

‘Only Animals Save Water; Human Beings Generate It’

by Dennis Small

So polemicized a giant banner deployed by the LaRouche Youth Movement in Mexico City, outside the March 16-22 IV World Water Forum, which brought together thousands of government officials, NGOs, environmentalists, businessmen, and water experts from 140 countries, to discuss the world water crisis, and what to do about it.

The World Water Forum was established in 1996 in Marseilles, France, and has held meetings since then in 1997, 2000, and 2003. For the 2003 meeting, former IMF General

Manager Michel Camdessus chaired a panel which produced a report entitled “Financing Water for All,” which set the paradigm that also governed this year’s meeting: Water is a “scarce resource” that has to be saved and better allocated, including by “market mechanisms” such as privatization and “risk reduction” for foreign financial interests.

Only the LYM broke out of this insane paradigm, both inside and outside the Mexico City forum.

“Hi, I’m part of the LaRouche Youth Movement,” began



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Members of the LaRouche Youth Movement organize in downtown Mexico City. The two banners that can be seen—which were also unfurled in the middle of the closing ceremony of the IV World Water Forum, much to the surprise of the attending government bureaucrats and media—read: “Only Animals Save Water; Human Beings Generate It” and “LaRouche Says: ‘Aguas’ the IMF,” a pun on “aguas” which in Spanish means “water,” but also “beware,” in Mexican slang. The LYM intervention gained major media coverage in the Mexican press, as in the Mexico City newspaper *Crónica* (inset).



TABLE 1

Mexico and U.S.A., Statistical Overview

| | Area (Thousand km ²) | Population (Millions) | Population Density (Per km ²) | Rainfall (mm) |
|------------------------|-------------------------------------|--------------------------|--|------------------|
| Mexico | 1,959 | 107 | 54 | 773 |
| Northern Mexico | 933 | 21 | 22 | 388 |
| as % of national total | 48% | 19% | 41% | 50% |
| I Baja California | 146 | 3 | 24 | 202 |
| II Northwest | 205 | 3 | 13 | 464 |
| VI Rio Bravo | 380 | 11 | 28 | 414 |
| VII North Central | 202 | 4 | 20 | 394 |
| XIII Valley of Mexico | 16 | 21 | 290 | 737 |
| United States | 9,629 | 281 | 29 | 742 |

Source: CNA, Mexico; United States Geological Survey; *EIR*.

TABLE 2

Mexico and U.S.A., Water

| | Natural Availability (Billion m ³) | Availability per capita (m ³ /capita) | Withdrawals (Billion m ³) | Withdrawals per capita (m ³ /capita) | Stress (%) |
|------------------------|--|--|--|---|---------------|
| Mexico | 474.6 | 4,505 | 75.4 | 705 | 16% |
| Northern Mexico | 33.7 | 1,623 | 22.5 | 1,085 | 67% |
| as % of national total | 7% | 36% | 30% | 154% | 421% |
| I Baja California | 4.4 | 1,317 | 3.8 | 1,103 | 86% |
| II Northwest | 8.2 | 3,210 | 6.4 | 2,422 | 78% |
| VI Rio Bravo | 14.2 | 1,356 | 8.5 | 803 | 60% |
| VII North Central | 6.8 | 1,726 | 3.7 | 936 | 55% |
| XIII Valley of Mexico | 3.9 | 188 | 4.7 | 222 | 120% |
| United States | 10,052 | 35,628 | 556 | 1,970 | 6% |

Source: CNA, Mexico; United States Geological Survey; *EIR*.

a questioner at a Water Forum press conference called by former French First Lady Danielle Mitterrand, a leading international environmentalist activist and anti-technology ideologue. “What do you think about the use of nuclear energy for the desalination of sea water, rather than only proposing ways to save water? In France, you have significant nuclear development; you’re not going to fall behind on desalination technologies, are you?”

A flustered Madame Mitterrand could only respond that she was unfamiliar with those technologies—which didn’t stop one of her entourage from accosting the LYM organizer afterwards to tell her that, in France, they are fighting to put an end to the country’s nuclear and technological legacy.

Another Mexican LYM member raised a similar point at a press conference given by three World Bank bureaucrats, including its Director of Rural Development, Kevin Clearer:

“What do you think about having nuclear programs to develop nations, such as the ones Russia, China, Brazil, and

Iran have adopted? And what about using technology to desalinate water, instead of using up the fossil water?” asked the LYM organizer. “My second question is, what do you think of having a new financial system, a new Bretton Woods System, as the physical economist Lyndon LaRouche has proposed, given the total bankruptcy of the current system and its institutions?”

