
Energy

Curtain drops on the farce of the Brazilian experiment in 'gasohol'

by Lorenzo Carrasco

Since 1979, the forecasts of the LaRouche-Riemann econometric model have indicated that the Brazilian energy program, which called for replacing gasoline consumption by combustible alcohol ("gasohol"), was an incompetent farce, and that it would lead, sooner or later, to a debacle, bringing in its wake far greater losses than the apparent short-term benefits. The predictions, which first appeared in *Fusion* magazine, foresaw the same effects from the solar energy program put forward by then-U.S. President Jimmy Carter.

Except for a few crazed environmentalists who kept on worshipping the Sun, the solar energy program has fizzled out, while Brazil's alcohol program underwent a strong expansion, to reach the stratospheric production level last year of nearly 10 billion liters of alcohol, and is expect to climb this year to 12 billion liters. Such production levels have required devoting more than 4 million hectares of Brazil's best arable land to the program, and the labor of more than 1.5 million workers and peasants who are dying of hunger and overwork.

The fall of oil prices casts any remaining argument in favor of this program on the garbage heap; anyone who defends it at this point is either a hopeless idiot, or belongs to the tiny band of landowning oligarchs who found in Pro-Alcohol an ideal means of securing the ownership of their absurdly vast land holdings under the justification that they were lending "a service to the nation," while pocketing the juicy subsidies dished out by the federal government.

Thus, the so-called Brazilian energy miracle, Pro-Alcohol, has been, when you get right down to it, the biggest farce mounted by the sugar barons, to fill their pockets at the expense of Brazilian taxpayers. Last year alone, the staggering energy inefficiency of alcohol earned the producers of that fuel the fabulous subsidy of several hundreds of millions of dollars. If the policy of government support for Pro-Alcohol continues, it will cost Brazil more than \$100 million a month, *merely in price subsidies*, according to calculations put out by the state oil firm, Petrobrás. (Because of alcohol's energy inefficiency, one liter of gasoline is replaced by 1.3 liters of alcohol and at the cost of much greater corrosion of the vehicle.) Since alcohol, by Brazilian law, must cost 65% percent of gas, the difference is subsidized by the State. Likewise, the prices of alcohol-driven cars are kept down by

certain tax exemptions. In other words, the greater cost of a car running on alcohol, which has a shorter lifespan, is government-subsidized.

Through such subsidies, the alcohol producers have received a total of nearly \$20 billion since the program began about a decade ago, rather than the \$8 billion official figure. According to investigators Fernando Homem de Melo and Eli Roberto Pelin, Petrobrás, with a \$10 billion investment—a lot less than the government handout to the alcohol interests—raised oil production from 168,000 barrels per day in 1973 to 600,000 barrels per day in 1985, a rise of 432,000 barrels, which compares to only 140,000 barrels-equivalent per day in alcohol. And the alcohol producers, with this low



productivity, occupy millions of hectares of the best fertile land in Brazil.

According to the same investigators, in 1981 the cost of a barrel-equivalent of alcohol was \$80, but by 1983 the cost of production was \$73.4 dollars per barrel-equivalent. This drop was due first to over-harvesting in the state of Sao Paulo, which went from three to four cane cuttings per year, and second, to the drop in production costs due to the cheapening of manpower and industrial inputs in this period.

The absurdity from the energy standpoint is seen in that while in 1983 the cost of a barrel of gasoline refined domestically with imported oil was \$41 (and sold retail in Brazil for \$120, with the difference being used mostly to pay the subsidies to alcohol producers), the equivalent in alcohol cost \$73.4 dollars. The drop in oil prices has made this price gap a yawning chasm.

Energy flux density

These differences in monetary costs are not due to "market circumstances," as the alcohol producers and the auto-makers claim. The problem is more basic. Since September 1979, *Fusion* magazine has warned against the establishment of the Pro-Alcohol program because the entire process had a very low energy-flux density. As is shown by Table 1, alcohol, as biomass energy, has the lowest energy flux density, even lower than solar energy. A square meter planted in sugar cane produces during one year a maximum of 3.7 liters of alcohol. From this quantity we must subtract the corresponding area occupied by the process of refinement or distillation. With this amount of alcohol we could run a *light bulb of less than one watt per year!* As can be seen in comparing the other sources of energy, this system turns out to be absurd. The best form of using biomass energy is to produce food, cultivating the earth with the highest technologies.

