

IDB AMERICA

Magazine of the Inter-American Development Bank

March-April 1999



Shoreline showdown

Seafood production is soaring—will coastal communities and ecosystems survive the boom?

VIEWPOINT

1 First to suffer, last to recover

FOCUS

2 Shoreline showdown

How coastal communities are responding to the global appetite for seafood

7 A new era for marine management

NEWSBEAT

10 Strong demand for small firm financing

11 More help for state reform

12 Seeds of hope for Central America

SPECIAL REPORT

13 Early childhood
Good start, better future



Community members plant mangrove trees to help restore a degraded coastal ecosystem. See story on page 2.

14 Breaking the poverty cycle

16 A high-yield investment

THE BANK IN ACTION

17 Bright lights for distant islands

NEWSBEAT

18 To tax and please

21 There are no lines in Cyberspace

FIGURATIVELY SPEAKING

22 A call to action in the classroom

THINK TANK

24 Cities flex financial muscle

EXPRESSIONS

25 In printmaking, Paris is premiere

PROJECT NEWS

26 Early days of a 'Brazilian Cancún'

26 Campaign to control Chagas

PROTAGONISTS

29 A solution to chaos

Shoreline showdown. Once considered trash fish, sharks are now pursued so relentlessly that the survival of some species is threatened. Commercial harvesting of sea life is reaching or exceeding maximum sustainable levels in Latin American and Caribbean waters. Now, industrial aquaculture such as shrimp farming is putting even more pressure on coastal ecosystems. See articles beginning on page 2.

—IDB photo by David Mangurian



DAVID MANGURIAN—IDB

EDITORS' NOTEBOOK

Aid on the fast track

THE ONLY CERTAIN THING about natural disasters is that they will strike again. Only three months after Hurricane Mitch devastated Central America, a severe earthquake struck Colombia, causing more than 1,000 deaths and serious property damage in communities in the country's central coffee-growing region.

It was all too familiar—the weary, anguished faces, the inevitable logistical problems of getting help to the victims, the outpouring of international support.

But this time, there was something new. While the IDB has always come to the aid of member countries in times of emergency, after Mitch it decided that this assistance should be made available more rapidly. So last November the Bank approved a new policy for making large emer-

gency loans for natural disaster relief without going through the normal time-consuming analysis and approval process. As a result, on Feb. 19, less than four weeks after the earthquake, Colombian President Andrés Pastrana was able to sign a \$20 million IDB loan to help affected communities clean up debris, stabilize damaged structures, build temporary housing and repair damaged infrastructure.

In addition, the Bank will make available \$100–\$150 million for reconstruction needs by redirecting funds from loans that the IDB had previously approved for Colombia but which have not yet been fully disbursed.

These are modest sums, given the scale of the tragedy. But they will help speed the process of rebuilding homes—and lives.



Earthquake destruction in the city of Armenia, Colombia.

JOEL KORN

IDBAMERICA Volume 26 No. 3–4

EDITOR: Roger Hamilton
ASSOCIATE EDITORS: Paul Constance, Peter Bate
ASSISTANT EDITOR: Claudia Estrada
CONTRIBUTING EDITOR: David Mangurian
ON-LINE EDITOR: Iris del Carpio
PHOTOGRAPHER: Willie Heinz

IDBAmérica reports on economic and social development trends in Latin America and the Caribbean and on the activities of the IDB. It is published six times annually in Spanish and English.

IDBAmérica On-Line is available in English, Spanish, Portuguese and French at <http://www.iadb.org/exr/idb/indexeng.htm>. It includes automatic links to related Bank documents.

All material may be reproduced if credit is given to IDBAmérica.

Comments? Our editorial department can be reached at editor@iadb.org or at the address appearing below.

For a **free subscription**, contact the IDB Bookstore, E-0105, Office of External Relations, IDB, 1300 New York Ave., N.W., Washington, D.C. 20577. Tel. (202) 623-1753. Fax (202) 623-1709. E-mail, iadb-books@iadb.org.

First to suffer, last to recover

By NORA LUSTIG

“Now, instead of an arms race, we’ve agreed to launch a disarmament race.”

Alberto Fujimori, president of Peru, quoted in a Feb. 4 AFP report. Fujimori and his Ecuadorian counterpart, Jamil Mahuad, met in Washington, D.C., to announce an economic development program for their shared border region.

“It might not be a bad idea to stockpile some computers for the next millennium.”

Scott McNealy, chief executive of Sun Microsystems Inc., in a Feb. 2 Reuters report. McNealy suggested that problems with Asian computer component suppliers vulnerable to the Year 2000 software problem could disrupt supplies in the early months of next year.

“Today we can hear the echoes of the 1930s...”

Shoji Nishimoto, a senior official at the Asian Development Bank, quoted in The Journal of Commerce on Feb. 3. He warned against repeating the wave of protectionism that reduced international trade and prolonged the Great Depression.

“If we’ve created a well-funded international program and logging has increased, that means there’s a problem.”

José Sarney Filho, Brazilian environment minister, quoted by AFP on Mar. 23. Brazil has proposed “reorienting” the Pilot Program for Conservation of the Brazilian Rain Forest, which is funded by the Group of Seven industrialized nations. Some 16,000 sq. km of Amazonian forest were cut in 1997–98, up from 13,000 sq. km. in 1995–96.

“A single Latin American currency would undoubtedly be desirable.”

IDB President Enrique V. Iglesias, quoted by Reuters on Feb. 15. Speaking at a forum on poverty held in Mexico, Iglesias said a single currency could strengthen the regional integration process.

IN THE SHADOW OF BRAZIL’S deepening recession and last year’s devastating natural disasters, policymakers in Latin America can no longer enjoy the luxury of putting social protection programs for the poor and vulnerable on the back burner.

Evidence from the “lost decade” of the 1980s suggests that economic shocks in Latin America often have a disproportionate impact on the poor. Even when the effect is not disproportionate, the poor cannot afford any further erosion in their standard of living, no matter how slight.

The debt crisis of the 1980s led to a worsening of income distribution throughout Latin America. Even more distressing for future growth and employment opportunities, the pace of improvement for social indicators slowed, especially for the poor and vulnerable. The social sectors bore the brunt of fiscal retrenchment, and investment in human capital became more skewed, which exacerbated an already yawning gap between rich and poor.

Social indicators in Mexico and Argentina showed similar trends following the 1995 financial crisis. Preliminary data from countries hit with natural disasters last year also show that the poor and vulnerable—those least able to cope with economic setbacks—have been the ones most heavily hit.

Although economic shocks and natural disasters are recurrent phenomena, most of the region’s countries still lack the safety nets needed to protect the poor during times of crisis. Formal insurance mechanisms remain beyond the reach of most low-income people. Moreover, informal insurance mechanisms,

such as reliance on family and other community members, tend to break down during severe natural disasters or economic downturns that leave thousands of breadwinners out of work.

When governments have acted, they have done too little, too late. With few exceptions, macroeconomic stability and structural reforms have taken precedence over the social agenda.

Today, as voters in many countries assess the impact of a decade of economic and structural reforms, policymakers and politicians are increasingly aware

experienced in Honduras and Nicaragua during early efforts to deliver relief to hurricane-affected regions provide a poignant example of the great need for adequate social protection mechanisms.

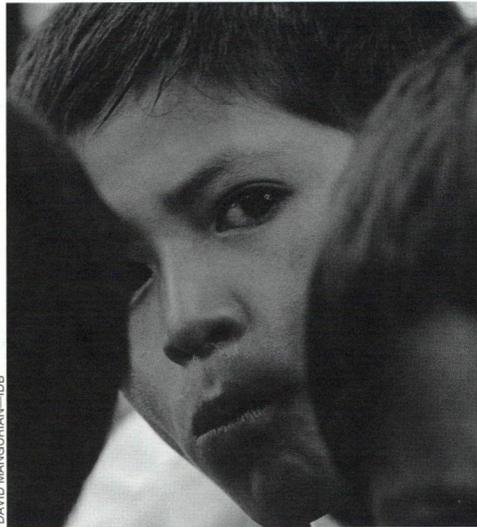
Among the policy instruments that belong on a social protection agenda are emergency employment programs, social investment funds to provide infrastructure and employment to poor communities, microcredit programs to help make up for lost jobs, and scholarship programs to prevent families from pulling their children out of school. Governments can use these policies to reduce suffering while at the same time safeguarding their countries’ future.

Social protection for the poor should not be limited to short-term crisis response. Rather, it must form the core of a long-term strategy for poverty reduction and economic stability in Latin America and the Caribbean. Given the growing likelihood of economic shocks in an increasingly global world, the limited resources available to those particularly vulnerable to such shocks, and the threat that increasing poverty and inequality pose to sustainable development, it is not enough to merely cope with risks. Govern-

ments must move from reactive, last-minute crisis management to longer-term risk-reduction and risk-mitigation strategies.

By taking a systematic approach to social protection, the region’s countries will be turning recent setbacks into opportunities for building a stronger and more equitable economic and social base.

—The author heads the Poverty and Inequality Advisory Unit of the IDB’s Sustainable Development Department.



“The poor cannot afford any further erosion in their standard of living, no matter how slight.”

that their ability to sustain such reforms depends on promoting shared development. In a few cases, this awareness is starting to be seen in more vigorous efforts to help the poor deal with unemployment, lower incomes, destroyed infrastructure and degraded land. Governments have learned the hard way that the scramble to improvise social protection policies during times of crisis tends to produce costly and disorganized band-aid solutions that anger voters. The problems

DAVID MANGURIAN—IDB



Shoreline showdown

How Ecuadorian communities are overcoming a legacy of environmental conflict and creating a model for coastal management

By **ROGER HAMILTON**

ANYONE WHO ENJOYS SITTING DOWN TO A good shrimp dinner should know about Edgar Mora of Machala, Ecuador, and the time he found himself looking at the wrong end of a gun.

Mora was not the kind of person who goes around looking for trouble. Peaceful and public spirited, a lawyer by profession, the negotiating table was his preferred field of action. But he was also the head of a committee charged with managing the local coastal environment. So when he received a report that a shrimp farmer had blocked ac-

cess to an inlet used by local fishermen, it was his duty to investigate.

When he and several others arrived at the trouble spot, shots rang out. Fortunately, the guards were under orders to merely frighten "intruders," not kill them, so no harm was done.

The matter could have ended there, another unresolved dispute left to fester and probably to produce further conflicts. But Mora's committee was part of a much larger effort that enjoyed the support not only of the community, but also of the local authorities and the central government. He took the problem to the municipal officials, who even-

tually intervened and persuaded the farmer to reopen the inlet.

There had been other incidents, particularly after Mora had reported the illegal cutting of protected mangrove swamps. "When the shrimp farmers learned that I had made the reports, I received telephoned threats, against me and my family," Mora recalled. It sounded eerily reminiscent of the experiences of protectors of the environment in many other parts of Latin America and the Caribbean, some of whom have paid dearly for their efforts.

But Mora said he was not worried. "I insist that we are not enemies," he said of the



A shellfish gatherer earns a hard living from the mangrove wilderness of knee-deep muck and tangles of roots and trunks.

of the countries with the most serious environmental problems are the least prepared to resolve them.

But in Ecuador, although the problems remain immense, people like Edgar Mora are beginning the slow and difficult process of bringing local communities together with governmental authorities and other groups to make sustainable development a reality.

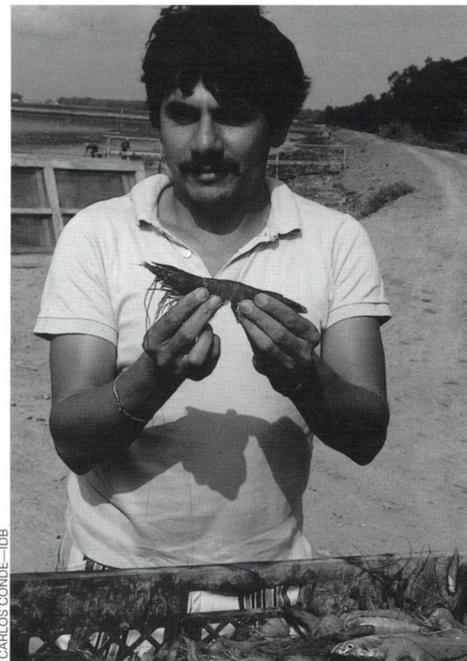
Faustian bargain. Shrimp farming is both Ecuador's economic blessing and its environmental curse. After large-scale operations began there in the early 1980s, the value of shrimp exports exploded from \$31 million to \$539 million in 1994, and to a projected \$950 million in 1999. Today some 260,000 Ecuadorians are employed in 1,360 square km of man-made shrimp ponds and more than 400 hatcheries, processing plants and other facilities. Shrimp production has become the country's single largest private sector activity, and foreign exchange earnings from shrimp exports rank third in value after oil and bananas.

Ecuador's booming shrimp business has counterparts in many other tropical areas around the world, where intensive cultivation has netted large returns for growers and cheaper prices for consumers. In the last decade, the price of shrimp dropped from about \$15 a pound in the United States to about \$6, and worldwide shrimp consumption has doubled. Traditionally the high-priced entrée, the tasty crustacean has become an article of mass consumption, even appearing on fast-food menus.

At first, shrimp farming was welcomed as a way to reduce pressure on the harvesting of wild populations, which peaked worldwide in 1994 and have been declining ever since. Wild shrimp are caught by trawlers that also net enormous amounts of non-target fish species and turtles. This so-called "by-catch," which can equal five times the weight of the shrimp itself, is discarded by the shrimp trawlers.

But shrimp farming proved to be destructive in its own right, particularly to mangrove trees and estuarine ecosystems. Forming impenetrable thickets in tidal shallows, mangroves serve as an anchor for a large part of the coastal ecosystem. Their tangled roots, sticking into the mud like fingers on a hand, provide a safe haven for the young of many species of fish, shrimp and other marine life. Some of these species remain in the estuary throughout their life cycles, while others grow to maturity in the open ocean.

The shrimp industry depends on man-
(next page please)



A major export producer and employer, large-scale shrimp farming also causes extensive loss of mangrove swamps and pollution of estuarine ecosystems.



Etched into the coastline near Guayaquil, shrimp ponds cause environmental conflicts that Ecuador's coastal management program is working to resolve.

shrimp farmers. "We are even starting to become friends."

Hopefully Mora is right, both for his own sake and for the future of the 43 percent of his country's people who live along this marine mosaic of beaches, salt flats and mangrove swamps. Many thousands directly depend upon the coastal bounty of shrimp, fish, shellfish and crabs, and many more on the environmental services—such as water purification and protection of the land—that mangrove swamps provide.

Although the details vary, the problems affecting coastal environments are quite similar in developing areas around the world: laws and regulations that governments cannot enforce, lack of participation by local people, serious conflicts among user groups and insufficient scientific information on which to base management decisions. Many



■ **Shrimp farming is both an economic blessing and an environmental curse** ■



(from previous page)

groves for shrimp larvae and clean estuarine water in which to grow the larvae to maturity. But the shrimp farmers also need land for constructing ponds. Over the past 25 years, the expansion of Ecuador's shrimp industry has reduced the country's mangrove swamps by more than 20 percent. Moreover, 85 percent of the country's salt flats have also been converted to ponds.

As on land, where clear-cutting trees destroys the habitat and eliminates most of the creatures that lived there, cutting mangroves has a disastrous effect on coastal ecosystems. In addition, the water flushed from shrimp ponds is laced with pesticides, antibiotics and large amounts of nutrient-rich feeds that contaminate estuaries and the sea life in them.

Along with their value for fisheries, mangroves provide other essential goods and services for local communities—wood, charcoal, a buffer against hurricane waves for inland areas, and a filter for sediments. Researchers working in Campeche, Mexico, arrived at the following hypothetical annual value of one hectare of sustainably managed mangrove swamp:

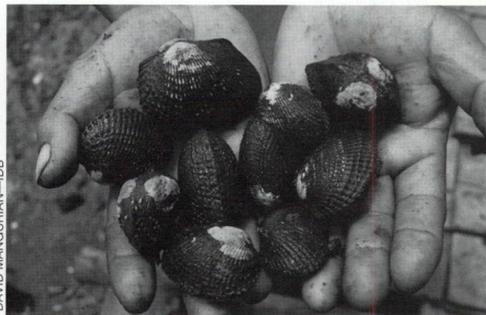
- ▶ Charcoal \$451
- ▶ Wood \$631
- ▶ Habitat and food for fisheries \$1,578
- ▶ Water filtering \$1,193

These figures do not include the value of mangroves as a habitat for threatened species, a source of goods and services used for subsistence for local people, and protection of the coastline.

Given their value, why not simply have the government step in and prohibit the cutting of mangroves? This top-down approach has been tried in many places, including the Philippines, where the application of such policies was followed by the loss of half of the country's mangroves. In Ecuador, legislation that prohibits cutting mangroves and the construction or expansion of shrimp ponds has been on the books since 1978. But the cutting has not stopped.

People in partnership.

Now a new approach to saving the mangroves, protecting the coastal environment and reducing conflicts among users is underway in Ecuador, and Mora's committee is a part of it. Unlike the failed efforts of the past, the Coastal Resources Management Program is founded on a broad-based coop-



DAVID MANGURIAN—IDB

■ **A shellfish gatherer called the mangrove swamp “my farm,” something she could leave to her children** ■

erative effort that forms a partnership with people of the region with the Ecuadorian government, the IDB, international and national nongovernmental organizations and bilateral agencies.

The program began in 1986 when Ecuador's government, along with the United States Agency for International Development, the University of Rhode Island's Coastal Resource Center and the Guayaquil-based Pedro Vicente Maldonado Foundation, began working with coastal communities to identify needs and possible solutions. In 1989, the program was formally created and six Special Management Zones were established—five along the mainland and one for the Galápagos Islands.

Within the management zones live some 280,000 people, many of them directly dependent on coastal resources: collectors of shrimp larvae, small-scale fishermen and shrimp farmers, operators of tourism services, wood gatherers and charcoal makers.

