KOLLAM, India—Behold the humble cashew nut. Turns out it isn't so humble, or even a nut.

Dangling from the bottom of the cashew apple, a rare example of a seed that grows outside its own fruit, the cashew embodies globalization—and some of its discontents. How global?



Cashew apples growing in Vietnam. PHOTO: VIRGINIE NGUYEN HOANG FOR THE WALL STREET JOURNAL

Cashew trees were transported to India by Portuguese explorers sailing from Brazil in the 16th century. The trees soon found their way to the city of Kollam, an Indian Ocean port on trade routes once plied by the Italian wanderer Marco Polo and the Muslim adventurer Ibn Battuta.

The crescent-shaped kernels made it into the world market from there starting in the late 1920s, when executives from a subsidiary of the former General Foods Co. contracted with local Indian entrepreneurs to collect raw cashews and remove them from their hard shells. General Foods shipped the shelled kernels to Hoboken, N.J., using a patented vacuum packing process. From there they were roasted, packaged and sold across the U.S. under the brand name Baker's Vitapack Cashews.

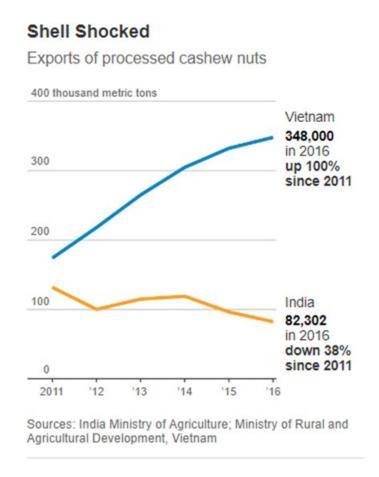
This was the beginning of what is now a rapidly growing \$6.5 billion global business. In the U.S., the largest export market, cashews are pitched as healthy snacks and have made their way into products from nut bars to substitutes for butter and milk. In India, the largest overall consumer market for cashews, a growing middle class is increasingly adding them to cakes and sweets served at weddings and births.

Video: Kollam, once the cashew capital of the world, has faltered in the face of competition from Vietnam. Photo: Naveen P M for The Wall Street Journal For decades, Kollam was the cashew capital of the world. The factories that did nearly all the shelling, peeling and sorting—the guts of the cashew industry—remained in the southern Indian city, exactly where General Foods executive Lindsay Johnson first nurtured them in the 1930s.

Today Vietnam is cashew king, thanks to an ingenious push to automate the business. Kollam is reeling, a victim of misguided government protectionism and its own unwillingness to adapt to the realities of the freewheeling global economy.

Shell Shocked Exports of processed cashew nuts

Sources: India Ministry of Agriculture; Ministry of Rural and Agricultural Development, Vietnam



It is a parable of the global age. Globalization creates sprawling world-wide markets. International supply chains crisscross the Earth. The combination can raise communities up out of dire poverty, and generate brutal competition that can undercut those communities just as quickly.

Kollam's cashew tycoons displayed an early entrepreneurial bent. After a few years visiting to forge supply contracts for General Foods, Mr. Johnson and his wife moved across the world to Kollam, where he set up his own cashew processing outfit with a local partner and sold to General Foods himself.

He amassed a small fortune and even named a daughter born there Kerala, after the state. After the U.S. entered World War II and ordered all American women and children out of India, Mr. Johnson left, fully expecting to return. He never did.