A visibly shaken Clearer replied: “Well, on your first question, the World Bank has no nuclear energy policy, so I cannot answer you. On your second question, we don’t discuss any fancy schemes, so I cannot answer that question either.”

LaRouche and López Portillo

Indeed, the spokesmen for today’s dying world order have no answers. The answers to the very real water crisis that the world is facing—including Mexico, most emphatically—is coming only from Lyndon LaRouche and his political movement.

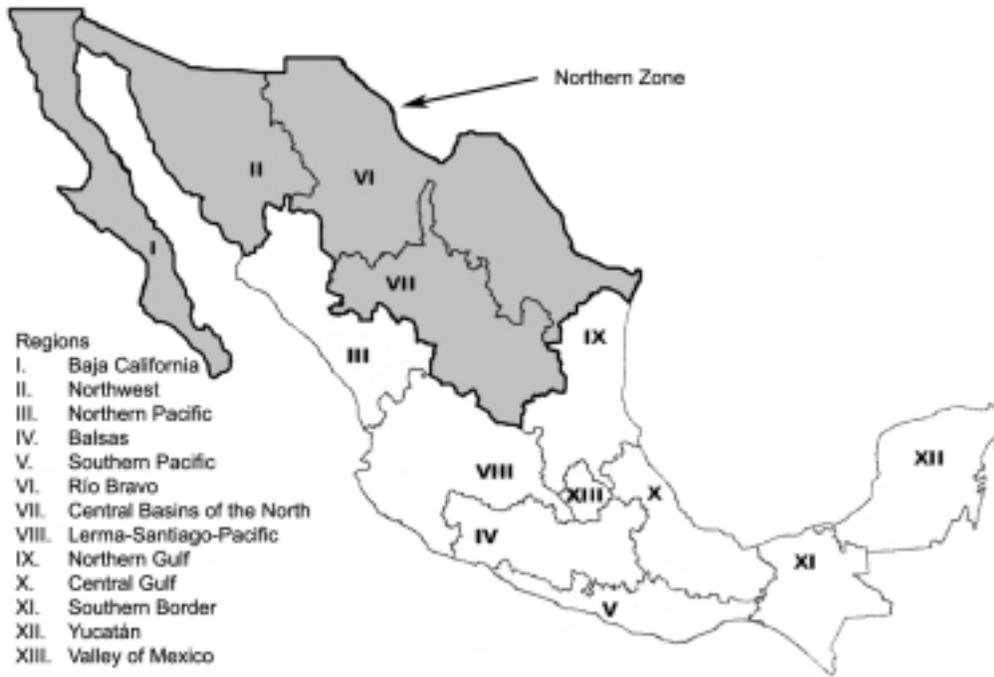
“López Portillo Was Right: Mexico Needs 20 Nuclear Plants,” read a sign carried by a LYM member dressed up as a *walking nuclear cooling tower*—a sight which has now become famous around Mexico City. In fact, on March 18, during the course of the World Water Forum, the leading Mexico City daily *El Universal* ran a prominent picture of the mobile cooling tower, with signs clearly visible, and a straightforward caption:

“Members of the LaRouche Youth Movement—whose founder, the former U.S. Presidential candidate Lyndon H. LaRouche, Jr., based his doctrine on a return to the idea of historic progress—demonstrated in front of the ‘El Caballito’ statue for the construction of more nuclear plants in the country.”

Mexicans will go to the polls in July to elect a new president, and the Mexican LYM’s organizing has introduced a programmatic element into what has otherwise been a vacuous campaign. Their call for Mexico to return to the policies of President José López Portillo (1976-1982)—who worked closely with Lyndon LaRouche to promote nuclear energy, desalination, and other advanced technologies to put Mexico on the path of industrial development (see following article)—has reawakened a vital debate in the country.

