

THE STATE OF **Rural INDIA**

R E P O R T 2 0 2 1

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PREFACE

Rural India – as an entity, bigger in size than most countries – is witnessing significant changes. These changes are in the way it lives, thinks and transacts with the urban world. Not all this change is good, and not all of this change is bad either. There are opportunities and there is injustice, there is aspiration and there is loss.

Loss was an incessant undercurrent of the past year, as India lived through the second year of the pandemic. Away from the national headlines, it had a searing impact on all aspects of life across rural India. But beyond the shadow of the pandemic, there were many other stories to report from rural India as well, that give us a snapshot of what went on in the heartland.

That is what it is– the second State Of Rural India report is a humble effort to present a snapshot of rural India, that complex, diverse, fascinating part of India that is often not understood and nearly never gets the empathy and understanding it deserves.

This report, and our previous ones, have been led by our Deputy Managing Editor Nidhi Jamwal, who along with her amazing team constantly brings a great depth to our reportage. I thank her and all my colleagues who created this report, for this incredible effort.

This and our previous reports can be downloaded free of cost at www.ruraldata.in

Neelesh Misra

Founder
Gaon Connection



THE STATE OF
**Rural
INDIA**

REPORT 2021

CHAPTER 1



COVID19
Second Wave

- Rural India was worst hit in the second wave of the COVID-19 pandemic.
- Every second COVID-19 case and death reported in May 2021 in the country was from rural India.
- Over half of the daily global cases happened in India on six days in May 2021.
- A report by the State Bank of India noted that by mid-May 2021, the rural districts accounted for 50 per cent of all new COVID-19 cases in India.
- The community health centres in rural India need 76 per cent more doctors, 56 per cent more radiographers and 35 per cent more lab technicians, says a CSE report.
- As per a paper published in Science journal, the actual number of COVID deaths in India was about six to seven times the official count by September 2021.



Unexpected and terrifying as the first wave of the COVID-19 was, it in no way prepared the country for what was to follow. The second wave swept across the country, including the hinterland, leaving disease, despair and death in its wake in measures no one could have envisioned.

Thousands met a terrifying death, unable to breathe, and they often died alone in cold ICUs as their families could not be with them in their final moments. As if losing their near and dear ones was not traumatising enough, performing their last rites became a struggle.

Chilling accounts of bodies piling up in hospital corridors and public spaces, on the banks of rivers and at crematoriums and burial grounds, choked the news feed. Disturbing visuals of thousands of bodies being cremated, distraught relatives and the helpless terror of those the second wave touched were beamed into living rooms.

Irrespective of religious beliefs, bodies were either cremated or buried. The banks of the holy Ganges in many places witnessed mass burials and cremations. In places the grave diggers and those who performed the last rites were exhausted as they struggled to keep pace with the dead who arrived. Dogs dug up shallow graves, bodies were found floating downstream, morgues were packed...

For those who survived, conditions were only a little better. They struggled to find a place in hospitals. If and when they did, their parents, children, siblings and friends ended up with huge debts in hospital bills. People who could ill afford medical treatment still chose to go to private hospitals as they claimed the government hospitals sometimes had three patients to a bed, were dirty and understaffed.

Primary Health Centres were snowed under as were the district hospitals.

As the pandemic raged across rural India, with almost every family reporting fevers, the already tenuous health infrastructure proved woefully inadequate. Clinics, nursing homes, district hospitals, even the *jhola chaaps* (quacks) were out of their depth when it came to dealing with a disaster of this magnitude. There were not enough ventilators, and if there were, there were no trained technicians to run them; there was shortage of oxygen, and medicines, sometimes even the paracetamol in pharmacies quickly ran out.

No corner of the country, no matter how remote, was spared. Far flung villages in Uttarakhand reported COVID-19 cases; entire villages were sealed. People died.

When the vaccination drives began across the country on January 16, 2021, authorities struggled to bring some order into the chaos that reigned. Availability of vaccines was often sporadic and added to it was the very real reluctance of people to be vaccinated. There were fears that the vaccinations could lead to deaths, impotence and other health complications.

The other big thing was the stigma that was attached to getting COVID. People feared being ostracised in their communities.

Despite arrangements being made to take the vaccines to them, many remote communities hesitated.

Gaon Connection visited villages and hospitals, spoke to village heads, local leaders and government authorities and to those who were impacted by the second wave. Our reporters recorded stories of



pain, grief, and despair and spared no effort to report on the humanitarian crisis, the scale of which was unprecedented. Convincing the residents in the rural hinterland about the need to get inoculated against COVID-19 wasn't easy. The governments, both at the centre and the state, allied with various local groups and non-governmental organisations (NGOs) to quell vaccine hesitancy amongst the rural populations.

What started off as a difficult exercise to convince people to get vaccinated soon turned into a mass campaign with vaccine hesitancy diminishing towards the last quarter of 2021. Finally, as on December 31, 2021, a total of 1,450,924,269 COVID-19 jabs had been administered across the country.

