

■ BILINGUAL EDUCATION ■ UNEMPLOYMENT PUZZLES

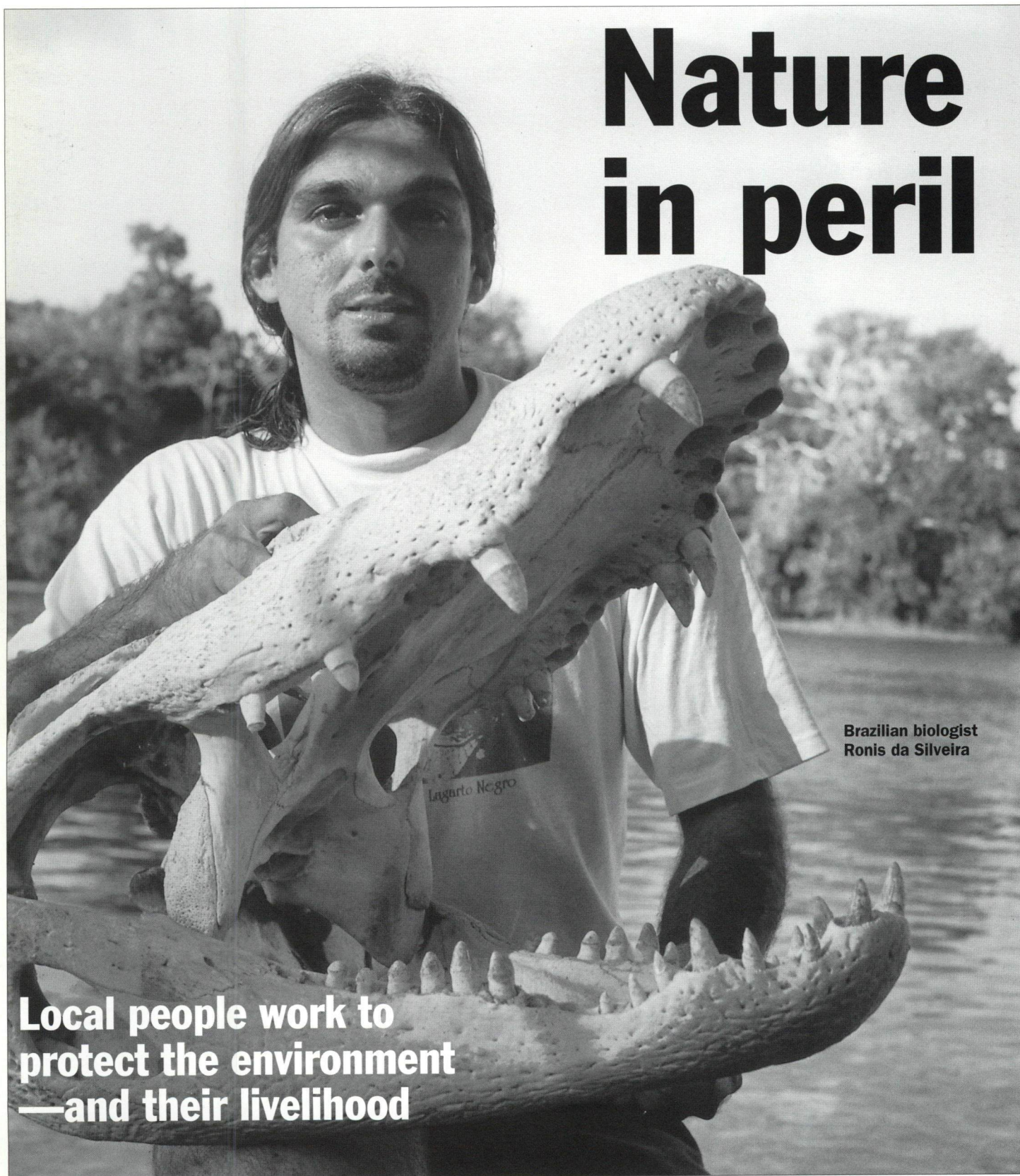
■ CHANGE IN PANAMA'S DARIEN

IDB AMERICA

Magazine of the Inter-American Development Bank

July–August 1998

Nature in peril



Brazilian biologist
Ronis da Silveira

**Local people work to
protect the environment
—and their livelihood**

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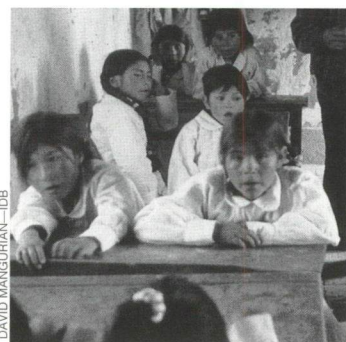
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Cornelio Ochoque Gómez
school principal in
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Gómez's school uses a new bilingual curriculum that combines Spanish with Quechua or Aymara. See story, page 4.

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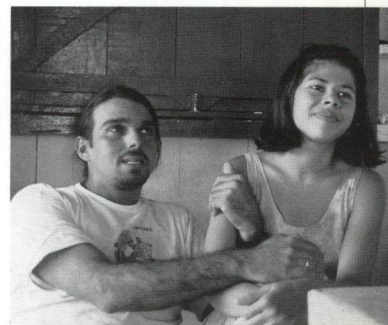
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THE COVER

Nature in peril. Biologist Ronis da Silveira displays the skull of a black caiman, the largest predator in the Amazon. Though fearsome even in death, the caiman was hunted nearly to oblivion in broad parts of its range by suppliers of the leather goods market. Silveira and his wife Barbara, from their base in the Mamirauá Sustainable Development Reserve, are studying ways to ensure that the species remains not only a part of the ecosystem, but a contributor to the local economy as well.

IDB photo by Roger Hamilton


EDITORS' NOTEBOOK

Democracy's limits

JAIME TURON WOULD SEEM to exemplify both democracy at work in Latin America and the increasing respect being paid to the culture and rights of indigenous peoples. A Ye'kwana Indian, in 1996 he was elected the first mayor of Venezuela's Upper Orinoco District, a vast land of forest and savanna on the border with Brazil that is probably best known for also being the homeland of the Yanomamö people.

But on a recent visit to Washington, D.C., Turón expressed anything but satisfaction with the recent events. Instead, he voiced anger, frustration and fear about what is happening to his 22,000 constituents, and the little he can do about it.

As he described them, events in the Upper Orinoco District are the latest chapter in the troubled history of

contact between America's indigenous peoples and European influences. The process there began with the arrival of Salesian missionaries early this century, he said, starting the erosion of the local culture and introducing diseases against which the indigenous people had no immunity. In recent years, gold miners have invaded the area, poisoning streams, usurping land and further spreading disease. Record flooding devastated the region in 1996, and now El Niño has brought drought and fires, which have destroyed Indian garden plots.

His people are weakened by hunger and disease, said Turón, and thousands have died. Moreover, his authority is being challenged by the missions, ideological extremists and guerrillas.

Anthropologist Napoleon A. Chagnon, who accompa-



Mayor Jaime Turón

nied Turón in the U.S., has organized shipments of medical supplies to alleviate the health crisis. But logistical and other problems have prevented most of them from getting through to the intended beneficiaries.

Chagnon said that more than anything else, Turón's constituents need a helicopter or a hospital boat to reach remote villages. It wouldn't be much, but it could help.

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Why 'free water' can be so expensive

By NANCY BIRDSALL

"They want to make sure their employees come to work."

Matías Gregorio, sales manager of Gabarino SA, a Buenos Aires retailer, quoted in a June 10 article in *The Journal of Commerce*. Gregorio was remarking on a surge in the sale of television sets to corporations immediately prior to the World Cup.

"Latin America's children need schools, not tanks and combat aircraft."

Former Costa Rican President Oscar Arias, quoted in a May 12 Reuters report on the potential for a new arms race among Latin nations, following the U.S. government decision to end a ban on the sale of weapons to the region.

"It's going to be much easier for tourists to know when they're getting a bargain."

Charles S. Pearson, of the Johns Hopkins School of Advanced International Studies, quoted in a March 26 *Washington Times* article on the consequences of European monetary unification.

"Food is what we miss the most when these things happen."

Luis Roberto Sosa Ramos, an assembly-line worker at a General Motors auto parts plant in Ciudad Juárez, Mexico, quoted in the July 16 edition of *AméricaEconomía*. He was referring to work stoppages and pay cuts at his plant caused by strikes at GM plants in the U.S.

"...we will preserve the Internet as a duty-free zone for commerce."

Charlene Barshefsky, the U.S. Trade Representative, in a July 9 editorial published by *The Washington Post*. Barshefsky argued against recent attempts by national and sub-national governments to impose tariffs or taxes on transactions carried out over the Internet. She claimed such moves could hamper the development of global electronic commerce.

IN THIS AGE OF MICROCHIPS AND space exploration, millions of people in Latin America and the Caribbean still suffer from the age-old scourge of unsafe water and bad sanitation.

It's the region's most serious public health problem, and it can only be solved with massive investments on the order of \$8-\$10 billion annually. This is more than the IDB has lent for the sector in some 200 projects in the past 30 years.

Where will the money come from? It may sound obvious to assert that consumers ultimately must pay for the services they use, but for decades, governments in the region have subsidized water companies because low tariffs failed to keep up with inflation and could not cover costs. These subsidies exacerbated the region's fiscal woes while making it harder for cash-strapped water companies to justify rate increases that could have paid for service improvements and expansion.

Ironically, the subsidies often benefitted those consumers who were most able to pay: industry and relatively affluent residential users. A well-off family I know, in a lovely residential area of a large South American city, cannot get the authorities to send them a bill for the thousands of gallons of water they've used for their swimming pool for the past 10 years! Meanwhile, in the same city, poor people must buy water from tanks on trucks at prices 20 times the cost of piped water.

The bottom line: consumers must get billed for services they use, and the prices they pay must cover costs.

Of course, the costs and the

bills should be as low as possible, and this is where the private sector can help. In some Latin American cities, private management has already reduced water losses from illegal connections or inefficient operations from 25 to

45 percent. Private managers are using three to four employees per 1,000 connections, versus 10 to 15 employees in the public sector. Private owners have doubled collection indices because they have incentives to read the meters and send out the bills.

Unfortunately, private sector participation can result in higher fees for consum-

ers and layoffs of workers. Firms may resist making investments in poor neighborhoods. But these problems can be overcome, for example through concession contracts requiring that the firm provide services in low-income areas. In some cases, transparent subsidies can be provided so that these services yield an acceptable return. Workers who lose their jobs can be retrained or participate in microenterprise programs.

Proposals to raise the cost of services and privatize a traditionally public sector responsibility can meet with stiff political opposition. But better service and more equitable access can also bring well-earned political rewards.

—The author is IDB executive vice president.

“Poor people must buy water from tanks on trucks at prices 20 times the cost of piped water.”



WILLIE HEINZ—IDB

The unemployment puzzle

The causes of joblessness are surprisingly hard to pin down

By PAUL CONSTANCE

FEW THINGS WORRY PEOPLE IN LATIN America and the Caribbean more than finding and keeping a job.

According to Latinobarómetro, a survey conducted by an independent polling firm in 17 regional countries and released early this year, 19 out of 100 respondents consider unemployment the most serious problem of our time, above and beyond any other issue. An additional 8 percent say low wages are the number one problem, and an average 65 percent of all respondents say they are "concerned" or "very concerned" about losing their job in the next 12 months.

Nearly everyone has an explanation for the shortage of jobs. Theories surface in conversations among workers, on newspaper editorial pages, and, invariably, in political campaign speeches. Indeed, aspiring politicians have always claimed to know the real causes of unemployment—and the secret to its prompt eradication.

