

STRATEGIC COMMUNICATION AND INITIATIVES SERVICE

DATE : 26 DEC 2016

DAY : Wednesday

DENR

IN THE NEWS

Small-scale miners seek fair law

THE Benguet Federation of Small-Scale Miners (BFSSM) is seeking a fair mining law, expressing disappointment over the Department of Environment and Natural Resources (DENR) stringent requirements designed to "abolish" their industry.

In a petition submitted to Bayan Muna Rep. Carlos Isagani Zarate, the 20,000-strong BFSSM called on the lawmaker to initiate meaningful legislative remedial measures to alleviate their plight.

The petition bewails the DENR policies on

mining, stating that the same are "designed to abolish small-scale mining."

Zarate, who heads the House Committee on Natural Resources, has called on the DENR to consider the plight of the country's small-scale miners.

"[The DENR should] give due considerations to alleviate the pitiful situation of the country's small-scale miners instead of threatening them [that they will lose] their decades-old source of livelihood," he said.

LEANDER C. DOMINGO

STRATEGIC COMMUNICATION AND INITIATIVES SERVICE

DENR seeks to widen impact of miners' social dev't funds

THE Environment department is drawing up new guidelines for the utilization of mining firms' social development and management program funds (SDMP) to benefit more people beyond miners' host communities.

Secretary Regina Paz L. Lopez said that the department will release the guidelines as early as year's end after mining companies have agreed to her proposal "in principle."

"Today, it was agreed that we use the SDMP funds in an area development format... We want to help the mining companies that passed the audit to use the SDMP funds in a more impactful way," she said in an interview with *BusinessWorld* earlier this month.

The SDMP is funded with the equivalent of 1.5% of miners operating costs. The mineral contractor commits to the sustained improvement in the living standards of the host and neighboring communities.

Social development impact was one of the criteria used in assessing miners' operations during the nationwide metal mines audit the government started in July.

The review, now in its final phase with results targeted for release next month after numerous delays, intended to weed out from the industry mining companies that employ substandard environmental practices. It has left 20 mining firms facing possible suspension.

This brings to more than three-quarters of the country's 41 metal mines either facing suspension or under threat of such an order. The government also suspended 10 mines prior to the audit.

Some metal miners were left unsanctined despite alleged infractions, which were deemed not severe enough to merit suspension.

Companies that were not recommended for suspension were Rio Tuba Nickel Mining Corp., Philex Mining

STRATEGIC COMMUNICATION AND INITIATIVES SERVICE

A recipe for clean air

By Kiran Stacey

Puni Pradhan heaves a heavy metal pot on to her small stove, then hunches over it to feed wooden branches into a chamber below.

It is a routine she follows twice a day before cooking the family meal, usually consisting of rice and a few vegetables.

Her house is one of 34 mud huts in the village of Notarpalli, a remote farming community three hours drive from Bhubaneswar, the capital of the eastern Indian state of Odisha. The village is flanked on one side by the lush mountains of the Eastern Ghats and on the other by sprawling paddy fields.

Any sense of rural idyll is dispelled in Puni's kitchen, however, where dark soot marks streak up the walls and across the ceiling — a sign of the damage that cooking the family's meals is doing to all of them.

Puni Pradhan does not enjoy talking to strangers about her life, but her neighbor Rambha Pradhan (most of the villagers here share the same surname) explains what it is like cooking in a kitchen like this.

"Everything gets dirty," she says. "Our hands, our clothes, all the interiors of our house have all gone black because of the smoke."

Nearly half of the world's population — about 3 billion people — eat food cooked indoors on stoves fuelled by wood, coal or animal dung. In rural India the proportion of people cooking indoors with solid fuel is 64%, and an estimated 60 tons of cow dung is burnt for cooking each year. In many countries of sub-Saharan Africa, including Rwanda, Ugan-

solid fuels are well over 2,000 micrograms per cubic meter — far exceeding the level of 100 considered safe by India's pollution control board.

The World Health Organization estimates that solid-fuel stoves contribute to about 4.3 million deaths a year, with tuberculosis, chronic bronchitis and lung cancer common in areas where they are used. They also contribute to climate change and air pollution, even in big cities such as New Delhi and Beijing, where solid-fuel cooking is also common. According to estimates from New Delhi's Energy and Resources Institute, nearly 40% of India's air pollution comes from domestic fuel burning.

For decades, researchers, charities and non-governmental organizations have looked for ways of persuading people in India and around the world to switch to more efficient cooking methods, which use less fuel per unit of heat and often cost relatively little.

But time and again, people in rural areas return to their traditional stoves — though until re-

cently, it has never been entirely clear why.

"Three decades of efforts to promote both modern fuels and improved biomass stoves have seen only sporadic success," a World Bank report found in 2014.

Now a project working in Puni Pradhan's village may be uncovering both the root of the problem and the solution. Using state-of-the-art technology, researchers at Nexleaf, a non-profit organization, monitor real-time usage of different designs of new cooking stoves to find out which one is more popular and why, be-

designs still burn wood, but they are around 25% more efficient, and researchers say they could play a vital role in changing some of the villagers' most entrenched domestic behavior.

