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## **In Bolivia, Untapped Bounty Meets Nationalism**

By SIMON ROMERO

UYUNI, Bolivia — In the rush to build the next generation of hybrid or electric cars, a sobering fact confronts both automakers and governments seeking to lower their reliance on foreign oil: almost half of the world's lithium, the mineral needed to power the vehicles, is found here in Bolivia — a country that may not be willing to surrender it so easily.

Japanese and European companies are busily trying to strike deals to tap the resource, but a nationalist sentiment about the lithium is building quickly in the government of President Evo Morales, an ardent critic of the United States who has already nationalized Bolivia's oil and natural gas industries.

For now, the government talks of closely controlling the lithium and keeping foreigners at bay. Adding to the pressure, indigenous groups here in the remote salt desert where the mineral lies are pushing for a share in the eventual bounty.

"We know that Bolivia can become the Saudi Arabia of lithium," said Francisco Quisbert, 64, the leader of Frutcas, a group of salt gatherers and quinoa farmers on the edge of Salar de Uyuni, the world's largest salt flat. "We are poor, but we are not stupid peasants. The lithium may be Bolivia's, but it is also our property."

The new Constitution that Mr. Morales managed to get handily passed by voters last month bolstered such claims. One provision could give Indians control over the natural resources in their territory, strengthening their ability to win concessions from the authorities and private companies, or even block mining projects.

None of this is dampening efforts by foreigners, including the Japanese conglomerates Mitsubishi and Sumitomo and a group led by a French industrialist, Vincent Bolloré. In recent months all three have sent representatives to La Paz, the capital, to meet with Mr. Morales's government about gaining access to the lithium, a critical component for the batteries that power cars and other electronics.

"There are salt lakes in Chile and Argentina, and a promising lithium deposit in Tibet, but the prize is clearly in Bolivia," Oji Baba, an executive in Mitsubishi's Base Metals Unit, said in La Paz. "If we want to be a force in the next wave of automobiles and the batteries that power them, then we must be here."

Mitsubishi is not alone in planning to produce cars using lithium-ion batteries. Ailing automakers in the United States are pinning their hopes on lithium. One of them is General Motors, which next year plans to roll out its Volt, a car using a lithium-ion battery along with a gas engine. Nissan, Ford and BMW, among other carmakers, have similar projects.

Demand for lithium, long used in small amounts in mood-stabilizing drugs and thermonuclear weapons, has climbed as makers of batteries for BlackBerrys and other electronic devices use the mineral. But the automotive industry holds the biggest untapped potential for lithium, analysts say. Since it weighs less than nickel, which is also used in batteries, it would allow electric cars to store more energy and be driven longer distances.

With governments, including the Obama administration, seeking to increase fuel efficiency and reduce their dependence on imported oil, private companies are focusing their attention on this desolate corner of the Andes, where Quechua-speaking Indians subsist on the remains of an ancient inland sea by bartering the salt they carry out on llama caravans.

The United States Geological Survey says 5.4 million tons of lithium could potentially be extracted in Bolivia, compared with 3 million in Chile, 1.1 million in China and just 410,000 in the United States. Independent geologists estimate that Bolivia might have even more lithium at Uyuni and its other salt deserts, though high altitudes and the quality of the reserves could make access to the mineral difficult.

While estimates vary widely, some geologists say electric-car manufacturers could draw on Bolivia's lithium reserves for decades to come.

But amid such potential, foreigners seeking to tap Bolivia's lithium reserves must navigate the policies of Mr. Morales, 49, who has clashed repeatedly with American, European and even South American investors.

Mr. Morales shocked neighboring Brazil, with whom he is on friendly terms, by nationalizing that country's natural gas projects here in 2006 and seeking a sharp rise in prices. He carried out his latest nationalization before the vote on the Constitution, sending soldiers to occupy the operations of the British oil giant BP.

At the La Paz headquarters of Comibol, the state agency that oversees mining projects, Mr. Morales's vision of combining socialism with advocacy for Bolivia's Indians is prominently on display. Copies of Cambio, a new state-controlled daily newspaper, are available in the lobby, while posters of Che Guevara, the leftist icon killed in Bolivia in 1967, appear at the entrance to Comibol's offices.

"The previous imperialist model of exploitation of our natural resources will never be repeated in Bolivia," said Saúl Villegas, head of a division in Comibol that oversees lithium extraction. "Maybe there could be the possibility of foreigners accepted as minority partners, or better yet, as our clients."

To that end, Comibol is investing about \$6 million in a small plant near the village of Río Grande on the edge of Salar de Uyuni, where it hopes to begin Bolivia's first industrial-scale effort to mine lithium from the white, moonlike landscape and process it into carbonate for batteries.

Technicians first need to get a brine, or water saturated with salt that is found deep beneath the salt desert, to the surface, where it is evaporated in pools to expose the lithium. Mr. Morales wants the plant finished by the end of this year.

Workers here were in a frenzy to meet that goal during late January, laboring under the sun around half-finished walls of brick. Over a meal of llama stew and a Pepsi, Marcelo Castro, 48,

the manager overseeing the project, explained that along with processing lithium, the plant had another objective.

“Of course, lithium is the mineral that will lead us to the post-petroleum era,” Mr. Castro said. “But in order to go down that road, we must raise the revolutionary consciousness of our people, starting on the floor of this very factory.”

Beyond the tiny plant, lithium analysts say Bolivia, one of Latin America’s least developed nations, needs to be investing much more to start producing carbonate. But with economic growth slowing and a decline in oil prices limiting the reach of its top patron, Venezuela, it remains unclear how Bolivia can achieve this on its own.

Still, even though Mr. Morales is asserting greater control of the economy and taking over oil and gas projects, optimistic industry analysts point out that he allowed some foreign companies to remain in the country as minority partners.

Mining lithium in Bolivia has its own history of fits and starts. In the early 1990s, nationalist opposition reportedly led by Gonzalo Sánchez de Lozada, a wealthy holder of mining concessions who later became Bolivia’s president, thwarted a plan by Lithco, an American company, to tap the lithium deposits here.

That history, coupled with Mr. Morales’s current tensions with Washington, might help explain why American companies appear to be on the sidelines as others seek lithium deals here. Mr. Sánchez de Lozada was ultimately forced to resign as president in 2003 after Mr. Morales led protests against his efforts to export natural gas with the help of foreign capital.

As Bolivia ponders how to tap its lithium, nations with smaller reserves are stepping up. China has emerged as a top lithium producer, tapping reserves found in a Tibetan salt flat.

But geologists and economists are fiercely debating whether the lithium reserves outside of Bolivia are enough to meet the climbing global demand. Keith Evans, a California-based geologist, argues that accessible lithium resources outside Bolivia are significantly larger than estimated by the United States Geological Survey.

Juan Carlos Zuleta, an economist in La Paz, said: “We have the most magnificent lithium reserves on the planet, but if we don’t step into the race now, we will lose this chance. The market will find other solutions for the world’s battery needs.”

On the flat salt desert of Uyuni, such debate seems remote to those still laboring as their ancestors did, scraping salt off the ground into the cone-shaped piles that line the horizon like some geometric mirage. The lithium found under the surface of this desert seems even more remote for these 21st-century salt gatherers.

“I’ve heard of the lithium, but I only hope it creates work for us,” said Pedro Camata, 19, his face shielded from the unforgiving sun by a ski mask and cheap sunglasses covering his eyes. “Without work out here, one is dead.”