But in fact, the causes of unemployment

■ **Despite the higher economic growth rates that most Latin countries have enjoyed in recent years, unemployment has actually risen** ■

are extremely difficult to isolate, and they puzzle even economists who specialize in labor market dynamics.

That was the conclusion of a seminar that drew some of the world's leading authorities on Latin American labor issues to IDB headquarters in Washington, D.C., last May. Entitled "Employment in Latin America: What is the problem and how to address it?," the meeting consisted of a candid examination of the many uncertainties that surround labor market behavior.

Eduardo Lora, senior research economist in the IDB's Office of the Chief Economist, opened the seminar by reviewing the employment trends that most specialists see in the countries of the region.

To a large degree, these trends indicate that public anxiety is justified. For example, the rate of new-job creation has slowed in the 1990s to an average of 2.8 percent per

year, about half a percentage point below the rate in the 1980s. And despite the higher economic growth rates that most Latin countries have enjoyed in recent years, unemployment has actually risen, from a regional average of 6 percent in the 1980s to around 8 percent in the 1990s.

Moreover, the informal employment rate (people employed in unregistered jobs that offer no benefits or security) has been rising. Between 1990 and 1996, the percentage of people who were self-employed, were domestic workers or were employed in enterprises with 5–10 workers rose from 51.6 percent to 57.4 percent. And while real wages have risen slightly in most Latin American countries since 1990, they have risen much more rapidly for high-skilled workers than for low-skilled ones.

Unpleasant surprise. These developments have disappointed and confounded economists, who had predicted that the macroeconomic reforms and GDP growth of the last decade would lower unemployment and help to bring up the wages of low-skill workers. According to participants at the seminar, there are a number of explanations that might partially account for these disheartening trends.

First, lowered trade barriers have forced the region's companies to become more efficient in order to keep up with global competitors. Easier access to capital and foreign investors has allowed these companies to upgrade equipment and purchase new technology, making it possible to raise productivity without hiring new workers. Those companies that *have* been recruiting have sought out high-skilled workers who can best take advantage of new technologies—even though these workers are in short supply and command higher salaries.

Second, the fiscal restraint required to stabilize economies and attract foreign investment has forced governments to reduce public sector payrolls, further exacerbating unemployment. And the same imperatives have led many governments to maintain somewhat overvalued currencies—a practice that makes a country's low-skilled workers comparatively more expensive and thus restrains job creation in this segment.

Third, many observers believe job growth in the region is being held back by overly aggressive unions and rigid labor laws that make it too expensive for companies to hire and fire workers.



NUMBER ONE WORRY: Job security and wages now top the list of public concerns in the region.

Yet even these hypotheses raise new questions. For example, market theory holds that in countries where companies are consistently paying a wage premium for highly skilled workers, individuals and families respond by investing more in education. But according to Miguel Székely, an IDB economist who presented a paper at the seminar, there is little evidence that Latin Americans are spending more on education. Why? There are numerous possible explanations, says Székely; starting with the very limited supply and high costs of good quality education in the region. But the issue remains difficult to decipher.



Likewise, the notion that the region's labor markets are hobbled by powerful unions is not borne out by the facts. "Union membership in Latin America is comparatively low and falling, and collective bargaining mechanisms are weak," Gustavo Márquez, an IDB labor specialist, said at the seminar.

In most countries worker protections are enforced more through labor laws and regulations than through contracts negotiated by powerful and effective labor unions. And although these laws do tend to be very restrictive in Latin America, there simply isn't sufficient evidence to prove that they are responsible for the region's persistent unem-

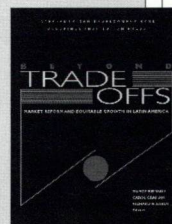
ployment rates.

These are but a few of the areas that, according to IDB specialists and several other speakers at the seminar, will require much more in-depth research before more solid answers can be found. In the meantime, policymakers and the general public should take sweeping generalizations about the causes of unemployment with a grain of salt.

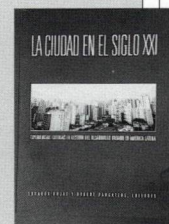


Electronic versions of the papers presented at unemployment seminar are available at www.iadb.org/oce/. Click on "publications," and then search for "employment."

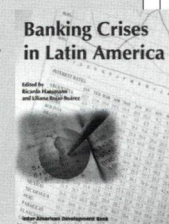
Income distribution in Latin America is among the most unequal in the world. Both the poor and the wealthy have paid a price for this inequality, which is partly responsible for the region's low economic growth rates. The essays in ***Beyond Tradeoffs: Market Reforms and Equitable Growth in Latin America***, edited by Nancy Birdsall, Carol Graham and Richard Sabot, propose new ways of reducing inequality, not by growth-inhibiting transfers and regulations, but by eliminating consumption subsidies for the wealthy, increasing the productivity of the poor, and shifting to a more labor- and skill-demanding growth path. (Co-published with the Brookings Institution Press, English, 373 pp., \$22.95)



La ciudad en el siglo XXI (The City in the 21st Century), edited by Eduardo Rojas and Robert Daughters, examines Latin America's transformation into one of the most urbanized areas on the planet. The growth of cities will help accelerate social and economic development in the region, but it will also exacerbate problems such as unemployment, crime, insufficient access to health care and education services, environmental degradation and poverty. (Spanish, 368 pp., \$12.50)



Banking crises occur in both industrial and developing countries, but in Latin America, they tend to last longer, affect a larger number of banks, and cost the public more. In ***Banking Crises in Latin America***, edited by Ricardo Hausmann and Liliana Rojas-Suárez, distinguished policymakers, scholars and bankers examine the main causes of such crises, how governments can manage them more effectively and how they can be prevented. (English and Spanish, 267 pp., \$21.95)



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A future in two languages

Bolivia's bilingual education program lets rural children embrace both Spanish and native cultures

By **DAVID MANGURIAN** Opoqueri, Bolivia

FOR THE FIRST TIME, THOUSANDS OF INDIGENOUS children in Bolivia are learning to read and write in their native languages—Aymara and Quechua—as well as in Spanish, something most of their parents cannot do.

The innovative program began in 1990 as part of a package of sweeping education reforms with goals that go far beyond basic instruction.

"We have to rescue our culture, because the children are trying to forget it," says Cornelio Ochoque Gómez, director of the primary school in Opoqueri, one of several thousand isolated villages dotting Bolivia's vast altiplano. He sympathizes with indigenous parents who fear that they will lose their children to the Spanish culture of the cities. "We have to respect and preserve what is ours," he says.

But living in a society where Spanish is identified with progress and power, and where native languages signify backwardness and poverty, creates a conflict for indigenous adults. Many are unsure where they want their own children to fit in.

"Sometimes these parents, Aymara or Quechua, don't allow their children to speak their own language," says Humberto Aguirre, director of education for the Department of Oruro, a region with a predominantly indigenous population. "But when they go to the city, they shield themselves from urban culture and don't want their children to learn Spanish. Bilingual education is important because their language is their culture."

Bolivia's new indigenous language texts have illustrations showing children and adults dressed in indigenous clothing doing activities that rural children can recognize and learn to respect.

"The old textbooks had pictures showing city life, homes with electric lights and stairs," says Ochoque Gómez. "The rural kids don't know what these things are. Their villages don't have electricity or buildings with stairs."

He continued: "People who live in the city have always looked down on rural people."



A first grader in the Bolivian altiplano town of Huayllamarca, Oruro, gets an education that also instills pride in her indigenous culture.

What we want is respect for everyone, city or rural, because we're all equals."

The reform program is also working to eliminate stereotypes of the role of women in society. At present, school enrollment and educational achievement are lower for females in Bolivia than for males, and illiteracy among women is twice as high as for men, in large part due to the tradition of keeping boys in school while girls help at home (see the

April issue of IDBAmérica for a cover story on this problem).

“We have to respect and preserve what is ours.”

Plans call for all future Bolivian public school textbooks (not just those in indigenous languages) to include illustrations of boys and girls playing together in traditionally gender-segregated activities, with the girls depicted as equals instead of subordinates.

“The concept of equality is very important,” says Aguirre. “But achieving it will take years.”

Bolivia’s educational reform program, financed with the help of an \$81.4 million IDB loan, aims to extend primary and secondary education to 100 percent of the country’s school-age population. The program also plans to boost technical and higher education to prepare students in skills needed by the labor market. Additional aims are to impose equity, particularly to benefit indigenous students and girls, and to increase the efficiency with which educational services are provided.

Pages from real life

Illustrations from one of Bolivia’s bilingual textbooks show scenes from a traditional indigenous wedding, children playing with homemade dolls, and the construction of a typical thatch roof. The scenes purposefully avoid gender stereotypes.



New direction for a fragile frontier

Residents of Panama's Darién help plan project

LONG FAMOUS AS THE LAST GAP IN THE highway system that runs from Alaska to Patagonia, Panama's remote Darién province may soon acquire another distinction.

"What we do in the Darién will be a model for all of Latin America," said IDB President Enrique V. Iglesias at a June meeting of an international advisory committee that is reviewing the preparation of a sustainable development project for the province. The project, which is pending final approval from the IDB's Board of Executive Directors later this year, aims to reconcile economic exploitation and environmental preservation through an unprecedented process of community consultation and planning.

The Darién faces problems similar to many other areas in Latin America where advancing human settlement is threatening irreplaceable ecosystems (see the Special Report that begins on the next page). Here, where the flora and fauna of two continents met 2.5 million years ago, live a large number of unique species. Recognizing the region's value to biodiversity, UNESCO declared the Darién National Park a World Heritage Site in 1981 and a Man and Biosphere Reserve two years later.

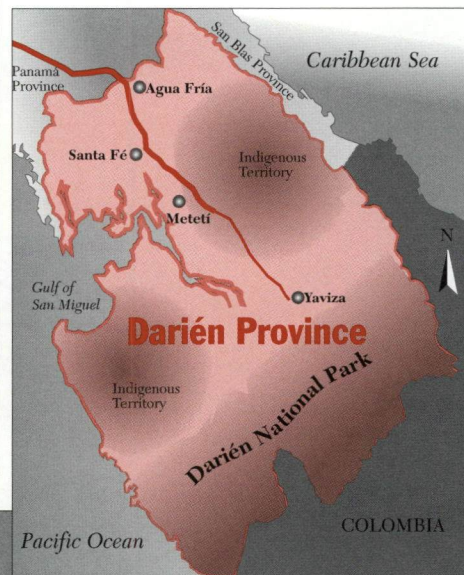
Panama's largest province, Darién also has the country's highest indices of poverty and by far the highest rate of deforestation. A major part of the problem is a population growth rate of 4.5 percent annually—also the county's highest—that has tripled the number of people in the province in the past 20 years to 60,000.

The influx of newcomers has resulted in conflicts among the three main ethnic

groups: the indigenous people, declining numbers of Afro-Latin Americans, and growing numbers of Latino colonists. Exacerbating the problem is the general poverty of the rainforest soils. Only an estimated 7 percent of the province's area is suitable for agriculture, but nearly three times that amount is under cultivation. After settlers exhaust one piece of land, they move on to repeat the process elsewhere, sometimes in areas claimed by indigenous communities. Other disputes take place between large landowners and small-scale farmers.

While 41 percent of the province is under some form of protection, and indigenous

“We want the road. But we also want to preserve what God has given us.”



When two continents joined 2.5 million years ago, two biological worlds collided. Today, these fragile tropical forests are once again the scene of confrontation, this time among people over natural resources. What happens during the next few years will do much to determine the future of this still largely pristine area.

territories comprise another 26 percent, boundaries are poorly defined and frequently ignored.