"Apart from this, it is not clear that any more than a couple of programs are achieving results in the long term," says Nithya Ramanathan, Nexleaf's director.

Villagers in Notarpalli have long been suffering the effects of smoky stoves in their houses. But only since they began the shift to using cookers with more modern designs have they realized the toll it was taking, they say.

Rajani Pradhan has seen her husband's tuberculosis worsen over the past 15 years.

"Recently we have had to take him to hospital for major treatment," she says. "He can't work and we have to survive off my daily wage."

STRATEGIC COMMUNICATION AND INITIATIVES SERVICE

A recipe for clean air

Every day she walks down the potholed track that leads out of the village to her job at a nearby farm, for which she earns around 150 rupees a day — about \$180.

Rajani, Rambha and their fellow villagers have all been part of Nexleaf's scheme. For the past few months they have been using a variety of stoves, but with a common feature: a small sensor attached to each one. The sensors are hooked to a blinking transmitter box attached to one of the hut's mud walls and powered by a solar panel.

This set-up allows researchers to tell exactly when each stove is being used. As soon as a family stops using one, caseworkers can visit and start asking detailed questions about why.

"We knew there were millions of cookstoves that were allegedly being used [around the world] but actually standing under a table or being used as a pot," she says. "Why has so much money gone into developing and distributing cookstoves and we weren't getting the health benefits?"

The organization discovered two things from the data. First, the time women spent using the stoves was far less than they had told the researchers. Second, many of the problems they reported were surprisingly easy to solve.

Sitting on a small plastic chair as the sun sets over the village, Rambha explains why she stopped using an earlier version of a more efficient stove.

"The feeder hole was very small," she explains. "If we wanted to cook rice, which takes a longer time, it was difficult to feed the chamber. Also, the pot

Nor did Puni Pradhan like the fan on the side — a design feature that was meant to make cooking more efficient. "The fan was just opposite the feeder, and the soot would fly out from that when used," she says.

Minati Jani had a different problem. "The cooking happened too fast," she says. "Earlier we could place more firewood in the mud stove and then go and do other work, but with this stove we needed to sit near it all the time."

"When I went out for work, my mother-in-law refused to use it, complaining that she could not cook in the new stove. That meant I had to do all the cooking, which made it even harder."

Tiny design faults, such as these — problems that were not picked up in traditional aid programs — may lie at the heart of previous failures.

A study in 2012 looked at another program, also in Odisha state, which subsidized stove construction for 15,000 households over four years.

"Initial household take-up and usage of the almost free new stoves was far from universal and then declined markedly," it found.

Ajay Mathur, director-general of the Energy and Resources Institute based in New Delhi, says: "The improved cookstoves were made, but they didn't take into account how people cooked. They wouldn't realize, for example, that the stove for making rice should be different from the one for making rotis."

The feedback from villagers in Notarpalli has been incorporated into a new design, which is loaded from the side, has a larger hole

three dozen houses in Notarpalli are now using it. The other is using a different design. Some of the villagers have buried their old mud stove under piles of firewood, unlikely ever to use them again.

Chandra Shekhar Sinha, lead climate change specialist at the World Bank, says: "The main thing holding clean cooking stoves back was the absence of an attractive product which meets people's requirements. We are only now moving towards a user-centric design of stove and recognizing what causes failure or success."

The approach of using more feedback — supported by the data — to refine programs might help improve the efficiency of other aid spending, too. This is a high priority for politicians in western countries where the idea of international development is under attack.

Outside, Jhunu Pradhan's house, partly obscured by the undergrowth, is a ceramic squatter toilet, filled with sand.

"An NGO built this here 10 years ago, but nobody ever wanted to use it," her husband explains.

Asked whether the organization that built it knows it is not being used, he replies: "I don't know, they never came back to check."

Nexleaf's sensors have another benefit, one that has proved crucial in increasing take-up: they have enabled the aid organizations to start a market in payments for carbon savings.

For every hour the newer stove is used, households receive a payment, which can add up to a total of anywhere between Rs100 and Rs500 a month — equivalent to

"I've earned Rs540 of carbon credits over the past one-and-a-half months," says Jhunu Pradhan. "Last month it was Rs322. It is a major benefit."

Minati Pradhan says it was the carbon financing scheme that persuaded her not to go back to her old mud stove.

For now, the carbon financing is being provided by a group of donors that includes Beneventures, a Californian foundation, and Qualcomm, the US telecoms company.

But eventually Ms. Ramathan hopes projects like this can tap into national or multinational carbon trading schemes.

The change in Notarpalli is already improving villagers' health. Bidyadhara Dash, a local doctor, says: "Because of the smoke produced by the mud stove, 80% of children had nausea, allergies and difficulty sleeping."

"That figure has been reduced to 10%," he says. "Rates of dysentery, bronchitis and tuberculosis have all fallen."