Also, questions were raised on India's official death toll due to COVID-19. According to a paper titled *COVID mortality in India: National*

survey data and health facility deaths which was published in the *Science* journal on January 6, 2022, the actual number of deaths were about six to seven times the official count by September, last year.

RURAL INDIA AND THE SECOND WAVE

Rural India reeled in the second wave of the COVID-19 pandemic. According to a report named *Pandemic Pointers* released by Centre for Science and Environment (CSE), India's rural area was the worst hit in the second wave and over half of daily global cases happened in India on six days in May 2021.

The CSE report also flagged the gaps in the existing health infrastructure and stated that the community health centres in rural India need 76 per cent more doctors, 56 per cent radiographers and 35 per cent more lab technicians.¹

A report by the State Bank of India noted that by mid-May 2021, the rural districts accounted for 50 per cent of all new cases in the country. The rural areas of Amravati in Maharashtra were worst affected with a large number of COVID cases in the country.

About 35 per cent of all COVID-19 deaths in Haryana were reported from the rural districts, with the heaviest toll in Hisar, followed by Bhiwani, Fatehabad, and Karnal. The second wave also hit rural areas of Gujarat where the state reported 90 deaths in 20 days from one village alone – Chogath.²

State of India's Environment 2021 report revealed that every second COVID19 case

Every second
COVID-19 case and
death reported
in May 2021 was from
rural India.

and death reported in May 2021 was from rural India – 53 per cent of new cases and 52 per cent of deaths due to coronavirus, in May, were from rural districts of India and there was also an acute shortage of healthcare staff – a 76.1 per cent short fall of specialists at the CHC level.³

A paper published by Observer Research Foundation (ORF) titled *Winning the COVID-19 Battle in Rural India: A Blueprint for Action* stated that while India's rural health infrastructure improved since the implementation of the National Rural Health Mission and the Ayushman Bharat Programme in 2018, it remained ill-equipped to tackle the challenges posed by the COVID-19 pandemic. Rural India has historically had less access to health services, the paper noted.

The ORF paper also highlighted that though technology could bring improvements to the current healthcare system, especially in the rural areas, challenges remained including lack of connectivity and infrastructure, and of smartphones.



STORY 1

GRAVES BY THE GANGA

The Ganga ghat at Baksar, Uttar Pradesh, witnesses an unprecedented rush of dead bodies waiting for their final rites.

Sumit Yadav
Unnao, Uttar Pradesh



The village of Baksar in Unnao district, Uttar Pradesh, is known for the Chandrika Devi temple. The holy river Ganges flows through the village, but now, a grotesque reality is unfolding on her banks...

At 10:30 am in the morning, a line of dead bodies lie, victims of the COVID 19 pandemic, awaiting their turn to be cremated. Or buried. Depending on how much money their near and dear ones can spare for their last rites.

“Cremating a body can cost you up to twelve to fifteen thousand rupees. If you can’t afford that, burying is cheaper and can be done for about six to seven hundred rupees,” Moon, a masked onlooker from Unnao’s Bhagwanthnagar, who had accompanied his neighbour who lost an elderly member of his family, informed *Gaon Connection*.

As far as the eye can see are shrouds, in shades of red. They mark the makeshift graves of people recently buried. Almost every few yards is an unmarked grave, some

of which have been partially dug up by dogs.

“Most of those who lie here are poor *mazdoors* (labourers), who died, and their families didn’t have money to cremate them,” Moon explained.

The Ganga ghat at Baksar in normal times sees about 25 dead bodies a day being cremated. “Since the second wave of the *mahamari* (pandemic), three hundred to four hundred dead bodies a day arrive at this *ghat*. Even today, there are nearly a hundred and fifty bodies waiting for their last rites,” Vanshu, an inhabitant of Baksar, told *Gaon Connection*.

There is hardly any space and the dead are being buried right up till the edge of the river. And there is a fear that as water level rises, these bodies may end up in the river. In the past few days several dead bodies, possibly COVID victims, have been found floating near the Ganges in Chausa village in Buxar district of Bihar, and in several spots in Ghazipur district, Uttar Pradesh.



Meanwhile, priests, people who clear up after the cremations, boatmen who take the families mid-stream to immerse the ashes, are doing brisk business as the bodies continue to arrive at Baksar ghat, about 95 kilometres from the state capital, Lucknow.

CORONA SPREADING IN VILLAGES

Unlike the first wave of COVID19 last year, the virus has spread to rural India in the second wave. Villages are in the grip of fever, cold and cough – classic COVID symptoms – and people are dying. But, public health experts claim that the corona death toll in rural India is under reported and underestimated.

“Gaon me halaat bahut kharaab hain [situation is grave in villages],” said Moon as he waited for his neighbour to cremate his elderly family member.