The IDB-financed project will address these problems by bringing order to what is presently a chaotic process of settlement and economic exploitation. Included are measures to demarcate protected areas and indigenous territories; land titling; land use zoning; and improving and diversifying production. A series of studies is being carried out to provide a solid technical and scientific foundation.

"Our objective is to create a dynamic equilibrium among the human, ecological and economic factors," says the IDB's Heli Nessim, project team leader.


Double-edged road. Project plans also include rehabilitating a road that extends to the town of Yaviza, halfway through the province toward the border with Colombia. Although an all-weather road will certainly speed up the process of change, most of the Darién residents are in favor of it. "We want the road," said Narciso Pacheco, advisory committee member and leader of the Emberá Wounaan indigenous reserve. "But we also want to preserve what God has given us."

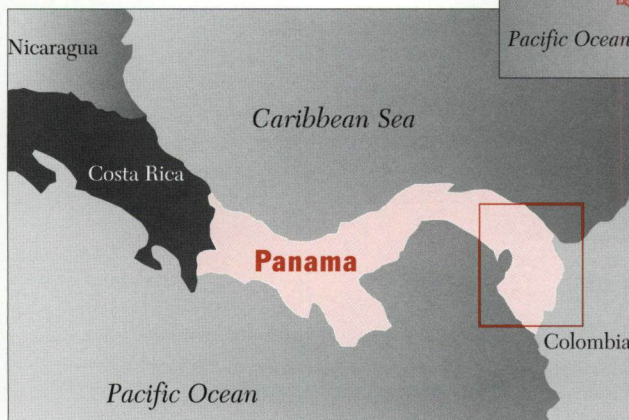
The principal means for achieving orderly and sustainable development is consultation with all affected groups, a process that is taking place on a larger scale than in any previous IDB project.

The results of 45 workshops already held throughout the province are now being analyzed, and some 60 activities proposed by the participants are being considered for inclusion in the project.

Meanwhile, the advisory committee met three times prior to June, twice in Washington and once in Panama. Its members include senior representatives from the Nature Conservancy, the Smithsonian Institute, the International Union for the Conservation of Nature and the Central American Commission on Environment and Development. National members represent the government, the Catholic Church, nongovernmental groups and indigenous communities. International nongovernmental groups have also been consulted.

While those working on the project are optimistic, they are also realistic. "Whatever we do, or whatever we don't do, there will still be conflicts," said Hugo Guiraud, advisory committee member and special representative of the president of Panama in the Darién. "More than economic incentives, the project must be founded on solid legislation and a strong interagency executing unit," he said.

 For additional information on the Darién, go to www.ancon.org or www.unesco.org/whc/sites/159.htm.



COMMUNITY CONSERVATION

Local people take action

THEY CAME IN DUGOUT CANOES AND ALUMINUM skiffs, following the lazy bends of the rivers, threading their way along paths through flooded forests, until they arrived at the one-room school in the tiny community of Vila Alencar.

It was Earth Day on the Amazon, 600 kilometers west of Manaus, Brazil. Here the environment is not something "out there," in the pages of a magazine or on the other side of a windshield. It is life itself. In these forests and waterways the people catch fish, plant cassava and harvest wood. Here they were born and here they hope their children will raise their families.

The president of the community association opened the ceremony. Framed by potent symbols—a wooden cross, candles, the flags of Brazil and the state of Amazonas—he pledged devotion to environment, country and religion.

"God gave nature to man," he declared, "but if man does not preserve it, nature will disappear, especially the fish, which is the most important for the sustenance of the people."

Four young people stepped forward for the traditional tree planting ceremony. This was the high-water season and there was no dry land for kilometers around, so they gave the seedlings a temporary home in metal pots.

The ceremony closed with a poster contest. The student artists drew what they knew: sun, forest, rain, fish, birds, animals and people. In most cases, a great tree, its branches pulsing with life, dominated the composition.

In Vila Alencar, the people's lives are entwined with the environment in a thousand ways, and they know it. Their interest lies in protecting natural resources, not despoiling them.

And protecting them they are. As the following pages will show, the people of Vila Alencar and other communities in Latin America are becoming protagonists in a pioneering new approach to nature conservation. They are organizing themselves to protect their environment—helping to make the rules, enforcing them, and ultimately deriving the benefits.



ILLUSTRATION BY BECKY HEAVENER

Man and nature in a flooded forest

Local communities help protect an Amazonian wilderness

By ROGER HAMILTON, Mamirauá, Brazil

IN MOST PLACES, THE WET SEASON SIGNALS a time of plenty. Seeds sprout, livestock fatten, larders and coffers fill. But not in

Mamirauá, a watery triangle in between Brazil's Japurá and Solimões rivers, about 600 kilometers west of Manaus, Brazil. As the rivers make their annual rise, the land shrinks and the people tighten their belts.

Tito Cavalcante Martins silently propels his dugout canoe around tree trunks and thorny branches protruding from the dark water. Two months ago, he said, a person could walk through this forest and not get his feet wet. But now, it is home for the tambaqui, a fish that fattens on fruit that drops into the water. It is home for many other creatures as well, and Martins points them out in the canopy above: troops of monkeys, sloths placidly munching on leaves, noisy flocks of parrots, a toucan, and the brilliant flash of a scarlet macaw.

But Martins' hand-made harpoon never leaves its perch on the gunwale. Come back during the dry season, he says, when the fish are massed together in shrunken channels and lakes, making easy targets not only for fishermen, but for caimans and great flocks of birds.

Everything gets tougher when the water rises. People hurry to harvest their cassava before the river inundates their garden plots. They refurbish floating corrals and begin the

tedious job of cutting grass and foliage to feed their cattle. They make floating gardens.

Everyone travels by canoe or motorized launch—to school, to visit neighbors, even to the outhouse. Some take a riverboat downstream to find seasonal work in the closest city, Tefé.

The water continues its rise. People living in floating houses check the ropes that tether their dwellings to trees. Those with houses perched on stilts worry that the water will rise above their floorboards, and that they will have to lay down palm leaves to keep their feet dry, piling them higher and higher as the water rises, sometimes to the point where they have to crouch to walk around.

IT IS HARD TO IMAGINE ANOTHER PLACE in the world like Mamirauá. Although its environment constrains human affairs, Mamirauá (which means baby manatee in the local indigenous language) harbors a remarkable ecosystem of plants and animals that have evolved ingenious ways to cope with seasonal changes. Many species are found here and nowhere else, such as the white uacari monkey and the blackish squirrel monkey, both endangered species.

In fact, it was the white uacari that drew Brazilian biologist José Márcio Ayres to the area in 1983 to carry out his doctoral studies. He was the first person to make a scientific description of this monkey since the middle of the last century.

Would he be the last? Ayres soon realized that the future of the white uacari depended on the preservation of its habitat, which was

being threatened by logging. He started a protection campaign, and in 1990, the governor of the State of Amazonas designated a 1,124,000-hectare swath of lakes and forest as the Mamirauá Ecological Station. It was Brazil's first reserve to protect the flooded forest, or *várzea*, ecosystem.

In 1992, the Mamirauá Civil Society was created to administer the new reserve. Although its initial efforts would be concentrated in a 260,000-hectare focal area, the long-term aim is to extend management to the entire reserve.

While Ayres and his associates were drawn to Mamirauá by its natural treasures, they came to the conclusion that conservation cannot take place in isolation from the people who were already there. Ecology teaches the interdependence of plants and animals, and early on they decided that the key to preserving this ecosystem was the participation of one species in particular: man.

People have been a part of the *várzea* ecosystem for many centuries. While they modified the environment in many ways, they did not destroy it. But in recent years, pressures had begun to mount. Commercial fishermen from Manaus and Colombia were decimating the local fish populations, loggers were making inroads in the forest, and commercial hunting was threatening the region's manatees, aquatic birds, caimans and turtles.

Equally threatened were the local people who depended on these disappearing resources for their sustenance. Therefore, reasoned Ayres, the local people should be involved in drawing up protective rules and regulations, and then enforcing them.

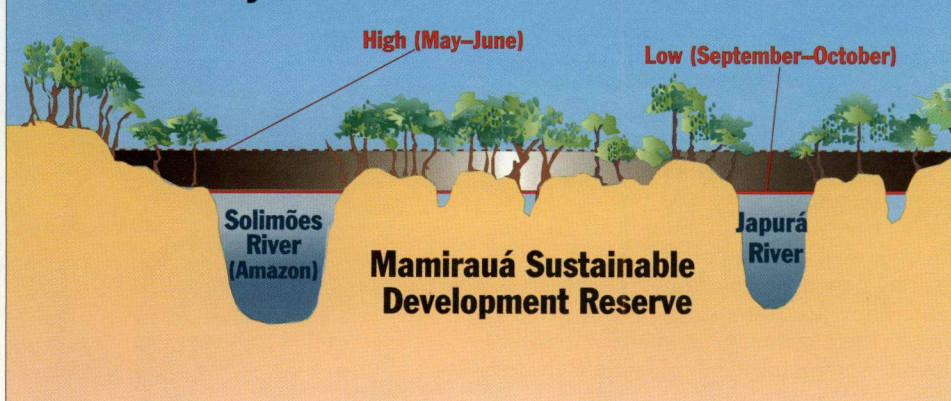
Ayres again went to the state government with a proposal to create a new kind of legal entity, an environmental reserve where man and biodiversity would coexist. In 1996, the legislative assembly classified Mamirauá as a "sustainable development reserve" that would reconcile three objectives: biodiversity conservation, natural resource use by local communities and research.

It was a bold and trendsetting move that won support from many national and international agencies and organizations, including Brazil's National Environmental Fund, which is financed by the IDB (see box page 11).

(Cont. on page 10)



The seasons cycles





Reserve guide Tito Cavalcante Martins keeps an eye out for monkeys, sloths and other canopy dwellers as he paddles along a forest pathway.

People to poachers:

KEEP OUT!

FROM THE DARKNESS BELOW Antônio Martins' window came the voice of a boy. Hurry, the voice called, a motorboat carrying four strangers has been seen entering a nearby lake.

Fishing was prohibited in that lake, and Martins had a job to do. He put on the tee shirt that identified him as an "environmental agent" and hurried down the steps of his stilt-legged house. He pushed an aluminum skiff off the muddy river bank, and with a pull of the starter rope, the motor sputtered to life.

It surely was not a pleasant prospect: one lone, unarmed man confronting four poachers on an Amazonian night. But Martins was a man of authority, a tough veteran of this watery frontier and president of his community association. Moreover, the rules he was about to enforce had the full support of the community and the backing of Brazilian law.

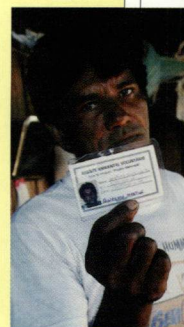
Martins drew his skiff up alongside of the strangers' boat and asked them if they knew they were fishing illegally.

"They said yes, they knew," Martins recalled. "I asked them to leave, and they did. Thankfully, most of the time it's like this."

Instead of a corps of professional guards, volunteers like Martins enforce the regulations in the Mamirauá reserve. They learn part of what they need to know from a 3-5-day course given by Brazil's environmental agency. The rest comes from their intimate knowledge of the reserve's people and its environment.

Rough and ready though it may be, enforcement in Mamirauá is far more effective than in many other protected areas in Latin America, where park administrators don't have money to hire more than a tiny fraction of the guards they need to patrol vast areas. Logging, hunting—even clearing the forest and establishing homesteads—are often carried out with impunity in such "paper parks."