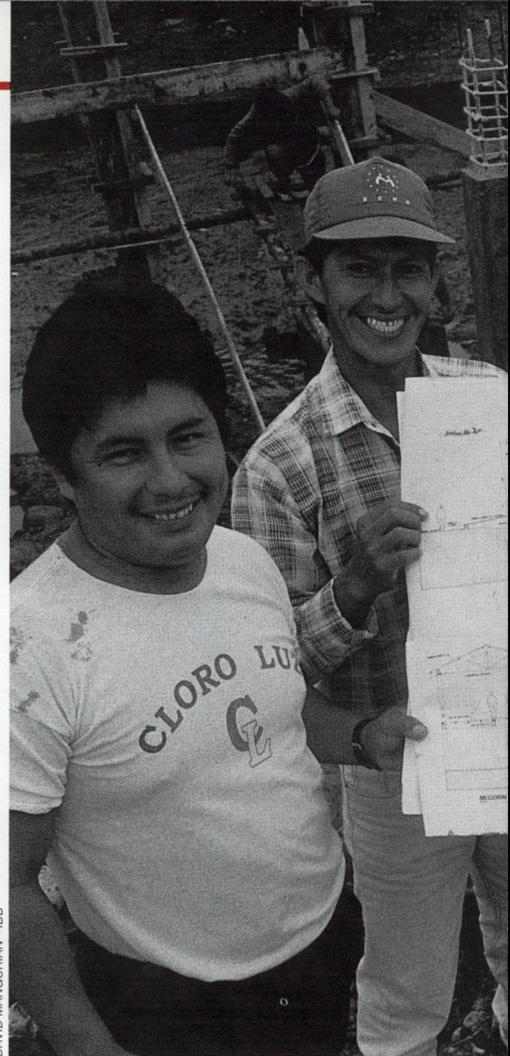
It was a promising start that produced 40 pilot projects and clear evidence that community members themselves could help protect the environment, reduce conflicts and improve living conditions. But the program was much too small to address the problem.

Then, in 1993, the IDB approved \$14.9 million to expand the program. Reflecting the principles that would underlie the Bank's Coastal and Marine Resources Management Strategy (see page 7), this pioneering effort would be closely watched around the world as an example of how community participation can solve environmental problems.

Now in its sixth year, the program has funded dozens of projects to protect mangroves, reforest denuded areas and promote ecotourism in mangrove habitats. These projects have also included the construction of drinking water and solid waste disposal systems, which have provided some 100,000 coastal residents in the five management zones with basic sanitation.

At the same time, surveys of critical segments of shoreline have been carried out in each of the management zones that are developed or are pending development. Zoning measures have been put in place to protect these areas, and small structures have been built to stem shoreline erosion and pollution.

In the area of fisheries management, community



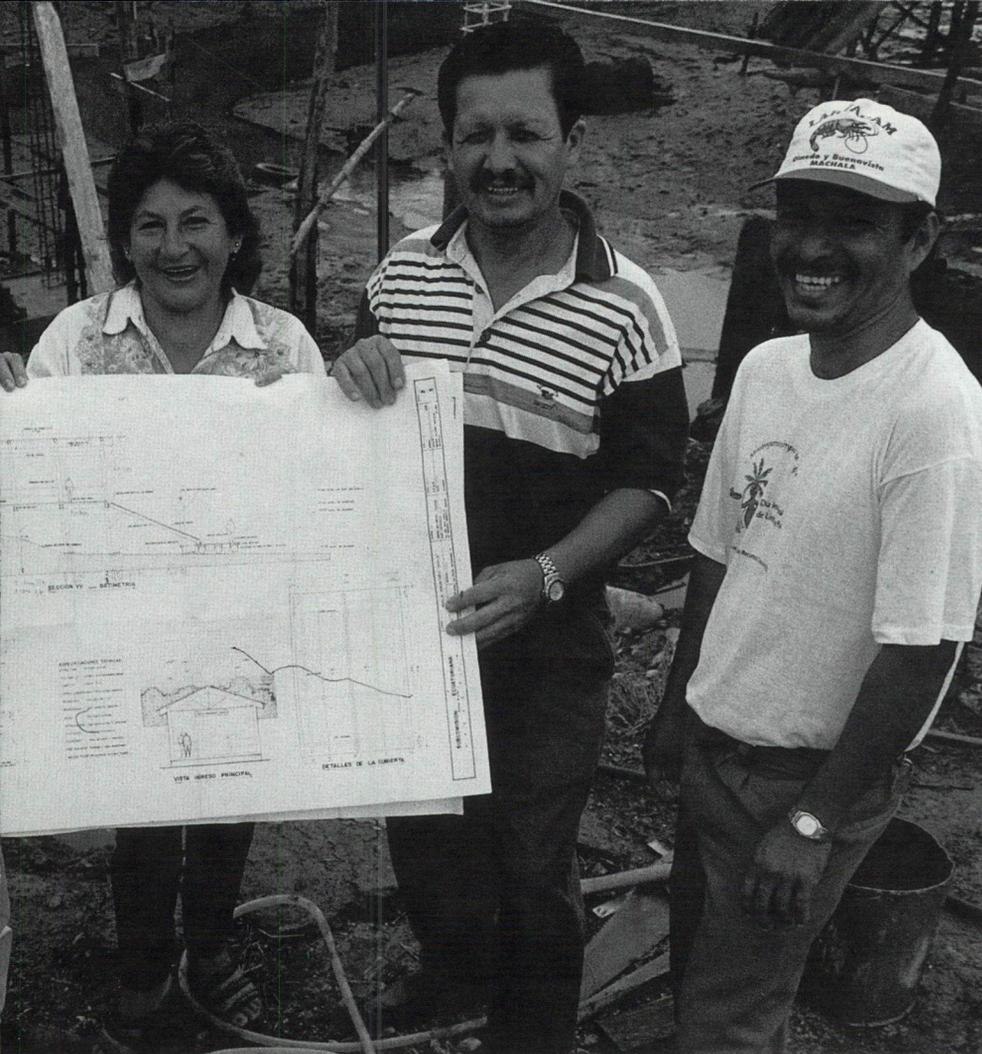
DAVID MANGURIAN—IDB

members have helped to collect data on fisheries stocks and research is underway that will make it possible to draw up a comprehensive plan for managing estuaries. Groups of women who harvest mollusks and crustaceans in mangrove swamps have received help in restocking traditional harvest areas, and community members have carried out pilot mariculture projects.

Other research projects are looking at ways to reduce the wastage of wild stocks of shrimp larvae in mariculture operations and to improve hatchery and shrimp pond operation. A cooperative program of surveillance and preventive enforcement is being carried out to protect mangroves, manage water use and regulate fish and shrimp harvests. Conservation inspection units now patrol most stretches of the coast, working with communities and local governments to crack down on mangrove cutting.

Meanwhile, public agencies participating in the program are receiving training, equipment and personnel, while local community members are benefitting from education programs and leadership training.

Persistence rewarded. While “community participation” is a phrase that rolls easily off tongues at development conferences, things don't always go so smoothly in the field.

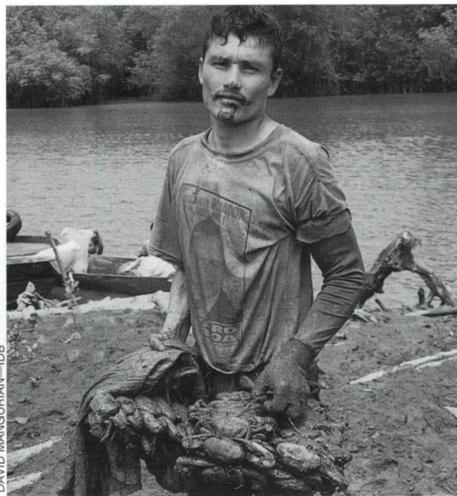


GRASS-ROOTS ACTION: A new dock will help fishermen get their catch to market (above). In self-help projects, community groups are working to safeguard their environment and protect sources of income, such as gathering shrimp larvae (below) and crabs (right).



DAVID MANGURIAN—IDB

This certainly has been the case in the Ecuador program. Luis Arriaga, a consultant from the University of Rhode Island who was one of the program's founders, described some of the reasons it took eight years to create the special management zones, rather than the two years originally envisioned. At the beginning, he recalled, people would come to meetings with lists of things they wanted. When they realized that there was no money for these things, many of them stopped coming. "But others stuck with it," he said, "educating themselves, committing



DAVID MANGURIAN—IDB

their time and their own resources for their own development."

Edgar Mora, president of the Machala Special Management Zone, said there were other, deeper reasons for the slow pace of change. "We Ecuadorians are accustomed to paternalism, where the government exists only to give to us," he said. "It was difficult to convince people that they must do their part." He recounted one instance when the coastal management program provided a boat to each of two local transport cooperatives so that they would use the earnings to

buy more boats. "But after they received the boats, that was that," said Mora.

He realized that his big job was to change people's mentalities, and as a first step he opened up his committee's work to many more people by setting up separate commissions for tourism, mangroves, sanitation and many other areas. Eventually, some 35 different groups in Machala, many of which had previously had little to do with each other, were working together to get things done. For example, the environmental sanitation commission joined with the municipal government and the local university to carry out a project to map the estuary as a first step toward an environmental clean-up program.

People are learning that they can make a difference. "We had always been forgotten because we are not educated and have no experience working with the authorities," said fisherman Faustino Curia Huari of a small fishing community near Machala.

Curia decided that the community needed a dock because the beach was crowded with racks for drying fish, leaving no place to tie up boats. But when he formed a committee to apply to the management program for funds to buy materials, many of his neighbors thought he was crazy. He and the committee went ahead, and the proposal was accepted. The materials arrived, and after two weeks of work by the community members, the dock was a reality.

A new vocabulary. Community participation is not for people who are easily discouraged or who are in a hurry, particularly when working in settings where the local population has limited schooling and little experience in carrying out joint activities.

"We have to have a great deal of patience," said Héctor Ayón, former executive director of the Guayaquil-based Coastal Management Office, "and to be tolerant and at the same time very firm, because we are up against a factor in this country that very few people are prepared to recognize.

"This factor," said Ayón, "is the low educational level of our people." They must be taught how to make a living from the coastal resources without damaging the environment, and change must come from within the community, he said. "Those who use the resources, who have the option of damaging or not damaging the resources, are those that have to commit themselves to finding a solution," Ayón added.

Through meetings and training programs, the people are learning. "They now will say, 'These chemicals are killing us,'" said Arturo Maldonado, program coordinator in the Machala Puerto Bolívar Jambelí special management zone, something they never would have said previously. Today, when the people talk of their estuary, they discuss hydrocar-

(next page please)



ROGER HAMILTON—IDB

Under a watchful eye, crabs are cleaned for market.

(from previous page)
bons and chemicals and the need for protection. “Just a week ago, a neighborhood group came to us and said, ‘Look, we want to have a new *minga* (cooperative work crew) because we have pollution problems in the estuary.’ Already we have had *mingas* here that have represented 17 million sucres in labor costs. Two years ago we had a thousand people here participating in a *minga*.” At first they said they merely wanted a ‘*barrio limpio*,’ or clean neighborhood, he added, but now they want to go one step further to make a ‘*barrio lindo*’ or pretty neighborhood.

According to Maldonado, even the shrimp farmers are changing their views. “Before they would tell us ‘I don’t cut mangroves any

“People are probably the most important component of the natural resources that we have to manage.”

Héctor Ayón

more; I just prune them’,” he said, referring to the practice of cutting off the tops of the trees to produce a better view of their shrimp growing operations, in particular to spot thieves. But now, he said, many are leaving the trees alone, partly because they regard them as a kind of ornamentation.

“This doesn’t mean that shrimp farmers have stopped cutting trees,” said the University of Rhode Island’s Arriaga. “But at least responsible individuals and groups are helping to replant.”

Another sign of progress has been the reduction of tensions. For example, the local mariculture association asked for a list of shrimp farmers who were cutting mangroves so that they, as fellow shrimp farmers, could take action. The same group requested information from the committee about instances where shellfish gatherers have had problems in getting access to mangrove swamps, again so that they could take action on the gatherers’ behalf.

Many of the participants in zonal committee meetings represented groups that had

long been at odds with each other. “At the beginning, we had a very hard time getting people together,” said Maldonado. “Each group—fishermen, the shellfish gatherers, shrimp larvae fishermen—said ‘we have no reason to talk with the others.’ But communication has improved, and now the shrimp farmers themselves are asking for more frequent meetings to work out problems.”

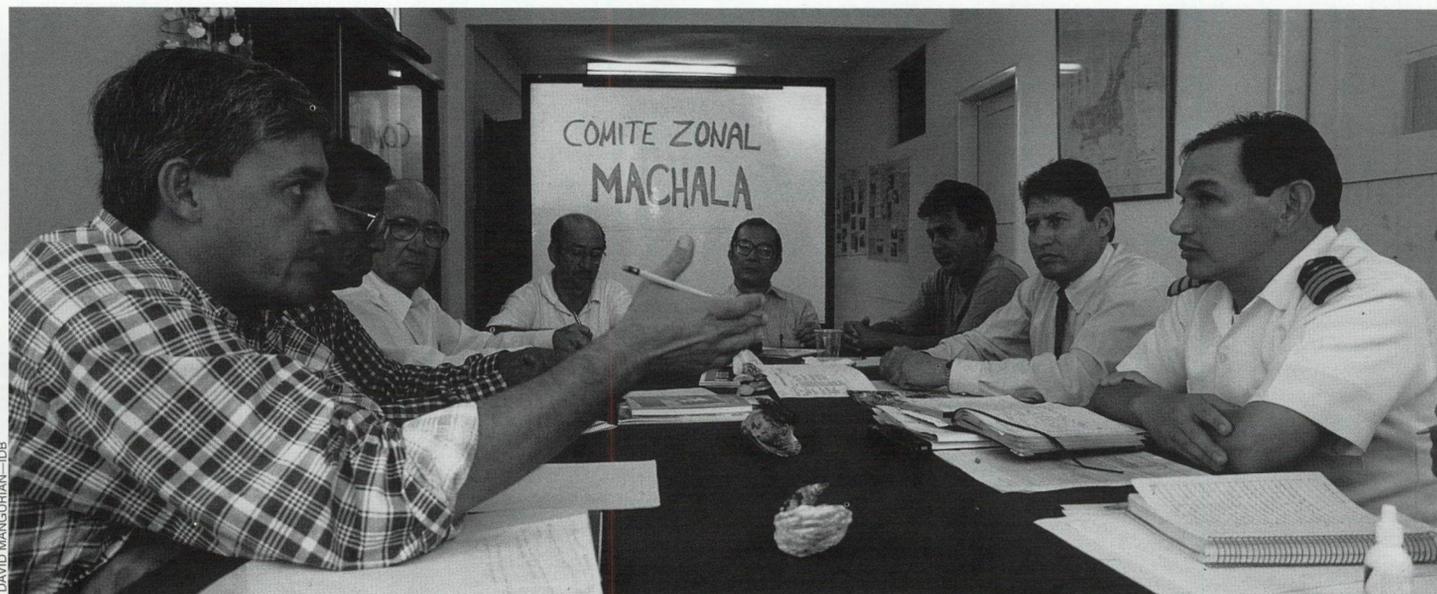
One remaining challenge is getting the participation of the provincial authorities, who prefer to manage from above, as they always have, said Maldonado. Another problem is that government agencies with jurisdiction over coastal issues are organized according to sectors, instead of multisectorally, as the local committees are. But here again, the officials are starting to join in.

“People are probably the most important component of the natural resources that we have to manage,” said Ayón, the former coastal management director. “We are talking about management of the mangroves, management of shrimp larvae, land management. But all of that is ultimately directed at improving the living conditions of people. This is more important than carrying out physical works, more even than the preservation of the enormous biodiversity that we have in this country, because if man does not manage these resources well, all of this biodiversity disappears.”

He recalled a conversation he had with a woman, a shellfish gatherer, in a tiny coastal community. She called the mangrove swamp “my farm,” something that she hoped to leave to her children. This is Ayón’s hope as well.

—with reporting by David Mangurian, Machala

For more information about the Ecuador coastal management project, go to www.pmrc.org.ec.



DAVID MANGURIAN—IDB

POINTS OF VIEW: A shrimp farmer, a fisherman, a community leader, a military officer, a municipal official and others meet to plan coastal management in Machala, Ecuador. Edgar Mora, former Machala committee president, is at the end of the table on the left.



DAVID MANGUNJIAN—IDB

Far from being a bottomless source of protein, the ocean has very definite limits.

A new era for marine management

IDB strategy adds oceans and coasts to the development equation

By ROGER HAMILTON

WHEN THE IDB INVESTED \$400 million in fisheries development during the 1970s, it was not alone in concluding that capital was the key to unlocking the ocean's riches. This was the era of fisheries euphoria, of mammoth factory ships and predictions that the sea's bounty would solve world hunger. International agencies, governments and respected experts urged more investments, bigger catches, more pursuit of "under-utilized" species.

But it turned out that fisheries do not behave like most economic sectors, where more investment generally guarantees greater returns. Instead, bigger boats, longer nets, and sophisticated electronics have enabled commercial fishing fleets to pursue their quarry so relentlessly that many for-

merly abundant species have become seriously depleted.

As fish became scarcer, prices rose, and fishing intensified still further. In Latin American waters, more than 80 percent of commercially exploited fish stocks in the southwest Atlantic and 40 percent in the southeast Pacific are now fully fished or depleted. A large percentage of the catch, in some instances as much as 30 percent, is simply discarded as "by-catch" (species other than those being pursued).

The United Nations' Food and Agriculture Organization (FAO) subsequently concluded that the world fishing industry is "non-sustainable" and that "major ecological economic damage is already visible." Last February, 100 FAO member nations signed an agreement to control the size of their distant-water fleets by no later than 2005.