“In villages, people were still suffering from colds, coughs and fever. Jhola chaaps (quacks) are working there. Sometimes the medicines they give work, sometimes not. Infections are rising but there is no facility or help to attend to the patients,” he added.

“Whatever you see in the media amounts to nothing as compared to what is happening on the ground. Doctors are not paying attention to the older people, hospitals are not equipped to admit all those who need immediate medical attention, the numbers of the COVID 19 cases are higher than what is being reported officially,” Santosh Kumar, from Kanpur Dehat district, who was also there for a relative’s cremation, told *Gaon Connection*.

“Since we ran out of space, the ghats on the other side of the river are also being used to bury and burn the dead,” Vanshu added, pointing to the opposite banks where people are performing the last rites.

The dead are arriving from villages as far as from Kanpur Dehat district, nearly 100 kilometres away. Many of those who have brought the bodies for last rites, claim that so far, no COVID-19 testing was done in their villages so they do not know if their dear ones had died due to the coronavirus or some other ailment.

DATA PAINTS ANOTHER PICTURE

According to the state government's official data, the number of new cases reported from Uttar Pradesh have come down in the past two weeks but death rates due to COVID19 continue to be high.

On April 23, 2021, the number of daily cases reported in Uttar Pradesh was 37,238 with 196 deaths due to the virus across the state. The daily cases have come down to 17,775 on May 13, 2021, and 281 deaths.

In order to get a clear picture of the spread of the virus in rural areas, on May 5, 2021, the Uttar Pradesh government launched a house to house rural survey across all its 97,409 revenue villages to screen people for corona symptoms and distribute medical kits.

Meanwhile, the Unnao administration has swung into action after the disturbing visuals of Baksar *ghat* went viral on social media. Today, (May 13, 2021), people hired by the district administration were found spreading sand on the ghat.

"It came to our notice that some dead bodies have been buried in Baksar. Baksar is situated at a location that is close to the borders of many districts like Raebareilly, Fatehpur and Unnao. So traditionally, people from all these districts bring their dead to this ghat for cremation. After we got to know that people have buried the bodies in the sand, I sent a team to respectfully

"Sometimes there are so many bodies to be buried that we are unable to dig deep enough," a grave digger at Baskar ghar, Unnao, Uttar Pradesh.

manage the bodies and ensure such a thing is not repeated," Ravindra Kumar, district magistrate, Unnao, said in a press statement.

Grave diggers at Baksar ghat are busy day and night. "Sometimes there are so many bodies to be buried that we are unable to dig deep enough," a grave digger at the river bank, who did not want to be named, told *Gaon Connection*.

"We have seen some of the graves being dug up by dogs," he said, finding it hard to hide his revulsion.

Written and edited by Pankaja Srinivasan



STORY 2

RURAL UTTAR PRADESH IN A FEVER OF TROUBLE

COVID 19 cases spiral in rural Uttar Pradesh leaving PHCs, pharmacies, doctors and ASHA workers more than worried.

Gaon Connection



Lallan Chauhan was at the nearest medical store to pick up paracetamol tablets. "I have a fever. So do my two sons and wife," Chauhan, a farmer from Gandhipur, a village of about 250 people, in Fatehpur block of Barabanki, told *Gaon Connection*.

"Of the twenty odd families in my village, fifteen of them have a member or two sick with cold, cough and fever. In some households, the entire family is down," he said.

"The situation is worsening day by day," Shadab Alam, health worker and lab technician from Belhara, in Fatehpur block, told *Gaon Connection*. "Lots of people are complaining of fever, coughs and colds. No one is taking the pandemic seriously," he worried.

COVID-19 cases continue to stalk rural areas of India's most populous state, Uttar

Pradesh, with a steady increase in the number of deaths too.

The state reported 34,372 fresh cases of COVID19 and 332 deaths due to the virus in the past 24 hours. Has the virus made inroads into India's villages? There is no definite answer as COVID-19 testing is poor in rural India with an even poorer health infrastructure. Villagers are also reluctant to get themselves tested for the coronavirus due to the stigma attached to the disease.

"Our health workers are keeping an eye out, and in case anyone displays the coronavirus symptoms, we recommend home quarantine and give them medicines," Santosh Singh a doctor at the primary health centre (PHC) in Chheda, Suratganj block, in Barabanki, told *Gaon Connection*. He was confident that the COVID-19 cases were not as bad in villages as they were in the cities. He attributed most of the fever cases to a 'seasonal change'.



Unnao district has also seen a rise in fevers. “On an average, in a family of four at least two or three of the family members are afflicted, and clinics of the local doctors are crowded all the time. “Nine out of ten families in the village have fever,” Sanjay Yadav, *gram pradhan* (village head) of Badarka village, told *Gaon Connection*.

“The population of Badraka is approximately 2,000. Yet, nothing has been done so far to sanitise the village. We are doing all we can with the help of the cleaners in the village,” Sanjay Yadav added.