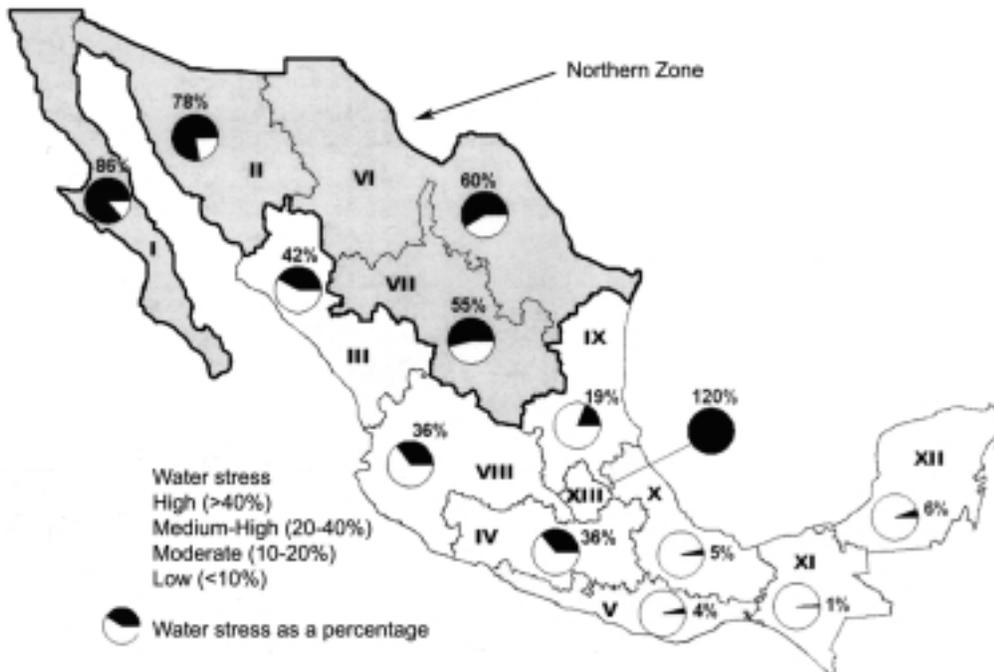
Over two decades ago, LaRouche and López Portillo had addressed the problem of Mexico’s looming water crisis, given the desperate shortage of water in Mexico’s northern

FIGURE 1
Mexico: Hydrological-Administrative Regions



Source: CNA, Mexico; *EIR*.

FIGURE 2
Mexico: Water Stress, 2004



Source: CNA, Mexico; *EIR*.

FIGURE 3

United States: Water Stress, 1995



Source: United States Geological Survey.

and north-central zone (including the entire border region with the United States), notwithstanding the abundant water supplies in the southern reaches of the country. Today, after twenty years of IMF free-trade policies diametrically contrary to what LaRouche and López Portillo had fought for, Mexico's water crisis is careening towards a full-blown train wreck. As we document below, Mexico is unfortunately the perfect microcosm of what LaRouche has identified as symptomatic of the global water crisis: the over-exploitation of fossil water (underground non-renewable water deposits) and other aquifers, leading to actual land subsidence.

Water Stress

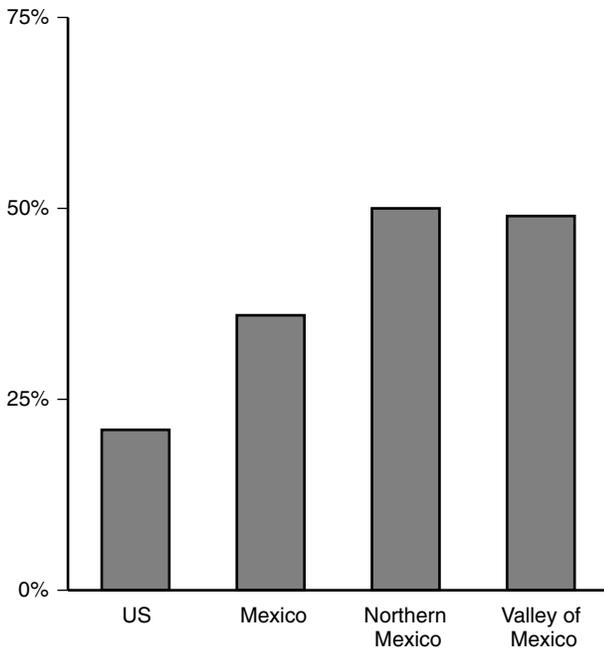
Mexico, on average, is not particularly short on water. In the country's hydrological cycle, 1,513 cubic kilometers (km³) per year of rainfall produce 475 km³ of available water, including both surface runoff (rivers) and recharge of underground aquifers. Measured in millimeters (mm), Mexico has an average 773 mm of rainfall per year, as compared to 742

mm for the United States.