How many fish are there? How many can

be caught without putting the populations in danger? Very little research was carried out to answer these and other questions about the long-term viability of fisheries investments. Wild fish stocks were considered—and still are in many quarters—as mere commodities to be "harvested," implying that they are somehow grown like wheat or cattle, instead of taken from the wild. In fact, fish are the only wild creatures still hunted on a large-scale commercial basis.

While ever-larger fleets were pursuing fewer fish with more technology, a similar pattern was unfolding closer to shore. There, artisanal fishermen with small boats and rudimentary gear (an estimated 900,000 of them in Latin America and the Caribbean alone) were selling to new and often distant markets. To survive, they had to maximize their catch and profits, usually by borrowing to buy better equipment.

Pressures were also building on the shoreline itself. Deforestation, intensive agriculture, mushrooming urban populations, tourism and port infrastructure development, in addition to intensive mariculture, have degraded coastal waters in many areas by increasing sediments, toxins and sewage and by creating other problems.

New approach. These lessons were not lost on the IDB and other international funding agencies. The large infrastructure loans they made in former years have been replaced with small, highly targeted projects to solve problems that were formerly overlooked, such as biodiversity, water quality and by-catch. Programs in such areas as coastal management, agriculture, rural development and infrastructure now often include conservation measures.

Since 1993, in addition to incorporating coastal management components into infrastructure loans, the Bank has lent some \$60 million for coastal and marine resource management.

(next page please)

COASTAL COMMANDMENTS

The guiding principles behind the IDB's new coastal and marine management strategy are the following:

- ▶ **Ownership** of resources at the local and national levels ensures a sense of shared responsibility.
- ▶ **Community participation** builds constituencies for resource management.
- ▶ Projects must have a **strategic focus**, addressing problems that stakeholders regard as important.
- ▶ Where different groups compete for the same resources, **integrated projects** are essential.
- ▶ When sustainability is in doubt, **err on the side of caution.**

FISHERIES FACTS



ROGER HAMILTON—IDB

- ▶ **Per capita supply of fish** in 1990 in Latin America and the Caribbean was 9 kgs; the world average was 13 kgs.
- ▶ Latin American countries account for 11 percent of world **fisheries exports**. The value of this share was estimated at \$5.1 billion in 1994.
- ▶ Chile is the **main exporter of fish products**, with more than \$1 billion in 1994. It is followed by Peru and Argentina.
- ▶ The **shrimp export market** is dominated by Mexico (mostly of wild shrimp) and Ecuador (mostly of cultured shrimp).
- ▶ Of the total fish supplies of 24 million metric tons in 1994, some 70 percent were put to **non-food uses**, such as fish meal.

agement programs such as those described on these pages. But while moving in the right direction, the IDB was still operating in a virtual “policy void,” according to Bank coastal and marine specialist Michele Lemay. Marine environmental problems, though less visible than terrestrial ones, are every bit as serious, she says, and the Bank needed a strategy that would set priorities for lending and improve the effectiveness of investments in coastal-related projects.

The strategy approved by the Bank’s

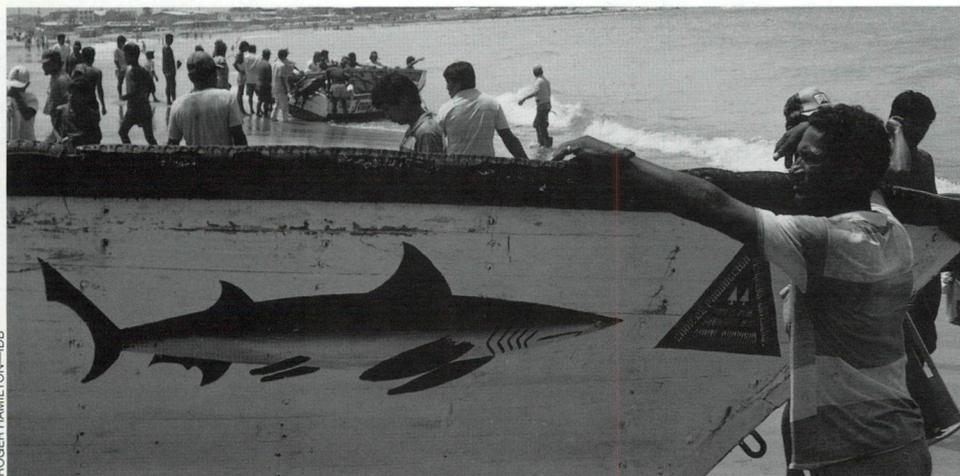
Board of Executive Directors last May is a comprehensive blueprint for marine and coastal management, founded on the concept of citizen participation integrated with research, monitoring and training. The strategy also addresses the need to reconcile competing interests among sectors such as tourism, industrial fisheries and mariculture, just as publicly owned forests are managed for multiple use.

In shifting the Bank’s focus from development to management and conservation, the strategy calls for steps to limit fisheries access. With demand for fisheries products growing, Lemay says, “pressures from external markets are on a collision course with sustainable production.”

In view of the conflictive nature of many of the problems besetting the coastal and marine environment, the IDB strategy assigns overall management responsibility to the state, but also recognizes that this responsibility must be shared by local governments, civil society and the private sector. Effective governance means transparent government, says Lemay: “Fair rules of the game in allocating land and resource rights are the best means of combating the corruption that has had such pervasive effects in the region in sectors such as fisheries.”

Finally, the Bank strategy points to the need to strengthen the institutions charged with marine and coastal management. At present, lack of trained professionals means that technicians from developed countries often must be contracted to carry out projects. The strategy also advocates a shift in marine research in the region from basic sciences, such as taxonomy, to applied sciences that look for solutions to real coastal development problems.

 The complete IDB strategy can be found on the IDB’s website www.iadb.org under the “policies and mandates” button. For a printed version, contact Carolina Pérez at carolinap@iadb.org.



ROGER HAMILTON—IDB

READY TO LAUNCH: Local people have an increasing say in how fisheries are managed.



ROBERT DEAL, JR.

Coral reefs attract fish and tourists.

HONDURAS

A coral reef refuge

ANCHORED BY THE TOURISM MECCA OF ROATAN, the Bay Islands of Honduras make up the southernmost section of the world’s second largest barrier reef. While some visitors come for the islands’ palm trees and soft coral sand, most are drawn by the astonishing variety of marine life accessible for anyone with a face mask and a snorkel.

Although the world’s coral reefs are disappearing at an alarming rate, the marine environment around the Bay Islands remains largely pristine. And the government is determined to keep it that way. In 1993 it created the Development Commission for the Bay Islands, and a year later, the IDB approved a project to strengthen the ability of the local people to manage their resources and provide them with better environmental sanitation services.

Since then, with the support of the environmental management program, the government has designated the islands as a protected area and has established a permanent environmental unit on Roatán staffed with government and municipal officials who have received legal, technical and administrative training. Future activities will include water supply, sewer and solid waste systems, a property census and registry, and environmental education.

BARBADOS

Battling beach erosion

AS SURELY AS THE COASTLINE DRAWS PEOPLE AND development, it brings on its own destruction.

On the island nation of Barbados, particularly on its developed west coast, the major problem is beach erosion. This is a serious concern anywhere, but particularly so when tourism is the country's number one industry. The causes are complex. Tourist hotels themselves are partly to blame because over the years their owners have built structures to trap sand, which prevents its migration further down the coast to other areas.

But the most serious threat to the beaches is the loss of offshore coral reefs through pollution, primarily caused by domestic sewage. As the reefs die, they lose their ability to reduce the energy and erosive force of incoming waves.

Into this complex scenario of cause and effect stepped the IDB-financed Barbados Coastal Conservation Program. Drawing on previous studies and surveys, the program has put in place a genuinely integrated approach that over the years has combined research, pollution control and anti-erosion measures with institutional and legal mechanisms to control coastal development and prepare a national coastal zone management plan. Meanwhile, the country has made significant progress in reducing pollution with a series of IDB-financed sewage treatment systems and solid waste disposal plants.

In December of last year, Barbados passed its Coastal Zone Management Act, only the second such legislation of its kind in the Caribbean.



Sun, surf, and coastal surveying equipment.

DAVID MANGRANI—IDB



ROGER HAMILTON—IDB

Hatchlings head for the sea on a protected beach in Brazil. Perhaps one will return.

BRAZIL

Safe haven for turtles

IT'S HARD TO SUPPRESS AN ANTHROPOMORPHIC twinge when the tiny sea turtles crawl out of a pail, briefly get their bearings, and then head for the sea.

Talk about venturing into the unknown! Hatched from eggs gathered along the beach of Praia do Forte, in the Brazilian state of Bahia, and carefully incubated for two months, the fragile creatures must now face an ocean of hungry crabs, sea birds, octopuses and fish. Out of every thousand, one or two will survive and return to this same beach as an egg-laying adult.

But this is enough for the widely acclaimed Pró-Tamar Foundation ("tamar" being a contraction of *tartaruga marinha*, or sea turtle in Portuguese). This IDB-supported non-governmental organization has ensured that the turtles that eventually return will have a safe place to lay their eggs. In the process, Pró-Tamar is setting the standard for working with local communities, many of

whose members are former turtle hunters and egg gatherers.

When Pró-Tamar was founded two decades ago, the populations of Brazil's five species of sea turtles were in a precarious situation, victims of intensive harvesting for meat and eggs by local people. Today, Pró-Tamar is protecting critical nesting beaches along a 1,000-km stretch of coastline through a network of 22 field stations in eight states. Local fishermen serve as guards and other community members help collect eggs, conduct nature tours, and tag and release turtles that become entangled in nets. At the same time Pró-Tamar helps the communities launch tourism ventures and carry out projects in environmental health, education, and general coastal management.



Ocean bound.

For more information on Pró-Tamar, go to www.e-net.com.br/tamar.

IN PRINT

THE YEAR 1998 WILL BE REMEMBERED AS A tumultuous one for Latin America and the Caribbean, and for the IDB as well.

The region was buffeted from all sides—first by a string of natural disasters in the form of El Niño and hurricanes Georges and Mitch, and second, by the virulent effects of the Asian and Russian financial crises. The IDB made an unprecedented effort to respond to these pressures, approving a record \$10 billion in financing, including billions of dollars in emergency assistance.

A detailed account of these events is available in the IDB's *Annual Report 1998*. Along with a brief overview of Latin America's economic situation in 1998, the report includes summaries of the operations—

loans, financings for small projects and technical cooperation—that the IDB approved for its member countries in Latin America and the Caribbean during that year. Also included are special sections on emergency lending, disaster relief programs, human resource development, and the IDB's participation in consultative groups for Peru, Nicaragua, Guatemala and Central America.

According to the report, which was released in March at the Bank's annual meeting in Paris, the IDB remained the region's main source of credit for the fifth consecutive year, bolstering borrowers' economies as they worked to alleviate poverty, support the private sector and reform public institutions.

In addition to a complete set of 1998 financial statements for the Bank and a listing of the IDB's governors, executive directors and principal officers, the report also offers useful reference information for Latin America. A series of statistical charts displays trends in total and per capita gross domestic product, population, external debt, consumer prices and current accounts, and social indicators such as the birth rate, infant mortality, life expectancy, access to health services, literacy and average schooling for each regional country.

 The report is available in English, Spanish, French and Portuguese. To order, contact the IDB Bookstore, E-105, 1300 New York Ave., N.W., Washington, D.C. 20577, tel: (202) 623-1753, fax: (202) 623-1709, e-mail: idb-books@iadb.org.



IDB PHOTO

Workers at Digitel, a Brazilian computer firm that received IIC financing.

Strong demand for small firm financing

IDB Group member doubled loans and investment in 1998 from previous year

THE INTER-AMERICAN INVESTMENT CORPORATION channeled \$223 million to Latin American and Caribbean companies in 1998, exceeding its target for the year by 24 percent.

The IIC, a member of the IDB Group that makes equity investments and loans to small and medium-sized enterprises, effectively doubled the dollar volume of its financing approvals over 1997 levels. It approved 28 new projects in 14 countries and four regional investment initiatives; \$35 million

went to equity investments and \$188 million to long-term loans.

"Our growth reflects the persistent demand for financing among the region's small and medium-sized companies," said Jorge Roldán, IIC chief economist. "It also shows that innovative and fast-growing companies are thriving in the region, even with last year's difficult macroeconomic conditions."



The IIC in 1998 also continued to expand its participation in private equity investment funds that specialize in particular sectors, such as energy or environmental enterprises. By year-end, the corporation had stakes totaling \$95 million in 21 different funds. Altogether, these funds are channeling \$1.1 billion to some of the region's most promising companies.

Half of the IIC projects approved in 1998 are located in the region's smallest economies, where corporate financing can be particularly hard to come by. The new projects span a variety of sectors, as evidenced by the following examples:

► An Argentine company that processes and safely disposes of medical and industrial wastes. The IIC investment will enable the company to build a new incinerator and purchase technologies necessary to meet the growing demand for these services.

► A new Ecuadorian finance firm that will work with banks and investors to issue bonds backed by local mortgages. This service, a first in Ecuador, will help create a secondary market for mortgages and contribute to developing the capital markets that are essential to encouraging investment by homebuilding and construction firms.

► A Honduran power company that will build a 60-megawatt thermoelectric plant designed to sell electricity to the national service. The company will be one of the first to operate under a new law permitting private participation in the energy sector, and it will help to alleviate the country's pressing power shortages in the wake of Hurricane Mitch.

► A Nicaraguan finance firm that will offer leasing services for amounts of as little as \$40,000 to small companies that need new equipment or other capital goods to expand.

Although none of the IIC's investment projects in Central America appears to have been seriously affected by Hurricane Mitch, the Corporation is coordinating activities with the IDB's regional departments, local commercial banks, and other groups with a view to supporting reconstruction efforts. The IIC's strategy in the affected countries will emphasize financing projects that will create jobs, rebuild infrastructure, and provide capital to the most heavily damaged productive sectors, such as agribusiness.

During 1998 the IIC also formally accepted Suriname and Belize as members, meaning that every one of the IDB's borrowing member countries is now a member of the IIC. Last year all but two of the IDB's non-borrowing member countries also expressed an interest in IIC membership.

With demand growing for the IIC's services, its member countries have recently approved a proposal to significantly increase the corporation's capital resources. (See next issue for details.)

More help for state reform

IDB says the issue is quality, not size

THE IDB WILL BOOST ITS LENDING FOR state reform programs to around \$6 billion over the next few years to support the modernization of the public sector in Latin America and the Caribbean, according to Bank President Enrique V. Iglesias.

Speaking before delegates to the International Conference on Reinventing Government organized by U.S. Vice President Albert Gore, Iglesias said that Western Hemisphere countries have come to the conclusion that good government is a prerequisite for successful development.

"The debate on the state has lost the ideological bitterness of the past," he said. "Today the issue is not whether we need more or less state intervention but about the quality of government. It is not a matter of 'downsizing' but rather of 'rightsizing'."

The Bank has directed \$5 billion in loans for programs to reorganize, streamline or decentralize key government agencies and services in borrowing countries over the past four years. It also advises governments on how to conduct reform programs. Although the job is far from finished, there have been some encouraging results in turning onerous and corrupt bureaucracies into more efficient tools of government.

One example is the IDB-supported customs reform in Peru. By enforcing integrity rules, professionalizing its staff and working with the private sector to unclog bottlenecks, that country turned its customs service into one of its most widely admired state agencies. Not only does it clear shipments within hours, it also has increased its revenues nearly fivefold in six years.



Governments must find ways to meet the rising demand for social services.

Reforms defended

Even though Latin America is still beset by many problems, the countries that have made economic reforms are headed in the right direction, IDB economist Eduardo Lora told participants at an international meeting of economists in Havana, Cuba, last January. According to Lora, these reforms have paved the way for economic growth and enjoy popular support. The meeting, "Globalization and Problems of Development," was held in the midst of the devaluation of Brazil's currency.

Help for the blind

A Spanish organization has launched a series of initiatives in Latin America to help give blind people more access to education and employment. Among the projects announced recently by the Spanish National Organization of the Blind is the installation of telephone booths in Ecuador to enable blind people to sell their products and a plan in Chile to make special places available for the use of blind vendors. The organization, which has the support of the IDB and other international and national agencies, began working in Latin America last year. Its main source of financing is the Spanish lottery.

Cooperation on drugs

The IDB has pledged increased support to reduce the supply and demand for illicit drugs in Latin America and the Caribbean. According to an agreement signed in January in Vienna, Austria, with the United Nations International Drug Control Program, the Bank will address the drug problem through programs in the fields of education, health care, alternative development, and poverty alleviation. It will also work with the U.N. program in carrying out research and monitoring projects, and will help member countries to enact legislation against money laundering.

A guide to risk

The IDB and the Grupo Santander of Spain have jointly published a Spanish language guide for investors, regulators and legislators interested in more modern and effective risk management systems applicable to the Latin American context.

The publication, entitled "Gestión de Riesgos Financieros: Un enfoque práctico para países latinoamericanos," is available through the IDB bookstore in Washington, D.C., fax (202) 623-1709, or e-mail: idb-books@iadb.org.

Seeds of hope for Central America

Program will provide low-income farmers in Honduras and Nicaragua with seeds and know-how

By PAUL CONSTANCE

SCIENTISTS FROM FOUR OF THE WORLD'S leading agricultural research centers will support Honduran and Nicaraguan farmers over the next two years under an innovative program dubbed "Seeds of Hope for Central America."

The program aims to restore the food-production capabilities of local communities that were devastated by Hurricane Mitch last October. It will seek to replenish critical seed stocks that were lost during the hurricane and teach environmentally appropriate farming techniques that can both increase food production and reduce farmers' vulnerability to future natural disasters.

Experts estimate that Hurricane Mitch destroyed 70 percent of the basic food crops in Honduras and Nicaragua. Maize and beans, the two most important food crops in both countries, suffered huge losses, as did other crops, including potatoes and plantains. The storm carried away untold quantities of topsoil, leaving many farmers' plots barren, and it silted up rivers and streams crucial for irrigation and hydroelectric energy generation. Moreover, the storm wiped out about 80 percent of the two countries' commercial export crops (such as bananas, coffee and tobacco), destroying a crucial source of employment and income in poor agricultural regions.