At the Dhanvantri clinic in Korarikala village, Sadar *tehsil*, people wait their turn to meet RP Chaurasiya, the local doctor. “The number of fever patients I am seeing is threefold this year. While last year in April and May I would have no more than forty patients coming to my clinic a day, this year the number is nothing less than hundred and thirty daily,” Chaurasiya told *Gaon Connection*. “Eighty per cent of them have viral fever and a cough,” he said.

ASHA worker Renu Yadav, a frontline health worker, claimed she had never seen anything like this before. “Almost every family is struck down with fever. The viral fever is spreading rapidly,” Renu Yadav from Katri Alhuapur Sarosa village in Sikandarpur Karan block of Unnao, told *Gaon Connection*.

“People have stopped meeting each other. They are scared of getting infected and are therefore staying home,” she said. The health workers are going door-to-door counselling the people about hygiene, drinking boiled water, and so on. “We are also distributing medication wherever required. But the situation is grim,” Renu Yadav reiterated.

ALMOST EVERY FAMILY HAS FEVER

But the fevers are rising. So much so that at a medical store not too far off from Chheda, the pharmacist has been extra busy. “There has been an increased demand for paracetamol tablets. And I have stock only left for another day or two,” he said. According to him, even the supply of medicines is erratic. “I ordered ten boxes of paracetamol, but got only two,” he complained.

FEVER AND DEATHS

In Ramachara Mau village of Unnao, 56-year-old Om Prakash died of a fever on April 28, 2021. "In just a couple of days, what we thought was a normal fever became serious enough for us to take him to a hospital," his 48-year-old brother Satish Kumar told *Gaon Connection*. The family had a harrowing time trying to find a hospital that would admit Om Prakash. A nursing home in Kanpur finally took him in. But after spending two days in the Intensive Care Unit, Om Prakash passed away.

In the same village, 36-year-old Virendra Yadav was campaigning hard for his *gram pradhan* mother Medha Devi who was standing for the recently concluded *gram panchayat* elections. Today, he is lying in a COVID-19 hospital at Nawabganj in Unnao, 30 kms away.

"On April 25, Virendra had a slight fever. We put it down to the exertions of his campaign, and did not think too much of it" said Ramkumar Yadav, his father. "Only when the fever continued to rise unabated, we took him to a doctor nearby who took one look at him and recommended we admit him into a hospital," he said.

On April 29, the fourth phase of UP *panchayat* elections, a silent bunch of people, their mouths and noses covered with *gamcha*, walked towards Itauriya village in Shahjahanpur. They were returning from the cremation grounds after attending the last rites of a fellow villager, who, they said, was a suspected COVID case.

"He was a labourer and had returned from Delhi a few days ago. He developed a fever, complained of breathlessness and before he could go to the doctor's, he died."

"He was a labourer and had returned from Delhi a few days ago. He developed a fever, complained of breathlessness and before he could go to the doctor's, he died," an inhabitant of Itauriya told *Gaon Connection*.

A RELUCTANCE TO GET TESTED

According to health worker and lab technician Alam, even though fever cases have registered a sharp increase in villages, there was still great reluctance amongst the people to come forward and get tested for COVID-19.

"We are afraid. What if we test positive and we are sent to a COVID19 hospital," asked Vishambhar from Maikua village in Unnao. He said that was one reason why people were reluctant to even get tested. They avoided it and if at all someone got fever, they isolated themselves. "We have heard that the prevailing conditions in the hospitals are not good," Vishambhar said, pointing



towards the constant visuals on TV of patients gasping for breath at hospitals that have run short of medical-grade oxygen and crucial drugs.

Meanwhile, many villagers are dismissing the fevers and colds as a seasonal affair. “Yeh corona phorona kuch nahin hai (there is no Corona here),” phoo phooed Mool chand Varma from Pipri Shadipur in Sitapur district. “We work in the fields during the day under the hot sun and sleep out at night when it is chill,” he pointed out. “Obviously, we will catch a cold and cough,” he shrugged.

ENOUGH TESTING?

District level testing for the coronavirus is limited. In Barabanki district (3,260,699 population as per the 2011 census), about 2,000 tests are being conducted a day. On April 30, 2021, of the total 2,128 test reports received, 262 were found COVID19 positive. This means over 12 per cent samples were coronavirus positive.

In Mirzapur district (2,496,970 population as per 2011 census), on April 20, 2021 about 1,485 samples were tested and 290 were found positive. That’s about 20 per cent positive samples, which means every fifth person tested in the district was found COVID19 positive. Official record shows that daily sampling jumped to 5,868 on April 30 with 210 people testing positive that very day.

Meanwhile, in Unnao district (3,108,367 population as per 2011 census), 2,034 samples were tested on April 30 and 288 were found to be positive.