The improvements made by using the newer type of stove are not enough, however. Although it only uses half the fuel of the old ones, it is still fired with wood, and still puffs smoke into the heart of villagers' homes.

For remote communities such as Notarpalli, changing people's behavior in the long term is such a difficult task that it is better to start small.

"It is not enough yet," Nexleaf's Ms. Ramanathan says.

"But it is a step, and crucially, it helps entrench behavioral change. If everyone works together on this problem in a coordinated way, maybe in the next 10 years we might be

28 DEC 2016

DATE

UPPER HA

Page 1 Story

PAGE

LOWER HA

STRATEGIC COMMUNICATION AND INITIATIVES SERVICE

'STRONGEST TYPHOON TO HIT BICOL IN 10 YEARS'

By Rey Anthony Ostria
@RAOstriaINQ

TIWI, ALBAY—The sight along the highway was anything but merry a day after Christmas: Wrecked houses in pools of mud, toppled electric posts and darkness engulfing the town as evening fell.

At least 50 percent of the houses in this town of 50,000 were wrecked by Typhoon "Nina" (international name: Nock-ten) in what Mayor Jaime Villanueva described as the strongest to strike the Bicol region in 10 years.

"We felt a stronger impact than we did when Typhoon 'Reming' hit us in 2006," he said, referring to the howler internationally known as Durian.

Defense Secretary Delfin Lorenzana, who flew to Virac at noon on Tuesday, said the Catanduanes capital was devastated and it would take the province five to 10 years to recover from the destruction of its coconut and abaca plantations.

President Duterte made a quick visit to Virac and Pili in Camarines Sur on Tuesday. He refused to participate in the distribution of relief goods. "That style is rotten, I do not like that," he said.

But he promised to help the typhoon victims and urged them not to despair. "I hope you would recover your bearing," he said.

Three more deaths were reported on Tuesday, bringing to eight the number of people killed in the typhoon that lashed the Philippines over the Christmas holidays with winds up to 235 kilometers per hour, the government said.

At least 18 others were reported as missing from the MV Starlight Atlantic that sank off Balingas, killing one.

Officials reported that Gregorio Tadeo, 60, was found dead in his house in Polangui, Albay; an 8-year-old boy drowned in Marinduque, and another fatality identified as Iraya Soledad Likdawan was reported in San Teodoro, Oriental Mindoro.

Power outages

Nina took out power in many eastern provinces, with energy officials unsure when electrical services would be restored, said Mina Marasigan, spokesperson of the National Disaster Risk Reduction and Management Council.

"We saw many houses destroyed by the strong winds. Infrastructure like schools and hospitals as well. We are still awaiting the exact figures of how many houses were destroyed on the exact cost of damage," Marasigan told reporters.

National Grid Corp. of the Philippines said it had restored nine of the 18 transmission lines downed by the typhoon. It said 10 crews had been mobilized to inspect and assess the damage.

More than 429,000 people were preemptively evacuated from their homes in vulnerable areas, official figures showed.

The typhoon had been expected to bring heavy rains and winds to Metro Manila, but it lost force as it plodded across southern Luzon. Nina had sustained winds of up to 105 kph and gusts of 130 kph when it blew into the South China Sea on Tuesday morning.

Nina was one of the strongest to hit the Philippines since Super typhoon "Yolanda" (international name: Haiyan) left more than 7,300 people dead or missing and displaced over 5 million in 2013.

But officials in some provinces found it difficult to

convince people to abandon their Christmas celebrations and head for the shelters before the storm hit.

"Some residents just refused to leave their homes even when I warned them that you can face what amounts to a death penalty," Cedric Daep, a top disaster official in Albay, said by phone.

Tens of thousands of villagers, forced to spend Christmas in crowded and powerless emergency shelters, started to return home on Monday to deal with the damage.

"They have left the evacuation centers and we're seeing the sun again," Ann Ongioco, mayor of the town of Guinobatan in Albay, one of five provinces that lost electricity, said by phone.

Operations at Ninoy Aquino International Airport gradually returned to normal on Tuesday, a day after 364 flights were canceled.

The Civil Aviation Authority of the Philippines said some P9 million worth of damage was inflicted at the airports of Virac, Naga and Legazpi.

There is enough supply of milled rice in areas affected by Nina and stocks are ready for distribution "anytime," according to the National Food Authority (NFA).

NFA officer in charge Tomas R. Escarez said in a statement the agency had well-stocked warehouses nationwide, especially in the regions of Bicol, Calabarzon and Metro Manila. —WITH REPORTS FROM CYNTHIA D. BALANA, DAXIM L. LUCAS, JAYMEE T. GAMIL, RONNEL W. DOMINGO, JEANNETTE I. ANDRADE, JUAN ESCANDOR, MARICAR CINCO, MAR S. ARGUELLES, MAL APRIL MIER, MADONNA T. VIOLA, MICHAEL JAUCIAN, DELFIN T. MALLARI AND FERNAN GIANAN, AP, AFP, INQ