Threat of migration. While much of the commercial agriculture sector will be able to obtain private financing to rebuild its productive capacity, subsistence farmers lack the resources to replenish seed supplies and buy fertilizers and other agricultural inputs. "Without rapid action to restore food production, Nicaragua and Honduras will face not only serious nutrition and health problems, but severe economic and social problems whose effects will be felt throughout the region," said Grant Scobie, director general of the International Center for Tropical Agriculture (CIAT) in Colombia. Deprived of their livelihoods, thousands of

subsistence farmers could be forced to migrate to nearby cities or countries, he added.

In addition to CIAT, the Seeds of Hope project includes scientists from the International Maize and Wheat Improvement Center (CIMMYT) in Mexico, the International Potato Center (CIP) in Peru, and the Inter-

■ **The goal is to help poor farmers improve land management to reduce the impact of future disasters** ■



WILLIE HEINZ—IDB

Farmers in Pozo Hondo, Nicaragua, examine a new crop.

national Plant Genetic Resources Institute (IPGRI) in Italy. Financing is being provided by USAID and the Canadian International Development Agency.

The project's first priority is to address a pressing shortage of seeds for basic food crops that are adapted to conditions in Honduras and Nicaragua, since most seed stocks were destroyed during the hurricane. In January, CIAT and CIMMYT scientists identified and procured "foundation seeds" and arranged for them to be planted at selected locations in the two countries. This crop will

not be harvested for food. Instead, it will be used to produce larger quantities of seeds for distribution to subsistence farmers this spring. Scientists hope that these seeds will supply most of Honduras' maize needs and about 33 percent of Nicaragua's.

Hardier crops. With a view to reducing farmers' dependence on expensive pesticides, the project is also working to encourage the adoption of hybrid crop varieties developed at CIMMYT and CIP that are naturally resistant to diseases, pests and other problems. These efforts include a campaign to reintroduce the sweet potato, which originated in what is now Nicaragua but is no longer grown there. Working with government and community organizations, CIAT scientists will teach farmers to "interplant" sweet potatoes and corn in a single field, a practice that has proven successful in reducing soil erosion in China. Growing underground, sweet potatoes hold the soil in place, require little fertilizer, and are an excellent source of vitamin A. In Honduras, CIP scientists will help replace sweet potato varieties that were lost during the hurricane using an innovative seed technology.

White potatoes are typically grown from other whole potatoes, not seeds. But transporting potatoes, which are bulky, perishable, and expensive, is difficult in countries with poor transport infrastructure. In response, scientists at CIP have developed a so-called "true potato seed" that costs only \$20-\$30 per planted hectare, as compared to around \$1,500 per hectare planted with whole potatoes. Farmers in Honduras had begun to plant the potato seeds last year, before the hurricane. Now, the Seeds of Hope project will work to distribute new seed and training materials throughout Honduras.

The project also will help develop indicators to determine which areas are at greatest risk of further degradation. Project scientists will then help people in those areas to adopt modern agricultural techniques that improve land management and crop yields. "This is the only way to prevent similar catastrophic results from recurring," said CIAT's Scobie. "One reason natural disasters is so devastating to developing countries is that poverty and poor land management put pressure on the land. Already, we're finding that in areas where the farmers in Nicaragua and Honduras were properly managing the land before the hurricane, the damage is less severe."

For more information on the project, contact Future Harvest at (202) 473-4734.

EARLY CHILDHOOD



DAVID MANGURIAN—IDB

The future of children like this Honduran girl depends on the protection and stimulus provided by parents and communities.

AT DAWN, DARIO PORTOCARRERO BEGINS fixing breakfast and setting up the room for the eight small children he will take care of in his modest home in Comas, a densely populated working-class district of Lima, Peru.

Most of the children arrive before eight, dropped off by working mothers who will be back by five. Portocarrero is one of a handful of male child-caregivers in the Wawa Wasi program, which provides day care for infants and toddlers up to age three. He is a hard worker and an example of the role that men can take in child rearing.

For the poor families who leave their children in the care of caregivers like Darío, this early intervention in the lives of their children can mean an incomparable opportunity to break the perverse cycle in which poverty perpetuates itself from generation to generation. According to scientific studies, basic neurological development in children is completed at around age three. If this development is stunted due to inadequate prenatal care, malnutrition or a lack of stimulation, it

Good start, better future

will be very difficult to make up for the disadvantages that most neglected children suffer for the rest of their lives.

Poverty is perpetuated when people with little education and little income-generating capacity become parents at a young age and cannot provide for the proper development of their children. The most obvious consequences for the new generation are learning difficulties, school failure, and a diminished income-earning capacity. In addition to poverty, the children of the poor must often endure other misfortunes such as disease, substance abuse and crime.

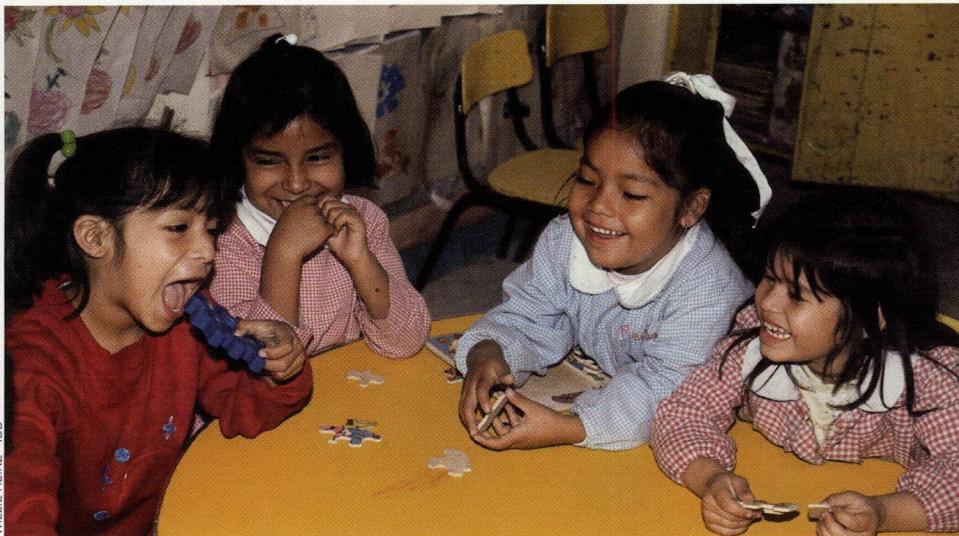
In Latin America and the Caribbean, millions of children are exposed to these risks. Addressing these problems is not only much

less costly than having to deal with their consequences, but also constitutes one of the most valuable social investments that the countries can make.

In the long term, spending for preventive care in the first few years of a child's life has a multiplier effect for society. Children who are properly nurtured during this period tend to do better in school and stand a better chance of developing the skills required to compete in the global economy.

A number of IDB-financed programs seek to provide opportunities for the most disadvantaged segments of the population to achieve proper child development. These programs offer prenatal care for mothers, health and nutrition services, child care and preschool education.

Investing in the lives of poor children means investing in more equitable societies. It means promoting productivity and economic growth. It means building societies founded on a sense of solidarity among groups and individuals. The IDB firmly supports these efforts.



WILLIE HEINZ—IDB

Learning as they play: a Lima day care operated by the Wawa Wasi program.

Breaking the poverty cycle

Fighting disadvantages from the start

By CHRISTINA MacCULLOCH

JUAN GARCIA SHARES HIS ROOM WITH 20 other children in his home in Managua, Nicaragua. Despite the crowding, this may be the first place where he has had proper shelter and stability in his eight years of life. His father left his mother before Juan was even born. After enduring countless trials during the civil war in Nicaragua, poverty and the inability to earn a living led his mother to give Juan up to an orphanage.

Some 43 million children Juan's age or younger live in poverty in Latin America and the Caribbean. In 1980, 26 million children lived in such conditions. Just as alarming is the fact that according to IDB projections, the number of children in homes with a per capita income below two dollars a day will continue to increase until at least the year 2005.

"Another sobering fact is that the poverty rate is much higher among children—as high as 44 percent—than the 33 percent average for the overall population in the region," says Mayra Buvinić, chief of the IDB's Social Development Division. "In our societies, the poverty rate is also notably higher among women, more and more of whom are becoming heads of household. Their limited access to education and health care services and to higher incomes has a negative impact on their children. If a woman has a basic edu-

cation, she can apply the principles of good hygiene and nutrition in her home and is more likely to seek prenatal and postnatal medical care, thus reducing maternal and infant morbidity and mortality rates."

Numerous scientific studies have shown that birth weight, nutrition and early stimulation are all factors with a strong impact on infant brain development. At birth, only the basic neurological structures that control heartbeat, breathing and reflexes are mature. The experiences babies have in the early months and years of their lives are crucial for their brains' development. During this period all the neurological connections that control the development of a child's motor, visual and language skills are created and consolidated.

A study conducted in Chile and published by UNICEF in 1992, identified marked delays in the psychomotor development of poor children beginning at age 18 months. For example, at age five, half of the children in the sample showed delays in language development, 40 percent had delays in general development and 30 percent in their visual and motor development.

"Disability can often be caused by an organic factor, such as maternal malnutrition or lack of care during pregnancy and birth, or environmental factors, basically a lack of stimulation, overcrowded housing or inadequate sanitary conditions," explains Jorge



DAVID MANGURIAN—IDB

Good nutrition and health care are crucial to ad

Goldman, president of the Instituto Psico-pedagógico de Nivelación Aranguren [Aranguren Psychopedagogical Training Institute] in Argentina, whose programs have received IDB support. "Certain disabilities can still be corrected in the early stages of child development, but time is of the essence."

In his work with children from the poorest areas of Buenos Aires, Goldman has noted a high incidence of disabilities. Witness the case of Cristina, a 20-month-old girl from a Buenos Aires shantytown. When Cristina was having trouble learning to walk, her mother sought medical attention. The staff noticed that the mother, a very young, emaciated woman, had had very closely spaced pregnancies and clearly did not know



ate child development.

how to take care of her children. In addition to her inability to walk, Cristina was underweight and malnourished and her behavior was apathetic, highly unstable and skittish. However, after her mother was trained to stimulate Cristina daily with simple games, and after the child was put on a proper diet and medication, she resumed normal development in just two months.

Likewise, a World Bank study of a program in Bolivia showed a decrease in psychosocial delays in at-risk children from 40 percent to 20 percent after one year of better care and to 5 percent after two years.

Innovative interventions. “Perhaps one of the most important benefits that the caregiving

mothers in our program afford to the children is social and emotional nurturing,” notes Dina Kalinovsky, chief of operations of the Wawa Wasi program in Lima. “Thanks to the individual attention the children receive, the feeling of closeness and the warmth of the home and family, they become happier and healthier.”

The Wawa Wasi program strives to create that ideal environment in the context of home- and center-based day care for children aged six months to three years. The children are dropped off early in the morning by mothers who work all day buying and selling fish in the port or as agricultural day laborers in nearby fields.

Gladys Castillo is a “successful mother,” as the best caregivers in the Wawa Wasi program are known. Gladys gives children in Huaura, another working-class community outside Lima, the kind of protection that they would not have if they spent the day alone, in a box at the market or in the care of siblings or neighbors. The caregivers learn to add quality to their roles as mothers. They stimulate the babies and toddlers with readily available materials, such as cubes, spools or flash cards, and feed them three square meals a day.

The Wawa Wasi pilot program for comprehensive child care was a pioneering project when it was launched in 1993. Building on its achievements, in late 1998 the IDB approved a \$46 million loan to help finance a government program that will extend the Wawa Wasi concept throughout Peru. The program will fund the establishment of 1,000 locally run day care facilities that will benefit up to 150,000 children while providing training and other financial support to community-based caregivers.

Another example of a new generation of IDB projects is Bolivia’s national program for comprehensive care of children under six, which will support some 360 projects in rural areas, with cofinancing by 200 municipalities. The program will include literacy training for mothers that focuses on child development concepts as well as funding for health centers, parenting schools and training for older siblings in hygiene and nutrition.

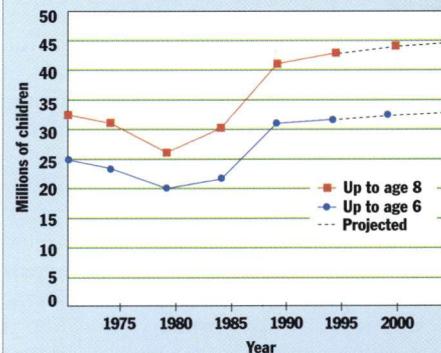
The Bank is supporting other projects linked to health and education programs in Argentina, Brazil, Ecuador and Nicaragua. These projects reflect many different approaches to working with preschool children. They include flexible, demand-driven programs whose design, administration and management respond to local needs and whose results are enhanced through linkages with other social programs. Such programs seek the participation of families, communities and nongovernmental organizations in devising comprehensive solutions for the complex problem of at-risk children.

The problem in figures

Millions of children suffer the consequences of being born in poverty. If their learning capacity is stunted, they must resign themselves to low-paying jobs, repeating the experience of their parents.

Poverty among children

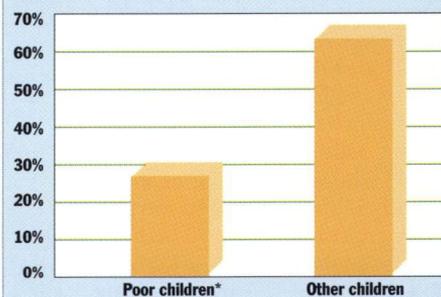
(In Latin America and the Caribbean*)



Source: Calculations by Suzanne Duryea, Enrique Aldaz and Ricardo Morán, based on data from the IDB and Londoño 1996.

Less likely to graduate

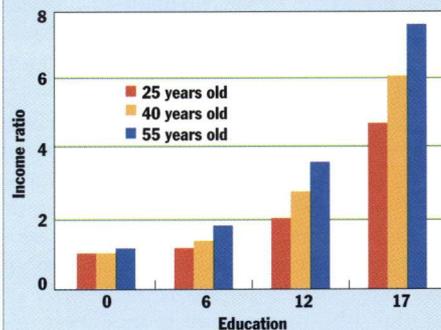
(Secondary school completion rates in Latin America)



Source: Calculations by Enrique Aldaz based on IDB survey data.

Income and years of schooling

(25-year-old worker with no education = 1)



Source: IDB calculations based on household surveys. * Daily per capita income of \$2 or less.

A high-yield investment

Each penny spent on children produces multiple social benefits and savings

DESPITE THE NUMEROUS EARLY CHILDHOOD development initiatives currently underway in Latin America, the resources necessary to provide comprehensive care for children are still beyond the reach of millions of low-income families. Many of the parents in these families have never learned proper child-raising skills. Their children are thus more likely to experience health and cognitive development problems that ultimately undermine the effectiveness of other social investments—especially in the area of education.

Although access to primary education is practically universal in the region, and although UNICEF reports that four out of five children currently survive their critical first year of life, the learning capacity of children in Latin America is greatly diminished by poverty.

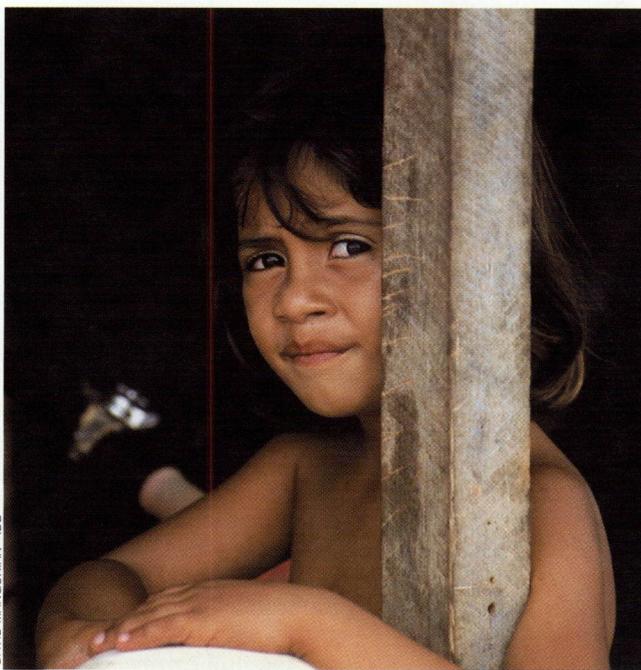
A clear indicator of the impact of improper early childhood development is school failure. Like Juan García in Nicaragua, many poor children begin primary school late. In addition to repeating grades frequently, poor children tend to drop out of school sooner than more well-off children. Although various factors contribute to the high dropout rate, neglect during early childhood may be at the root of many cases of school failure.

Giving poor children access to infant and child care and preschool education may also help to counteract some of their disadvantages. In Lima, according to IDB calculations for 1995, only 54 percent of the children who had not attended preschool completed primary education, compared with 86 percent of those who did have access to preschool. At the regional level, projected secondary school enrollment in 16 countries shows that on average only 26 percent of poor students complete secondary school, compared with 63 percent of their more well-off peers.

Other IDB studies point to the direct impact of fewer years of schooling on the future livelihood of the most underprivileged young people: their prospects for obtaining

well-paid employment will be seriously limited throughout their lives, in direct proportion to their years of education. In addition, their countries will pay a price in terms of lower work force quality and diminished productivity.

■ **Neglect during early childhood may be at the root of failure in school and, ultimately, in the market for skilled jobs as well** ■



DAVID MANGURIAN—IDB

The IDB has financed 40 projects in child development.

A study of the Perry Preschool Project carried out in Michigan (USA), tracked a group of children from poor households who participated in a preschool program when they were three and four years old. At their 27th birthday, the income of the program participants was found to be 60 percent higher than that of other young people from the same socioeconomic group who had not participated in the program.