SELF-MEDICATION OR JHOLA CHAAP DOCTORS

According a local doctor who runs a clinic about 30 kms away from Barabanki, every day around 150 people come to him. “They come with fever, cold and cough. We check their oxygen levels. If it is below ninety four, we ask them to go to a bigger hospital where they have a facility to treat them. Otherwise, we recommend home isolation



and give them paracetamol,” he said on condition of anonymity.

“There is so much information on the mobile phone, and everyone knows to take a paracetamol tablet if they get a fever,” he went on to add. “One woman came in with nosebleeds. It turned out that she had read that steaming would keep COVID19 at bay and had ended up steaming so frequently that her nasal passage had dried up and begun to bleed,” the doctor said.

While most villages have no access to proper medical facilities nearby, they usually go to the *jhola chaap* (quacks). “But because of the fear of the coronavirus, even the *jhola chaaps* have closed shop,” he added.

Gaon Connection contacted Amit Mohan Prasad, additional health secretary, health department of Uttar Pradesh. He was not available for comments.

Written and edited by Pankaja Srinivasan. With inputs from Ramji Mishra, Shahjahanpur; Mohit Shukla, Sitapur; and Brijendra Dubey, Mirzapur, Uttar Pradesh.



STORY 3

CORONAVIRUS CREEPS UP THE UTTARAKHAND HILLS; VILLAGES SEALED

Villagers in Chamoli and Rudraprayag blame Kumbh Mela, weddings and other festivities for the sudden spike in COVID-19 cases.

Deepak Rawat
Dehradun, Uttarakhand



On May 6, 2021 tremors of alarm were felt across the village of Bandun in Uttarakhand. Of the 42 samples that had gone for corona testing from this village in Pauri Garhwal district, 30 turned out to be positive.

The administration swung into action and, a team, under the sub divisional magistrate of Satpuli *tehsil*, Sandeep Kumar, sealed the village and stationed an ambulance along with a medical team there. The nearest district hospital is at Satpuli, 35 kilometres away.

The ominous cloud of coronavirus hangs heavy in the mountain state of Uttarakhand. Several hill villages in far flung areas of the state are being declared as a containment zone and sealed. The state has declared a complete lockdown across all the districts till May 18.

There is grave concern amongst people as

many of the villages in the hilly terrain of the state lack adequate medical infrastructure and the nearest hospital is several kilometres away. Sometimes the villagers have to walk eight to nine kilometres to get to a road head from where they can get transportation to a health facility.

SEALING DRIVE

Of the 45,484 corona cases registered in Uttarakhand between April 30 and May 6, 2021, nine hill districts registered 12,521 cases (27.5 per cent), shows the data compiled by Dehradun-based non-profit, Social Development for Communities Foundation.

The foundation has been tracking the COVID-19 cases since the start of the pandemic last year.

The districts are Pauri Garhwal, Tehri Garhwal, Chamoli, Uttarkashi, Champawat,



Almora, Pithoragarh, Bageshwar and Rudrarayag. Of these, most fresh cases have been from Pauri Garhwal (2,258 cases), Tehri Garhwal (1,916 cases) and Chamoli (1,553 cases).

Alarmed at the rising COVID-19 cases in Ravigram *panchayat* of Joshimath block, Chamoli, the district magistrate has declared a 50 metre radius around the Chandika Devi temple as a containment zone. In the past three days, of the 100

samples taken for testing in the village, 18 have been found to be COVID positive.

Another village, Bainoli in Rudraprayag district, was sealed when 12 positive cases of coronavirus emerged, out of the 52 samples that were tested.

About 65 kilometres away, Dungri village, in Chamoli district, is sealed too after 41 out of 83 people tested, showed up as COVID 19 positive.

In the same district, at village Sarnachari in Pokhri block in Chamoli, 29 people tested positive out of the 200 whose samples were taken, and the village was declared a containment zone and sealed.

“Almost all the mountain villages have cases of fever that are increasing day by day,” Anand Rana, *pradhan* of Saranachari told *Gaon Connection*. While fevers were normal at this time of the year, the spectre of the pandemic was what was spreading fear amongst the people.

“This is the time when the government machinery should be spreading awareness and insisting on people maintaining the COVID-19 protocols,” he said. What was worrying, Rana said, was that people were unwilling to get tested, fearing what the test results may be.

“It is a fact that fever is spreading rapidly in the villages. Eighty per cent of the inhabitants of the Nijmula valley have fever,” Mohan Negi, district president of the *pradhan sangathan*, Chamoli told *Gaon Connection*.

WHAT EXPLAINS THIS SUDDEN SURGE?

As per the departmental health bulletin, between May 5 and May 7, 2021 in the space of 72 hours, 9,882 people tested positive in Dehradun, the state capital.

As of March 31, 2021 the beginning of the Mahakumbh, in Haridwar, Uttarakhand had a total of 1,863 active COVID-19 cases. At the culmination of the festival on April 27, 2021 the number of active cases in the state had risen to 43,032.