But human beings don't live in mathematical averages: they live in real, geographical-economic space. To wit, consider the area comprised of Mexico's four northern hydrological-administrative regions (see Figure 1, which by and large correspond to the border and north-central area which EIR first analyzed in its May 9, 2003 study of the Great American Desert). That Northern Zone comprises 48% of Mexico's land area, but only 19% of the population. Its average annual rainfall is a mere 388 mm (about 15 inches), which is half the national average (see Table 1).

Hydrologists define any area receiving less than 500 mm (20 inches) or rain per year as semi-arid. Regions receiving less than 250 mm (10 inches) are formally considered deserts. Note that three of the four northern Mexican regions are, on average, semi-arid, while one (Baja California) is a desert. However, large parts of regions II (Northwest), VI (Río Bravo), and VII (Central Basins of the North) are also deserts, with desperately low levels of annual rainfall.

FIGURE 4
Aquifer Withdrawals
 (% of Total Withdrawals)

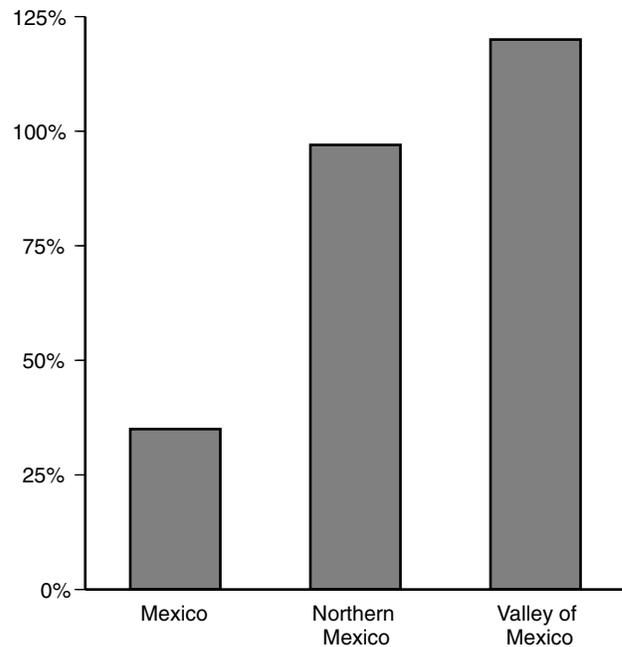


It is useful to compare annual water withdrawals for use in an economy, to the total annual availability of renewable water supplies (both surface and underground) coming from precipitation. This is a measure which the United Nations refers to as “water stress”: the higher the percentage of available water which is used in a country or region, the higher the “stress” placed on the hydrological system. Greenies interpret high water stress as indicating that the end is nigh, that we are exhausting finite resources and we have to reduce consumption, like it or not. A physical economist such as LaRouche, however, reads water stress as a measure of a problem to be solved through technological advance. We are, after all, human beings who can use technologies such as nuclear desalination to *manufacture* fresh water; only beasts are delimited by existing supplies.

The United Nations defines any area with water stress of 40% or greater, as being “high stress.” Mexico’s national average is 16%; but in the Northern Zone, it is 67%. In the Valley of Mexico, including Mexico City, it is a shocking 120%—meaning that each year more water is withdrawn than is available from all renewable water supplies (see **Figure 2**).

Figure 3 shows a comparable map of the United States for 1995 (the latest year for which data are available). The U. S. average water stress is 6%, which rises to 9% if you exclude Alaska, which has a phenomenal amount of unutilized river runoff which flows (principally) into the Arctic Ocean. In fact, this unutilized Alaska run-off is the main basis of the

FIGURE 6
Aquifer Withdrawals as % of Recharge



NAWAPA water project which LaRouche has supported for decades, and which would bring an additional 125 km³ of water down into the United States and Mexico. That amount of water could raise current U.S. water use by 21%, and increase Mexico’s by a dramatic 35%. A mere 20 nuclear desalination complexes in Mexico would add another 5% to its total use.

But, again, let’s look at what’s behind the national averages. If you take the four U.S. hydrological regions along the border with Mexico, they were officially a “high stress” area, averaging 40% in 1995. The Lower Colorado region had a stress level above 100%. Although more recent data are not available, *EIR* estimates that water withdrawals in these four hydrological regions have risen by 2-3% over the last decade, meaning that the current water stress levels are that much higher.

Table 2 presents summary data on water availability, withdrawals, and stress levels in the United States and Mexico.

That Sinking Feeling

But this is only the tip of the proverbial iceberg. When you look at the *source* of Mexico’s water withdrawals, the real problem comes into sharper focus.

