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THE STATE OF LOGISTICS IN CUBA—NOT JUST SUGAR CANE ANYMORE

by

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The Progress Group

In the US, we don't think much about logistics in Cuba. In fact, we don't think much about Cuba at all, unless some excitement takes place in Miami. Nevertheless, Cuba is out there. And, Cuba faces logistics challenges and opportunities just like everyone else. Maybe more so.

The Progress Group participated in the US Logistics Leaders' delegation to Cuba in early March. This article reports our observations.

THE DELEGATION AND ITS SPONSOR

The trip was conducted under the auspices of People To People International, the agency created by Dwight Eisenhower to promote extra-governmental contact and communication among nations. Ken Ackerman, President, K. B. Ackerman Co. (and a past CLM President) organized and led the tour. Two other CLM past Presidents also took part: Bob Bowles (recently retired from PPG Industries), and Jerry Krassenstein (Business Advisory Services, Inc.). From CLM, we had: George Gecowets, Executive Vice President; Maria McIntyre, Vice President—Operations; and Shirley Gecowets, Administrative Assistant. Other delegates represented third-party logistics, warehousing, manufacturing, software, academic, and management consulting organizations.

WHAT WE SAW AND DID

Our first morning was devoted to an escorted tour of two of the pavilions at ExpoCuba, which contains forty-odd displays and demonstrations of all facets of Cuban economic and cultural life. We concentrated on manufacturing and technology exhibits and concluded the stay amid a cornucopia of indigenous food and beverage products, among which rice and rum figure prominently. After lunch, we toured Havana's Sierra Maestre Pier and its cruise ship terminal, home to a nascent two-way tourism operation.

The following day and a half were packed with information exchanges. We met with four academic logistics leaders from Instituto Superior Politecnico "Jose Antonio Echevarria" (ISPJAE):

- Dr. Ing. Jose A. Acevedo Suarez
- Dra. Ing. Martha Gomez Acosta
- Dra. Ing. Maritza Hernandez Torres
- MSc. Ing. Ana Maria Gutierrez Pradera

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They presented papers covering topics of: Cuban economic overview, internal and external logistics infrastructure, logistics improvement case studies, and research. In turn, delegation members delivered papers and presentations on: issues in distribution network design, material handling system implementation, hazardous material warehousing, geometry and geography in national distribution, logistics issues and opportunities in packaging, supply chain strategy, software support for tactical logistics planning, and trends in logistics focus areas and issues.

Dr. Kerstin Roehrich, a German logistics professor who works frequently with ISPJAE, joined the second day of professional exchange, and attended the group outing to the legendary Tropicana nightclub, which has not changed much in sixty years, and plays like an extended scene in a dreadful movie with a bad sound track. It's difficult to imagine that Desi Arnaz got his start that way.

The delegation began the fourth day with a presentation on the impact of Havana's Free Trade Zone on the national economy, delivered by the FTZ's General Manager, Antonio Alonso Cano. Sr. Alonso displayed a clear vision for the Zona Franca's potential future for growth and added economic contribution. The tour included a visit to a warehouse for consumer-level food, candy, and snacks.

The drive to Cienfuegos, which followed, gave us ample opportunity to observe the highway infrastructure, and transportation traffic characteristics. The next day, we left Cienfuegos, Cuba's second-largest port, for a visit to the colonial city of Trinidad. The return to Havana provided additional examples of highway conditions.

Day six treated the delegation to a detailed tour of a container yard, and an adjacent Container Freight Storage (CFS) facility. Sr. Nestor J. Periut Galvez, Assistant Editor of Grupo Consultor de Logistica and head of the Cuban Logistics Society, joined the delegates for cocktails-and-dinner discussion.

And so, back to Nassau, our original jumping-off point, on one of Cubana Airlines' mighty Yak 43's. Having flown on one from Nassau to Havana on Day Zero, there was understandable reluctance by the group to board one again. (They look as if they might have seen duty supporting combat in Angola, and are certainly of that age.) Cubana purports to have a fleet comprised of Antonovs, Yakelovs, Ilyushins, and DC-10s. We didn't observe any DC-10s.

WHAT WE REALLY SAW—LOGISTICALLY

The Academics

The faculty members from ISPJAE were astonishingly fluent in contemporary supply chain and logistics thinking. Their papers, if translated into English, would not have been out of place—and would have held their own—at CLM, WERC, or other major conferences. They know the concepts and all the buzzwords. But, they have very few venues in which to apply them.