Community decision-making and volunteer enforcement have already shown results in Mamirauá. Fish populations have come back, boosting local incomes. Nearly all the families have outboard motors, freeing them from dependence middlemen fish merchants.



Agent Martins

ROGER HAMILTON—IDB

Back from the brink

"YOU GO OUT AT NIGHT WITH A FLASHLIGHT, and it looks like Rio de Janeiro—so many shining eyes," said Ronis da Silveira, clearly relishing the image.

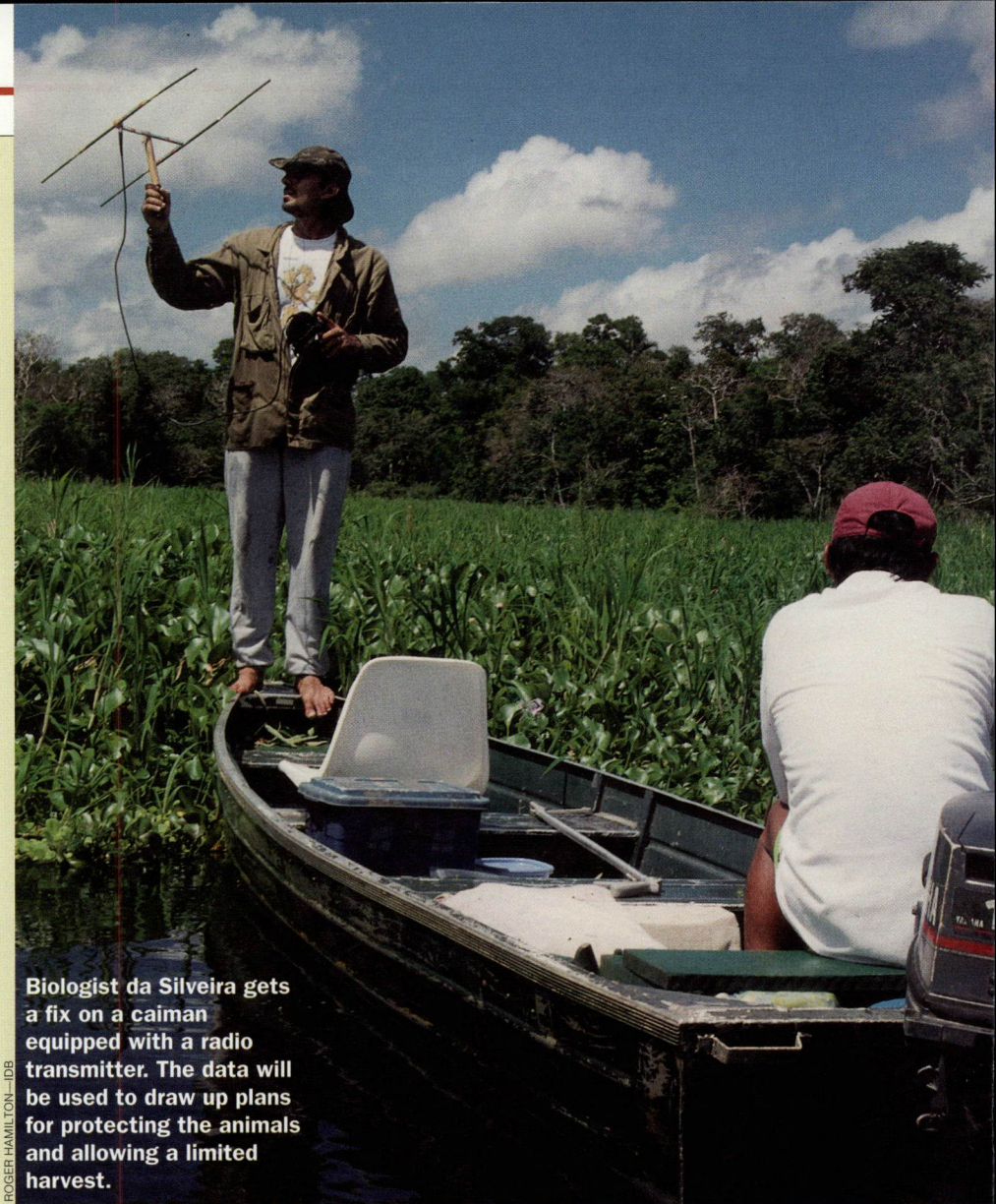
The spectacled caiman and its much bigger cousin, the black caiman, the largest predator in the Amazon, are evidently on the rebound in Mamirauá. It is the job of this young biologist to help make sure that their return is permanent.

Sitting on the porch of his little floating house, a troupe of monkeys swinging through the trees on the riverbank, da Silveira describes how it is to work in practically virgin scientific territory.

Until recently, about all the outside world knew about these top predators was contained in accounts of missionaries and explorers. But local people knew a great deal about caimans, because they hunted them. The market for luxury shoes and handbags had put a price on the heads of these alligator look-alikes, and in many places, caimans were all but wiped out. "We almost lost a big one before we got to know anything about them," said da Silveira.

Then, in the 1960s, the international community adopted a set of tough restrictions on the trade in caiman skins, giving the animals a reprieve. Today, some hunting continues, but the objective is meat, not skins. It's not a popular occupation, venturing out at night to tangle with a beast nearly as long as the tippy canoes. The local people themselves don't eat caimans, but salt the meat for sale to middlemen, who in turn pass it off as fish.

As a scientist, da Silveira does not condemn the hunters. In fact, he hires them as guides and plies them for information on where the caimans breed, lay their eggs and hunt for food. "Their role in my research is



Biologist da Silveira gets a fix on a caiman equipped with a radio transmitter. The data will be used to draw up plans for protecting the animals and allowing a limited harvest.

fundamental," he says, and in any event, "hunting is a reality."

Da Silveira's goal is not only to protect the caimans, but also the livelihood of the people who use them. The same is true for much of the work being carried out by 10 other researchers working in Mamirauá. Although good scientific data on an animal's biological needs and its place in the envi-

ronment is essential in any effort to protect biodiversity, it is particularly important when the objective is something less than total protection, as is the case in Mamirauá. Only with this information in hand can scientists and community members carry out a management plan that will ensure an animal's long-term contribution both to the ecosystem and the local economy.

(Cont. from page 8)

THE FLAT-BOTTOMED ALUMINUM SKIFF slapped the waves as it planed off the main stem of the river into a channel leading to the flagship of the Mamirauá Sustainable Development Reserve's fleet of floating houses, a two-story base of operations for staff and visiting scientists.

Marise Reis leaned against a stack of boxes filled with flour, sugar, fruit and rapidly thawing chickens. Lanky, laid back and perfectly at ease getting in and out of boats, she was taking a break from her desk duties at the reserve's headquarters in Tefé to visit

community leaders prior to an assembly set for the next month. The assembly would be a major event, the culmination of years of meetings, negotiations with governmental authorities, research and the tireless efforts by the reserve's staff to draw up a management plan for Mamirauá that would combine biodiversity conservation, sustainable resource use and activities to improve the lives of local inhabitants. The plan, which was subsequently approved nearly in its entirety, would already be thoroughly familiar to the local people, since they were closely consulted during its preparation.

With its community-based approach,

Mamirauá has made a clear break with past attempts to protect biodiversity in the Amazon, says Reis. In developed countries, the first step in creating parks and reserves is to separate man and nature, like breaking up a fight between two antagonists. But in the Amazon, relocating or prohibiting the entry of people, even if it were desirable, would be too costly. Just finding the money to enforce basic regulations is very difficult. And unlike people in developed countries, residents of Mamirauá must harvest fish, timber, wildlife and other forest products for their livelihood.

For all of these reasons, things had to be

done differently in Mami-
raua.

"When we looked at this area and started thinking about assigning uses to different areas, we never lost sight of the needs of the communities for fish and wood," says Reis.

She and others gathered extensive data on the area's population structure, patterns of migration to and from urban centers, family customs, health and education, and economic activities. Meanwhile, Reis visited the area's 60 communities to explain the objectives of the reserve and solicit ideas.

Most importantly, she guided the communities in creating a representative body that would take the lead in shaping the reserve in the future. At first, two general assemblies were held semiannually. Three riverboats spent three days visiting each community to pick up the 100 delegates, who would meet for three days in Tefé or another location. Later, the assemblies were cut back to one a year. "Nobody could stand meeting so often, neither them nor us," recalls Reis.

The plan hammered out in 1997 was far-reaching and tough, building on regulations already in place. Among its provisions were closing the reserve's focal area to commercial fishing boats from urban centers and assigning lakes to a three-tiered classification system: strict protection, sustained use and special management for selected species. Restrictions were placed on fishing gear, and rules were passed for hunting manatees, turtles, birds and other species. While local communities can continue to fell trees, special provisions now spell out which can be cut, with what equipment, and when.

The reserve's long-term objective is to put in place a zoning system that will totally protect some areas, leave others open for sustainable uses, and designate still others for specific objectives, such as ecotourism, management of turtles, manatees, and caimans, and bird nesting habitat.



From livestock to the reserve's field stations (below), it's float or perish.



Meanwhile, scientists from Brazil and around the world will continue to gather data on species' life cycles, population dynamics, migratory patterns and interactions with other species to give planners the information they need to design management plans.

Reis acknowledges that the new conservation measures and regulations will represent a short-term loss for the communities. But these costs will be partially offset by better health care services, septic tanks and treating drinking water. Project personnel will also help community members to improve fish processing methods, market ornamental fish, produce honey, cultivate fruit trees and sell nontimber forest products. Also, plans are underway to open the area up to low-impact tourism, which would provide jobs for guides, tour operators, cooks and lodging personnel.

Despite a promising start, Mamirauá's future as a place where man and nature can coexist is far from assured. Conservation has meaning only over the long term, and building a lasting relationship between people and their environment takes time. "Old habits die hard," says Reis. "Sometimes the people think that things can be changed over night. But we know it's not like that."

Money where it counts

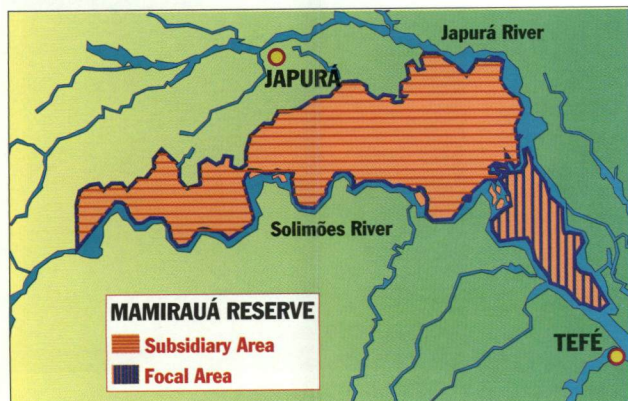
THE MAMIRAUÁ RESERVE IS A VERY SPECIAL place and its guardians are very committed people. But they're not alone. From the Atlantic Forest, to the furthest reaches of the Amazon, to the *caatinga* brushland of the Northeast, hundreds of local groups are proving their dedication to environmental conservation in Brazil. Their aims are as varied as the landscape: education, biodiversity conservation, assistance to indigenous peoples, protection of marine resources.

Although these groups have no lack of energy and vision, money is always a problem. So the establishment of the National Environmental Fund (FNMA after its name in Portuguese) in 1989, and its subsequent funding with an IDB loan for \$22 million, were welcome developments. The Brazilian fund was the first, and according to many, the most successful of the 40 national environmental funds established worldwide. It has since financed some 530 projects for a total of \$30 million.