Moreover, the Michigan study found

that the \$12,000 spent by the government per participating family over the life of the program resulted in estimated savings of \$25,000 in services that were not needed later on. These findings support a growing body of evidence that social investments at the preschool stage yield very high returns, both for individuals and governments.

In general, the savings in government spending achieved due to early childhood intervention in care for poor children is two to four times higher than the cost of the preventive measures. Moreover, such investments do not involve huge amounts of money. For example, World Bank studies have shown that in order to bring preschool, primary and secondary enrollment and basic health care services for poor children up to the level of other children, Chile would only have to spend an additional one percent of its gross domestic product. In the case of Nicaragua, a country with higher poverty levels, such an effort would require an investment equivalent to three percent of national revenue.

For moral as well as for political, economic and social reasons there is an urgent need to ensure comprehensive development for all the children who, like Juan García, dream of studying and working to have the opportunity to live a better life.

In nearly four decades, the IDB has allocated more than \$37 billion to finance social projects in Latin America and the Caribbean. The Bank earmarks close to half of its resources to social programs, and since 1985 it has financed 40 child development projects and allocated \$290 million to programs targeting children and another \$2.7 billion to programs that include child care components.

At the April 1998 Summit of the Americas held in Santiago, Chile, the Bank pledged to give new momentum to education projects by doubling the amount of lending for that sector to at least \$5 billion during the next five-year period.

Child care—from gestation to entry into primary school—is an essential link for equity and efficiency in the overall array of social

spending. While it represents a valuable promise for the future, this challenge requires the participation of all sectors of society and the political determination on the part of country authorities to break the poverty cycle.

For more information on IDB childhood programs, contact Ricardo Morán of the Social Development Division at (202) 623-2495 or by e-mail at ricardomo@iadb.org.

Bright lights for distant islands

Isolated Bahamians can now plug in

AMONG THE LITTLE INCONVENIENCES OF life on a beautiful Caribbean island, access to electricity can loom pretty large.

Just ask the residents of some of the lesser known islands of the Bahamas. While electric service on New Providence and Grand Bahama, the country's two largest islands, has long been taken for granted, it is not always a given in what are known as the Family Islands. This archipelago of several hundred mostly uninhabited islands extends over nearly 300 miles, making the provision of basic infrastructure services complex and expensive.

Until recently, many residents of the largest Family Islands, including Abaco, Bimini, Eleuthera, Exuma Cays, Long Island and Moore's Island, got by with small residential generators, part-time municipal service, or no electricity at all. Today, nearly all the residents of these particular islands have electricity, thanks to diesel generators installed as part of an ambitious government infrastructure effort launched in 1993.

The Family Islands Electrification Program, partly financed by a \$31 million loan from the IDB, is part of a broader strategy of decentralizing Bahamas' national development process and improving the quality of life in the country's numerous smaller island communities. According to Oscar Spencer, the sector specialist in charge of the electrification program in the IDB's Bahamas office, the project has also helped make these islands more attractive to foreign and domestic investors.

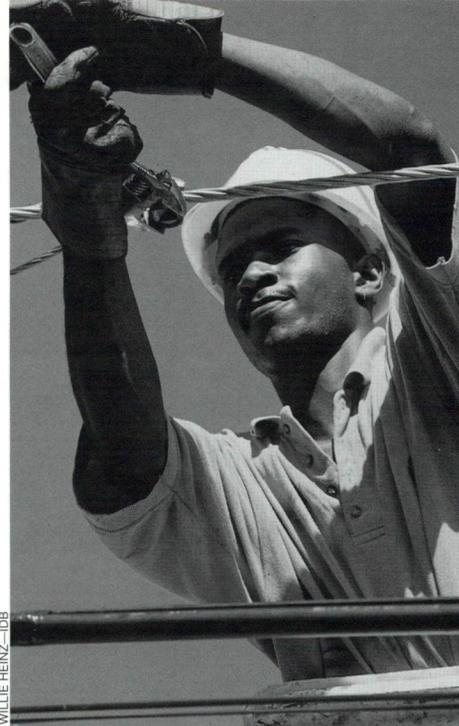
For Ivonne Dittmar, an employee at the Stella Maris Resort in Long Island, the benefits of the electrification program are clear. Now that the Bahamas Electricity Corporation supplies power on her island, "electricity is a little cheaper and the supply is more reliable."

Mrs. Verdell Butler, who runs the Chill Bar & Restaurant in Crown Haven, on the island of Abaco, was initially unwilling to give up her personal generator. "We have about three deep freezers, our home and the restaurant to operate and in the summer we also use the air conditioner," she explained. But after seeing the benefits of municipal service, she and her family decided to sell the generator and switch to the new service.

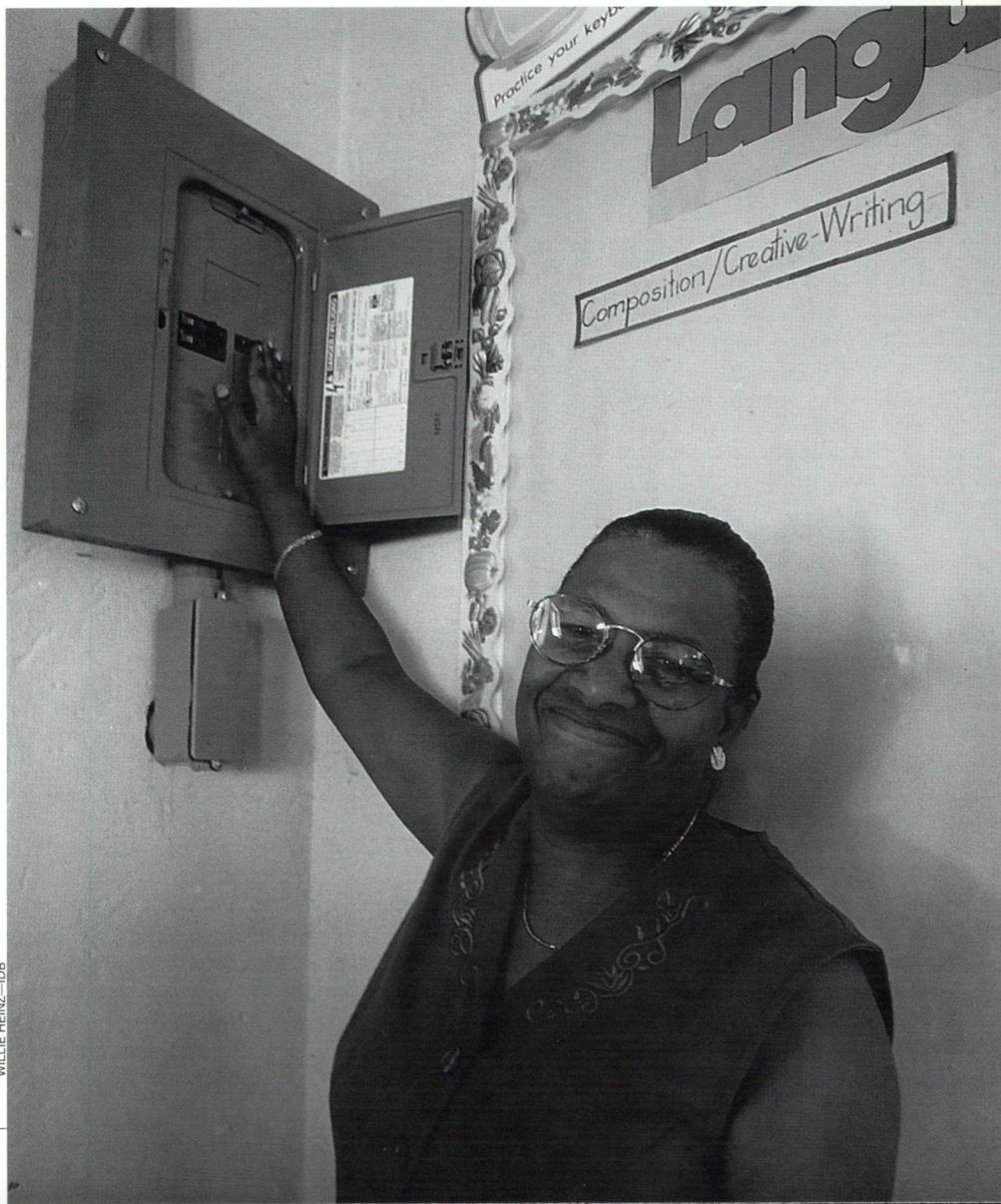
As part of its ongoing support for Bahamas' infrastructure modernization efforts, the IDB in February announced the approval of a \$23.5 million loan to improve solid waste management, strengthen environmental protection, and enhance health standards.

The resources will help finance disposal facilities in New Providence and 10 of the Family Islands, along with the construction of a special hazardous waste disposal facility. Resources will also be used to strengthen the Department of Environmental Health Services of the Ministry of Consumer, Welfare and Aviation.

—reported by Tisca Pratt, Nassau, Bahamas



A technician from the Bahamas Electricity Corporation installs new power cables at Stella Maris on Bahamas' Long Island. Reliable power has made life easier for local school teachers (below).



WILLIE HEINZ—IDB



At a shopping mall in Bahia, Brazil, people can try on some new clothes, buy a CD, or pay their taxes at a citizen service center.

To tax and please

Brazil's states want to make taxes less irritating—and more enforceable

By PAUL CONSTANCE
DAN DROSDOFF, Salvador, Brazil

THERE IS SOMETHING ODD ABOUT THIS TAX collector's office. First, it's in the middle of a shopping mall—just steps away from record shops, ice-cream parlors and other places where people willingly part with their money. Second, it's open till 10 p.m. on weekdays and 9 p.m. on Saturdays. Third, it is nicely furnished, air-conditioned and staffed with smiling clerks who sit behind late-model computers.

But strangest of all is the bright red zero on the electronic cue indicator above the main desk: evidence that no one is standing in line, waiting to be served.

It's not for lack of business. People pop into the office, known as a SAC (for the Portuguese initials of citizen service center) throughout the day, usually carrying some kind of form. They pay taxes and take care of a variety of other official obligations—from paying utility bills to obtaining a national ID card. Most transactions require just a few minutes to complete, and many forms can be filled out electronically at computer terminals set aside for customers.

Customers? The very idea of customer-oriented tax service can prompt ironic smiles and caustic remarks in many countries. But the popularity of SAC centers in this Northeastern state shows that in Brazil, the concept is no longer a joke. In fact, Bahia is just one of several Brazilian states that are turning conventional wisdom about taxes and public finances on its head.

“We were using a bureaucratic model based in the last century.”

Yoshiaki Nakano

Tangled legacy. “Paying taxes is never pleasant, and people have a natural reticence about it,” says Waldir Gomes Junior, president of the Accountants Syndicate of São Paulo and an outspoken private sector supporter of tax system reform in that state. Such understatement is not usually in evidence when Brazilians talk about taxes. There are all sorts of popular complaints, but the truth is that the tax system in Brazil, as in most countries, is a victim of its past. Laws, regu-

lations and procedures introduced over the years by different governments have accumulated to produce a sometimes Byzantine process. The sheer complexity of the tax code, combined with its dependence on dozens of paper forms that must be processed in separate government offices, has tended to alienate taxpayers at best, and to encourage inefficiency and abuse at worst.

“We were using a bureaucratic model based in the last century,” says Yoshiaki Nakano, secretary of finance for the highly industrialized state of São Paulo and one of the most zealous advocates of tax system modernization. “In the past we would get 600,000 to 800,000 returns each year that were incorrectly filled out. Somebody who owed 120,000 reais [the Brazilian currency] would write down 120 reais or 12. Everything had to be audited and corrected by hand, and there was all kinds of fraud.”

João Alberto Rodrigues Capiberibe, governor of the state of Amapá in Brazil's Amazonian region, says citizens were somewhat justified in their reluctance to comply with the law. “The [old system] had two characteristics that harmed the taxpayer: a selective form of collection, in which political interests and special privileges predominated, and the way money was spent, which was even worse because controls were very weak.”

No more Band-Aids. Such candid assessments are typical among Brazilian governors and senior state finance officials, and they explain the emergence of a strong consensus that the

tax system must be reformed. In 1996 the federal government launched a large program, partly financed by a \$78 million IDB loan, to modernize the Federal Revenue Secretariat. Over the last few years several Brazilian states have undertaken similar efforts on their own initiative. And in 1997, all 26 Brazilian states joined with the Federal District in a coordinated program to improve revenue collection, financial management and fiscal information sharing across the board.

This \$1 billion Fiscal Administration Program (PNAFE, for its Portuguese initials), half of which is being financed through a \$500 million IDB loan, is but one small front in Brazil's broader campaign to consolidate economic reforms that have revitalized its economy in recent years. But it is a particularly crucial front. Like most Latin American and Caribbean countries, Brazil is working to lower fiscal deficits at the federal, state and municipal levels in order to reduce its dependence on external financing and stimulate economic growth. As always, this task boils down to the politically demanding art of increasing revenues without cutting essential public services.

While the need for belt-tightening has resulted in heated debates about public spending in general, it has also focused attention on those charged with collecting taxes and administering public funds. Is an appropriate amount of revenue being collected for each kind of tax, in each jurisdiction? Are the funds being correctly reported? Is revenue being allocated and spent efficiently? And perhaps most importantly, is the entire tax collection and public spending process being conducted in a way that inspires public confidence and compliance with the law?

These sorts of questions have bedeviled governments for centuries, and Brazil doesn't pretend to have easy answers. Indeed, there have been other campaigns to improve the tax system in Brazil. But unlike previous top-down efforts, the current one is designed to leverage proven innovations hatched at the state level by government officials who were not satisfied with the status quo.

Tax and mend. Heliana Guimarães Diniz is one such official. Equipped with a masters degree in tax administration, she spent 20 years working as a fiscal inspector for the state of Bahia before being named chief of the state tax inspection office at Calçada, a district in the capital city of Salvador, in 1994. During those years she had plenty of time to notice what was wrong with the tax system—and to think about ways it could be improved. "The bureaucracy was very extensive," she recalls. "We had too many papers and we had to ask for many copies of each document from each citizen who wanted to get things done."

By the time Diniz was named chief, Bahia's finance secretariat was headed by Albérico Machado Mascarenhas, an avowed reformer who was spearheading a wholesale effort to automate and modernize the state tax system. Diniz sent a list of suggestions for efficiency improvements to Mascarenhas's office, and he encouraged her to join other officials on his staff who were already conducting a detailed analysis of each step in the tax collecting and management process. In the end, they found dozens of ways that the system could be streamlined and simplified.

Some seem obvious in retrospect. Instead of asking taxpayers to go through an obstacle course of separate offices, each of which provided only one of a long list of required documents or official stamps, Bahia officials found a way to locate nearly all the necessary procedures in a single office. Instead of storing all relevant records in scattered government



“Now taxpayers don't have to come back two, three or four times to get a solution.”

Heliana Guimarães Diniz

archives, they let taxpayers keep the documents themselves. Starting last May, the finance secretariat also began placing tax information and interactive forms on the Internet, so that customers at tax offices could use computers to quickly fill out and print required documents.

"Now taxpayers just come to our office, show us their papers, and we take care of everything and give it right back," says Diniz. "We stamp it, sign it, and that's it—they don't have to go from one place to another. They don't have to come back two, three, four or five times to get a solution."

These kinds of improvements in customer service can yield concrete dividends. Consider the tax on motor vehicles in São

Paulo—an important source of revenue in a state with Brazil's highest concentration of cars and trucks. Three years ago, when Samuel Abel Brasil, a 29-year-old São Paulo truck driver, needed to renew his license, he had to pay the equivalent of \$10 to a *despachante* (an agent specialized in processing official paperwork) and wait up to 10 days, in addition to paying the \$34 tax on the renewal.

Today, Brasil and other vehicle owners can step into one of several aptly named Poupo Tempo ("Save Time") offices run by São Paulo's Ministry of Finance. Using a computerized license-processing system, clerks process the renewals in an average of 10 minutes, eliminating the need for a *despachante* and saving consumers the additional fees. City finance officials believe the improved service and lower cost contributed to tripling São Paulo's car tax collections in the last two years; the tax now brings in some \$1.8 billion in annual revenue.

Convinced that simplicity and convenience can help increase other kinds of collections as well, São Paulo tax officials under Yoshiaki Nakano have embarked on an ambitious effort to automate as many aspects of the tax system as possible. When businesses file monthly declarations of the value-added tax that accounts for the bulk of state revenues, for example, they must do so on computer diskettes instead of paper. This apparently trivial requirement has resulted in huge savings thanks to reduced errors and quicker processing, according to Nakano.

Nakano's staff is also betting that the Internet will eventually become the most popular way to deal with tax obligations (see "There are no lines in cyberspace," page 21). He recently opened the Posto Fiscal Eletrônico, an Internet service that aims to replicate virtually all the services offered by São Paulo's traditional tax offices. When fully operational, the posto will include detailed instructions for filing taxes, news on the latest tax laws, interactive forms and various online help features. For people who don't have a computer at work or home, the finance secretariat is installing public computers at its brick-and-mortar tax offices (See "A solution to chaos," page 29).

Are these changes opposed by commercial accountants who make a living by helping people navigate the complexities of the tax system? Apparently not. Waldir Gomes Junior, of São Paulo's Accountants Syndicate, applauds the move toward electronic tax processing because it reduces errors and abuses. "It avoids placing the taxpayer at the mercy of how a given tax collector feels on a given day," he says. It also makes it easier for both taxpayers and accountants to obtain tax information, "because now that information is on the network. It would have been impos-

(next page please)

He's got his eye on you

ALBERICO MACHADO MASCARENHAS, SECRETARY of finance for the Brazilian state of Bahia, has no illusions about his job. "The finance secretariat is normally not very popular, not well-loved," he says, smiling. "That's because what we do is sometimes contrary to the interests of businesspeople."

But Mascarenhas is not interested in popularity. His passion for the last four years has been to turn his agency into a model of efficiency, and he and his staff have made considerable progress. "In 1991, everything at the secretariat was run manually—we had no information technology to speak of. To give you an example, it would take 60 days for us to learn what our revenues had been during a particular month. Something as simple as knowing who paid their taxes and who didn't—we didn't know that."