The high inefficiency of Pro-Alcohol reached the limits of criminality, as can be seen by the following data: During 1985, about 10 billion liters of alcohol were produced (see Table 2), which meant more than 4 million hectares planted with sugar cane in the most fertile lands of the country of the south-central zone, especially the state of Sao Paulo. For this year, the installed capacity already exists to produce 12 billion liters, and for 1990 the thinking has been to double the present alcohol production for fuel, which would mean about 10 million hectares supporting this industry. In this area, we are not quantifying the surface occupied by the 380 immense alcohol refineries and the new ones that would have to be built.

Busbusinessman João Augusto Gurgel points out that, given that a ton of cane produces between 60 and 75 liters of alcohol, to supply the fuel for a taxi for one day of work, one needs one ton of sugar cane. We can finish the calculation by saying that if this taxi runs 350 days a year, in that year it would consume more than 26,000 liters of alcohol. Since one hectare produces 60-70 tons of cane and, therefore, 3,700

liters of alcohol, the bottom line is that to move a taxi for one year we would need about 7 hectares of very fertile land! To run a private car would take more than a hectare of land per year. To move 2.5 million alcohol-fueled automobiles, more than 4 million hectares are being planted, and more than 1.5 million workers and peasants work directly or indirectly in the production of alcohol.

This alcoholization of the economy has led to a reduction by 17% of the area allotted to food production for internal

TABLE 1
Energy flux density

Energy source	Power density (kilowatts per square meter)
Solar-biomass	.0001
Solar-earth surface	.2
Solar-near solar orbit (5 million miles)	1.4
Fossil	10,000
Solar at sun surface	20,000
Fission	70,000
Fusion (early commercial)	70,000
Fusion (theoretical limit)	over several millions of trillions of watts

TABLE 2
Brazilian gasohol output

Year	Alcohol production from sugar cane (thous. liters)	Required arable land area* (thous. hectares)	Alcohol sales (number)
1975	175	47	
1976	175	47	
1977	636	172	
1978	1,510	408	
1979	2,210	597	
1980	2,591	700	241,000
1981	3,036	820	137,000
1982	4,165	1,126	234,000
1983	5,822	1,400	590,000
1984	7,864	2,000	590,000
1985	9,244	3,243	590,000
1986	12,000	(+) 4,000	** 2,400,000

* Arable land calculated on a productivity rate for sugar cane per hectare of 60 tons per hectare; and a rate of conversion into alcohol of 3,000-3,700 liters per hectare.

** Number of existing alcohol-driven vehicles at the end of 1985.

consumption. It is now being used not only for growing sugar cane, but other export products such as soybeans, coffee, and oranges. These four products currently occupy about 35% of the cultivated area of Brazil, optimistically estimated at 50 million hectares. With the 4 million hectares devoted to sugar cane, the food problems of the entire population of Brazil could be solved.

Schachtian model of slave labor

The reasons why Pro-Alcohol initially seemed to work were three:

First, oil prices were extremely high. But even assuming this condition, the Pro-Alcohol program could never have produced at prices below that of gasoline, if it were not for the other two conditions.

Second, the government granted huge subsidies to the production and refinement of sugar cane, with subsidized credits at negative interest rates, or even written off. Above all, the government stopped collecting taxes on the potential production of the area now cultivated in sugar cane, and stopped collecting the taxes owed by the landholders who owned these immense tracts of land. For these conditions the government paid, in fact, out of the national coffers, the usury of ground rent to these latifundist "patriots."

Gasohol pushed on U.S. farmers

Despite the fiasco of "gasohol" in Brazil, there is a major push in the United States for production of the absurdly inefficient energy source, combustible alcohol, from valuable foodstuffs, particularly corn. Desperate farmers are being pushed into this as a means of getting rid of surplus crops. The U.S. industry currently uses about 500 million bushels of corn to make ethanol, the octane-enhancing additive which is used in unleaded gasoline. Interestingly, this industry has "boomed" since the environmentalists succeeded in their campaign against lead in gas. The high price you pay for unleaded gas includes the subsidies to the ethanol industry.