So, they've got the words, but no music. We used to call this condition "all dressed up, with no place to go." To be fair, it's an awkward time. Cuban Ministries regulate all, and operate nearly

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all, business and industry. They are trying to shift away from the command-and-control, productionquota-driven model of the past, in which each industry managed its own physical distribution.

The new model is still evolving. Remember, it's the same command-and-control cadre that's guiding the changes from closed to open systems, from centralization to autonomy, from inward to outward views, along with information technology development and integration.

But, the concept of in-country competing supply chains (e.g., Pepsi vs. Coke or Ford vs. GM) does not, in fact, exist. And, the movement of even non-competitive consumer goods is almost invisible. The major challenges of the moment appear to be ones of how to deploy transportation resources among the various industries, and of how to effectively utilize truck/trailer capacity with shared loads and backhauls.

Critically, however, the academic and consulting communities, with governmental recognition, have grasped that designing and implementing a national logistics infrastructure is the key to success in Cuba's economic transformation.

The Managers

Both the FTZ and the container facilities are operated and managed by top-notch individuals. Both managers were knowledgeable and articulate, not only about their physical operations, but also about their potential for greater roles in more-integrated hemispheric logistics networks.

More directly, perhaps, than the academics, they are in positions to apply their conceptual (and practical) knowledge to day-to-day operations. They may represent a generation of logistics managers that will be ready—intellectually, at least—for the challenges of future trade developments involving Cuba.

The Infrastructure

Overall, the Cuban logistics infrastructure is a mixed bag. Internally, the population and market densities are challenging. The country itself is relatively wide—1,250 kilometers (780 miles) and not very deep—less than 90 kilometers (55 miles), on average.



Geography

Cuba is the largest and most populous Caribbean nation, at an area of 111,000 square kilometers, and a population of over 11 million (which has nearly doubled since 1953). La Habana, located far west of center on the north coast, holds nearly a quarter of the total population, with 2.5 million inhabitants. There are another ten cities with over 100,000 population, but Havana is larger than all of them combined.

Only one city of consequence, Pinar del Rio, is located west of Havana. The remainder of the "top eleven" extend east and southeast to the very end of the island. While over 75% of the population is counted as "urban," the island is dotted with smaller cities and towns, reflecting the substantial agrarian portion of the economy.

Cuba (geologically part of North America) is placed advantageously in the Caribbean:

- USA (Havana/Key West)—145 km (90 miles)
- Mexico (Cabo San Antonio/Cancun)-210 km (130 miles)
- Jamaica (Santiago/Ocho Rios)-150 km (95 miles)
- Haiti (Santiago/Port-au-Prince)-200 km (125 miles-land-to-land, 77 km)

Rail

The rail system has two components that cover virtually the same lanes. One, a narrow-gauge operation, dates from the 19th century, and has been dedicated to movement of sugar cane and related goods. The parallel system, standard gauge, is used for the movement of all other goods.

The central rail system provides access to 97% of the total population, passing through all provincial capitals, save one, on the mainland.

Highways

Topography permitting, highways connect, in more or less direct fashion, all the principal cities. An excellent four-lane divided highway, the autopista, begins in the west in Pinar del Rio, connects with Havana, and extends to about the middle of the country, where, apparently, the Soviets ran out of money. The road is in excellent repair, and the traffic is generally light.

Secondary roads connect from Majagua, east of Santa Clara, to the eastern population centers. Another secondary road system branches off a little earlier to reach Cienfuegos and other south coast cities and towns. The roads are in generally good repair, and traffic is light. Movement can be momentarily slowed by the presence of agricultural vehicles, both motorized and horse-drawn.

Tertiary roads are also in good repair, but can be slightly more narrow than a standard two-lane highway. Traffic is also relatively light, and is characterized by greater numbers of agricultural vehicles and bicycles.

Similar to the rail system, the highway system provides access to over 97% of the population. The road system in total can handle significantly greater logistics activity than it does now, good news for a potentially expanding internal economy. The current light traffic level may signal how weak the consumer—and business—sectors are.

Maritime

Cuba is well equipped for both import and export activity, with 13 ports of consequence. Only Havana, and perhaps one other, is a deep-water port, however.

The Port of Havana has significant unused capacity, developed during the heyday of trade with, and support from, the "Socialist Camp." The government is beginning to rehabilitate some facilities that had fallen into disrepair. The container handling capability and capacity is excellent.