Today, thanks to a top-to-bottom overhaul that involved extensive staff training, computer systems installation and software development, things are considerably

Albérico Mascarenhas

better: "Now we know exactly what our collections are—we know it on the same day—and we know who has paid and who hasn't. Taxpayers know that we are following them closely, on a day-to-day basis, so we have been able to reduce our evasion rates and raise our collection efficiency."

The most tangible evidence of increased efficiency, according to Mascarenhas, is that for the last few years Bahia's tax collections have grown at a faster rate than the state's GDP. But has the average person noticed the reforms? Perhaps not, says Mascarenhas. "But people have noticed that the state is now more financially sound, that public employees are paid on time, and that state accounts are up-to-date."

And that's good enough for him.



(from previous page)
sible to get that information by telephone."

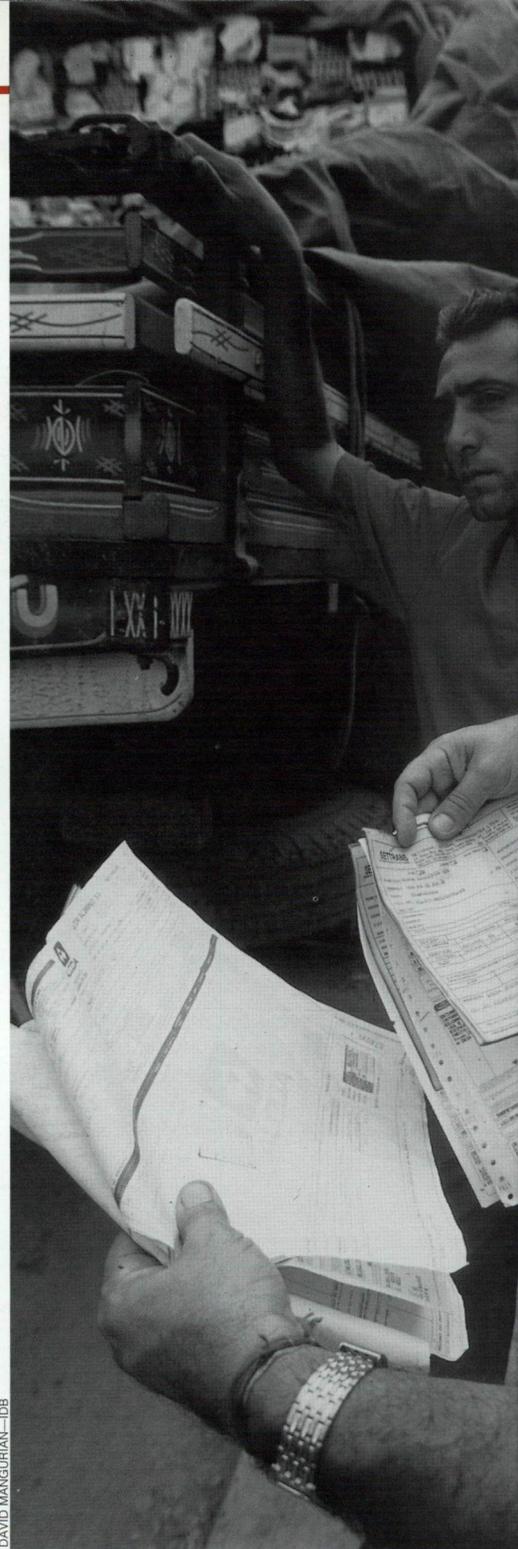
Tax officials in São Paulo and Bahia are quick to point out that better service is only part of their reform agenda. An even more daunting challenge lies in overhauling the internal operations of the finance secretariats: upgrading staff skills, installing modern information management systems, increasing the number and efficacy of tax inspections, and providing reliable data about public accounts.

IDB financing from the PNAFE program is now being used to pay for many of these improvements. In Bahia, for example, the program helped pay for extensive staff training and for procuring computers, office facilities and vehicles for field tax inspectors. Funds are also being used to develop custom software applications that support electronic tax filing, communications, accounting and budget tracking functions. Executing agencies for the Fiscal Administration Program are now up and running in all 26 Brazilian states, and program coordinators are meeting regularly at the national level to compare experiences and to tackle a critical problem: the lack of integration between federal and state financial management systems—a shortcoming that makes it difficult to produce accurate national financial information.

Management remains key. Although information technology plays a vital role in tax modernization efforts, it is by no means a cure-all. Carlos Leony Fonseca da Cunha, coordinator of the tax reform program in the state of São Paulo and one of the architects of the Posto Fiscal Eletrônico, says the effort is only "30 percent technology," while the remaining 70 percent is "project management." The second task encompasses the complex art of changing the culture of a bureaucracy so that workers embrace new ways of working and become more "results-oriented," in the words of finance secretary Nakano.

This less tangible side of the reform process includes the difficult job of drafting and passing laws that simplify the tax system and mandate greater accountability. The Brazilian federal government, along with several state governments, is currently preparing a number of such proposals, and the long-term success of the entire reform program will depend largely on whether the new laws are passed.

It will also depend on whether the tax system is reformed all the way down to the local and municipal level. Under Brazil's 1988 constitution, municipalities are authorized to collect and administer revenue from taxes on urban property and services. They also receive transfers of tax funds collected by the federal government, meaning that all the federal and state-level efforts described above



SHOW AND TELL: A state tax inspector in Salvador, Bahia, checks records that indicate whether taxes have been paid on goods being transported on the truck in the background.

ultimately affect Brazil's city halls as well. Brazilian government officials are now developing a program that will seek IDB financing to extend the tax reform effort to no less than 5,000 municipalities nationwide.

Some cities, like some states, have already taken the initiative to overhaul their tax systems. Porto Alegre, capital of the southern state of Rio Grande do Sul, has garnered in-



There are no lines in cyberspace

How computers are changing tax collection and fiscal management

By PAUL CONSTANCE

MOST PEOPLE USE THE INTERNET TO get news, play electronic games, or send e-mail. In Brazil, they also use it to file tax returns.

According to a survey completed last August by Cadê/IBOPE, a market research firm, 58 percent of all Internet users in Brazil claim to have used that medium to file their tax returns. That figure is borne out by Brazil's Federal Revenue Secretariat, which reports that nearly three million companies and individuals filed their returns via the Internet last year, up from around 700,000 in 1997.

That makes Brazil a world leader in this area, and it illustrates the remarkable effect that investments in information technology are having on tax collection and administration in some Latin American and Caribbean countries.

At a recent seminar at IDB headquarters entitled "Information Technology Applied to Tax Administration: Experiences and Trends," senior tax officials from several regional governments described almost identical scenarios. At the conclusion of the "lost decade" of the 1980s, tax services were operating with a handful of antiquated mainframe computers that undermined efficiency as often as they enhanced it. Without adequate information systems, officials found it difficult to determine who was and who wasn't paying taxes.

As economic conditions improved in the first few years of this decade, many tax agencies attempted to "leapfrog" technologically by buying the latest computer and network technology and pushing for a largely paperless process of collecting and managing taxes. In a few short years, for example, Mexico's Revenue Administration Service went from almost no automation to a system of 122 computing centers that networked to 20,000 terminals, or a ratio of less than two employees per computer. New software systems allow tax officials anywhere to access a "single taxpayer account," a computer file that is linked to all relevant information about an individual taxpayer. Seminar participants from Argentina, Brazil, Bolivia and Chile

described investments on a comparable scale.

In addition to adopting internal accounting and control systems that facilitate administrative tasks, each of these countries has been using information technology to reduce the amount of paperwork (and the corresponding delays) associated with tax filing. According to Pedro Luiz Bezerra, information technology coordinator for Brazil's Federal Revenue Secretariat, his service began encouraging taxpayers to submit electronic tax returns on computer diskettes (using free government software) in 1992. Taxpayers quickly embraced this option, which they found to be less time-consuming and error-prone than paper forms. Bezerra said early experience with diskettes made Brazilian taxpayers even more willing to switch to

Internet-based filing when it was introduced in 1997.

Not all countries have embraced the Internet as eagerly as Brazil. Argentina opted for a semiautomated system of machine-readable tax forms that people fill out at local bank branch offices. The forms are then scanned and loaded into

a computer network. Mexican tax officials are interested in Internet-based filing, but are just beginning to offer this option.

Officials at the seminar offered hard-learned lessons about the pros and cons of "outsourcing," or contracting out information technology services, as opposed to purchasing and managing them entirely within a tax agency. Representatives from Mexico and Argentina, both of which opted for outsourcing, said private technology companies can usually do a better job of installing and maintaining hardware and software. But they warned that procurements for these services should always be open and competitive, to prevent conflicts of interest, and that contract terms should clearly leave strategic, operational and personnel control in the hands of the government.



To read presentations from the seminar, visit the Fiscal Division section of the Integration and Regional Programs Department at www.iadb.org.

ternational attention in recent years for its ground-breaking approach to public financial management that stresses a "participatory" budget process. Instead of making spending decisions behind closed doors—a tradition that contributes to public distrust and is used as a justification for tax evasion—municipal officials in Porto Alegre hold town meetings to solicit citizen input on budget priorities.

This consensus-building process allows taxpayers to influence the way their contributions will be spent. It's a simple concept, really. But it can make it much easier for a government to tax—and please. ■

A call to action in the classroom

Ground-breaking study takes a hard look at student achievement in 11 countries

By PAUL CONSTANCE

ARE MY CHILDREN GETTING A DECENT education?

It's a question asked by parents everywhere, particularly when they read about international studies that rank countries based on students' answers to reading comprehension questions or math problems. Though controversial, these student achievement surveys can turn a spotlight on deficiencies and galvanize political support for educational reform. In the United States, for example, poor showings on standardized tests recently resulted in major government initiatives to improve mathematics and science education.

So how do students in Latin America and the Caribbean fare in these rankings? Until recently, answers were hard to come by. With few exceptions, the region's countries have declined to participate in international evaluations of educational achievement.

But now, for the first time, citizens in 11 of the region's countries have a rare chance to see how their school systems measure up (see graphs, facing page). Over the last five years, through an unprecedented effort coordinated by UNESCO and partly financed by a \$750,000 technical cooperation grant from

the IDB, these countries participated in a massive study of the language and math skills of third and fourth graders. The results of this First International Comparative Study, run by UNESCO's Latin American Laboratory for Assessing Quality in Education, were released last December.

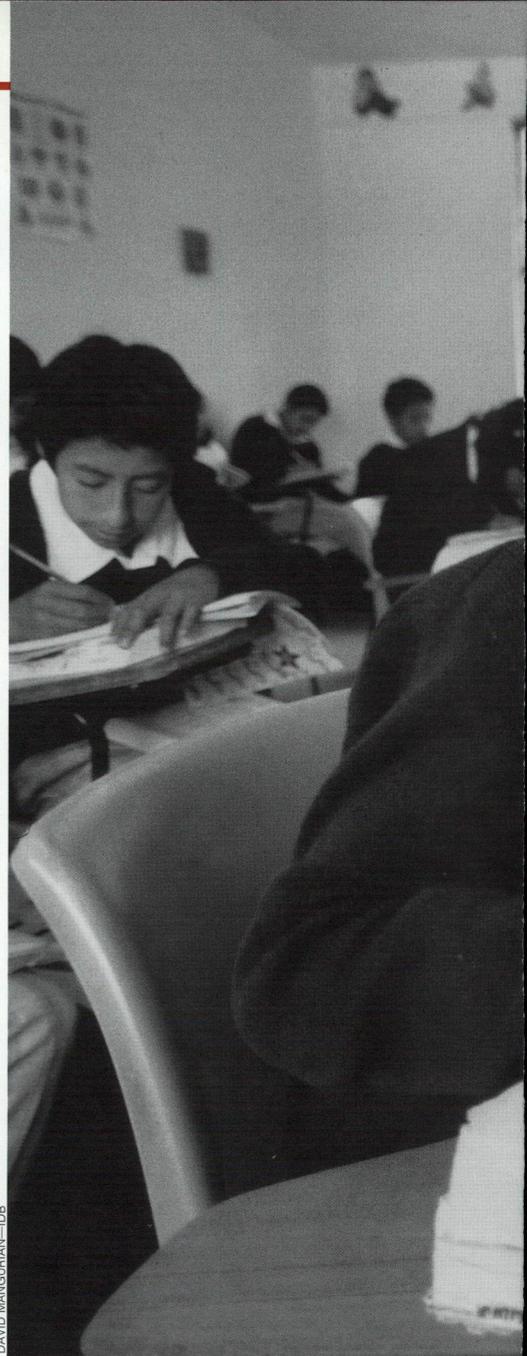
The tests used for the study were designed to reflect the curriculum goals and realities of participating countries. Education officials in each country submitted detailed descriptions of what third and fourth graders are taught and what they are expected to learn by the end of the school year. The language and math questions for the study were developed through a consensual process so that every country was satisfied that the questions were appropriate.

Some 4,000 students in each country took the test. Participating schools were selected to represent three demographic categories: very large cities (one million or more inhabitants), urban centers with less than one million people, and rural areas. Within urban areas, the study also distinguished between public and private schools. Finally, students, teachers and parents at participating schools filled out supplementary questionnaires on a number of issues.

At first blush, the results of the study are discouraging. On average, students correctly answered only 48 percent of the math questions and 62 percent of the language questions. (UNESCO standardized each country's test results and assigned the number 250 to the regional mean, or average, for combined third and fourth grade scores. The graphs on these pages display only fourth grade results relative to the regional mean.)

With the exception of Cuba, which scored far higher than average in every one of the tests, the results were surprisingly homogeneous in view of the wide differences in the development indicators of participating countries. Argentina, Brazil, Chile, Colombia and Mexico performed roughly the same in both math and language, while Bolivia, Honduras, Paraguay, the Dominican Republic and Venezuela performed at or below the average. Peru and Costa Rica participated in the study but have not disclosed their scores.

As expected, students in urban areas and

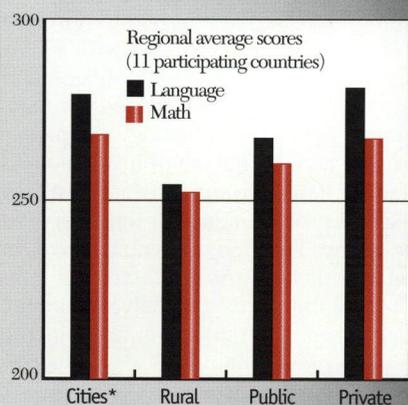


DAVID MANGURIAN—IDB

Students and teachers can use standardized tests

Comparative advantage

Location and type of school can make a difference in student achievement

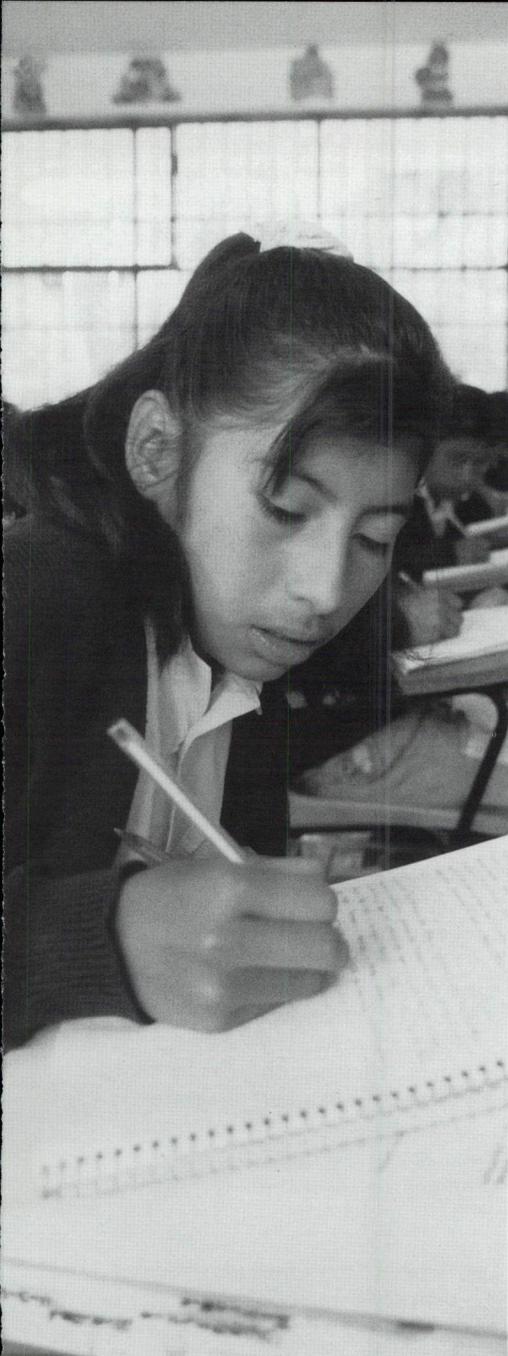


* Population 1 million or more

Note: Bars are averages of median fourth grade scores for participating countries. Public and Private categories exclude Cuba. Source: UNESCO

private schools scored highest. But a country's income levels turned out to have a smaller than expected impact on its education achievement: Cuba, with one of the region's lowest per-capita income levels, did best, while Venezuela, one of the region's highest income countries, was among the poorest performers.