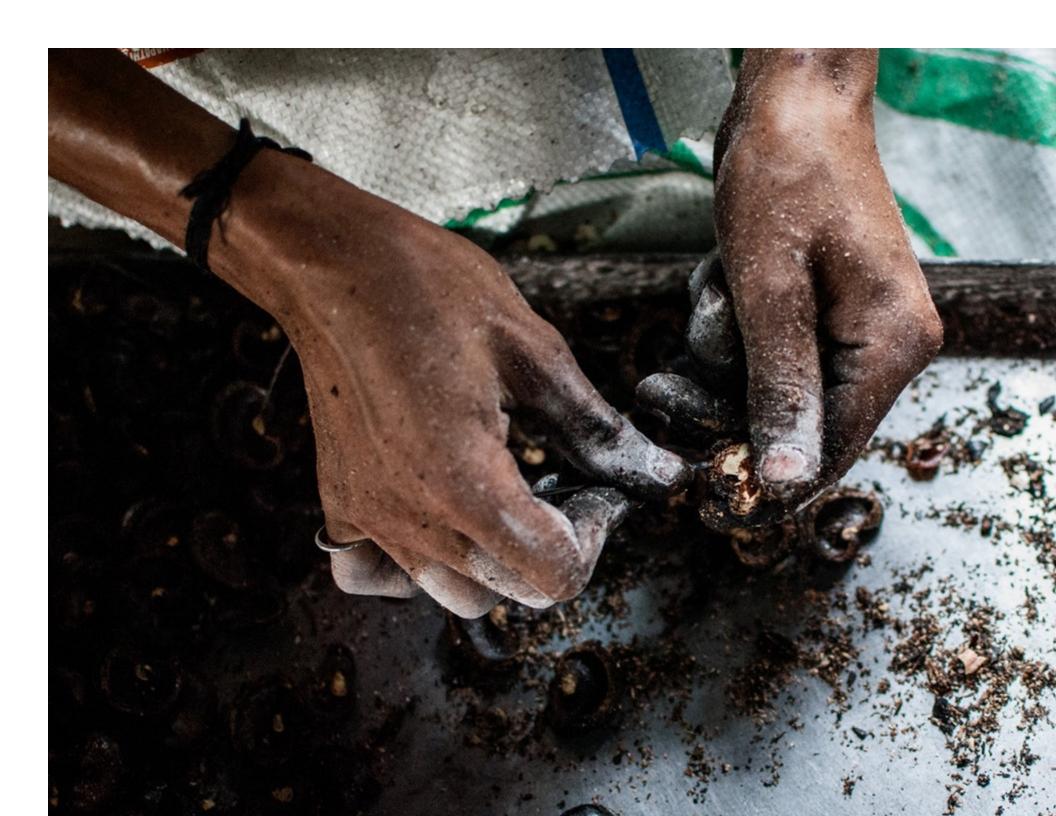
A handful of families came to dominate. Known locally as cashew barons, they wrangled with a local labor force even as they provided the main source of jobs.

From the beginning the cashew business turned on cheap but skilled labor to carry out the complicated process of removing cashews from their shells. Almost all of it

was done by women. They earned a small, often second income for their families.

"They were sitting in their homes before that," says 85-year-old K. Ravindranathan Nair, whose father was among the first into cashews. "The income was not very big, but for them it was additional money."







Khadeeja, 39 years old, has worked in the cashew facilities of Kollam, India, since she was 15. An Indian worker plucks a cashew kernel out of its broken shell. Roasted cashews are carried to a collection point for shelling. PHOTOS: NAVEEN P M FOR THE WALL STREET JOURNAL(3)

Mr. Nair took over the family business at age 24 when his father died. He built it into one of Kollam's biggest cashew processors, VijayAlaxmi Cashew Co.

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One generation of workers taught the next. Experienced workers who could quickly shell, peel and cull tens of thousands of kernels each day were highly valued, though their pay didn't reflect it. Especially talented ones could quickly, by sight and feel, sort kernels into specific grades that measured out to exactly the number of flawless kernels per pound that demanding international buyers required.

"This is a skill that only we know," says Khadeeja, a 39-year-old worker who goes by only one name and has worked in Kollam's cashew facilities since she was 15.

By the 1960s, Kollam was dotted with hundreds of small processors, the acrid smoke plumes from their roasters rising everywhere in the lush coastal region. They employed hundreds of thousands of workers at the peak.

"Kollam was the place where markets were made," says Krishnan G. Nair, who runs KGN Cashew. The company was started by his father, who was a brother and onetime business partner of K. Ravindranathan Nair.

On his desk sit copies of two books: "The Wealth of Nations," Adam Smith's treatise applauding free markets; and Karl Marx's "Das Kapital." They capture the competing forces that have shaped Kollam's cashew industry from its beginnings.

Business boomed. But for workers wages remained low, benefits few, hours long and workplace abuse common. Labor politics soon took hold. From the 1970s, union leaders helped shape the industry into an engine of community development. Two local communist parties, which competed for votes cast by unionized cashew workers, populated local government with pro-labor officials.