As noted above, the island is well positioned as a hub for Caribbean trade as a shipper, as an importer, and/or as a value-adding distribution point. Existing capacity for value-adding distribution (FTZ or otherwise) is considerably under-utilized.

Air

Cuba has 13 airports near major cities and tourism destinations. Seven receive scheduled international flights, with the overwhelming majority to Havana and Varadero. Cubana de Aviacion, the national airline, operates flights between the major cities, and is the predominant carrier to international facilities outside of Havana and Varadero. There is a significant amount of charter activity. Routes include all the major cities of Europe and South America, most major cities in Mexico, Montreal and Toronto in Canada, as well as the Dominican Republic, Haiti, Jamaica, the Bahamas, and others.

Cubana's equipment on international routes is superficially decrepit, but the Ilyushins and Yakelovs observed seem to be airworthy. The domestic fleet is primitive, including elderly Soviet craft which feature wooden bench seating. Heated passenger cabins are not a priority for Cubana.

Trucking

Much is made of the fact that Cuba has (State-owned) some 60,000 trucks. We saw very few of the tractor/53' trailer rigs we are accustomed to in the US. Flatbeds seemed to predominate, and some intermodal container movement was seen. Many units are industry-specific (e.g., citrus and sugar cane), and the majority of trucks on the road are small, 2-5½ ton, and smaller). Even given substantial growth in the internal market, this fleet may be adequate for internal needs for quite some time.

Warehousing

The two facilities we visited were not impressive. Neat and clean enough, they employed no modern material handling technology. No conveyors of any type, a small amount of primitive racking, and no environmental control, not even for foodstuffs. No elevated dock doors, no levelers, pallet loads without structural integrity. Management, otherwise capable, seemed oblivious to the shortcomings.

The container yard, on the other hand, was superbly organized and operated, with state-of-theart unloading and movement equipment—a vivid contrast to the abandoned Soviet equipment on the periphery of the yard.

In fairness, we were not able to visit the distribution campus of Cimex, one of the premier and predominant State-owned enterprises (and the parent of our excellent tour operator, Havanatur).

Power and Communications

Telephone service and electrical power remain barriers to future success. Electric power is provided by a generating plant in Havana that is nearly a century old, and service is subject to frequent interruption, even in luxury surroundings. A nuclear plant has been designed, and construction was begun, but work was suspended with the pull-out of Soviet support. There is some hope that it will be operational, some day.

Telephone service is much less reliable than electrical service. Odds of connecting, even on a local call, are similar to those in roulette. Odds of staying connected are even worse.

Programs to extend reliable electric power to 97% (a favorite target in Cuba) of the Cuban land mass, to establish regular and reliable telephone service, and to bring the citizenry into the internet/information age are reported to be underway and accelerating. They all require commitment and money; we saw evidence of the commitment, but little evidence of the money.

WHAT WE REALLY SAW-ECONOMICALLY AND GEOPOLITICALLY

All of Cuba is in a bad way economically. Havana is in ruins after decades of neglect and no maintenance. A once-magnificent city's treasured homes and buildings are literally crumbling.

Some restoration efforts are beginning, and more are planned, but comprehensive rehabilitation will take more capital than the country is likely to have independent access to.

The Revolution Hath Wrought What?

The ordinary Cuban has benefited from the Revolution in four important dimensions. Health care has been a priority from the beginning, and life expectancy matches that of the industrialized nations. The "special period" food shortages resulted in some malnutrition, but the State-managed network of physicians and facilities is producing a generally healthy population.

Education also remains a priority, and the Cuban workforce is well-educated by any standard. Universities are producing highly capable managers, technicians, and professionals in all fields, despite obvious limitations in funding, equipment, and facilities. All children, by the way, are learning English (not Russian) in school.

More widespread home/apartment "ownership" (actually State-directed occupancy) is possible, through a program through which the government assigns a residence to an individual (or family), and sets affordable payments at a relatively small percent of income.

There is also a social security system that provides a modest income (half wages) to retirees, based on their normal working rate of pay. Women, and men who have worked at hard manual labor, retire early.

The State propaganda machinery would also promote the idea (and does, regularly) that Cuba's post-revolutionary success in international sports is another direct consequence of Fidel's beneficence. Perhaps so, and perhaps this success helps to maintain national pride during bleak times, and worse. But, the average citizens have no more to eat on account of the gold medals brought home by their athlete-heroes.