About 36% of all water withdrawals in Mexico come from aquifers, but in the Northern Zone, that rises to fully 50%—a dangerously high proportion. The Valley of Mexico is also 50% dependent on aquifers. That compares to a 21% average

FIGURE 5

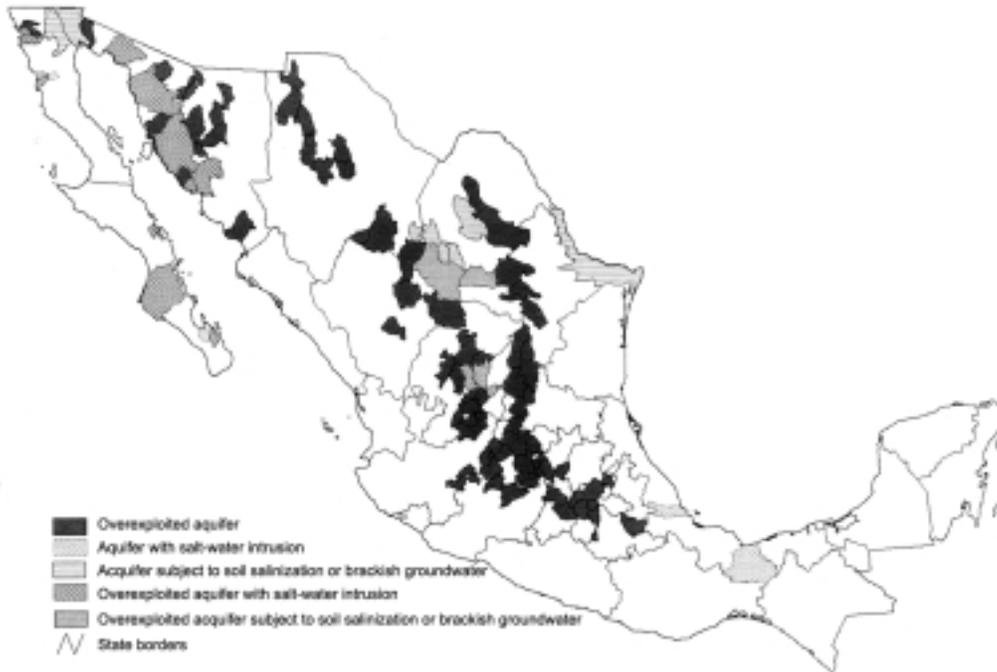
Mexico: Known Aquifers, 2003



Source: CNA, Mexico.

FIGURE 7

Mexico: Overexploited Aquifers, 2003



Source: CNA, Mexico.



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The parking area of Mexico City's Palace of Fine Arts, where the subsidence of the heavy marble structure is visible to the naked eye.

for the United States (see **Figure 4**).

Mexico's known aquifers are mapped in **Figure 5**.

But things are worse, still, as can be seen by looking at annual aquifer withdrawals compared to annual aquifer recharge—i.e., the amount by which annual precipitation refills those aquifers. For Mexico as a whole, the withdrawals are 35% of annual recharge. When you look at the Northern Zone, the withdrawals are 97% of annual recharge (see **Figure 6**)!

Again, the averages here conceal the disastrous over-exploitation of specific aquifers which is occurring in many parts of the country. For Mexico as a whole, 21% of all known aquifers are either over-exploited (i.e., more water is withdrawn than is recharged each year), or have problems of salt-water intrusion or brackish water. In the Northern Zone, a dramatic 30% are over-exploited. **Figure 7** shows the location of these over-exploited, endangered aquifers, according to the latest data provided by the official National Water Commission (CNA) of Mexico.

Mexico City is a story unto itself: the entire city is literally sinking, visibly, into the drying lake bed of Lake Texcoco, on which the city was originally built by the Aztecs, and then by the Spanish. In the Valley of Mexico, which comprises metropolitan Mexico City with its 20 million inhabitants, withdrawals from aquifers are 120% of their annual recharge. Tourists who have visited downtown Mexico City can't help but notice the shocking evidence of subsidence: sidewalks are buckling all along Avenida Juárez; steps from buildings down to the adjoining street are now twice their original height—a dangerous discovery for visitors; and the famous Palace of Fine Arts (Bellas Artes), constructed entirely from heavy Carrara marble, is now sinking down into the bowels of the earth by a few centimeters every year.

A more eloquent metaphor of the imploding global financial system can scarcely be found.