According to data provided by the state government, since the start of the pandemic in March 2020 up to May 7, 2021, Uttarakhand has registered a total of 238,383 COVID-19 cases, of which more than half the cases (130,000) were reported between April 1 and May 7, 2021. Of the total 1,863 deaths since the start of the pandemic, 806 people lost their lives to the coronavirus between May 1 and May 7.

When *Gaon Connection* spoke with the *gram pradhans* of the villages that were sealed, it became clear that the *pradhans* alerted the authorities only when the incidence of fevers began going up and the number of COVID 19 positive cases also increased. Many of them were unhappy at the delay in testing and receiving the test reports. Some of them said it took nearly a week for the results to be made known to them.

Speaking about the Kumbh Mela, Amit Singh, president, Indian Medical Association (IMA), Dehradun, said, "Authorities delayed in sealing the borders, and facilitating testing

At the beginning of the Mahakumbh, on March 31, Haridwar in Uttarakhand had a total of 1,863 active COVID-19 cases. At the culmination of the festival on April 27, the number of active cases in the state had risen to 43,032.

in the state and district borders. More so when they were well aware of the double mutant variant that had already shown up in the country. This is one of the reasons why the number of cases have risen so sharply in Uttarakhand," he said.

"In the early months of the year, Uttarakhand sees a lot of weddings and Shivaratri-related festivals. We also have melas in March and April that last anything between two to six days," Surendra Dhanetra, district secretary of the district *pradhan sangathan*, Chamoli, told *Gaon Connection*, citing those as a cause for the spike of cases too.

Dhanetra cited the example of the Baisakhi *mela* at the Pinder valley of Chamoli region and another grand *mela* at Karnaprayag. "Tourists, and migrant workers who returned to the villages just landed up without any testing or following any isolation protocols," he pointed out.



Amit Singh pointed out that it was not just the responsibility of the authorities to ensure safety during the pandemic. “It is as much the responsibility of the citizens to observe protocols, curfews and lockdowns,” he said. It is of utmost importance that the people support the government in its endeavours; only then can the corona chain be broken, he added.

Meanwhile, the High Court of Uttarakhand at Nainital, taking cognisance of the shortage of medical staff, on April 29, 2021 advised the state government to seek the help of the more than 2,500 registered dentists in the state, to increase the number of corona testing.

MIFFED GRAM PRADHANS

Dhanetra revealed that there were other discordant notes too that possibly delayed the response to the second wave in Uttarakhand.

On National Panchayati Raj Day on April 24, Prime Minister Narendra Modi spoke of the crucial contribution of *gram pradhans* in battling coronavirus. And, indeed, the *gram pradhans* in many Uttarakhand villages had put their heart and soul into tackling the pandemic when it first broke out last year. But, they say they will not cooperate this year because the state government showed no acknowledgement of their services.

Miffed *gram pradhans* of Chamoli district submitted a letter to the Block Development Officer, on April 28, addressed to the chief minister informing him that they would not extend any cooperation to the authorities in the matter of quarantine arrangements in the village, sanitation matters, etc.

“There has been no co-operation between the inhabitants of the villages and the administration,” Samir Dimri of Ravigram village in Chamoli district, told *Gaon Connection*. “In the earlier days of the



available at the border of our district and neither do we get information of anyone from outside entering our villages,” he said.

“Last year, *gram pradhans* had ensured the quarantine centres were efficiently run, protocols were maintained, and they worked day and night, unmindful of the danger of getting infected themselves. Yet they were not acknowledged as ‘corona warriors’,” Dhanetra pointed out. Also, while the government officials who sit in their offices and homes have been vaccinated, these frontline workers were not, he added.

According to Anoop Nautiyal, founder of Social Development for Communities Foundation, “The authorities and the *gram pradhans* should set aside their differences and work at the ground level.” They should sort out their problems and apply themselves to battling the mounting crisis, he told *Gaon Connection*. “Authorities should provide all support to the *gram pradhans* so that they don’t feel ignored and at the same time are empowered to do their work,” he added.

Story written and edited by Pankaja Srinivasan.



pandemic, we used to know if anyone came into the village from outside. We ensured he or she was in quarantine,” Dimri said. He added that this year no precautions were being followed. “There are no testing facilities



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CHAPTER 1

COVID19
Second Wave

STORY 4

COVID-19 INVADES VILLAGES; RURAL HOSPITALS HAVE NO VENTILATORS

District hospitals where rural India goes for treatment are woefully short of ventilators and trained personnel to operate them.

Gaon Connection



The mood is sombre at Barabanki, that lies less than 30 kilometres north-east of Lucknow, the capital of Uttar Pradesh. The district hospital does not have a separate COVID-19 ward. It does not have a single ventilator.

“The Barabanki district hospital has no ventilators, but we are hoping that arrangements will be made very soon to procure them,” RP Singh, district general secretary of the State Employees Joint Council and pharmacist at the district hospital, told *Gaon Connection*. According to him, senior district officials had promised to procure ventilators for the district hospital at the earliest.

