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Science panel gives hope in river-pollution dispute

BUENOS AIRES, ARGENTINA

A panel of scientists could help resolve a festering environmental dispute between Argentina and Uruguay. The controversy, over a paper-mill complex on the Uruguayan side of a shared river, has sparked years of protests. It prompted Argentina to take Uruguay to the International Court of Justice in The Hague, the Netherlands, accusing the neighbouring country of ignoring environmental concerns. And it has seen scientists on each side accused of twisting data to suit their government's agendas.

Now the two countries have agreed to jointly monitor the Uruguay River, which forms their common border, for pollution and algal blooms. But poisoned relations between the two countries' scientists could hamper cooperation.

The controversy began more than five years ago, after Uruguay granted two companies — ENCE, based in Madrid, and Botnia, headquartered in Espoo, Finland — permission to build paper-pulp mills in the town of Fray Bentos near the river, not far from the Argentinian city of Gualeguaychú. In the first protest, in 2005, more than 10,000 people blocked the Libertador General San Martín Bridge, which connects the two countries. Protestors said that waste water from the mills flowing into the river would carry pollutants such as sulphates and reactive chlorine compounds. Argentina has also claimed that Uruguay violated a treaty by not seeking its permission for the mills.

Just months after the row reached the international court in 2006, ENCE pulled out of its project. Botnia pressed ahead, however, and the wrangling escalated after its mill — costing US\$1.2 billion to set up, making it Uruguay's largest-ever foreign investment — started processing eucalyptus wood in 2007.

But a fresh round of diplomacy followed the appointment this March of José Mujica as Uruguay's president, as well as a ruling by the international court in April in which 11 out of 14 judges sided with Uruguay. On 28 July, Mujica and Argentina's president Cristina Fernández de Kirchner announced that the countries would monitor the Uruguay River

Thousands of Argentinians protested against a Uruguayan paper mill.

together, for the first time since 2005. An advisory committee of four scientists — two from Uruguay and two from Argentina — will also visit the mill up to a dozen times a year and check that it is not polluting the river. Argentina's foreign minister, Héctor Timerman, said on 4 August that if pollution is found, the country will again lobby to close the mill.

The details of the deal will be decided this month. But more than two weeks into discussions, "we are still waiting to find out what the process of the monitoring will be exactly", says Jorge Rucks, the director of DINAMA, Uruguay's environment ministry. "At the moment we don't know who the scientists will be."

Experts from both countries are still

smarting from years of contention. At the international court, research from each side was presented, and subsequently trashed by its opponents.

Gabriel Yorda, DINAMA's head of water quality, says that Uruguay has monitored the river intensively and seen no signs of pollution. Inés O'Farrell, a specialist in inland water studies from the University of Buenos Aires, counters that Uruguay sampled fewer sites than Argentina. She adds that Argentinian scientists took samples in summer — the river's most vulnerable time, when the waters ebb, allowing ocean tides to reverse the river's flow and potentially trap pollutants instead of discharging them into the sea.

O'Farrell and her colleagues say that their model of the river's flow, mainly developed by scientists at

the Argentinian National University of La Plata, predicted a pollution-trapping event matching the extent and distribution of a record algal bloom in February 2009. Other data, she says, "indicate the presence of *Eucalyptus globulus* wood fibres in the bloom, as well as nonylphenol contaminants" from detergent breakdown.

But DINAMA's data for February 2009 show that levels of algae-fertilizing phosphates at sites supposedly affected by the factory were lower than at sites elsewhere. And nonylphenol is not among the mill's likely pollutants, says Yorda. When DINAMA dispatched Uruguayan scientists to take samples directly from the effluent pipes of the plant, Yorda says that they found none of the expected pollutants.

With so much ill will between the scientists involved, the soon-to-be-formed committee will have a tough job building trust. But Eugenio Lorenzo, the current head of the Uruguayan delegation to the bilateral administrative commission of the Uruguay River, which carried out monitoring from 1990 to 2005, is optimistic that renewed efforts will be successful. "With a good system, we might be able to identify other sources of pollution on the river," he says. Better environmental monitoring, of course, may yet uncover more polluters — and political headaches — on the Uruguay River.

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