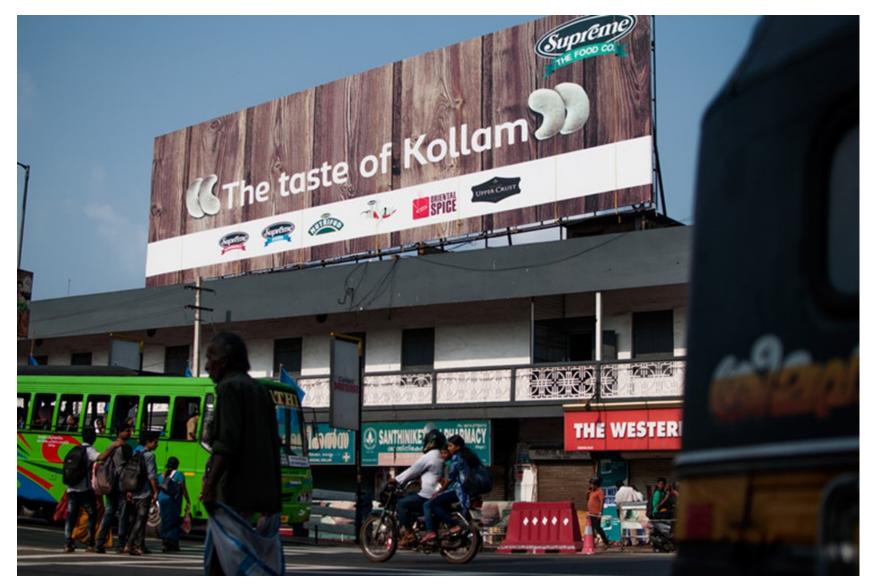
To widen employment and push up wages, the state established two large government cashew processors. Those companies dominated the local industry. Minimum wages, even for private producers, were mandated by the state government.

Salaries rose, health care improved, pensions were instituted, workplace abuses addressed. Hard though they were, cashew processing jobs kept families out of poverty. Women were the biggest beneficiaries, along with the children they were better able to support. Newly minted Kollam cashew fortunes helped build a local theater, a public library, the city's best hotel. Kerala became one of India's most advanced states.

"Almost every establishment, almost every institution here, is the result of cashews," says N.K. Premachandran, the local representative to the legislature of Kerala.

For a time, a balance between capitalism and Marxist ideals seemed to prevail. Indian exports of cashew kernels reached 97,000 metric tons in 1999, double what they were at the beginning of the decade. They accounted for about 80% of the global market. Overall, India processed 173,000 metric tons of kernels that year, tops in the world.

In Kollam, pillars of an industry were elevated, literally, to objects of worship by those they employed. A portrait of one founder of a cashew processing facility still sits inside a small temple out back of the factory.



A billboard over a local supermarket touts Kollam's most famous product. PHOTO: NAVEEN P M FOR THE WALL STREET JOURNAL

"He is our provider, our god," says Bhaiamma, an 80-year-old woman with black and red dots smudged on her forehead as a sign of humility, who worked in the factory from age 11 to her retirement in 2006. "Life was tough for us. Cashews are everything for people here."

The visitors from Vietnam started arriving in Kollam in the mid-1990s. Producers figured they represented growers, since Vietnam was a source of raw cashew nuts for many here. The producers happily demonstrated how cashews were processed.

But some of the visitors were actually engineers who worked for a very determined man named Nguyen Van Lang.

As early as the 1980s, Vietnam's government encouraged landowners in some of its poorest districts to plant cashew trees. By the 1990s a few processors had established themselves. They operated with thousands of workers, just like those in Kollam.

But Western supermarkets such as Wal-Mart, Carrefour and Tesco—the biggest buyers of cashews—were flexing their growing muscle across a global web of suppliers, pressing relentlessly for cost cuts.

Mr. Lang, who owned a business packaging food for sale abroad, was asked by the government in 1995 to explore how Vietnam might boost cashew exports to the U.S. or any place else that would buy them. He'd never seen a cashew. When he couldn't get a visa to visit India, a brother living in Paris traveled there on Mr. Lang's behalf.

Mr. Lang's critical insight: Cashew processing was essentially a manufacturing job in which mechanization might provide an edge. It wouldn't be easy. An Italian company made a machine that could cut cashew nut shells. The machine was expensive and damaged many of the kernels. Cutting the nuts also was just one step, arguably the simplest.

