



# Hell's highway

Plans to turn one of South America's major waterways into a grand shipping canal have provoked a storm of environmental protests. *Raphael Heath reports*

FLYING above the River Paraguay from its source inside Brazil and watching it snake southwards through vast expanses of undisturbed primary forest and wetland, join the mighty River Parana and flow defiantly onwards through Argentina to the huge La Plata estuary on the South Atlantic Ocean, it's hard to believe that such a formidable waterway could be threatened by a single project. But then the Hidrovia Project is no ordinary project.

It is, say conservationists, the first and most grandiose part of the world's largest and most ambitious plan to re-engineer the natural infrastructure of a continent. They refer to the project as "Hell's highway", and say details about it are so hard to come by that few people in South America know anything of its scale, or of its implications for the long-term welfare of the region's culture and environment.

The Hidrovia Project is destined to turn the entire length of the Paraguay-Parana river system, all 3400 kilometres of it, into a superefficient shipping lane. Most of the meandering route is currently impassable, unsafe for shipping or simply forces commercial traffic to crawl along at a snail's pace. But dredging, damming and diversion works are designed to create a navigable canal, up to 50 metres wide and 4 metres deep, that will allow tankers carrying 50 000 tonnes of cargo to ride smoothly and swiftly between the South Atlantic Ocean and the town of Cáceres in the Brazilian interior.

So alarmed at the prospect are conservationists, both inside and outside South America, that they have forged an international alliance "in defence of the land and people of the Paraguay-Parana-La Plata Basin". More than 80 campaign groups, scientific institutes and nongovernmental organisations, brought together as the Hidrovia Coordinating Committee by local agencies in South America and by the International Rivers Network (IRN) in San Francisco, say they are "deeply concerned with the likely social and environmental impacts of the Hidrovia Project".

## Timely celebration

Next week, on 5 June, the day the United Nations Environment Programme sets aside every year as World Environment Day, they will again call on the five governments of La Plata Basin—Argentina, Bolivia, Brazil, Paraguay and Uruguay—to stop work on the project until studies of its impact on the region's ecology, environment and way of life have been completed. At a press conference in Asunción, they will produce independent analyses of the scheme that challenge official optimism about its economic viability. They will also dismiss as "green talk" the assurances from politicians that safeguarding the region's environment is a priority.

Few civil engineering schemes arouse such universal ire, but then few match the scale of the Hidrovia Project, notes

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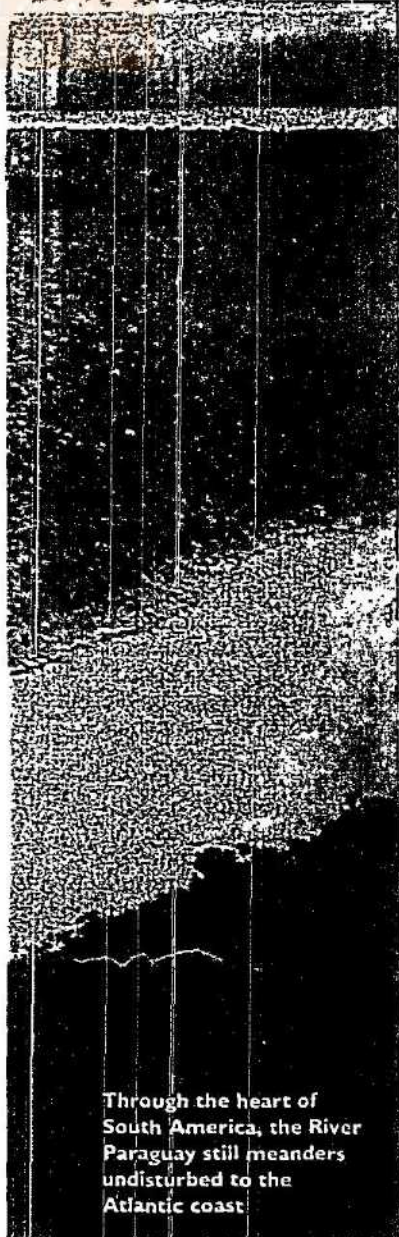
Wetlands for the Americas, an environmental group based in Buenos Aires. What's more, suggests WA, "once Hidrovia becomes operational the project will escalate and new large-scale engineering works will be proposed...to facilitate navigation, and damming and inter-connection with rivers of the Amazon, Uruguay and other basins". The organisation identifies proposals to develop six other river basins in South America, which together would create a waterways network linking the Orinoco in the north to La Plata estuary.

