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## Peru Guards Its Guano as Demand Soars Again

By SIMON ROMERO



Tomas Munita for The New York Times

Workers collect guano on Isla Guañape off Peru, which conserves the resource to prevent depletion. Guano's status as an organic fertilizer has increased demand.



ISLA DE ASIA, [Peru](#) — The worldwide boom in commodities has come to this: Even guano, the bird dung that was the focus of an imperialist scramble on the high seas in the 19th century, is in strong demand once again.

Surging prices for synthetic fertilizers and organic foods are shifting attention to guano, an organic [fertilizer](#) once found in abundance on this island and more than 20 others off the coast of Peru, where an exceptionally dry climate preserves the droppings of seabirds like the guanay cormorant and the Peruvian booby.

On the same islands where thousands of convicts, army deserters and Chinese indentured servants died collecting guano a century and a half ago, teams of Quechua-speaking laborers from the highlands now scrape the dung off the hard soil and place it on barges destined for the mainland.

“We are recovering some of the last guano remaining in Peru,” said Victor Ropón, 66, a supervisor from Ancash Province whose leathery skin reflects his years working on the guano islands since he was 17.

“There might be 10 years of supplies left, or perhaps 20, and then it will be completely exhausted,” said Mr. Ropón, referring to fears that the seabird population could be poised to fall sharply in the years ahead. It is a minor miracle that any guano at all is available here today, reflecting a century-old effort hailed by biologists as a rare example of sustainable exploitation of a resource once so coveted that the United States authorized its citizens to take possession of islands or keys where guano was found.

As a debate rages over whether global oil output has peaked, a parable may exist in the story of guano, with its seafaring treachery, the development of synthetic alternatives in Europe and a desperate effort here to prevent the deposits from being depleted.

“Before there was oil, there was guano, so of course we fought wars over it,” said Pablo Arriola, director of Proabonos, the state company that controls guano production, referring to conflicts like the Chincha Islands War, in which Peru prevented Spain from reasserting control over the guano islands. “Guano is a highly desirous enterprise.”

Guano is also an undeniably strenuous enterprise from the perspective of the laborers who migrate to the islands to collect the dung each year. In scenes reminiscent of open-pit gold mines on the mainland, the laborers rise before dawn to scrape the hardened guano with shovels and small pickaxes.

Many go barefoot, their feet and lower legs coated with guano by the time their shifts end in the early afternoon. Some wear handkerchiefs over their mouths and nostrils to avoid breathing in guano dust, which, fortunately, is almost odorless aside from a faint smell of ammonia.

“This is not an easy life, but it’s the one I chose,” said Bruno Sulca, 62, who oversees the loading of guano bags on barges at Isla Guañape, off the coast of northern Peru. Mr. Sulca and other workers earn about \$600 a month, more than three times what manual laborers earn in the impoverished highlands. Peru’s guano trade quixotically soldiers on after almost being wiped out by overexploitation. The dung will probably never be the focus of a boom as intense as the one in the 19th century, when deposits were 150 feet high, with export proceeds accounting for most of the national budget.

The guano on most islands, including Isla de Asia, south of the capital, Lima, now reaches less than a foot or so. But the guano that remains here is coveted when viewed in the context of the frenzy in Peru and abroad around synthetic fertilizers like urea, which has doubled in price to more than \$600 a ton in the last year.

Guano in Peru sells for about \$250 a ton while fetching \$500 a ton when exported to France, Israel and the United States. While guano is less efficient than urea at releasing nitrates into the soil, its status as an organic fertilizer has increased demand, transforming it into a niche fertilizer sought around the world.

“Guano has the advantage of being chemical-free,” said Enrique Balmaceda, who cultivates organic mangoes in Piura, a province in northern Peru. “The problem is, there isn’t enough of it to meet demand with new crops like organic bananas competing for what’s available.”

That explains why Peru is so vigilant about preserving the remaining guano, an effort dating back a century to the creation of the Guano Administration Company, when Peru nationalized the islands, some of which were British-controlled, to stave off the industry’s extinction.

Since then, Peru’s government has restricted guano collection to about two islands a year, enabling the droppings to accumulate. Workers smooth slopes and build walls that retain the guano. Scientists even introduced lizards to hunt down ticks that infested the seabirds.

The guano administrators station armed guards at each of the islands to ward off threats to birds, which produce 12,000 to 15,000 tons of guano a year.

“The fishermen instigate the most mischief here,” said Rómulo Ybarra, 40, one of two guards stationed at Isla de Asia, which otherwise has no regular inhabitants. (The island has a tiny cabin called Casa del Chino, a reference to the Asian ancestry of former President [Alberto K. Fujimori](#), who used to come here to unwind in solitude.)

“When the fishermen approach the island, their engines scare away the guanay,” Mr. Ybarra said, referring to the prized guanay cormorant. “And further out at sea, the fishing boats pursue the anchoveta, something we cannot control.”

The anchoveta, a six-inch fish in the anchovy family, is the main food of the seabirds who leave their droppings on these rainless islands. The biggest fear of Peru's guano collectors is that commercial fishing fleets will deplete their stocks, which are increasingly wanted as fish meal for poultry and other animals as demand for meat products rises in Asia.

While the bird population has climbed to 4 million from 3.2 million in the past two years, that figure still pales in comparison with the 60 million birds at the height of the first guano rush. Faced with a dwindling anchoveta population, officials at Proabonos are considering halting exports of guano to ensure its supply to the domestic market.

Uriel de la Torre, a biologist who specializes in conserving the guanay cormorant and other seabirds, said that unless some measure emerged to prevent overfishing, both the anchovetas and the seabirds here could die off by 2030.

"It would be an inglorious conclusion to something that has survived wars and man's other follies," Mr. de la Torre said. "But that is the scenario we are facing: the end of guano."

*Andrea Zarate contributed reporting from Lima, Peru.*



Left: On the same islands where thousands of convicts, army deserters and Chinese indentured servants died collecting guano a century and a half ago, teams of Quechua-speaking laborers from the highlands of Peru now scrape the dung off the soil by hand and place it on barges destined for the mainland. Left, workers patrol the shores to ward off threats to the birds.

Right: A small island near Isla Asia, off the coast of Peru. Guano is an organic fertilizer once found in abundance on more than 20 islands off the coast of Peru, where an exceptionally dry climate preserves the droppings of seabirds like the guanay cormorant and the Peruvian booby.



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The workers earn monthly salaries of about \$600, more than three times what manual laborers earn in the impoverished highlands, where most of them are from.

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A Peruvian booby egg. The guano administrators station armed guards at each of the islands to ward off threats to birds, which produce between 12,000 to 15,000 tons of guano a year.

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Workers relaxed in front of the television at the end of a work day.