The FNMA addresses a crucial challenge facing environmental conservation in developing countries: how to focus local financial, human and institutional resources on solving local problems. National policies and programs, while important, can only do part of the job. Environmental conservation becomes truly sustainable only when people commit themselves to protecting their own backyards. As has been proven many times, in both developing and developed countries, conservation imposed from above tends to be short-lived.

True to its grassroots mandate, more than 70 percent of the FNMA's projects are carried out by nongovernmental organizations, community groups and small municipalities. Five of the 14 members of its committee of directors are from private citizens' groups. The average FNMA funding for projects in 1996 was \$81,000. Local counterpart organizations provided an additional \$50,000 per project.

Encouraged by the FNMA's record to date, the IDB expects to fund a second phase of the program for \$45 million. As in the first phase, the principal objective will be to finance local projects. Resources will also be included to strengthen the FNMA's ability to broaden its financial base and train local groups.





In a local schoolhouse, neighbors gather to discuss how they can help shape a plan for sustainable development in the Petén.

People in the Petén

Building peace and saving an ecosystem

By **ROGER HAMILTON**, Flores, Guatemala

SOME 8,000 AREAS AROUND THE WORLD HAVE been set aside to protect natural ecosystems. One of the best known is Yellowstone National

Park in the United States, a soaring landscape of crystalline streams and carefully managed human impact. But like nearly all protected areas, it has become an island under siege—by local sheep ranchers protesting the reintroduction of wolves, by cattle ranchers who shoot buffalo

that stray beyond the park's boundaries, and by the growing tide of development around the park's perimeter.

If Yellowstone has problems, consider Guatemala's Petén forest. This vast sea of green, harboring an astonishing number of plant and animal species, many found nowhere else in the world, in many respects exemplifies the problems of conserving biodiversity in the tropics. On paper, many of its prime spots have been reserved for protection, the largest of which is the 15,553-

square-km Maya Biosphere Reserve. But enforcement is weak or nonexistent, and the calls of birds and monkeys are increasingly being replaced by the whine of chainsaws.

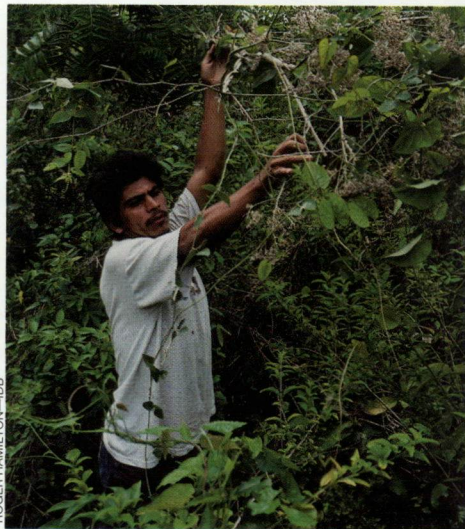
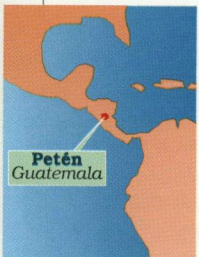
The Petén's biodiversity faces an additional problem. After three decades of civil strife, Guatemala is taking bold steps to forge a long-term peace and build a democratic society. Former combatants have traded their arms for plows and must now find land to farm to support their families. There is very little left in highlands, so when they look toward the seemingly "empty" Petén, they see a land of opportunity.

Even before the recent settlement surge, the forest was being converted to smoke and charred earth at the rate of 75,000 hectares annually. The Petén's population was growing at a yearly rate of more than 9 percent, much higher than the national average.

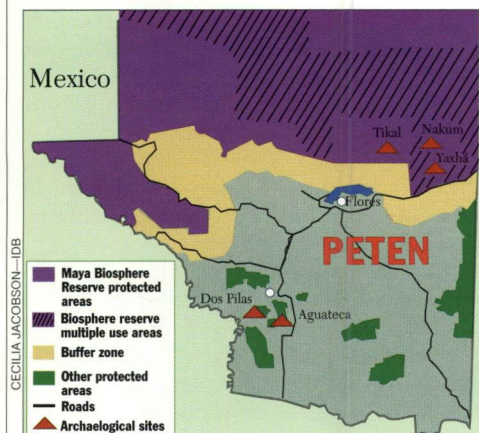
It might seem that the Petén is headed for the same fate that is befalling so many other tropical forests elsewhere in the region. But a group of far-sighted people have set out to prove otherwise. They are betting that the Petén, as a repository of biological as well as cultural riches, has the economic poten-

tial to buy its own protection.

What the Petén has going for it is neatly summed up in a patch of forest near the village of Crude dos Aguadas. Luis Felipe López pushes aside a wall of vines and palm fronds and sets down a sack filled with what he called "botanicals." Carefully chosen leaves, seedpods and other forest gleanings, these are the raw materials for scented potpourris destined for sale in New York and London. Elsewhere, other communities are supplementing their incomes by collecting and selling such nontimber products as all-



Collecting forest products for profits.



spice, chicle for chewing gum, foliage for flower arrangements, and palm nuts for oil.

López is joined by his companions in front of a little hill, trees clinging to its steep sides. Underneath the thin soil lies another untapped but potentially valuable forest resource: an ancient Mayan pyramid. It is part of a temple complex, one of hundreds throughout the Petén, and the potential basis for a greatly expanded tourism industry (see page 8). The Mayan civilization that built it flourished here for hundreds of years, and then disappeared, apparently the victim of social and ecological dislocation.

The same fate must not befall the Petén forest. One of those working to ensure that this doesn't happen is Marco Palacios, one of the principal designers of a sustainable development program being funded with the help of \$19.8 million in IDB financing.



Marco Palacios

Palacios is no ivory tower official. He works out of a modest whitewashed building in the dusty town of Santa Elena, where he has just met with a group of people who had a dispute with a large landowner. "It doesn't have anything to do with the sustainable development program itself," he explained. "But I try to help with these things, and maybe the people will do something for us later on."

Ebullient, optimistic, Palacios will need all the people skills he can muster to help forge a compact between the Petén's local population and its natural and archeological resources, all the while in a tinderbox environment of rapid social change.

The strategy of the program is to give people a stake in the forest. One way is by legalizing land tenure for up to 4,500 families that have settled in the buffer zone contiguous to the Maya Biosphere Reserve. By doing so, the local people will have the legal

(Cont. on page 14)

Pyramids and tourist dollars



A TOURIST IN EGYPT WHO climbs to the summit of a pyramid is treated to a view consisting mainly of sand. Not so in Guatemala's Petén. Here, the reward for pyramid scalers is an unforgettable panorama of forest canopy bustling with birds and

troops of monkeys.

The Mayan temple complex of Tikal draws planeloads of visitors to Guatemala's Petén region daily, making it far and away the country's top tourist attraction. But while the tourists leave satisfied, Marco Palacios is not. "They come in the morning and leave in the afternoon," grumbles this champion of conservation and designer of an IDB-funded sustainable development program that aims to protect the region's natural and archeological resources. "They should stay for a week. We have attractions here unmatched anywhere in the world."

Among them are at least a thousand Mayan archeological sites, only a handful of which have been studied and restored. A greater number have been looted, and the vast majority reveal themselves only as aberrations in the jungle topography: steep little hills covered with trees and vines that hardly qualify as tourist destinations. Visiting these less-known sites often means first getting acquainted with axle-deep mud or enduring long trips by horseback or uncomfortable river boats.

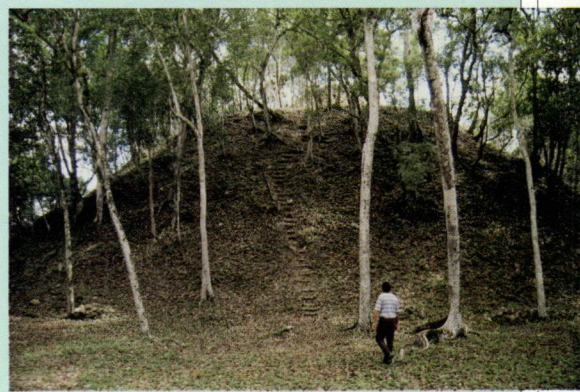
The new program aims to change this. By funding the restoration of other major ruins and supporting projects to improve access and small-scale tourism infrastructure, visitors will come to see Tikal, but stay to go on archeological safaris that combine visits to other sites with tours of the forest.

Perils of neglect. Work is already underway at several sites. One is Aguateca, a one-hour boat ride up the Río Petexbatún. There, archeologist Erick Ponciano leads visitors up a slippery hillside, past a camp of blue polytarps, to a vast plaza shaded by giant trees and ringed with pyramidal hills.

He pauses at a fallen stela, a slab of stone with bas relief figures bordered with hieroglyphics, and points to a thin cut. This was the work of a thief, whose efforts to

divide the stone into transportable pieces had been interrupted, at least for the time being. The theft probably had been commissioned by a wealthy collector who wanted this specific stela. Once the Aguateca site is developed, the permanent presence of community members acting as guards and guides will minimize this kind of problem.

Near Tikal is Yaxhá, another concentration of monuments where restoration is proceeding with the support of the German government. The site promises to be at least as impressive as Tikal.



Thousands of tree-covered hills throughout the Petén await the archeologist's shovel to ancient splendors, such as reveal Tikal (below).



Archeological and restoration teams have already hired many local people, and in coming years, many more will find work building rest centers, docks and access roads. Others will guide tourists, man refreshment stands, restaurants and information booths and staff restaurants and hotels. Still more will start their own small tourist-related businesses.

"I can count 50 small-scale industries based on tourism," says Palacios. "They will give local people the opportunity to earn a living by means other than farming, which will both improve their quality of life and protect the Petén's immense patrimony."

(Cont. from previous page)

standing to participate in land-use decisions, as well as the incentive to manage their resources sustainably.

The new program is also helping to create new sources of income. For example, developing archeological sites and helping local communities to provide tourism infrastructure will bring in tourist dollars.

The program will also fund pilot projects to show how diversifying agricultural production can increase income. "In the Petén, everyone grows corn, because that's their culture," said Palacios. "That's all they know." But while corn is fine for subsistence, growing vegetables would earn them five times the income, he said.

"Conservation is possible only if people have alternative ways to make a living," said Palacios. "We have to relegate the idea of conservation for conservation's sake to the museums." In the end, the people must decide. "They are the ones who ultimately have to manage the resources," he said. "In this very fluid, difficult situation, they must provide the solutions."

And so in packed schoolhouses throughout the Petén, farmers, teachers, mayors and ranchers are meeting with officials to learn how they can shape the new program. Each person comes with his own set of interests, but during the give and take of the meetings, most end up identifying with the larger undertaking. This voluntary evolution from individual to collective agendas is a source of inspiration to Palacios. "It's a process that gives you goose bumps," he says.

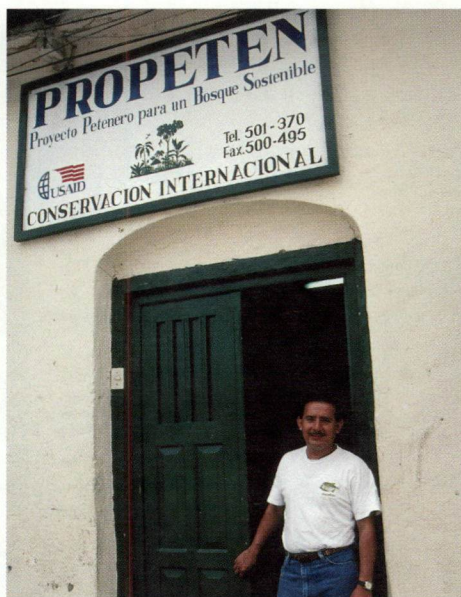
But time is running out. Palacios took an old volume down from his bookshelf and turned to an aerial photo showing the edge of a forest that seemed to be drawn with a ruler. It was the northern boundary of the Department of Petén, which is also the national border with Mexico, protected on one side, open to settlement on the other. "The border is not so clear anymore," he said.