Since 1987, the five governments of La Plata Basin have backed the Hidrovia Project, forming the Intergovernmental Committee on Hidrovia (CIH) in 1989 to coordinate their activities. They see the scheme transforming their impoverished interiors, and raising the living standards of all their populations, totalling more than 200 million people spread over 12 million square kilometres of territory. Despite this apparent consensus, the five countries took until February this year to bury their political differences and reach a formal agreement covering the

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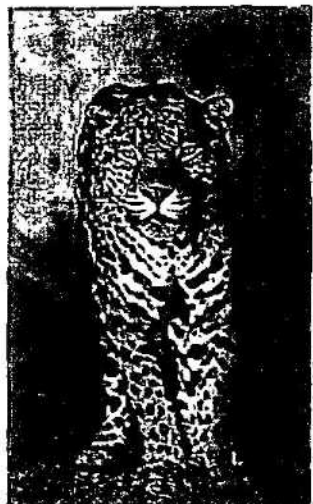
project is being implemented, without full consultation and evaluation. Results from environmental impact studies, which began in March, are not expected until September next year, and yet construction work on the project has already started, they say. Most notably, local Paraguayan contractors completed a new port at Concepción last year and, says the IRN, in January this year a Belgian dredging company started work on a \$700 million contract to widen and deepen 800 kilometres of the lower reaches of the River Parana in Argentina. The company, Jan de Nul of Hofstade, is contributing \$300 million towards the cost, which it aims to recoup by charging tolls when the job is finished.

In response, conservationists have looked for help from the Inter-American Development Bank in Washington DC. The IDB, which has been approached by the five governments of La Plata Basin to finance the Hidrovia Project, has said that it will not contribute funds towards construction work until it is satisfied that the project represents a worthwhile investment—socially, environmentally and economically. So far, the IDB has donated \$7.5 million towards the estimated \$10.5 million cost of evaluating the entire project, including \$3 million for the environmental impact studies that began in March. The rest of the money is coming from the



Through the heart of South America, the River Paraguay still meanders undisturbed to the Atlantic coast

Sue Cunningham



Renee Lynn/Oxford Scientific Films

project's international navigation rights, on which the success of the development depends.

Renewed foreign interest in the continent's natural resources seems to have been an important factor in bringing them together at last. Political leaders recognise that the project will open up the heart of South America to private investors keen to exploit the continent's rich reserves of gypsum, iron ore and timber, and they welcome such investment. Uruguay's president, Luis Alberto Lacalle, describes the Hidrovia Project as the key to the region's economic integration and growth. In February, at the ratification ceremony in Montevideo, he called the project "a new highwater mark in the interrelation between political, diplomatic and private interests".

What worries conservationists is the speed at which the



Sue Cunningham

Cat on the prowl: jaguars patrol the Pantanal, the vast wetland where wildlife and ways of life are at risk, say conservationists

five countries themselves, with the United Nations Development Programme chipping in around \$500 000. Furthermore, the bank says that it does not expect any construction work to start before the end of 1997 at the earliest.

Nevertheless, the bank feels powerless to intervene over the works that conservationists insist are being undertaken too hastily—the port at Concepción and the dredging works in the River Parana. These jobs, it turns out, are not part of the official scheme, says Marko Ehrlich, an environmental scientist in the bank's team on the Hidrovia Project. Strictly speaking, "no work has begun" on the project, he says. The port and

Only around 200 square kilometres of the Pantanal are officially protected, though the wetlands cover 200 000 square kilometres

is a wild and natural snakelike river, winding its way between marshy ecosystems and dense palm forest. Large islands often divide its course, and thick green mats of floating vegetation hug its banks. All this makes journeys on the waterway a sluggish struggle for the vast commercial barges, some as large as two football pitches, on which the region depends for trade.

### Freight savings

For Ramon Cabrera, director of the Hidrovia Project in Paraguay, the river system is a wasted resource. Landlocked Paraguay uses the waterway to transport around two-thirds of the country's exports, he says, and he expects a more navigable canal to reduce freight costs by as much as 60 per cent.

Cabrera's optimism is founded on an economic evaluation of the Hidrovia Project by Internave, a Brazilian firm based in Sao Paulo. But the report, commissioned by the Brazilian government, has faced some harsh criticism since its publication in 1992. Research a year later by Wetlands for the Americas damned the Internave report for "numerous calculation errors... the simplistic assumptions for calculating benefits and the omission of significant environmental costs".