Although the UNESCO test results cannot be precisely compared to other international tests, the anecdotal evidence is not encouraging. Colombia, for example, was one of only two Latin countries to participate in the Third International Mathematics and Science Study (TIMSS) in 1996 (Mexico participated but did not authorize publication of its results). Out of 42 countries participating in the TIMSS, Colombia ranked 41st, and only 4 percent of all Colombian eighth graders scored in the top 50 percent of students



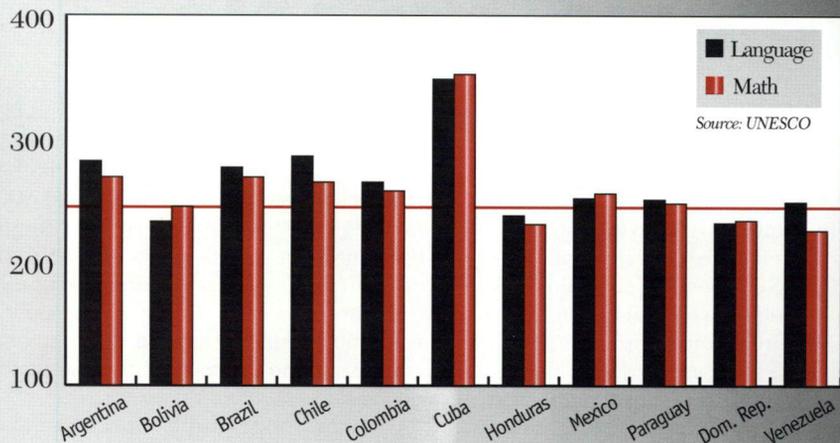
as a way to set goals and reach targets.

worldwide. Yet Colombia was among the better performing countries in the UNESCO study. Also, the math portion of the UNESCO tests covered fewer topics and in less depth than the TIMSS.

The UNESCO results are only a preview of a much more detailed analysis of the test data that will be released later this year. That report will explore the relationships between test results and factors addressed in the supplementary questionnaires, including students' preschool attendance, parents' socioeconomic and education level, availability of textbooks and other classroom resources, student/teacher ratios, teachers' level of education, and teachers' attitudes and philosophies. Laurence Wolff, an IDB education consultant who worked with UNESCO on the study, said even more valuable information could eventually emerge from a detailed

The grades are in

Bars show median fourth grade scores relative to the regional average score (horizontal red line)



analysis of data on individual countries. "That kind of analysis could let us draw meaningful conclusions about which policies and practices contribute to better results in a specific setting, and which don't," he said.

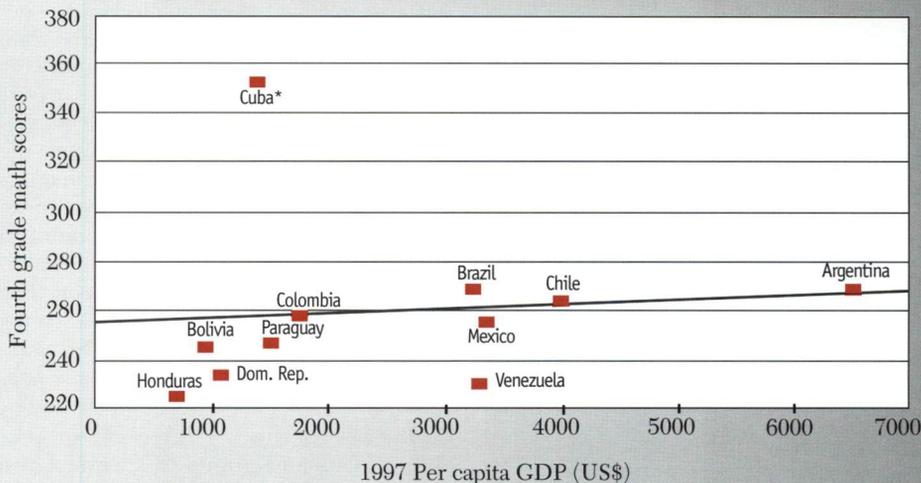
In short, future analysis should help to answer many of the questions raised by the UNESCO test results, including why Cuba did so much better than every other country. "We really don't have enough information yet to explain that," said Wolff. But participants at a recent seminar on the study at IDB headquarters in Washington, D.C., speculated that small student/teacher ratios, high education levels among teachers, and the high rate of preschool education among Cuban children could be part of the answer.

To the extent that it helps to answer these questions, the UNESCO study could turn out to be a goldmine of information for countries that are serious about reforming their schools and bringing them up to internationally competitive levels. Nearly all Latin American and Caribbean countries have created permanent educational assessment agencies over the last decade, and many are receiving financial assistance for these efforts from the IDB. Hopefully, a future international student achievement study will show the extent to which today's efforts are bearing fruit.

The UNESCO report is available, in Spanish, at www.unesco.cl/lab/estudio.htm.

Wealth helps, but not always

Students from countries with higher per capita GDP do not necessarily perform better than those from poorer countries



Source: UNESCO, IDB 1998. Report on Social and Economic Progress in Latin America.
*Cuba GDP is for 1996. Source: Energy Statistics and Balances of Non-OECD Countries, 1995-96.

Cities flex financial muscle

By DANIEL DROSDOFF

IMAGINE A COUNTRY FACED WITH A DANGEROUS fiscal crisis.

In an effort to rein in the national budget deficit, the government decrees across-the-board spending cuts, starting with a sharp reduction in federal transfers to municipalities. To sweeten this fiscal medicine, the government grants unprecedented political autonomy to municipalities: instead of being appointed, mayors will now be chosen through popular elections.

This move to decentralize prompts swift changes in the nation's capital city. Faced with high expectations from voters, the newly elected mayor privatizes municipal services, raises local taxes, slashes costs, enhances administrative efficiency and wins the confidence of investors. Finally, the city's financial managers decide to pay for new investments by issuing bonds on the international market, a fund-raising measure that has never before been available to municipalities.

It sounds like a description of recent events in a large Latin American "emerging economy." But in fact, the scenario described above took place in Italy in the 1990s, and the city is none other Rome, one of the cradles of Western civilization.

Linda Lanzillotta, Rome's commissioner for economic, financial and budgetary policy, spoke about how the city entered the bond market at a recent seminar at the IDB's Washington, D.C., headquarters. The seminar drew interested participants from a number of Latin American and Caribbean countries that have also been decentralizing political institutions, building up their capital markets, and testing the waters of municipal bond finance.

"Diversifying debt sources enabled Rome's municipal government to reduce the cost of funding without reducing the total amount of investment funds for infrastructure," Lanzillotta said of the bond sales. Rome launched its first bond issue for a total of 100 billion liras (50 million euros) in 1996.

In addition to raising capital, Lanzillotta said the bond sales increased transparency and administrative efficiency in Rome's financial management. The simple fact that the city must now submit to annual credit evaluations conducted by independent rating agencies has had a healthy effect, she said, because it pressures the city to adopt sound economic policies. This kind of accountability has resulted in "a different mentality for the local administration, a true cultural revolution," she said. The bond issuing process has also led city officials to seek citizens' input in formulating spending priorities.

Kim Staking, a senior IDB financial specialist, told seminar participants that Rome's experience in putting into place the financial, legal, regulatory, and political framework necessary for a successful entry into the bond markets holds many lessons for countries in Latin America and the Caribbean.

"It is important to examine success stories," he said. In particular, he stressed the importance of market discipline in managing municipal financing and the need to reduce central government involvement in infrastructure activities. Staking also underscored the importance of proper supervision and clear rules and regulations in creating an environment where bond sales can work.

The IDB and the Multilateral Investment Fund, an independent fund administered by the IDB, have been active in recent years providing loans and grants to several Latin American and Caribbean nations that are working to broaden local capital markets, including bond markets.

Big change follows bond sales

Buenos Aires is one of several Latin American cities that have issued bonds.

IDB @ WWW

The Bank's Website (www.iadb.org) is loaded with more than 20,000 pages of reports, statistics, and studies not available anywhere else. Here is a selection of recent additions:

➤ How good is your government? The IDB's Evaluation Office recently launched a website devoted to the growing field of **performance management and evaluation** in the public sector. The site includes links to the evaluation agencies in 10 countries, a bibliography on the subject, and an outline of the Bank's evaluation capacity-building projects in the region. Look under the "Departments" button.

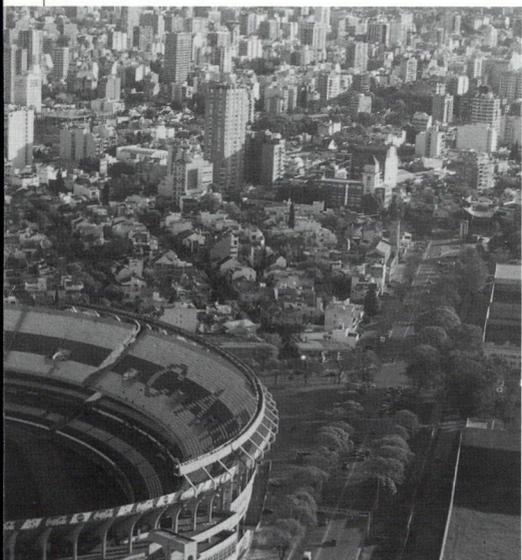
➤ Many people don't know that the IDB does not lend only to governments. Click on the "Private Sector" button on the Bank's home page for links to more than 20 infrastructure projects involving **private firms**. The page also includes a summary of guidelines for the Bank's participation in such investments, which now account for up to 5 percent of the IDB's portfolio.

➤ For a concise but authoritative account of **recent economic conditions** in each of the IDB's borrowing member countries, click on "Research & Statistics" and then choose "Countries." These popular reference papers used to be published in the Bank's annual report on economic and social progress, but they are now available only on-line.

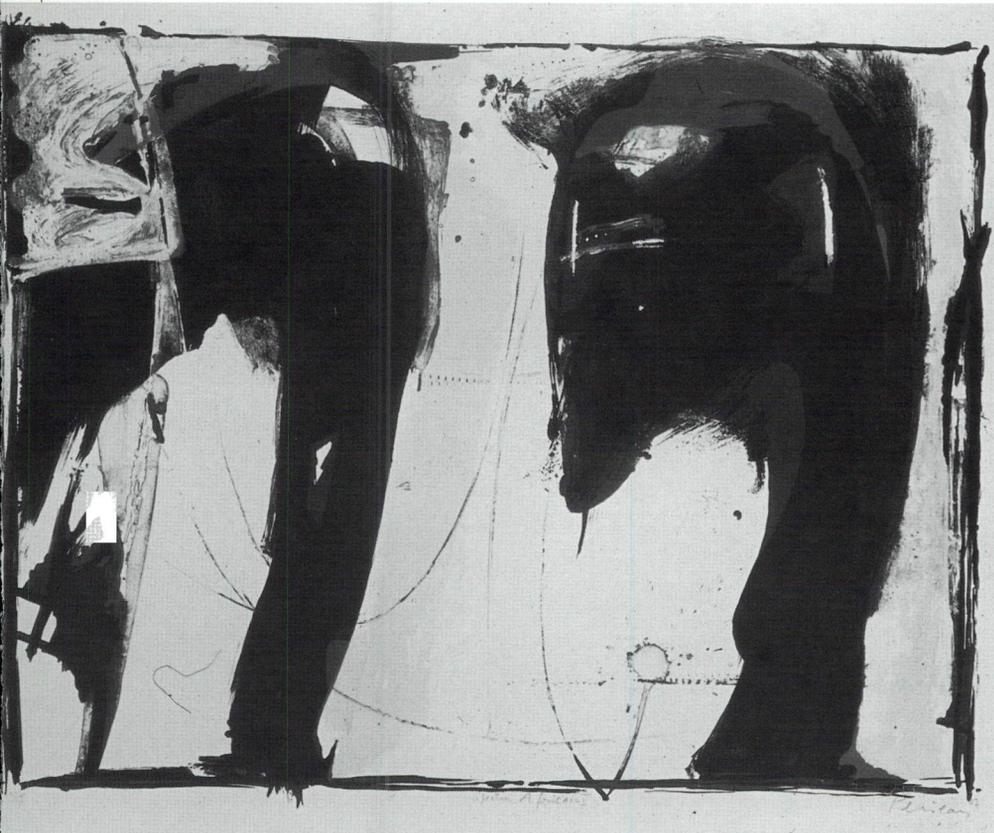
➤ What are the true costs of **adolescent childbearing**? A new paper by Mayra Buvinic, chief of the IDB's Social Program Division, reviews recent evidence from Chile, Barbados, Guatemala and Mexico. Under "Departments," pick SDS and then conduct a search for "child-bearing."

➤ Want to see **original video and photographs** of IDB projects and events? You may download footage in the VIVO format and browse selected photos and captions under the "Press & Publications" button.

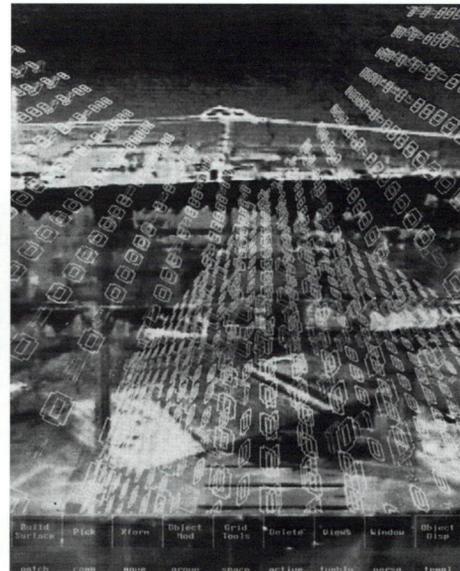
Digital versions of selected photos (at 300-dots-per-inch resolution) may be downloaded for free, and duplicate slides may be ordered from the IDB Photo Library. Contact photo librarian Luis Galván at luisg@iadb.org, or call 202-623-1357.



WILLIE HEINZ-IDB



"Spectres Africains," by Jean-François Péneau, was produced by the workshop La Bête à Cornes using the ancient process of lithography on stone.



"Digital City" (detail), by Miguel Chevalier (above), a computer-generated image printed on PVC paper.

PHOTOS BY WILLIE HENZ-108

In printmaking, Paris is premiere

IDB exhibit puts a new face on ancient tradition

By **ROGER HAMILTON**

DESPITE THE POPULAR IMAGE OF THE ARTIST as the lone genius, art is often a collaborative enterprise, as between the sculptor and the foundry and the architect and the engineer.

Another such partnership, now being celebrated in a lively new exhibit at the IDB's Cultural Center Art Gallery, is between the artist and the printmaker. Held in conjunction with the Bank's annual meeting in Paris, France, the Washington, D.C., showing displays the works of 34 young French artists—none over age 40—whose sole unifying theme is an exuberance and eagerness to explore the frontiers of their art form.

Although Paris has long been a leader in the arts, its role in printmaking is unique. According to exhibit curator Félix Angel, it would be difficult to find another city with

such a large number of printmaking shops able to produce works in every conceivable technique, including age-old lithography using actual stone. At the other end of the technical spectrum, the IDB exhibit includes works created by computer imagery.

The skills of Paris printmakers are such that artists from around the world have used their services, including such accomplished Latin American and Caribbean figures as Wilfredo Lam, Roberto Matta, Rufino Tamayo, José Luis Cuevas, Francisco Toledo, Antonio Seguí, Armando Morales and Fernando Botero.

Although the works displayed in the exhibit speak for themselves, Angel makes a special point of championing the significance of the print art form. Because prints are produced as multiple copies, they are frequently held in lesser esteem than art where only one—generally expensive—example exists.

"The public assumes that if something is costly, it must be good and beautiful," says Angel, adding that this idea would be anathema to Plato or Aristotle. "Most of contemporary society is still unable to distinguish between what is cheap and that which, though low in cost, is still significant," he added.

Artistic merit aside, prints have some practical advantages even beyond their relative affordability. Easy to reproduce, prints have long had a considerable social impact—as vehicles of social criticism, humor, political satire, illustration, and the propagation of religious faith.

If the efforts of these 34 artists are any indication, prints will continue to be an important form of aesthetic expression for a long time to come.



"Coup de Chapeau," a lithograph by Françoise Boisrond, produced by the Franck Bordas workshop.

PROJECT UPDATES

BRAZIL Early days of a 'Brazilian Cancún'

GETTING TO GUADALUPE BEACH, A pristine stretch of sand on the Atlantic in the northeastern Brazilian state of Pernambuco, used to be a dusty or muddy affair, depending on the weather.

Now the 14.5-km road between the beach and the city of Sirinhaém is paved, opening the way for a long-anticipated development plan known as the Guadalupe Tourism Center.

"This road provides the infrastructure that will attract private enterprises in the tourism sector," Amaro Queiroz, director of infrastructure programs for Pernambuco's Planning Secretariat, told the newspaper *Jornal do Comercio*. The goal, as stated by IDB President Enrique V. Iglesias at a ribbon-cutting ceremony for the road, is to ensure that Guadalupe "will become the Brazilian Cancún," a reference to the perennially popular Mexican resort.

The road, known as the Via Litorânea, is one of several that will help open up this beautiful—but until now under-appreciated—section of the Brazilian coast. A road and bridge that will link the nearby cities of Rio Formoso and Rio Ariquindá, along with a road that will connect the adjacent beaches of Carneiros and Tamandaré, are scheduled to be completed this year, according to Queiroz. The area will also get new sewerage and drinking water works as part of the project.

The IDB is also financing a project to protect coral reefs—a major tourist attraction—along the 120 km of coastline south of Guadalupe to the state of Alagoas. The project seeks to plan development in such a way as to minimize impact on the marine environment.

Government officials believe private investors in the hotel and restaurant industries will be eager to build new facilities in the region once basic infrastructure is up and running. Tourism development could also provide an

important new source of jobs in an area where most people work in the sugar cane industry.

Variations of this strategy are being employed in several other Brazilian states under the Northeastern Tourism Development Project (known by the Portuguese initials PRODETUR), to which the IDB could ultimately lend up to \$400 million. Brazil's Banco do Nordeste is also helping to finance the project.