The biggest distiller of corn alcohol is Archer Daniels Midland (ADM) of Decatur, Illinois, which has grown so rapidly that it nearly ranks with the major grain cartels. ADM in 1984 produced over 300 million gallons of ethanol, a large percentage of the industry. On the board of ADM are, among others, Mrs. Nelson Rockefeller and Robert Strauss, the former chairman of the Democratic National Committee from the days of Jimmy Carter.

Third, the most serious and the principal key to the "success" of the Pro-Alcohol program is that the country legitimized a system of intensive labor which keeps several million peasants enslaved. Whereas a peasant in one day of work, for example, in cutting cane, uses up more than 4,000 calories per day, he receives as payment the equivalent of that—for himself and his entire family. This is the reason why the president of Volkswagen in Brazil, Wolfgang Sauer, enjoys repeating, "the alcohol-fueled car is an authentic Brazilian miracle."

This model of super-exploitation of labor power was promoted by Adolf Hitler's economics minister, Hjalmar Schacht, starting in 1933, and led later to the organization of the concentration camps under the Nazi terror. Schacht imposed this program by making people believe that intensive labor was a national strategic imperative for Germany to fulfill the conditions imposed by the international bankers through the Versailles Treaty. With this same twisted reasoning, the Pro-Alcohol program was imposed in Brazil, to run 2.5 million cars with the genocide of millions of human beings who toil in bestial conditions in the fields.

Who benefits from Pro-Alcohol?

As we indicated, it was a nucleus of latifundist Brazilian and European families who discovered the horn of plenty in Pro-Alcohol. The whole business was fraudulent from start to finish and marked by the role of the transnational automobile manufacturing companies.

An irony which should not escape the reader's attention is that while Brazil's "gasohol" boondoggle has received the biggest government handouts in history, prominent among the beneficiaries are such apostles of "free enterprise" as ex-U.S. Treasury Secretary Bill Simon, a bitter foe of state intervention to foster *productive* industry and author of the introduction to the book *Free to Choose*, by Milton Friedman, the high priest of "magic of the market place" economic theories.

This has to do with a peculiar financial organization which was born with Pro-Alcohol: *Brasilinvest*. Its president, Mario Garnero, founded it in 1975, the same year in which, as director of Volkswagen of Brazil and president of the National Association of Vehicle Manufacturers, he launched the Pro-Alcohol program. He gained his Volkswagen post by marrying the daughter of Joaquín Monteiro de Carvalho, who is chairman of the powerful economic group, Monteiro Aranha. This group in turn bought up the Volkswagen stocks at the close of World War II, cashing in on previously concluded barter deals of grain for machinery, which had been worked out by the Nazi financial "wizard," Schacht.

Among *Brasilinvest*'s partners were found, when the institution was liquidated last year, Wolfgang Sauer, president of Volkswagen of Brazil, and the president of the airline company Varig, Hélio Smidt, who turned up as a former member of the board of directors, alongside U.S. Secretary

of State George Shultz and ex-U.S. Treasury Secretary William Simon. (Simon jumped off the sinking ship one month before Brasilinvest's bankruptcy was announced, but went to Brazil to testify as a character witness for Mario Garnero!) The network of Brasilinvest partners and executives is lost in the muddy waters of the transnational auto assembly plants. One example is Newton Chiaparini, vice-president of Brasilinvest, and ex-vice-president of Ford Motors. Garnero himself, besides having been a VW executive, kept tight relations with Gianni Agnelli, the owner of the giant Italian auto firm FIAT, and had interceded with the late Brazilian President Tancredo Neves in FIAT's favor.

And so, in 10 years, Garnero succeeded in making Brasilinvest into one of the biggest financial groups in Brazil, with a network of operations in the Bahamas, Panama, Switzerland, and Liechtenstein, the notorious centers offshore banking centers, which allow every kind of money laundering and capital flight operation.