GIVEN THE PETÉN'S VALUE AND THE PRECARIOUSNESS of its status, the number of nongovernmental organizations active there is not surprising. In fact, in the island town of Flores, a short drive across the causeway from Palacio's office, there is a section informally called "NGO row." One NGO, ProPetén, administered by Conservation International, is already knee deep in the job of making sustainable development a reality.

ProPetén is working with community groups to establish microenterprises that gather and sell nontimber forest products. Its strategy is to first participate as a partner, helping to finance production facilities and establish markets. Then, once the business is up and running, ProPetén sells its shares and the business obtains its own financing.

One such microenterprise is the potpourri cooperative in Crude dos Aguadas. In one building, a group of women stand around a slowly revolving lazy susan divided into compartments. Each holds a particular type and color of botanical, which they deftly arrange into the final product. "No artificial anything," said center manager Carlos Acuña. Yellow comes from a root, purple from a kind of wood, and red from the bark of a tree. The scents are natural oils.

While a small operation, the potpourri shop has become a welcome source of additional income for the 10 people who work in the processing center and the 30 others who collect the botanicals. Some 70 percent of the workers are women.



ROGER HAMILTON—IDB

ProPetén's Sosa worries that rapid change and a highly politicized environment will imperil efforts to save the Petén's biodiversity. It's a tinderbox situation that can turn tragic: Sosa was among the mourners at a funeral for a local conservationist who was murdered.



ROGER HAMILTON—IDB

The cooperative sold nearly 10,000 potpourris for more than \$36,000 in the year ending June 1996, according to Marvin Segura, ProPetén business manager. Now it will expand into the national market.

Not far away, members of a second ProPetén-supported group are working to turn the oil from the fruits of the cohune palm into a source of income.

Manuel de Jesús Santamaría and several neighbors from the community of La Máquina picked up the walnut-sized fruits and tossed them into a burlap sack. Santamaría selected a nut, smashed open its hard shell between two rocks, and offered a piece of the white meat. It tasted like coconut, only more oily.

Santamaría's group first sold its cohune nut oil on a small-scale, subsidized basis. When it became clear that the product had a real commercial future, they decided to purchase machinery that would enable them to process 40 tons of nuts a month. By then it was time for ProPetén to reduce its participation and for the committee to turn itself into a full-fledged cooperative and apply for a loan. With a \$50,000 credit from Fondo Maya, a conservation fund managed by ProPetén, the cooperative built a production center.

PROPETEN DIRECTOR CARLOS SOSA IS ENCOURAGED by such success stories. But as someone who works in the front lines, his enthusiasm is tempered with realism. In particular, he is apprehensive that the influx of newcomers to the Petén will jeopardize the fragile successes his group has achieved.

"Before, we could define projects by communities," he said. "But in the past two years in just one area, the Laguna del Tigre National Park, 10 new communities have been established. 'They regard it as the land of nobody, where anyone can go and do whatever they want. They help themselves to what they need. Where are we going to get the resources to attend to these people?'"

Sosa doesn't have the answers. He recognizes how difficult it is to build peace and create a democracy in such a delicate, highly politicized context. The best course for NGOs like ProPetén is to leave decisions in the hands of the communities. But even following this course, setbacks can be serious and tragic. Last year, Sosa had to deliver the eulogy at the funeral for a community leader who was murdered, probably because of his role in getting the government to recognize an extractive reserve where local people could harvest forest products.

"We have to forget for the moment the idea of a park," said Sosa, "where you can't touch a leaf or pick a fruit. Now more than ever, conservation means working with people. People have to take ownership."

The right stuff at 8,848 meters

First Bolivian to summit Mt. Everest is also first native American

By ROGER HAMILTON

AT 5:30 ON THE MORNING OF MAY 26, Katmandu time, after almost having to concede defeat, Bernardo Guarachi placed the Bolivian flag on the summit of Mt. Everest.

The 43-year-old climber was both the first Bolivian and probably the first native American to reach the 8,848-meter summit.

His expedition had not played out in textbook fashion. After arriving in Nepal in late March, heavy snows forced Guarachi and a growing number of other climbers to wait at base camp.

Guarachi spent the next two months conditioning himself with climbs to Camp II and III. "It was very, very frustrating for him," says David Atkinson, IDB representative in Bolivia, himself a climber and one of the organizers of the drive to fund Guarachi's attempt. "It took a tremendous force of will and character just to spend two months under those conditions, living out of a tent, losing 10 kilos, cut off from his family."

Then, on May 19, the weather finally cleared, and Guarachi and 53 others set off up the Nepalese side of Everest, which straddles the border with Tibet. But by the time they reached the famed Hillary Step, a 10-15-meter dropoff of rock and ice just 100 vertical meters from the summit, they had run out of rope, and had to turn back.

Back at Camp IV, Guarachi's limited English caused him to misinterpret the plans of the members of his group, and he returned to base camp. Then, realizing his error, he did an about face and pushed straight through once more to Camp IV. On midnight of May 25, he struck out a final time with a group of climbers from Singapore.

"From base camp to the summit, 3,548 meters in 72 hours—that's got to be some kind of record," said Atkinson.

It was Guarachi's second Everest attempt. His first, in 1994, ended at 8,180 meters when bad weather forced his return.

Hailing his countryman's success, Bolivian Vice President Jorge Quiroga Ramírez, himself a climber, said Guarachi's feat is evidence of "a very big heart, and even bigger lungs."

And in fact, Guarachi had been training for this moment all his life. Raised near the windswept Andean town of Patacamaya, where his father still tends the family herds of sheep and llamas, he has spent much of his life above 5,000 meters. As a mountaineering guide, he has made more than 170 ascents of 6,450-meter Mt. Illimani, the famed peak overlooking Bolivia's capital of La Paz. He made his most dramatic Illimani climb in 1985, when he was hired by Eastern Airlines to locate the wreckage of an airliner that crashed on New Year's Day.

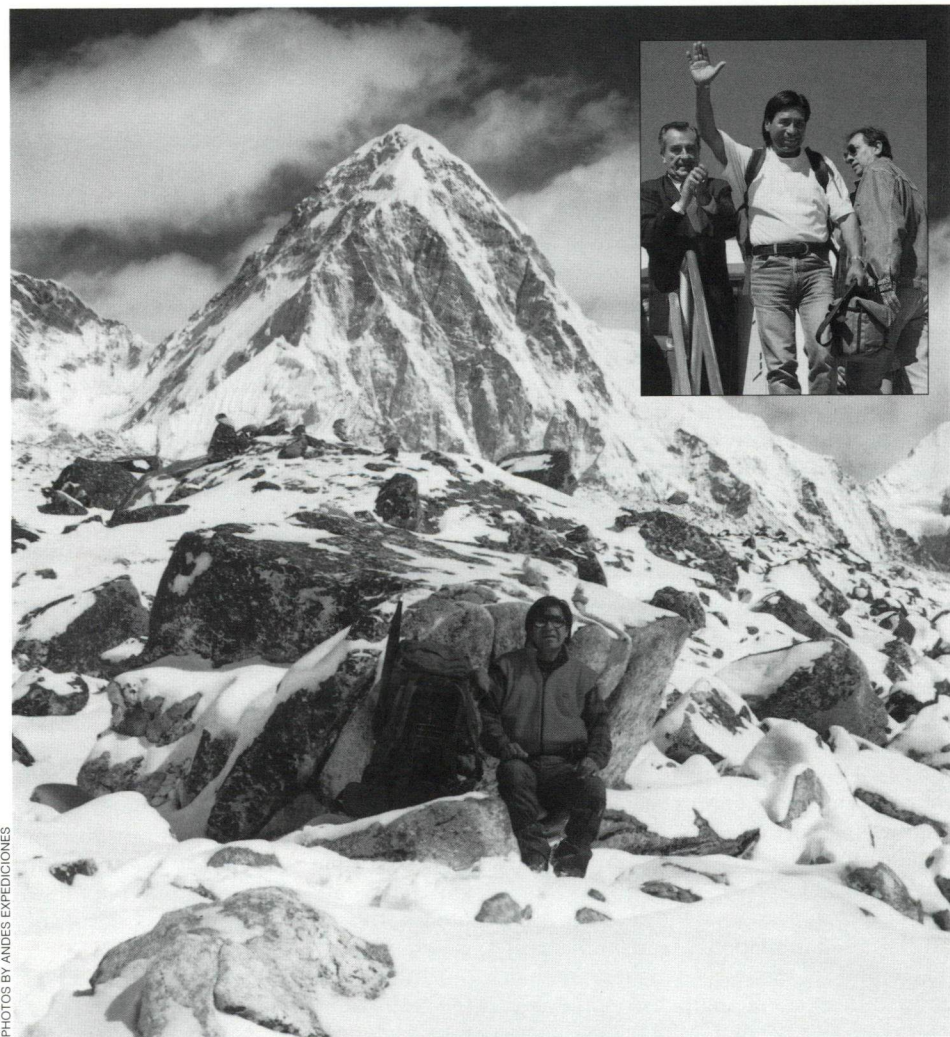
But in addition to determination, skill and stamina, an Everest expedition requires money, and lots of it. A plan to finance the climber's second attempt was hatched—appropriately—during a 1996 climb up Mt. Illimani in which Guarachi guided Quiroga and the IDB's Atkinson. The two, along with Bolivian Times Publisher Peter McFarren, formed a group dubbed Amigos de Guarachi that raised \$33,000 in donations.

Atkinson is unstinting in his praise of Guarachi, both as a man and a climber.

"Good guides are not necessarily world-class climbers, and world-class climbers rarely have the patience to be good guides," he said. "Guarachi is the exception, for he is both."

He added that Guarachi's feat is something in which all Bolivians can take pride. Although the country did not make it to the soccer finals in France this year, it achieved much greater heights in May, he said.

Guarachi returned to Bolivia to a hero's welcome, and on July 2 received the Condor de los Andes award, his country's highest distinction, from Bolivian President Hugo Banzer.



PHOTOS BY ANDES EXPEDICIONES

Guarachi on Mt. Everest, and returning to Bolivia to receive a hero's welcome (inset).

The vanishing vacation crisis

ONCE UPON A TIME, FUTURISTS FANTASIZED ABOUT a world where the drudgery of work gave way to incredible amounts of free time. So far, however, the combined effects of globalization, economic liberalization and technological progress suggest that leisure time is scarcer than ever. This is a worrisome trend for the tourism industry.

What these new patterns in leisure time mean for tourism in Latin America and around the world was the focus of a study that was presented by tourism consultant Colin Clark at a meeting held in June at the

Shrinking leisure time hurts tourism

IDB. The study was commissioned by the World Tourism Organization's Business Council, made up of representatives from governments and private sector firms from 134 countries.

In his presentation, Clark cited data from 18 countries in the Americas, Europe and Asia, which in 1996 represented 73 percent of world tourism spending, indicating that time available for tourism will diminish in the future. Current global trends are creating conditions of fierce competition: governments are bent on improving economic performance, companies are striving to raise productivity and employees are putting job security ahead of benefits such as vacations.