Meanwhile, COVID-19 cases that come to the district hospital are referred to three private hospitals in Barabanki — Astha Hospital and Diagnostic Centre, Mayo Institute of Medical Sciences and Hind Institute of Medical Sciences. “These private hospitals together have about fifty ventilators. Twenty seven of

them are at Hind, twenty at Mayo and we have three at Aastha,” Patel informed *Gaon Connection*.

The second wave of COVID-19 is sweeping across India, and Uttar Pradesh, with a population of more than 200 million, is squarely in the line of fire. Half of its corona patients are from rural areas.

Gaon Connection has regularly reported on the fevers, colds and coughs that have gripped villages, that have also reported some deaths.

District hospitals are where the majority of the rural population seeks medicare.

An investigation by *Gaon Connection*, showed that many of these district hospitals either did not have ventilators or the equipment was faulty. Some hospitals lacked trained technicians to operate these ventilators.



Unfortunately, he fell ill again and had to be rushed to a dedicated COVID-19 hospital in Unnao. But, he was refused admission there, alleges his family. Pandey finally found a bed at a private hospital 20 kilometres away in the neighbouring district of Kanpur, where he still is.

It isn't that the Unnao district, with a population of approximately 3.6 million people, doesn't have ventilators. Its district hospital — Uma Shankar Dixit Joint District Hospital — has approximately 100 beds and 14 ventilators but they “were not yet fully set up and therefore not available to patients,” BB Bhat, Chief Medical Superintendent of the Unnao district hospital, told *Gaon Connection*.

“There were twenty ventilators in the district hospital, but six of them have been sent to Saraswati Medical College, which is the district's only Covid L-2 hospital,” he added.

Saraswati Medical College, the dedicated COVID-19 hospital, has nearly 40 ventilators and all are functional. “But even those are in short supply, because of the huge rise in the number of people needing them due to the fast spread of Corona,” Prem Kumar Singh, a doctor in the Unnao district hospital, told *Gaon Connection*. He is also state president of the Uttar Pradesh Medical and Public Health Ministerial Association, a doctors' union.

On being questioned why the district hospital did not have any functional ventilator, Singh said: “District hospitals are not meant to be COVID hospitals.”

Meanwhile, Unnao district has been reporting

VENTILATORS 'NOT YET FULLY SET UP'

Devendra Pandey, a resident of Achalganj in Sadar *tehsil* of Unnao in Uttar Pradesh, fights for his life as he is hooked on to a ventilator at a hospital in Kanpur. In the first week of April, Pandey tested COVID positive. Rather than going to a hospital, the 65-year-old self-isolated at home and when he felt better, he went back to work at the garment store he owned.

250–300 new COVID-19 cases every day. Ventilators aside, testing is also a challenge in the district. “Because of the lack of facilities in the district, RT-PCR test samples are sent to Lucknow’s PGI Hospital [Sanjay Gandhi Post Graduate Institute of Medical Sciences]. It takes anything between seven to ten days for the results to come,” Singh explained.

NO TRAINED TECHNICIANS

About 180 kilometres north of Unnao is the District Hospital, Shahjahanpur in Uttar Pradesh. The district hospital has 20 ventilators, but “there is a shortage of trained people to operate the ventilators. Not everyone can operate it”, Rohtash Kumar, Additional Chief Medical Officer of the Pandit Ram Prasad Bismil district hospital, Shahjahanpur, Uttar Pradesh, told *Gaon Connection*.

A tube is inserted into the windpipe of the patient and the other end is attached to the ventilator that pumps in oxygen, he explained. “A person who is trained in operating ventilators can handle three to four of them at a time, as long as they are in the same room,” he said.

“When patients experience difficulty in breathing, they are given oxygen. But, despite that, if they continue to struggle to breathe, they have to be put on ventilator support in the intensive care units of hospitals,” Sutapa Pal, consultant general practitioner at Kolkata, West Bengal, who has worked for 21 years, told *Gaon Connection*.

The Shahjahanpur district hospital has 20 ventilators, but there is a shortage of trained people to operate the ventilators.

“There is a problem of not having trained people to operate the ventilators. I cannot ventilate a patient, I need trained staff to do it,” Pal added. “The need of the hour is to have well-equipped primary health centres in rural India with more beds, ICUs and ventilators in district hospitals. But these machines are no good if we do not have many more trained healthcare workers in the villages and districts,” said Pal.

Both Rohtash Kumar as well as UP Sinha, Chief Medical Superintendent of Shahjahanpur, told *Gaon Connection* there was a shortage of trained individuals who could operate and monitor ventilators at the Shahjahanpur district hospital.

The district, with a population of three million, has more than 2,300 villages. On May 4, the district hospital had 115 COVID patients admitted – six of them on ventilators.