In early 1985, as a result of investigations by the Treasury Ministry, Brasilinvest was ordered liquidated for having carried out fraudulent operations, for issuing financial instruments out of thin air, without backing. For these proven financial crimes, Garnero, an erstwhile agent of the U.S. State Department, deserved to be jailed, and this was demanded by the Treasury Ministry and the Justice Department's prosecutor. But from then on, the judicial process against Garnero got bogged down, and in the end he got off the hook, when the Central Bank allowed Italy's Ferruzzi group to buy up Brasilinvest, in partnership with the Monteiro Aranha group. Thus, the former brother-in-law of Garnero, Joaquin Monteiro de Carvalho, who owns 10% of the stocks of VW Brazil, picked up the tab on the mess—but everything stayed in the family!

The Ferruzzi group, headed by Italian entrepreneur Raul Gardini, is not exactly alien to the sugar business. Besides producing grain, concrete, cement, ships, and tents, it holds the reins of the biggest sugar monopoly empire in Europe. The Ferruzzi group is the main producer of sugar in Italy, and the main producer of sugar in France, besides controlling a large volume of soybean imports and owning 800,000 hectares of land between Brazil, Paraguay, and Argentina.

It must be remembered that the Monteiro Aranha group was a key part of the Atlantic Community Development Group for Latin America (ADELA) created by Nelson Rockefeller to run the policy of the big oligarchist interests in Latin America. Among the creators of ADELA were FIAT's Gianni Agnelli and Olivetti/FIAT executive Aurelio Peccei, who founded the Club of Rome to push a genocidal policy toward the Third World. It was precisely the year of the creation of the Club of Rome when the Pro-Alcohol program got under way in earnest in Brazil, spurred by the same wealthy families and having the same genocidal aim—the reduction by any means possible of the “non-white” populations of the world.

Why did VW have so much interest in the Pro-Alcohol program? Not only does it produce 250,000 alcohol-fueled

cars per year. VW is the biggest feudal landlord in Brazil, together with Italian-based Pirelli conglomerate and the Swiss-based Nestlé. These are part of the 342 landholders who own 47 million arable hectares in Brazil.

These Brazilian and European families are the only ones who benefit from such an energy program, which has to be one of the major causes of internal inflation in Brazil. It is this clique of families that has let loose its dogs, in the Society of Sugar and Alcohol Producers (SOPRAL), in the National Society of Vehicle Manufacturers (ANFAVEA), among the distillery producers, and in the Central Cooperative of Sugar and Alcohol Producers of Sao Paulo, to howl and bay against those who want to impose reason, and dismantle the insanity called Pro-Alcohol.

Fuel from food in Europe, too?

Recently, a proposal circulated in Europe to produce ethanol with Common Market surpluses, i.e., fuel made substantially from grain, and alleged to be more economical, cleaner, and more “ecological” than petroleum. The proposal came from the Ferruzzi group, headquartered in Ravenna, Italy, one of the biggest agricultural groups in Europe and the world—and a leading player in the Brazil Pro-Alcohol hoax.

The Ferruzzi group, managed by Raul Gardini, is quoted on the Milan stock market, but its empire extends to every corner of the globe. It has land and livestock in Paraguay, Brazil, and the United States, and finance companies in Luxembourg, Belgium, France, the U.S.A., and Brazil. Its annual turnover surpasses \$4 billion. Ferruzzi is the only Italian firm, besides the Venetian insurance giant Assicurazioni Generale, to have been recognized by Edmond de Rothschild, the “Swiss-Venetian” financier, as having international stature.

The Ferruzzi group is said to be allied to Italian financier Carlo De Benedetti, who recently made an unsuccessful bid to buy the Italian state-held food finance company, SME, as part of a growing trend toward the takeover of Italy's food processing companies by multinational financial blocs. De Benedetti has been praised by Henry Kissinger as his favorite European entrepreneur. Among the partners in De Benedetti's finance company, COFIDE, is First Boston International bank, whose chief executive officer, Pedro-Pablo Kuczynski, was indicted by the Peruvian government for illegal practices during his term as Peru's Mining Minister.