He decided to invent his own machines.

"I spent a lot of my own money," says the 73-year-old, now retired and living in a suburb of Ho Chi Minh City with a dozen Chihuahuas, a Pit Bull terrier and a goldfish. "We tried again and again until we figured out each step."

As recently as the early 2000s, Vietnamese processing plants still looked much like their counterparts in Kollam: rooms filled with mostly women furiously shelling, peeling, sorting, grading and packing cashews by hand.

Pham Thi My Le, now 60 years old, started one of Vietnam's first cashew processing companies in 1993, after years of buying up raw nuts in her home province of Binh Phuoc and selling them to brokers who shipped them to processors in India.

Between 2000 and 2007, her company in verdant hill country rich with cashew trees employed about 2,000 workers during peak months.



Vietnamese farmers spread raw cashew nuts to dry in the sun. PHOTO: VIRGINIE NGUYEN HOANG FOR THE WALL STREET JOURNAL Ms. My Le was aware of machines like those Mr. Lang was developing. She didn't see the logic of investing in them—until her workforce started drying up. Foreign companies in the north were offering year-round jobs in auto and white-goods factories they were setting up as Vietnam opened its borders.

Her workers opted for better-paying jobs where they lived. Ms. My Le started buying the machines and incorporating them into production. Over time they greatly improved efficiency.

These days, her machine-laden plant employs just 170 workers. They process 66,000 pounds of raw cashew nuts daily, roughly the same amount that 2,000 once did. Today's workers live in the same dormitories, but permanently accompanied by their families, each with several rooms of their own. Their children attend a nearby day care.

Not far down the road, Le Quang Luyen, another local businessman, has taken automation to higher levels still. His company, Phuc An, recently spent \$40 million to build a fully automated facility, which opened this year. It can process up to 110,000 pounds of raw nuts a day with just 30 employees.

His facility looks like a factory floor, a whir of mechanized slicers, conveyor belts, tubes, chutes, slides, sensors and automated sorters.

In Kollam, having achieved domination of the global cashew trade, political leaders discouraged mechanization and the job losses that would entail.

"When mechanization comes, who loses jobs? The poor people. We can't do that," says R. Rajesh, managing director at the Kerala State Cashew Workers Apex Industrial Cooperative Society, commonly known as Capex, which operates 10 processing facilities.

Private processors were inhibited from aggressively automating by local laws that prevented them from laying off workers and thus denied much of the cost savings and efficiencies more machines would have brought.

Government policies vexed matters further. In a bid to protect cashew growers and expand the domestic crop, India's central government in 2006 imposed a 9% tariff on imports of raw cashews. Kerala's state government bestowed a 35% pay increase on workers in the industry. They now make 350 rupees a day, or \$5.40. That fulfilled a campaign promise made by the winning political party during the last election.

The result has been disaster for Kollam. Private processors have moved operations to other states in India, often just across the border from Kerala, where wages are lower and they can mechanize factories.

Kerala state government-controlled companies, which cannot move production, simply operate in the red.

The average Capex employee worked 165 days last year compared with 200 days five years ago, the company says. With the mandated 35% raises, the company, in other words, is paying the average worker 22% more to produce 18% less.

Earlier this year Capex couldn't afford to buy raw nuts and had to shut down for weeks. To trim its workforce, Capex says it hasn't hired new workers in more than five years. Through attrition, it now employs 3,500, half its workforce in 2010. Its goal of protecting jobs has backfired badly. Capex says it has done its best to preserve jobs given government wage policies.

India's processing of raw nuts stagnated last year at 1.5 million metric tons, while its kernel exports fell by 38% to 82,302 metric tons, according to India's ministry of agriculture.

Meanwhile, Vietnam processed 1.4 million metric tons of raw cashews, more than double the amount five years earlier, according to the Ministry of Agriculture and Rural Development. It doubled exports of kernels over the same period to 348,000 metric tons.

Like Bhaiamma, the retired worker in Kollam, Vietnamese worker Nguyen Thi Thinh deeply appreciates her career in cashews.

She, too, began young, sorting and peeling raw cashew nuts by hand. But when Bhaiamma retired in 2006, she still did those same tasks, still by hand.