Their Daily Bread

The overwhelming majority of jobs are in State enterprises and activities, with wages set by the government. Pay is in pesos, and averages in the range of \$10 to \$15 per month, tending toward the lower figure. That's right—per month. Some professionals may make a little more, but doctors, lawyers, and schoolteachers are leaving their professions in favor of tourism-related employment, which can yield dollar-based tip income.

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Maybe the way State-managed pricing works, the purchasing power of \$120-\$180 a year becomes more like \$1,500. The good news: rice at the State store is only ¼ of a peso per pound (against the monthly income of 220-330 pesos. The bad news: the ration quantity is 5 pounds per month per person, a measly quantity for this 2-to-3-meal-daily staple of the diet. (The monthly egg ration is two per person per month in the country, six in Havana.)

This condition serves up a disconcerting contrast with the bounteous meals lavished on tourists in hotels. Even the lowest stratum of hostelry provides a variety of foods not available to the public, filling buffet tables, another argument against over-reliance on a tourism-dependent economy (see below).

Relatively soon the individual runs out of ration capacity, or the tienda runs out of food. Either way, the next level of food availability is at a farmers' market, where prices are considerably higher. "Dollar" stores have a decent range of fresh and processed foods and beverages available at astronomical prices, completely out of range for ordinary citizens.

The best quality and variety of foodstuffs are clearly being put into the luxury hotels first, followed by the State-operated dollar restaurants and the paladares. Despite the improvements resulting from putting more food production into farmers' cooperatives, shortages remain a daily fact of life.

It is possible to be self-employed, with government permission, and working in a field not covered by a State enterprise. Mainly limited to one-person operations, these mini-entrepreneurs (artists, artisans, appliance repair persons) can make somewhat better-than-average livings. As they succeed, however, especially in the case of paladares, the taxes and license fees paid to the government continue to go up. (In fact, some amount of self-employment has been encouraged by the State, to offset the specter of unemployment in State enterprises.)

Persons employed in tourism—guides, interpreters, waiters, entertainers, chambermaids, for example— an participate in the dollar economy through tip income. Many of these people can live quite well, compared with the average Cuban, even after diverting some income to help their families. The market for upscale goods, and discretionary clothing and foodstuffs remains minuscule, however.

Economic Trends and Developments

The current regime daily faces the sensitive task of managing economic meltdown, while pretending—both externally and internally—that the Revolution has been a smashing success.

How bad is it/was it? In 1989—the year before the collapse began, Cuba's trading partners were about 85% in Eastern Europe, 5-6% each in Western Europe and Latin America, and about 4% other. By 1998, Eastern Europe had dwindled to about 10%, with Western Europe rising to 28%-30%, Latin America to 40%-42%, and others (mainly Canada) to 20%. GDP fell from nearly \$20 billion in 1989 to lows of \$13 billion in 1993 and 1994. Even today, it has recovered to only approximately \$15 billion.

In the wake of the collapse, total exports fell from 13 million tons to 3.2 million. Sugar alone, once 80% of the total, fell by 50%. In the early '90s, a "special period" of cutbacks and rationing was introduced, which sorely tested the will, and the well-being, of the Cuban people. This situation would pose a crisis for any nation, but Cuba's challenge has been made greater.

While other economies across the globe have faced challenges in globalization and stresses in international finance, these are compounded in Cuba by the dissolution of the Communist Bloc, sometimes called the "Socialist Camp," and the economic blockade imposed by the US and some of its allies.

As noted, small doses of entrepreneurship are being permitted, but most enterprises remain State-owned and operated. There are exceptions. The government has targeted tourism as a dollargenerating industry, and is encouraging outside investment in building and restoring 4-and-5-star hotels. These hotels are largely spared the periodic shortages of specific food and other consumables that regularly plague the everyday citizen.

The philosophical "about-face" is a slow turn, at best. It will likely progress only to the extent necessary to soften or eliminate the US-led embargo.

The worst may be behind them, but Cubans have suffered mightily in the wake of the Soviet pullout. Yet, despite all, Cuba is a happy place, full of charming and beautiful people (who genuinely like Americans). And, there are a few signs of hope for the future. The wonder is not the number of stereotypical pre-1960 US automobiles still running; it is the number of new and nearly new vehicles on the streets—Nissan, Kia, Hyundai, and Volkswagen, for example.