The Japanese, famous for not taking what little holidays they are allotted, are unlikely to seek more leisure while their economy is in recession. In the United States, productivity gains traditionally translate into pay increases rather than more free time. Even in Europe, where generous government-mandated paid vacations and short working weeks have long been the rule, some political leaders are starting to grumble about too much free time.

Tourism must also compete with leisure activities—such as entertainment, sports and hobbies—that don't require travel. Industry surveys indicate that consumers are reluctant to spend too much time away from such interests as their gardens and pets—not to mention their jobs.

Putting on a brave face, meeting participants looked to a future in which people may have less leisure time, but are making more frequent and more intense use of it. Big spenders on short vacations could even give the industry better returns on investment, some said.

The sector's leaders stand by their forecast that the international tourism business will continue to expand at a higher rate than the world's economic output over the next two decades to become a \$2 trillion behemoth by the year 2020, up from about \$400


billion in 1995. Domestic tourism is expected to be four times as big as the international market, with strong growth in Latin America and other emerging regions.

Clark argued that companies that offer the most time-efficient, satisfying and hassle-free travel packages will have a clear advantage over their competition. Among them could be the operators of Caribbean cruises and theme parks, such as those that offer ersatz African safaris without leaving the U.S.

Governments wishing to develop a flourishing tourism industry should encourage the growth of their service sectors, particularly transport and accommodation infrastructure. Safe, efficient airports will be key to luring foreign visitors.

Bureaucracy should also be kept in check, Clark cautioned. "Visa complications certainly do not attract the time-pressed international traveler," he said.

—Peter Bate

 The World Tourism Organization's home page can be found at www.world-tourism.org.

The case for subsidies

SHOULD THE STATE PLAY ANY ROLE AT ALL IN FOSTERING new businesses? Are all forms of subsidies sinful in this age of free-market orthodoxy? How can governments offer such economic stimuli without generating hopeless addictions?

These were some of the questions that nearly 70 policymakers from the Americas, Europe and Japan wrestled with during a roundtable on small and medium-sized enterprises (SMEs) hosted by the IDB on July 6 and 7. The exchange of views and experiences will be used by the Bank to refine its support for small business.

In one presentation, IDB President Enrique V. Iglesias tackled the issue of subsidies head-on, remarking that over the past few decades they have been branded as the economic equivalent of a grievous sin. That may be so, he said, when subsidies distort market rules. But it is an entirely different case if subsidies are explicitly budgeted for and sanctioned through a public political process that seeks to produce a socially desired effect.

"In that case they should not be outside the realm of what we may call healthy practices," Iglesias said. "Personally, I am not that afraid of the word."



WILLIE HEINZ—IDB

Tourists, like these sunbathers in the Dominican

So how can governments use subsidies without risking economic damnation? Aída Alvarez, head of the U.S. Small Business Administration, argued that her government has an interest in giving start-ups an opportunity to succeed, because it sees new enterprises not only as an important engine of the country's economy, but also as key to social mobility and a fairer distribution of income.

"It is difficult to overstate the importance of small business in the United States," she said in her address. "Much of the economic success we are enjoying is due to the vibrant contribution of small businesses."

There are some 23 million small businesses in the U.S., and these create two of every three new jobs, generate nearly 40 percent of GDP and are a

Is state intervention always a sin?

major source of technological innovation. In its early days the SBA was involved in direct lending to small businesses because commercial banks were reluctant to extend credit to entrepreneurs who lacked collateral or a proven track record. In 1958 it started its Small Business Investment Company program to channel venture capital to little companies and start-ups and create some private sector competition for



Public, are taking shorter trips—or staying home.

Today's babies, tomorrow's jobs

Lower birth rates can ease future unemployment

WHAT CAUSES UNEMPLOYMENT? Most discussions focus on macroeconomic factors—interest and foreign exchange rates, GDP growth or the minimum wage—that lead companies to hire or fire employees. Education, labor regulations and technology are also invoked as possible causes of unemployment.


But what about birth rates? At a recent seminar at the IDB's Washington, D.C., headquarters, IDB economists Suzanne Duryea and Miguel Székely presented a paper where they argue that trends in reproductive behavior can have a significant delayed impact on unemployment.

Consider the role of young people aged 15 to 24 who are hunting for jobs for the first time or looking for new jobs. Unemployment is typically highest in this age group, which has limited skills and experience to sell on the labor market. So if the proportion of 15-to-24-year-olds to all other working age groups increases, overall unemployment tends to rise as well.

In Latin America, evidence of this factor turns up in surprising places. Argentina, a country that has long had one of the region's lowest birth rates, has recently seen a noticeable surge in the proportion of its working-age population made up by 15-to-24-year-olds (see graphic below). The reason? Between 1967 and 1975, Argentina experienced a modest "baby boom" equivalent to

a 10 percent rise in the fertility rate. The rate subsequently returned to its previous level, but the bumper crop of babies born in that period all started looking for work in the early 1990s. Between 1990 and 1996, the proportion of 15-to-24-year-olds in Argentina's labor market jumped from 37 percent to 41 percent. Even if all other factors are excluded, Duryea and Székely calculate that this surge in the supply of workers would have increased unemployment in Argentina by a full percentage point between 1990 and 1996. A similar but less pronounced process is evident in neighboring Uruguay.

In Brazil and Colombia, by contrast, the proportion of young people in the work force has been dropping steadily in recent years, after peaking in the 1980s. This reflects the steep decrease in these countries' fertility rates that began in the late 1960's and has continued ever since. Although unemployment in these two countries has not dropped in the 1990s (because other macroeconomic factors have pushed it up), it would be higher if the proportion of 15-to-24-year-olds weren't decreasing, according to the authors. Although it is impossible to predict employment trends in the future, current fertility trends indicate that all four countries in the graph will experience less pressure to provide jobs for young people in the years ahead.

 To read this paper on-line, see directions at bottom of page 3.

bankers. Among those that benefitted from the program when they were small are such present-day giants such as America Online, Intel and Federal Express. The SBA points out that the income taxes paid by microchip manufacturer Intel in 1996 alone would cover two years of the agency's budget.

Gonzalo Rivas, executive vice president of Chile's CORFO small business agency, offered some pointers as to how to prevent subsidies from turning into permanent aid for unsustainable enterprises.

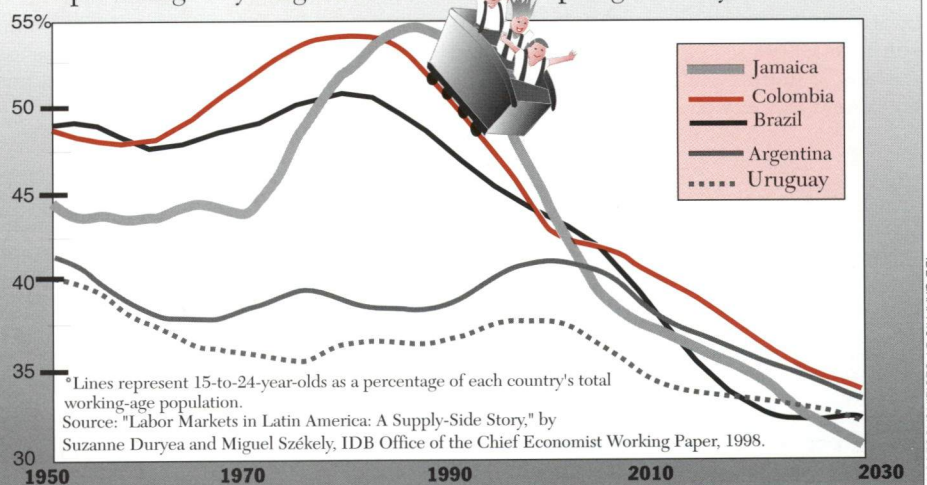
"Nothing must be free," he stressed, explaining that CORFO requires beneficiaries to cofinance their programs and to take the risk of gauging demand for their products or services. The Chilean agency also evaluates companies' performance to check whether they are meeting agreed business targets.

Government support must also be limited in time, Rivas cautioned. "These are not crutches. They (companies) must get ahead or go under."

CORFO also operates through agents, mostly in the private sector, who deal directly with small businesses across the country. That system also allows the intermediaries to offer the services of other Chilean government shops such as the ProChile export promotion agency and the SENCE national job training service.

Fertility roller coaster

The percentage of young workers will plunge in the years ahead.*



PROJECT UPDATES

BRAZIL

State of the art treatment plant

A SEWAGE TREATMENT PLANT CONSIDERED to be one of the most modern in Latin America was inaugurated in April in the Brazilian city of Fortaleza as the centerpiece of a comprehensive program to improve local sanitation and living conditions.

The plant is part of a \$265.6 million project to build sanitary sewerage and storm drainage works in the city of Fortaleza, home to 2.3 million people and capital of the Northeast state of Ceará. The project is also increasing the efficiency of water use through the installation of water meters. Financing includes two IDB loans for a total of \$199.2 million.

On hand for the inauguration were IDB President Enrique V. Iglesias and Ceará Governor Tasso Jereissati.

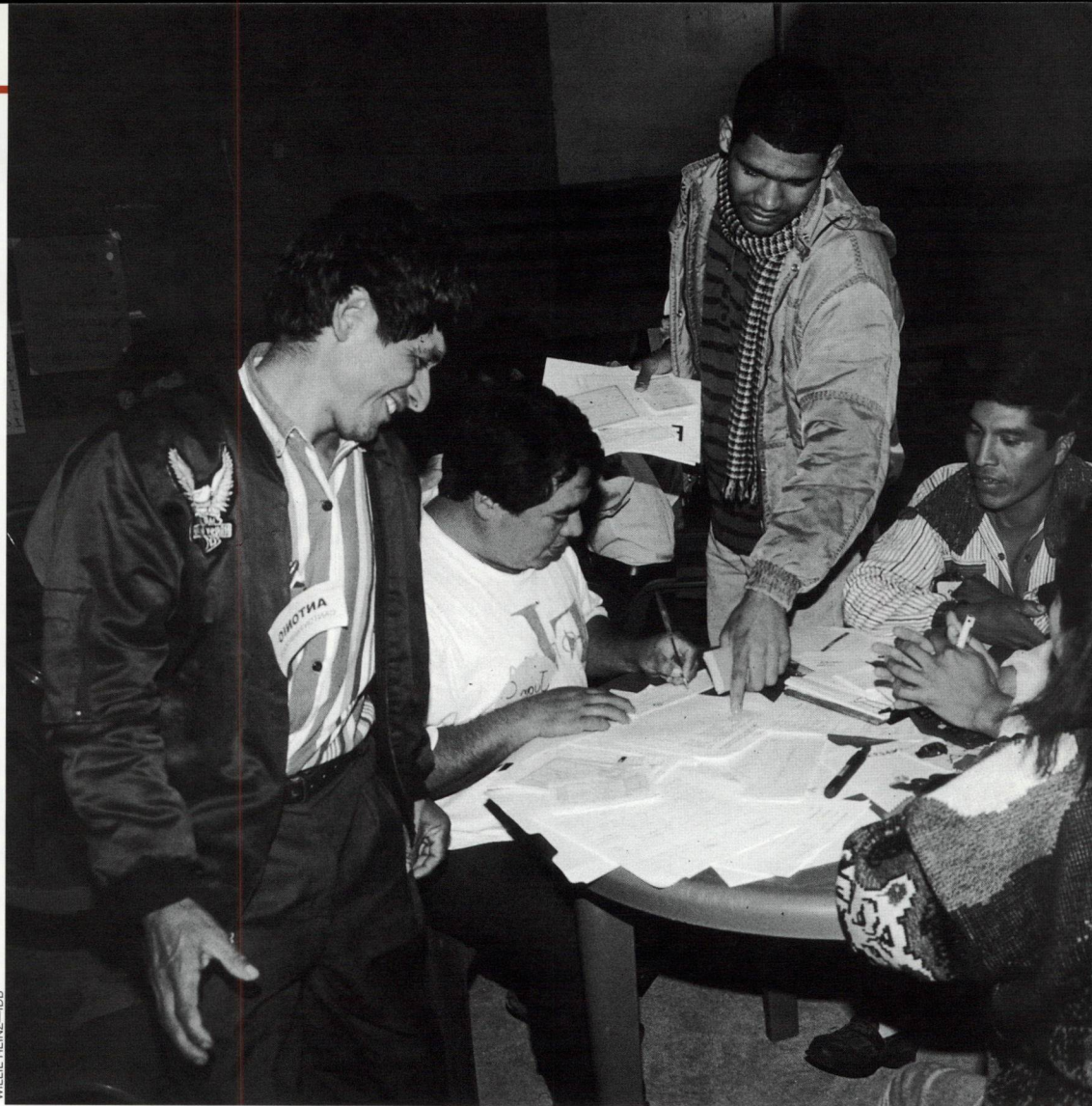
The plant is considered one of the most modern in Latin America due to its level of automation. From one control center, operators can monitor the functions of all pumps, both in the plant and throughout the city.