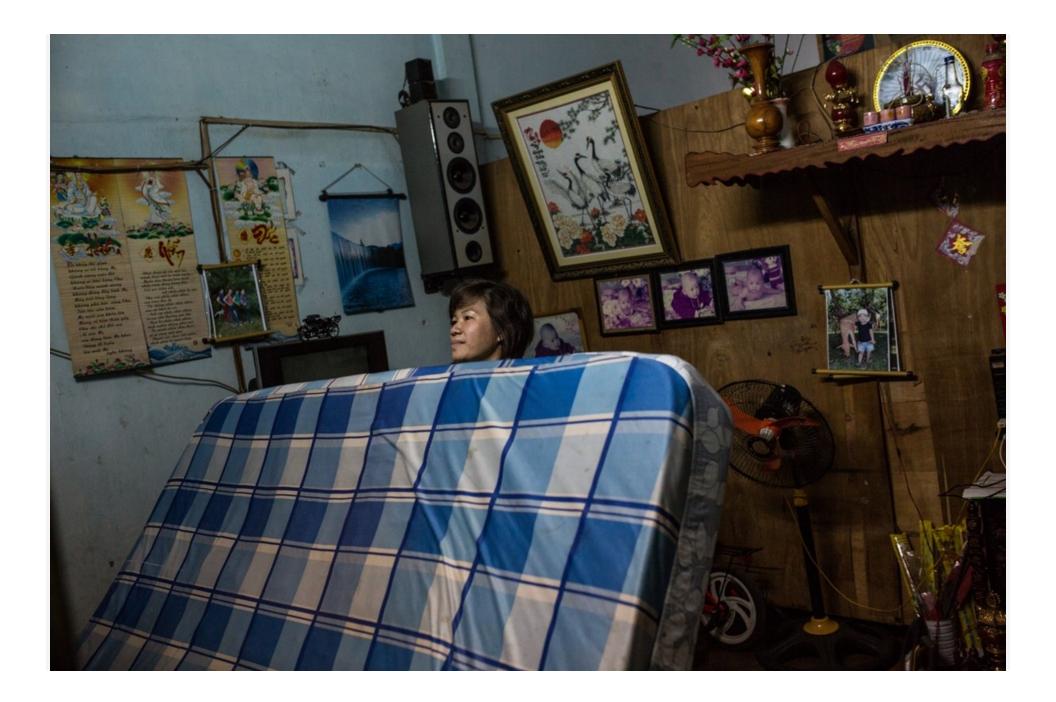
At Ms. My Le's company in Vietnam, Ms. Thinh learned to operate machines that did the peeling and sorting.

A Day in the Life of Vietnam's Cashew Industry

























Nguyen Thi Thinh, the production manager of a cashew factory in Vietnam's Binh Phuoc province, stands in the small home where she lives with her husband and four children. VIRGINIE NGUYEN HOANG FOR THE WALL STREET JOURNAL 1 of 12



She began managing other workers who operated those machines. Now she oversees all production at a facility where a few dozen workers process more cashews than thousands once did. "Thanks to that I became who I am today," says Ms. Thinh, who makes the equivalent of \$352.40 a month, with weekends off and paid vacations.

But Vietnamese processors aren't gloating. Domestic cashew crop yields have fallen in recent years. As Vietnam's wealth grows, farmlands are being repurposed. Processors increasingly depend on imports.

They're automating ever more aggressively to stay ahead. But they're also trying something else those in Kollam might recognize: pressing the government to restrict exports of the cashew processing machinery Vietnamese companies have developed.

When Vietnamese cashew buyers arrive in the up-and-coming growing regions of Africa to buy raw nuts, they say they increasingly find local government officials have one request: In addition to being paid for the cashew nuts they grow, they want to know where they can get some of those machines that process them.

"The value chain is always moving," says Dang Hoang Giap, head of the Vinacas, Vietnam's national cashew industry association.

"We're trying to focus on adding value to the finished product. At some point, the African countries will be processing the nuts for us."

—Vu Trong Khanh in Vietnam contributed to this article.

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India's 'Cashew Capital' Loses Ground in Global Race

http://www.wsj.com/video/india-cashew-capital-loses-ground-in-global-race/F5EDD25A-00E2-430B-8C50-4E883029D9C4.html