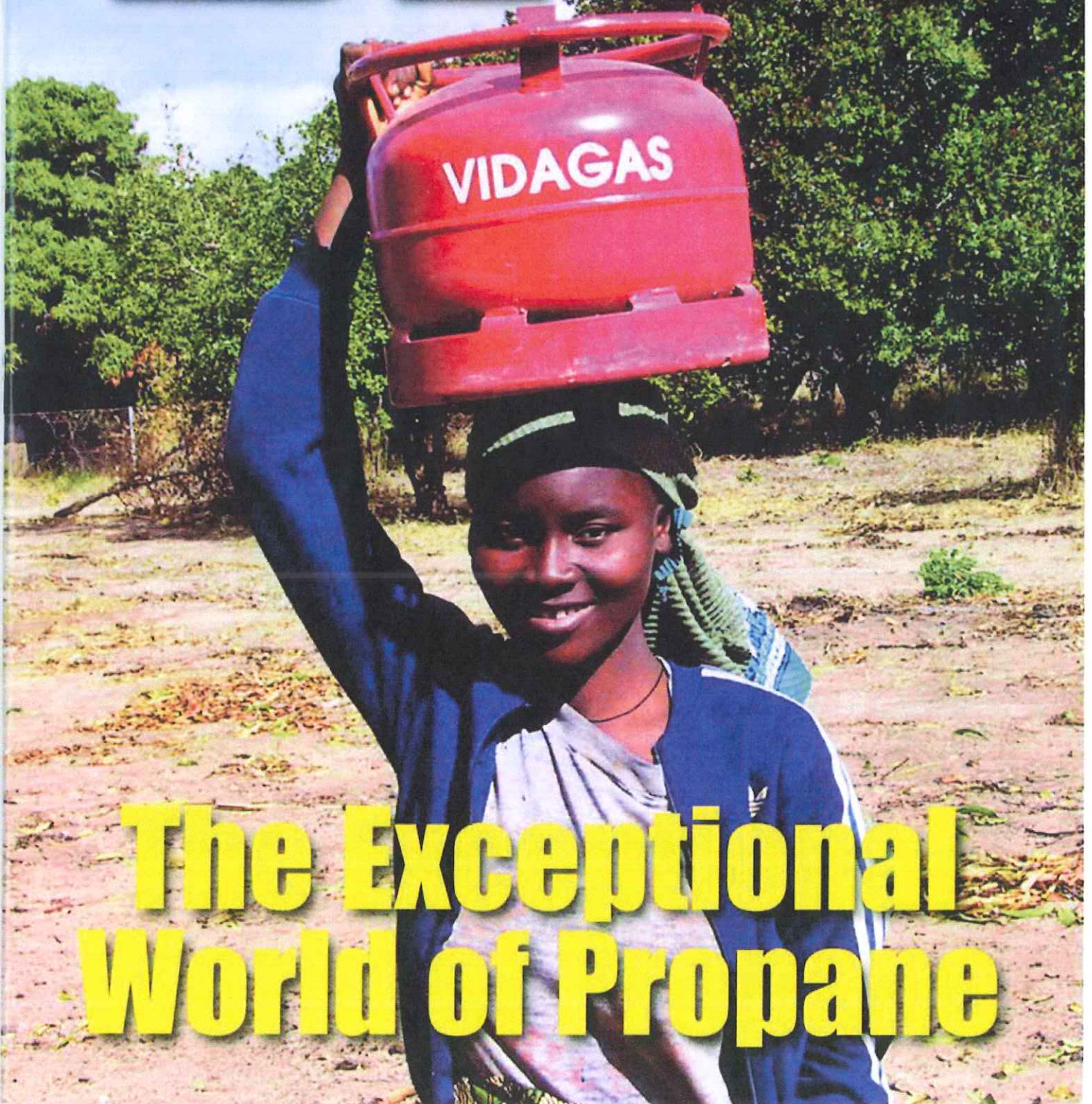


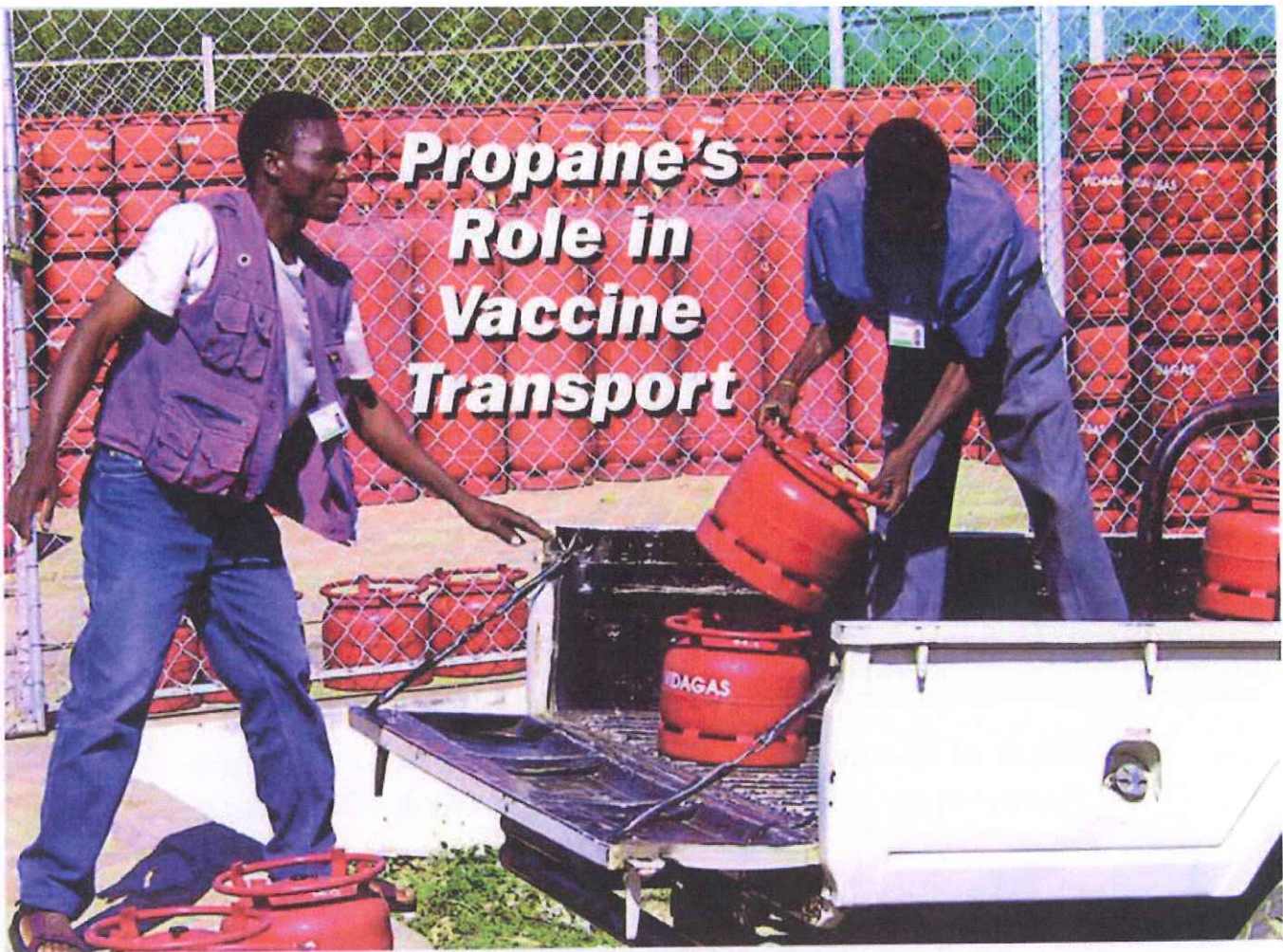
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BUTANE-PROPANE NEWS

BPPN



**The Exceptional
World of Propane**



Propane's Role in Vaccine Transport

Blaise Judja-Sato and Craig Nakagawa did their part to make the world a better place in the year 2000, when they started a nonprofit organization to transport vaccines, medicine, and medical equipment to remote areas in the African country of Mozambique.

Judja-Sato and Nakagawa, co-founders of that organization, VillageReach (Seattle), moved toward another opportunity several years later: They started a propane business in Mozambique.

The business is VidaGas, and operates in the city of Pemba. It supplies LPG to health centers that previously relied on dangerous, outdated, and inefficient kerosene-burning refrigerators and lamps that required heavy maintenance and operated poorly.

“There aren’t any service providers up there,” said Nakagawa, a former Wall Street analyst who previously worked with Judja-Sato at a satellite communications services company in Washington state.

“We had to make a choice. Either we just buy the gas from somebody and ship it up in a piecemeal kind of way, or do we go for a more sustainable solution by starting our own company.”