Sanitary conditions in Fortaleza are very poor, particularly for the residents of more than 300 *favelas*, or slums, that dot the city, Brazil's seventh largest. Favela residents number some 541,000 people. Diseases caused by a combination of open-air sewers and untreated water have been responsible for serious health problems. Sanitary works under the project include the construction of sewer systems, outfalls, pumping stations and household connections.



Building Fortaleza's new sewers.

WILLIE HEINZ—IDB



NEW PROJECTS

GUATEMALA

Peace process gets a boost

IN THE WAKE OF THE 1996 ACCORDS that ended Guatemala's 36 years of civil conflict, the international community pledged a very large amount of financial assistance—some \$1.9 billion—to fund the provisions of the agreement to ensure lasting peace.

But despite this commitment, the peace process cannot go forward without preinvestment studies of specific projects that detail exactly how the funds will be spent, and this has created a bottleneck in financing.

A new \$8 million IDB loan approved in June will address this problem by financing a program of preinvestment studies in priority areas that will enable the Guatemalan government to present financing proposals to the

international donor community.

Currently under consideration are some 250 project profiles in the four areas defined by the peace agreements: demobilization, human development, increasing production and modernizing the state. Projects will include local community development, education, training, human resource management, agroindustrial development, weapons and munitions control, food assistance for families in extreme poverty and education.

The new IDB program will also finance training to strengthen the Planning and Programming Department of the Office of the President, which will carry out the preinvestment program.

The IDB, which has chaired the meetings of the group of donors supporting the peace program, has already approved funding for several related projects, including \$50 million for the Community Development for Peace trust fund.

ARGENTINA

City hall overhaul

EVER SINCE LATE 1996, WHEN THEY elected a mayor for the first time, the residents of Buenos Aires, Argentina, have shown a keen interest in the details of their city's administration.

Specifically, voters have called for the city to balance its budget, open up the bidding process for public contracts, and start investing in infrastructure projects that are long overdue.

The current city administration has been busily pursuing that agenda (See "City hall's new bargain hunters," IDBAmérica, June, 1998), and is now set to get help from the IDB. A \$200 million IDB loan approved last month will enable the government of the City of Buenos Aires to further a strategy of institutional modernization, fiscal reform, and investment planning.

Residents in a Guatemalan village meet with a government official to propose a community development project.



LATEST APPROVALS

Argentina

A \$200 million IDB loan to the government of the city of Buenos Aires to support modernization of institutions, fiscal reform, and investment planning.

An \$80 million IDB loan to support reform of public administration in the province of Mendoza.

An \$8 million IIC loan to Curtiembre Arlei S. A. to expand and modernize the company's production facilities in Las Toscas, Salta, to increase the production of unfinished hides.

A \$1 million MIF grant to strengthen the regulatory framework of the water and sanitation sector in the province of Buenos Aires.

Bahamas

A \$1.3 million MIF grant to strengthen public utilities and environmental regulation.

Brazil

A \$1.4 million MIF grant to help establish a regulatory framework that will encourage private investment in irrigation.

Colombia

A \$1.9 million MIF grant to support a technical training program that will improve the competitiveness of the pulp, paper, and paperboard industry.

Costa Rica

A \$16.45 million IDB loan from ordinary capital and a \$32.9 million syndicated loan to help finance a 27 megawatt geothermal plant, the country's first private sector energy project based on a contract awarded through competitive bidding.

Guatemala

An \$8 million IDB loan to help finance preinvestment studies in priority areas as specified by national peace agreements.

A \$1.2 million IDB grant from the Norwegian Fund for Women in Development to promote women's citizen participation and leadership in the consolidation of democracy.

Panama

A \$14.2 million IDB loan to strengthen the capacity of private companies through investments in research and technology.

Paraguay

A \$25.65 million IDB loan to support the sustainability of small-scale cotton producers.

Peru

A \$10 million IIC loan and a \$12 million syndicated loan to Empresa Eléctrica de Piura S.A. to help finance construction of a new gas processing plant that will provide greater efficiency and cut costs.

Venezuela

A \$6 million IDB loan to strengthen public sector financial administration at the state level and improve the delivery of public services.

A 200,000 Ecu grant from the

Special Fund for European Technical Assistance to Latin America to support a program of training courses for the National Youth Orchestra System.

NEED DETAILS?

To read **press releases** on newly approved projects on the Internet, go to: www.iadb.org/exr/prensa/releases.htm. For related **project documents**, go to: www.iadb.org/exr/english/projects/projects.htm. IDB Projects, a monthly listing of planned projects and procurement opportunities, is on the home page under "Business Opportunities." For a sample printed copy, call (202) 623-1397, or fax (202) 623-1403. The Public Information Center can provide **further information** at (202) 623-2096, or e-mail pic@iadb.org.



DAVID MANGURIAN—IDB

WHAT'S YOUR GRADE? Students at the Manuel Abad elementary school in Quito, Ecuador, await their teachers' judgement after handing in assignments. Three new classrooms and a bathroom were built at the school in 1994 with funds from a \$30 million IDB loan that financed some 4,000 small-scale infrastructure projects in education, health and basic sanitation.

The loan, which will be matched by \$200 million from the city's coffers, will support activities in two broad areas. First, funds will be used to streamline the city's bureaucracy and increase efficiency and accountability in financial management and tax collection. The city's human resources administration will also be overhauled, along with its procurement and contracting departments.

The IDB credit will also support the city's long-term investment plan by financing up to 15 percent of annual spending on infrastructure and other projects. Disbursement of these funds will be contingent on meeting a set of fiscal discipline parameters and the inclusion of private sector participation in several areas.

This is the first time the IDB has helped to finance modernization of the state in Argentina at the local level. Previous projects affected the federal and provincial levels only.

Trade data in the round



Who exports and imports what? How much do they pay?

Data Intal, a new CD-Rom database, is the one-stop source for trade figures on volume, price, origin and destination of all goods for 28 Western Hemisphere countries.

For information on ordering, contact the Institute for the Integration of Latin America and the Caribbean, Esmeralda 130, 16th - 17th floors, (1035) Buenos Aires, Argentina. Tel. (54 1) 320-1871. Fax (54 1) 320-1872. E-mail: INT/INL@iadb.org.

Looking for business?

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The IDB lends \$7 billion annually to finance projects that need goods and services supplied by firms from the Bank's 46 member countries.

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FRAGRANT FARMING: A worker at the Multicrops Rose Farm in the community of San Miguel Dueñas, Guatemala, prepares long-stemmed buds for shipment. The farm, which airfreights five million buds a year to Canada and the United States, received \$215,000 in start-up funds from a global agricultural credit program financed with the help of a \$40 million IDB loan.

Trade negotiators hone their skills

WHEN IT COMES TO TRADE AGREEMENTS, a country's success at the negotiating table often hinges on the skills of a handful of low-profile negotiators. In addition to having astute diplomatic instincts, these officials must be experts in an ever-expanding number of areas, from the abstractions of intellectual property law to the scientific intricacies of agricultural pest control.

The countries of Latin America and the Caribbean, like their counterparts around the world, have always struggled to recruit and train public officials with these specialized skills. But with the explosive growth in regional, hemispheric and global

trade agreements during the last decade, the need for qualified negotiators has become acute. Many countries are eager to train their trade negotiators in the latest technical areas, but resources are scarce.

Now, the IDB's Integration and Regional Programs Department (INT) is launching a series of Technical Training Seminars for negotiators through the Institute for the Integration of Latin America and the Caribbean (INTAL).

The seminars, which are being offered three times annually at various locations throughout the Americas over the next two years, cover a number of specialized subjects.

This year, INTAL plans seminars on subsidies, rules of origin, market access and tariff sched-

ules, customs valuation, the textiles and apparel trade, trade in services and competition policy.

The first of the seminars, held in Bogotá last May in coordination with the Colombian Foreign Trade Institute, dealt with subsidies and subsidy-related notification requirements. The World Trade Organization's Technical Cooperation and Training Division and the Central American Bank for Economic Integration are also cooperating with INTAL on the seminars.



For more information, contact Miguel Amui, INTAL, Esmeralda 130, 16th-17th floors, (0135) Buenos Aires, Argentina. Tel. (54 1) 320-1871. Fax (54 1) 320-1872. E-mail: INT/INL@iadb.org.

Suriname reconstructed

An aesthetic prism with many faces

LANDSCAPE AND MEMORY HAVE BEEN DESCRIBED AS THE ESSENTIAL raw materials of the visual arts: one provides the subject and the other a filter through which to interpret a place and time. But the relationship between a particular geographical setting and local artistic expression is rarely predictable.

Consider the artists of Suriname, who have a lush seaside setting for inspiration. A new exhibit at the Cultural Center Art Gallery at the IDB's Washington, D.C., headquarters shatters any clichéd notions viewers might still hold about "tropical" art. The paintings, sculptures and ceramics of "In Search of Memory: 17 Contemporary Artists from Suriname," reveal their country of origin obliquely, through an aesthetic prism with numerous ethnic, stylistic and ideological faces.

These include the contrasting sensibilities of the African, Dutch, Indian, Indonesian, Jewish, Portuguese and indigenous groups that make up Surinamese society. The fact that many of the country's leading artists completed at least part of their education in Europe is apparent in the prevalence of 20th-century artistic currents such as abstract and figurative expressionism. The sensual nudes of Erwin de Vries, perhaps Suriname's best-known contemporary artist, are appreciated as easily by collectors in Paris as by those in Paramaribo. And even when aspects of the Surinamese landscape are recognizable, as in Anand Binda's vibrant paintings, they are interpreted in a decidedly cosmopolitan way.

"In Search of Memory," the first exhibit of Surinamese art to be held at the IDB, will be on view until September 18th.



"Eagle," a mahogany sculpture by Armand Masé (left), and **"Masks,"** by Reinier Asmoredjo (below).



"Boy with Accordion," a linocut by Jules Chin A Foeng.

PHOTOS BY WILLIE HEINZ—IDB



HIGH-LEVEL JOB: A young construction worker in San Salvador, El Salvador, gets a good grip on the reinforcing rods that will support the framework for a new hotel. The project was carried out with the help of an IDB-financed credit program.

Inter-American Development Bank
1300 New York Ave., N.W.
Washington, DC 20577