These conclusions were later endorsed by the IDB, says Ehrlich, and persuaded the bank to commission its own evaluation studies, which began in March. Taylor Engineering, a Canadian firm of environmental scientists, is conducting the first phase of the research for the IDB.

dredging works are part of a private waterway development, for which the right bank of the river system is reserved; the Hidrovia Project is confined to the left bank. Ehrlich admits that this dual arrangement "does not make much sense".

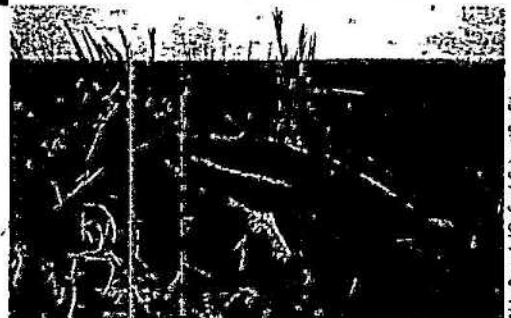
Glenn Swithes, IRN's Latin American campaigns director, is equally dismissive of the arrangement. "This is a matter of semantics," he says. "My Hidrovia is not your Hidrovia, and their Hidrovia is the one that doesn't hurt the environment and only helps everyone." The conservationists' definition is unambiguous, he adds: "For us, Hidrovia is the sum total of works programmed... this includes port improvements, dredging in the lower basin (for which there are absolutely no studies), and everything else." Private funding will be part and parcel of the Hidrovia Project whether or not the IDB becomes involved, says Swithes, because the five governments do not have the money to do the job themselves.

Much of the controversy and disagreement concern the project's economic benefits. Most of the Paraguay-Parana waterway

Among the hundreds of species in the Pantanal, a biodiversity hotspot, are the giant otter and the giant anteater



Bates Littlehales/Oxford Scientific Films



Aldo Brandel/Oxford Scientific Films

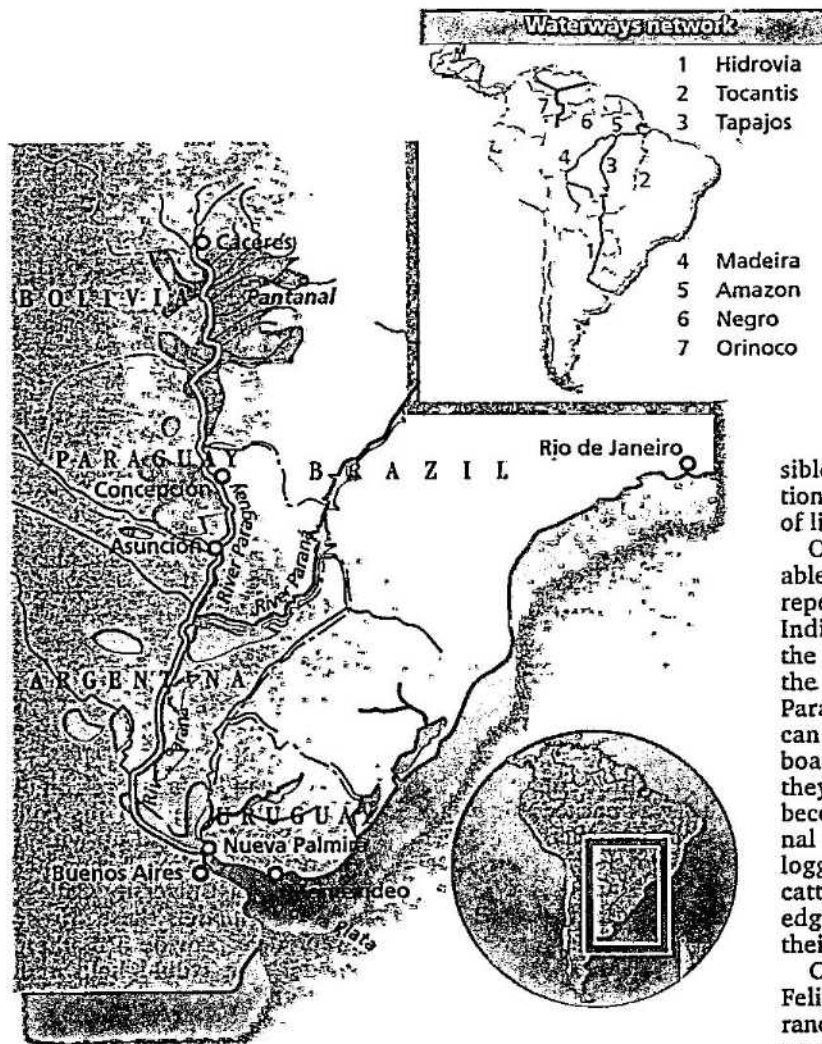
The studies should help to establish the cost of the Hidrovia Project, estimates of which vary widely. Back in February, at the project's ratification ceremony, one delegate announced: "With \$30 million we can improve nearly 3000 kilometres of Hidrovia." The delegate was Jan van Hoogstraten, president of the Permanent Transport Commission of La Plata Basin, which advises the CIH. By contrast, the World Wildlife Fund forecasts costs of between \$1.3 billion and \$3 billion. In its report