The traditional economy has been based on the extraction of raw materials for export, more or less, a formula for long-term economic subservience. Agriculture has always led the way, featuring sugar, coffee, and tobacco. Citrus has now moved into the second spot, after sugar. The mining sector was added to the list in 1995, involving joint ventures with Canada, Australia, and South Africa.

Cuba has yet to leverage value-adding activity to its raw material resources in a way that significantly changes the core economic model. Granted, cigar manufacture is an exception. However, manufacturing, assembly, and consumer-level packaging of agricultural products are rare. The State-managed foray into tourism is really the first significant economic sector departure from the direction of the past 42 years of Revolutionary rule.

Tourism is generating dollars, to the tune of \$1.5 billion this year. However, that amount barely equals the current balance of trade deficit, a staggering 37.5% on exports of about \$4 billion annually. While the tourism inflow is positive, we view the current emphasis as a stopgap measure.

Cuba has too much potential—in human resources, manufacturing, agriculture, and international logistics—to tilt toward an economy with limited dimensions. Cuba is not another Nassau or Grand Cayman, only with sugar—or shouldn't be. Somehow, outside investment—maybe even some tourism revenue—needs to be directed into the development of a sustainable and multifaceted internal economic infrastructure.

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Not that there is no trade and no investment now. Tourism—hotels, tour buses, etc.—get the major attention, but there are joint ventures with Kia and DaimlerChrysler now. Major trading partners include: Mexico, Canada, Colombia, Spain, Italy, and other European Union countries. The prominent name of a natural partner is, however, missing from the list.

WHAT ABOUT THE US EMBARGO?

First ask, whom does the embargo hurt? It does not hurt Fidel Castro, who can and does point to the embargo as the cause of Cuba's economic ills. After 42 years of rule, the notion that a disaffected population might rise up to overturn the Revolution has a dream-like quality to it.

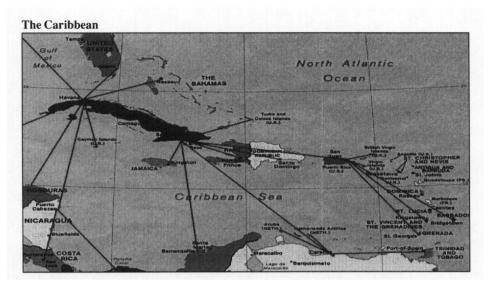
Look, the Cubans who haven't already gone to Miami mostly don't want to. Yes, the annual 20,000-visa lottery is always oversold. But many bright, educated Cubans are looking for ways to make life in Cuba better, rather than fleeing.

The embargo does severely hurt the Cuban people. Under current rules, they don't have the jobs or the material necessities that freer trade and freer investment might provide. Small relaxations—permitting Cuban-Americans to send dollars to family in Cuba, and allowing greater in-movement of food and medicines—aren't enough.

Selfishly, we would point out that the embargo hurts US businesses. Our neighbors to the north and south are making money in Cuba. Cuba is virtually forced to trade with distant European partners to create greater mass in both imports and exports—when a far more lucrative, and logical, source of, and market for, goods lies only 90 miles away.

There are almost uncountable opportunities—and needs—for investment, critical leverage for restoring Cuba to an appropriate role in the economy of the Western Hemisphere... and to the family of nations.





WHAT DOES IT ALL MEAN?

In short, the near-term is chancy. Will Cuban logistics be able to meet the challenges of supporting a viable tourism infrastructure? Will they be able to learn enough from executing the tourism supply chain to extend practical concepts to other sectors? Will more diversified and greater investment provide a foundation for doing so?

Longer-term prospects are enormous. Can/will Cuba become the centroid of Caribbean/ Central American distribution? Can it ship produce freely to natural, nearby, markets? Will it be permitted to play a key role in the Caribbean textile industry? Can it leverage the capability of its workforce into a hemispheric role? Will it learn how to perform value-adding processes to agricultural and other products, to create and retain economic margin within the country?

Che Guevara's signature exhortation was, "hasta la victoria siempre!" "always onward to victory!" for Cuba may well include the right blend of vision and capital, to propel it into the leadership role that it is capable of fulfilling—in our backyard, and as our ally.

ABOUT THE AUTHOR

Art Van Bodegraven leads the Supply Chain practice for The Progress Group, an international supply chain and logistics consultancy headquartered in Atlanta. A consultant with 34 years of experience, his current work focuses on supply chain strategy and integration. He has a B.S. from Purdue University.