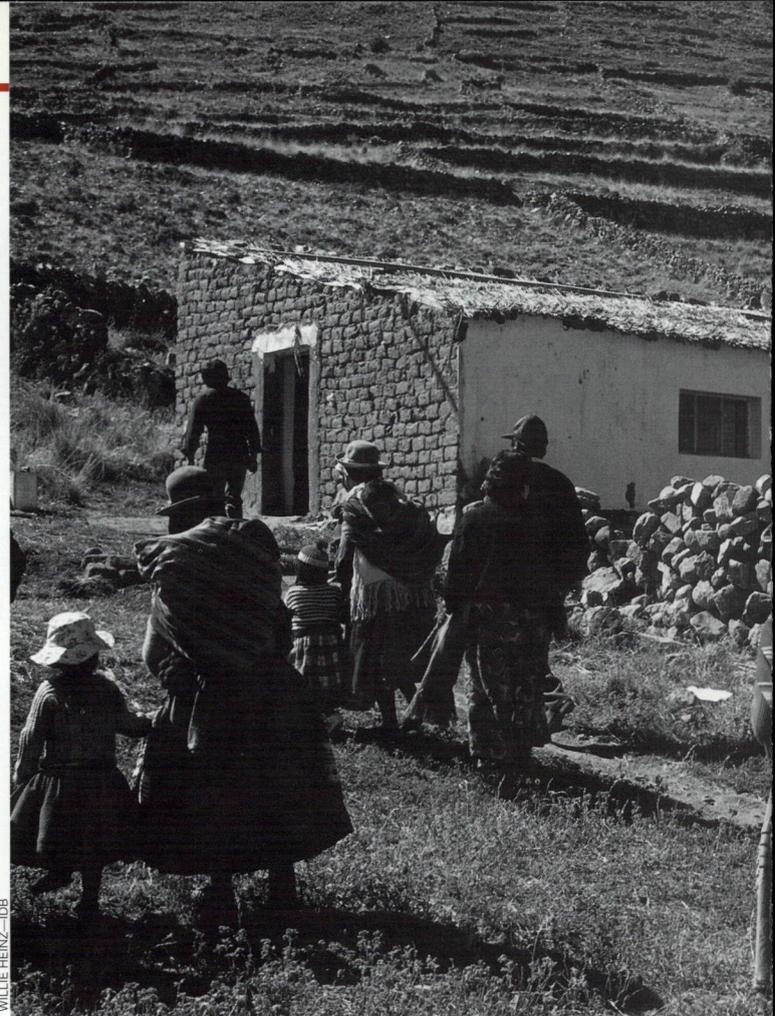
Activities being carried out by PRODETUR are nearly complete, but at the ribbon-cutting in Guadalupe, Iglesias said the IDB is also preparing a proposal for a second stage of the program. Funds from that loan, which would finance additional improvements to the area's airport, sanitation and communication infrastructures, could be available by the year 2000. "The IDB identifies with Northeastern Brazil and will continue to support the development of this important region, which after being considered a problem, is now a place full of hope and achievement," Iglesias said.

NEW PROJECTS

BOLIVIA Campaign to control Chagas

BOLIVIA HOPES TO SUBSTANTIALLY reduce the incidence of the deadly Chagas disease within five years under a program largely financed by the IDB.

One of the country's most pressing public health problems, Chagas accounts for 13 percent of all deaths in Bolivians between the ages of 15 and 75. The disease, which is caused by the para-



WILLIE HEINZ—IDB

DANGER ZONE: The insects that transmit Chagas disease live in the adobe walls and thatched roofs typical of rural Bolivian homes.

site *Trypanosoma cruzi*, can produce fatal inflammation of the brain and heart tissues. The parasite is transmitted primarily by bloodsucking insects, which find an ideal habitat in the adobe and thatched roof houses common in the Bolivian countryside, and by tainted blood transfusions.

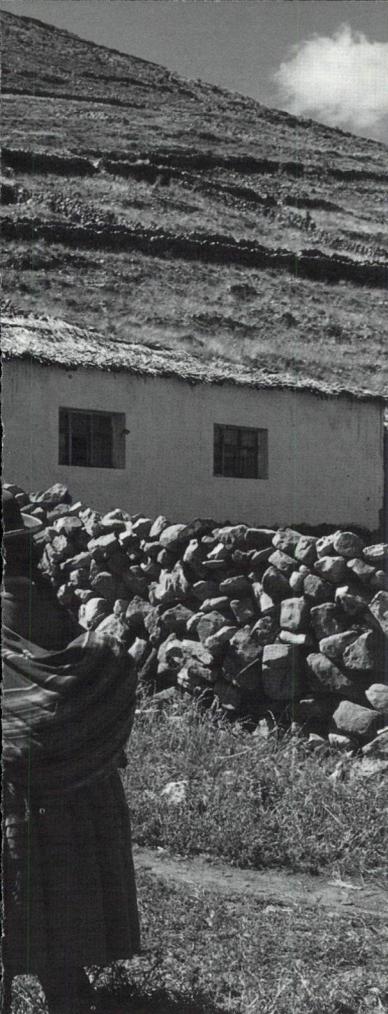
Under the \$53.7 million program, to which the IDB is contributing a \$45 million loan, Bolivia's Ministry of Health and Social Insurance will launch a comprehensive campaign that aims to control disease-bearing insects, treat Chagas disease in children under five, safeguard national blood-bank supplies, and implement an epidemiological surveillance system. The Pan-American Health Organization is providing technical support to the program.

During the program's first stage, teams will attempt to fumigate each of the estimated 700,000 homes within the Chagas endemic area (see map). During the second stage, reinfestation will be controlled by training communities in surveillance and control techniques.

In addition to targeting Chagas, the program will strengthen Bolivia's National Epidemiological Surveillance System with extensive training and information-sharing initiatives. The country's laboratory network will be modernized, and blood banks and transfusion centers will receive equipment and training in quality control measures.

Public education campaigns will be launched to encourage citizens to make voluntary blood donations at centers throughout Bolivia. These measures will help prevent the spread of other serious blood-borne diseases such as hepatitis and HIV/AIDS in addition to Chagas.

The IDB program funds also will be used to finance studies of reform strategies and pilot projects aimed at broadening coverage of health care to Bolivia's most vulnerable groups, particularly in rural indigenous communities.



LATEST APPROVALS

The following operations were approved in recent weeks by the Inter-American Development Bank (IDB), the Inter-American Investment Corporation (IIC) and the Multilateral Investment Fund (MIF).

Argentina

A \$75 million loan from the IDB's ordinary capital and a \$225 million syndicated loan to Aguas Argentinas S.A. to help finance the 1998–2001 investment program of the sole provider of potable water and sewerage services for the city of Buenos Aires and 13 surrounding municipalities.

A \$60 million IIC line of credit to Banco de Galicia y Buenos Aires S.A. (composed of a \$10 million IIC loan and a \$50 million syndicated loan) to provide small and medium-sized enterprises in the industrial and agribusiness sectors with long-term financing.

A \$7.5 million IDB loan designed to advance social, economic, and political equity for women.

A \$6.64 million IIC loan to Desler S.A., to help expand capacity and broaden the array of services that the private firm can provide to industrial waste generators.

A \$1.9 million MIF grant to strengthen provincial regulatory agencies and support privatization in the water supply and sanitation sector.

Bahamas

A \$23.5 million IDB loan to improve solid waste management, strengthen environmental protection, and enhance health standards.

Bolivia

A \$45 million soft loan from the Fund for Special Operations to help reduce the spread of Chagas disease and reform the health sector (see article, page 26).

A \$10 million IIC line of credit to Banco Mercantil, S.A., to finance home mortgages and lay the groundwork for mortgage securitization.

A \$4.9 million MIF equity investment in Bolivia Capital Activo, which will provide equity and quasi-equity investments for small businesses.

A \$2,100,000 MIF grant, to be administered by Fundación Bolinvest, to make small industrial enterprises more competitive.

A \$1.5 million MIF grant to support the consolidation and development of the securities market.

A \$1.1 million MIF grant to support the implementation of pension reforms.

Brazil

A \$10 million IDB grant in national currency to support the Capacitação Solidária program, which provides vocational as well as life skills training for poor urban youth.

A \$1.6 million MIF grant to strengthen alternative commercial dispute resolution methods.

A \$834,000 MIF grant to strengthen consumer protection in the public utilities sector.

Chile

A \$650,000 MIF grant to expand and improve commercial arbitration and mediation services.

Colombia

A \$550 million emergency loan from ordinary capital, the largest ever by the IDB to Colombia, to support public sector reform.

An \$87 million IDB loan to assist the government in improving the allocation of public resources for agricultural research and to ensure that research focuses on high-priority national and regional programs.

A \$20 million IDB loan—the first approved under an accelerated procedure designed specifically to counteract natural disasters—to aid recovery and reconstruction following the earthquake in January (see “Editor’s Notebook” on the inside cover).

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.

A \$1.4 million MIF grant to strengthen the credit union system.

A \$300,000 IDB loan and \$250,000 IDB grant from the Fund for Special Operations for the Corporación Minuto de Dios to improve social and economic conditions for microenterprise in the Department of Chocó.

Ecuador

A \$1 million grant from the Ja-

pan Special Fund to strengthen, expand, and institutionalize the Integrated System of Social Indicators.

A \$5 million IIC loan to Compañía de Titularización Hipotecaria to help create a second tier financial institution to develop products for the mortgage finance sector and to develop the local capital markets.

Honduras

A \$25.8 million concessional loan from the Fund for Special Operations to help repair and rebuild infrastructure that was damaged by Hurricane Mitch.

A \$4 million senior IIC loan and a \$3 million subordinated loan to Banco Financiera Comercial Hondureña, S.A., to provide small and medium-sized enterprises with medium- and long-term financing.

Paraguay

A \$915,000 MIF grant to support the rapid development of the private sector in the insurance market.

Peru

A \$10 million IIC loan to Banco del Nuevo Mundo S.A.E.M.A. The funding will be directed to small and medium-sized Peruvian enterprises engaged in the industrial, manufacturing, fishing, mining, construction, chemical, energy, tourism and agribusiness sectors.

A \$1 million MIF grant to support the development of skill standards and regional training programs for the tourism industry.

Venezuela

A \$1.5 million MIF grant to support a worker retraining program for the region of Guayana.

Regional

A \$1,337,000 MIF grant to Caribbean Action for Sustainable Tourism to improve the quality and competitiveness of the tourism industry.

A \$1,025,000 MIF technical cooperation grant to strengthen village banking institutions for microenterprise.

"The best briefing on how to do business with Latin America."

Oren Gottesman, Micholo Financial Consultancy Ltd, Israel

"This has given us the confidence to open an office in Lima, Peru."

John Lucas, Aspinwall and Co., United Kingdom

"... uncovered a whole new world of business opportunities..."

Angel Saltos, Bank Advisory Group, United States

"... the best investment my company made this year to increase business opportunities."

Pedro de Santiago Laguillo, Cotecno, Spain

IDB BUSINESS OPPORTUNITIES

The Inter-American Development Bank, the largest source of development financing for Latin America and the Caribbean, this year expects to approve some \$10 billion in loans for social and economic projects. Thousands of contracts are awarded annually to firms in the IDB's 46 member countries for the procurement of goods and services for these projects.

IDB business seminars provide all the information firms need to start exploring these procurement opportunities. Participants learn:

- ▶ What projects the IDB will be financing.
- ▶ How the projects are initiated and developed.
- ▶ The procedures governing IDB procurement.

Upcoming seminars will focus on such subjects as: information technology; energy, urban development and transportation; support for the private sector; health and education.

For a complete schedule and prices, go to the Bank's home page at www.iadb.org and look under "briefings" after clicking on the "business opportunities" button. Or contact the IDB Public Information Section, 1300 New York Ave., N.W., Washington, D.C. 20577. Tel: (202) 623-1397. Fax: (202) 623-1403. E-mail: business@iadb.org.

Essay contest winners named

THE IDB'S INSTITUTE FOR THE INTEGRATION OF Latin America and the Caribbean (INTAL) has announced the winners of an essay contest on the relationship between labor standards and international trade.

The contest, which was open to professionals and academics from all 46 of the IDB's member countries, sought entries that analyzed the possible consequences of applying labor standards in the context of regional and hemispheric integration.

Robert M. Stern, director of the International Program at the Institute for Public Policy Studies at the University of Michigan, was awarded the first prize for his essay "Labor Standards and International Trade." The prize, which included \$10,000 and a commemorative statuette, was awarded during the ILO Caribbean Symposium on Labour Issues in the Context of Economic Integration and Free Trade, held

in Port-of-Spain, Trinidad and Tobago, Jan. 20-22.

Three other essays were also nominated for the prize. They were written by Angelique Lawrence, an independent economic consultant; Morley Gunderson, professor of economics and director of the Centre for Industrial Relations at the University of Toronto; and Graciela Bensusán with Bodil Damgaard. Ms. Bensusán is a political scientist at the Universidad Autónoma Metropolitana-Xochimilco in Mexico City, and Ms. Damgaard is a researcher at the Facultad Latinoamericana de Ciencias Sociales in Mexico City.

Stern's essay reviews the principal views on the issue of labor standards, which have become more contentious in recent years as labor unions in industrialized countries have demanded that developing countries adopt stricter labor laws, claiming that laxer legislation gives firms an unfair competitive advantage. "In conclusion, it must be stressed that the policies of the

United States and other industrialized countries should be directed to maintaining open markets and encouraging the economic growth of their developing country trading partners," Stern writes in the essay's executive summary. "This is the surest way to achieve higher labor standards since there is pervasive historical evidence that standards are improved with higher levels of per capita incomes. This suggests accordingly that national governments in developing countries should institute proactive policies designed to improve working conditions and workers' rights as their economies expand and more resources can be channeled towards social betterment."

 Executive summaries of all four essays can be read at www.iadb.org/intal.

Capital markets

THE IDB LAUNCHED TWO \$1 BILLION global bond issues early this year.

The first, dated Jan. 28, pays a semiannual coupon of 5-5/8 percent and matures on Feb. 5, 2004. Deutsche Bank and Goldman Sachs were the lead joint managers of the issue.

The second issue, completed Feb. 11, pays a semiannual coupon of 5-1/8 percent and matures on Feb. 22, 2001. Goldman Sachs and Warburn Dillon Read were the joint lead managers.

In a related development, the IDB's Finance Department in February announced plans to launch a new short-term borrowing instrument in the form of a Discount Note Program. Credit Suisse First Boston, Lehman Brothers and Merrill Lynch GSI were appointed to arrange the program and help the Bank sell short-term securities in the United States and international money markets.

The Bank will offer the notes for sale on a continuous basis through its dealers in maturities of up to one year.

The program is authorized with a limit of \$5 billion. However, it is expected that the issuing volume will initially be considerably smaller.



PILLS TO SEE WITH: A Guatemalan government health worker tells a mother about the benefits of a pill that can prevent onchocerciasis, better known as river blindness. In 1994 the IDB helped to finance a program for distributing the medication, donated by Merck & Co., in remote areas of Guatemala, Brazil, Colombia, Ecuador, Mexico and Venezuela—the countries where it can still be found.



Carlos da Cunha and the Posto Fiscal Eletrônico, a virtual tax office for São Paulo state residents available on the internet.

A solution to chaos

“LIKE TO SIMPLIFY SYSTEMS.” That’s how Carlos Leony Fonseca da Cunha explains the origins of his involvement in a project that is changing the face of tax collection in São Paulo, Brazil’s richest and most populous state.

As a private sector tax consultant working in the São Paulo state city of Limeria in 1996, da Cunha came up with the idea of creating an “Internet tax post” where citizens could expedite what has always been a complicated and paper-intensive chore. It was a modest effort, but it came to the attention of Yoshiaki Nakano, the state’s secretary of finance.

Nakano, who was leading a wholesale effort to modernize the state’s decrepit tax system, brought da Cunha on board, gave him a staff of 40 software programmers, and charged him with developing an Internet site that could duplicate all the functions of the state’s brick-and-mortar tax centers. One year and roughly \$5 million later, da Cunha’s team produced the Posto Fiscal Eletrônico, arguably the most ambitious of a number of Internet-based tax applications now under development in Brazil (see story, page 18).

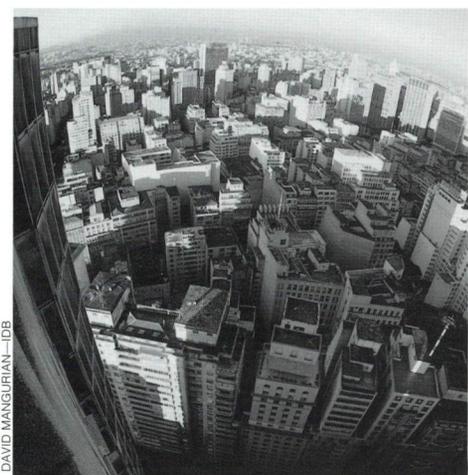
More than one million Brazilians regularly surf the Internet’s World Wide Web, according to commercial estimates, and a significant number of them seem to have visited da Cunha’s new site. “We inaugurated the site on Sept. 22, 1998, and in the first six weeks it was accessed 570,000 times,” says da Cunha. Initially, the site basically provided information on tax laws, procedures and deadlines, plus e-mail addresses for government tax officials, who answer questions online. But during 1999 the site will introduce a number of interactive features, including the ability to register a taxpayer, and even make payments electronically.

Last September, da Cunha got a chance to show off the Posto Fiscal at IDB headquarters in Washington, D.C., during a conference on information technology and tax administration (see page 21). In yet another example of the Internet’s versatility, conference participants were able to test drive the site at one of several computers set up outside the meeting room.

“I’m a curious individual,” says da Cunha. “I like computers, but I am not fanatic about them and I am not a techie. I see the computer as a tool.” What really excites him is

the possibility that computers will ultimately help relieve the “stifling” nature of work as it is known in most large bureaucracies. “I have always seen informatics as a solution to chaos,” he says. “Electronic government, when properly applied, will allow a new renaissance for humanity. After we overcome the first crisis brought on by changing workplace relationships, we will evolve into a more rationalized production model that will allow us to work a little less and devote more time to art, sports or politics.”

— Paul Constance



A large chunk of all Brazil’s taxes is collected in the city and state of São Paulo.



DAVID MANGURIAN—IDB

MAKE IT SMOOTH: Construction workers in Bahia, Brazil, line the sides of a 22-km irrigation canal with concrete. The canal is the centerpiece of an IDB-financed project to irrigate 4,500 acres in the São Francisco River Valley in this Northeastern state.

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