS\$ has the same purchase power in the domestic Mexican economy as \$1 has in the United States.

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**Under Five Mortality Rate:**

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The probability of dying between birth and exactly five years of age expressed per 1,000 live births.

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**Unemployment:**

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Mexico has a low formal unemployment rate; however, the government counts anyone who works one hour a week as employed. Many Mexicans in the informal sector scrape by as self-employed or as off-the-books laborers, selling fruit in the street or working as maids. Mexico's official unemployment rate (2001) was 2.2%. Over 61.4% are employed in Mexico's informal sector.

**Sources:** *United Nations Human Development Report 2002; The World Bank, World Development Report-2003; INEGI (Mexico's National Institute of Geography, Statistics and Information); Secretariat of Education of Mexico website; Kenn Morris, Cross-Border Business Associates.*

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Gloria Elena Monforte de Valenzuela	Jesús Ramón Cansino
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Livio Angeli Soriano	Lucina Rodríguez Martínez
María Dolores Ruíz Ortíz	Ramona Mora de Sánchez
Sergio Vale Sánchez	

**MEXICALI**


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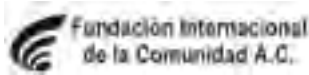
Adriana Lara Valencia	Agustín Sáñez Pérez
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### **icf** International Community Foundation (ICF)

Established in 1990, the San Diego, Ca. based International Community Foundation (ICF) is committed to fostering lasting philanthropy to benefit people and communities throughout the Americas and Asia in the areas of education, community development, health, the environment, and culture & the arts. ICF works with U.S. donors (individuals, corporations, family foundations) interested in making a difference beyond our borders. During fiscal year 2002, ICF grantmaking totaled \$895,000 with 67% specifically targeted to non-profit organizations and charitable causes along the Baja California Peninsula.

In an effort to increase charitable giving to Baja California, ICF has initiated the Give2Baja campaign to educate potential donors about specific community based needs and the wide range of non profit organizations working to make a difference in this dynamic border region. For more information on ICF visit our web site at: [www.icfdn.org](http://www.icfdn.org)



### **Fundación Internacional de la Comunidad (FIC)**

Established in 2000, Tijuana-based Fundación Internacional de la Comunidad (FIC) is a community foundation committed to improving the quality of life for people and communities in Baja California. FIC is a grantmaking organization committed to strengthening the organizational capacity of area non-profits. It also works with institutions of higher education to provide training for non-profit leaders and works to promote a culture of philanthropy throughout Baja California.

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*Photo Credit: ICF*



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