How It Started...

While in Mozambique coordinating relief efforts for flood victims, Judja-Sato noticed the limitations of existing infrastructure and distribution systems within the country. Judja-Sato, who was born in Cameroon, returned to Seattle and formed VillageReach as a nonprofit organization focused on infrastructure and logistics. In 2001,

VillageReach launched an initiative to ensure access to vaccines and related medical supplies in Mozambique.

In starting the new organization, Judja-Sato and Nakagawa also learned that the country’s energy distribution system was poor. The health centers used kerosene refrigerators and lamps that didn’t operate well and broke



Health workers in Mozambique use a refrigerator powered by LPG to keep vaccines cool.



VidaGas operates two LPG bulk transports.

down frequently. Finding new technology to replace those became a priority. So the two worked to decide between solar technology and propane; almost no electricity is available in these remote areas.

"The challenge with solar is the equipment is very expensive and without rigorous maintenance will break down," Nakagawa explained. "Propane refrigerators, in our assessment, were more practical, and propane availability also had huge benefits to local communities in general."

VidaGas

Judja-Sato and Nakagawa sensed a business opportunity. No propane service suppliers existed in the remote areas. "When we looked at who could supply gas, there wasn't anyone who could serve it reliably," Nakagawa explained.

As it turned out, the opportunities for an LPG supplier in Mozambique were great. The country had been working to expand its tourism industry, and new restaurants and hotels were rapidly being built. But Nakagawa noted that another opportunity existed, and that was on the humanitarian side. The country's reliance on wood and charcoal as energy sources took a toll on the environment. Using all that wood for charcoal meant cutting down numerous trees, and the smoke released from the burning charcoal meant a huge health risk.

According to Nakagawa, "We believed we could address an underserved market in a way that would also address issues of environmental sustainability and social justice."

Judja-Sato and Nakagawa set out to start their new propane business. They assessed the market, and the Ministry of Health, which operates the health centers, became VidaGas' first customer. To get the business started, VidaGas was required to join what Nakagawa called a "semi-governmental" organization called Imopetro, which is responsible for procuring all of the petroleum products into the country. Any company that brings wholesale energy prod-

ucts into the country must be a member of Imopetro. British Petroleum, which operates gasoline stations in Mozambique, is one member company. VidaGas imports all its LPG from South Africa through Imopetro.

VidaGas, working with its owner, VillageReach, swapped out the health centers' kerosene-fueled vaccine refrigerators with propane refrigerators from Dometic, a Luxembourg-based company. Eventually, VidaGas swapped out the equipment in most of the health clinics in two provinces in Northern Mozambique, replacing about 250 kerosene vaccine refrigerators with propane units donated by VillageReach.

"Then we said, we'll give you these refrigerators, but now you've got to buy the gas,"

Nakagawa stated. The health clinics also use propane-fueled refrigerators, lamps, and stoves for childbirth services and general care.

VidaGas manages the logistics involved with delivering the propane. The organization owns two 20-ton (10,400-gal.) bulk transport trucks. VillageReach operates its own trucks, which are used to make deliveries of vaccines, syringes, propane cylinders, and propane to remote health centers. The LPG company, which recently received a \$1.375-million investment from Oasis Fund, will complete a new filling plant that will become the center of VidaGas operations. At press time, the new plant was set to go on line Aug. 18. The facility at that time was to be officially inaugurated with a ceremony including former South African first lady Graca Machel, the governor of Nampula, the provincial director of the Ministry of Health, and representatives from donors supporting the venture. The plant will initially double capacity to around 50 tons (26 Mgal.) monthly. Another satellite facility will also be built in the neighboring province of Zambezia, where VidaGas' other shareholder, FDC, is expanding health services originally piloted in the first two provinces.

Results

VidaGas is now the largest-volume propane provider in northern Mozambique, with an annual delivery of approximately 300 tons (169 Mgal.). The company supplies more than 260 remote health centers supporting a population of approximately 5 million. In addition to households, VidaGas supplies propane for hotel and restaurant cooking appliances. The company also operates a store that sells LPG and storage canisters and LPG-fueled lamps, cookers, refrigerators, freezers, and sterilizers.

"Propane is seen as progressing up the ladder to electricity, if and when electricity ever gets to these places, which is far, far away," Nakagawa remarked. —Daryl Lubinsky



Propane-powered lamps replaced kerosene versions that operated poorly.