on the Hidrovia Project *Who pays the bill*, published last year, the WWF based its calculations on the Argentinian government's budget of \$700 million for dredging 800 kilometres of the lower reaches of the River Paraguay.

For conservationists, the single most important area threatened by the project is the Pantanal, one of the world's largest wetlands and biodiversity hotspots, through which around 1300 kilometres of the River Paraguay flows. Covering between 140 000 and 200 000 square kilometres of northern Paraguay and western Brazil, the wetland is home to 658 species of birds including rare toucans, macaws, kingfishers and hawks, more than 1100 species of butterflies and 400 species of fish including the threatened Surubi Pintado. It is also home to 13 endangered species of mammals including the marsh deer, the giant otter, the jaguar and the giant anteater.

According to the 1993 report by Wetlands for the Americas, the Hidrovia Project threatens to disrupt the region's seasonal variations in the levels of water and sediment on which the ecology depends. It could also alter the hydrology of the river basin. The Pantanal acts as an enormous sponge, holding water in the rainy season and releasing it gradually throughout the year. This helps to prevent flooding of the lower reaches of the river system where 25 million people live.

Such claims are alarmist, says Cabrera. "All governments are concerned . . . if any engineering works cause damage to the environment then they will stop the works," he insists. But Cabrera is confident that the environmental impact studies will show that there is little wrong with the plans. "The work in the Pantanal will be like a needle to an elephant—it will not feel anything." And as far as the people living along the river are concerned, Cabrera expects the project to bring changes for the better. He says that the north of the Paraguay river is underdeveloped economically: "Hidrovia will increase the development of this area with the extra passing of ships."



The plan is to turn the Paraguay-Parana river system into a grand shipping lane; its implementation, say conservationists, could then spur the development of a waterways network stretching from the Orinoco in the north to La Plata estuary in the south

The WWF is less optimistic. At a workshop in Brasilia last November on the potential impact of the Hidrovia Project, the fund concluded the "socioeconomic effects of the project would be irreversible, destroying traditional knowledge and way of life".

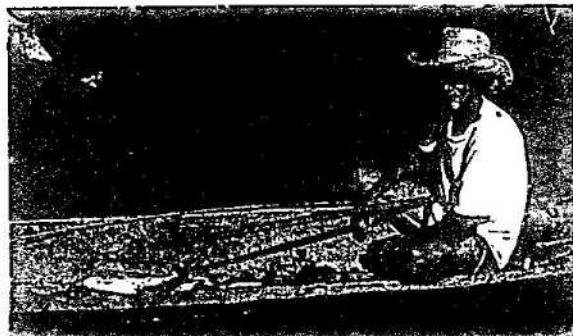
One of the most vulnerable groups, says the WA report, is the Chamacoco Indians, who live within the remote southern tip of the Pantanal in northern Paraguay. Their villages can be reached only by boat or plane, and yet they are increasingly becoming targets for external development, such as logging and large-scale cattle ranching, which is edging its way nearer to their communities.

One such opportunist is Felipe Castro, a Spanish rancher, who arrived in the area last year with plans to organise agricultural, livestock and logging projects. "When you have lots of land, chopping down trees will not affect the environ-

ment," he suggests. One Chamacoco community at Puerto Esperanza has embraced Castro's promise of economic development, and work hard felling trees with hand axes; two others nearby, at Puerto Diana and 14 de Mayo, have not.

While claims and counterclaims on the impact of the Hidrovia Project rage, detailed information about the scheme has become notoriously difficult to obtain. Even Cabrera has been known to wave aside a request to see detailed plans of the project with the excuse that his only copies are with

someone else. This month, Paraguayan president Juan Carlos Wasmosy is due to meet officials from the IDB and the World Bank in Washington DC in an effort to raise funds for the Hidrovia Project. Now is the time, say conservationists, for greater openness about a scheme that so few people in South America know anything at all about. □



For millions of people, the river is a way of life

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