About 500 kilometres from Shahjahanpur, across the state border, in Madhya Pradesh,



lies the Sardar Vallabhbhai Patel District Hospital, Satna. “Our hospital has a total of nine ventilators,” an hospital official told *Gaon Connection*.

One was damaged in a short circuit two years ago, and of the remaining eight, only two are in working condition, he revealed on condition of anonymity. “But we have no technician to operate it, and our doctor who knows how to operate it has tested positive,” he added.

There are 13 private COVID-dedicated hospitals in Satna. But only one of them — the M.P. Birla Hospital & Priyamvada Birla Cancer Research Institute — has a single ventilator. The only other private hospital in the district that has a ventilator is a children’s hospital, which is not for COVID-19 patients.

The district, with a population of over 2.2 million, reported 272 fresh cases on May 3,

2021 and three deaths due to COVID-19. Lack of sufficient emergency care services means critical patients from Satna are referred to the adjoining Rewa district, about 56 kilometres away.

POCKETS OF HOPE

In sharp contrast to these district hospitals which face either a shortage of ventilators or lack technicians to operate them, the divisional hospital Mirzapur boasts 28 ventilators and technicians too.

At the Barrister Yusuf Emam Divisional Hospital, Mirzapur, which caters to Mirzapur, Bhadohi and Sonbhadra districts of Uttar Pradesh, doctors claimed they had state-of-the-art ventilators. “The L2 hospital has twenty eight ventilators,” Kamal Kumar, superintendent-in-chief, told *Gaon Connection*. But he added that there were only three technicians to work those ventilators.



Vikas Singh, a doctor at the divisional hospital Mirzapur, clarified: “We have modern ventilators that do not need expert operators.” Unlike the traditional ventilators more commonly used, modern ventilators do not require the patient to be intubated, he explained, adding that a single technician could easily handle 10 to 12 ventilators simultaneously.

“Ventilators, injections and medicines are all available at our divisional hospital. It is just the frightening spectre of the pandemic that is causing a problem,” he said. On May 4, of

the 50 beds at the L2 hospital, 18 were occupied by COVID-19 patients.

According to the Uttar Pradesh government, it is responding to the second wave challenge in rural areas.

“We have initiated an early identification drive where our teams are going house to house in each village,” Amit Mohan Prasad, Additional Health Secretary to the state government, told *Gaon Connection*. The teams are talking to the villagers about their symptoms and distributing medical kits, even before they are being tested, he said.

“Meanwhile, COVID testing teams have also moved into the villages. They are conducting rapid antigen tests. Two community halls in each district are being converted into COVID hospitals, with fifty beds each,” Prasad said.

According to him, some beds in these community centres would have oxygen support but no ventilators. “Patients who need critical care will be referred to the district or divisional hospitals or medical colleges or the other higher centres,” he told *Gaon Connection*.

Reported by Virendra Singh, Barabanki; Ramji Mishra, Shahjahanpur; Sumit Yadav, Unnao; Brijendra Dubey, Mirzapur; and Sachin Tulsia Tripathi, Satna. Written and edited by Pankaja Srinivasan.

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CHAPTER 2




HEALTH

- The much awaited health survey of the Ministry of Health and Family Welfare – The National Family Health Survey-5 (2020-21) – released in 2021.
- The survey showed a slight improvement in nutrition indicators of under-5 children.
- There has been an increase in anaemia in rural India where 68.3 per cent of children in the age group of 6-59 months were found to be anaemic in 2020-21.
- Cases of Zika virus infection reported from four states – Uttar Pradesh, Maharashtra, Kerala and Delhi – in 2021.
- In 2021, national tuberculosis programme notified 1.7 million cases of TB till October, 2021, which is 18 per cent higher compared to 2020 (January-October).
- A 10 per cent rise in the number of deaths by suicide was recorded in India in 2020 as compared to 2019.



In addition to the second wave that rampaged across the country, the year 2021 saw the rise in several other diseases including dengue, tuberculosis, mental health illnesses, water-borne diseases due to large-scale floods, etc. And, because the health system in the country was overburdened due to the COVID cases, many of them went untreated or remained ignored.

Meanwhile, there were protests by the frontline health workers – ASHAs – whose responsibilities increased manifold in the pandemic but their monthly remuneration remained low, and often irregularly disbursed in several states.

The much awaited health survey of the Ministry of Health and Family Welfare – The National Family Health Survey-5 (2020-21) – was released in 2021. This survey,

conducted every five years, revealed that child nutrition indicators have improved slightly in rural India, but anaemia continues to be a concern. The survey showed a slight improvement in nutrition indicators of under-5 children – the number of stunting, wasting and underweight category kids have reduced.

However, there has been an increase in anaemia amongst them in rural India where 68.3 per cent of children in the age group of 6-59 months were found to be anaemic in 2020-21. This is an increase of 15 per cent in the past five years.

State-wise data shows 72.7 per cent under-5 kids in rural Madhya Pradesh are anaemic. This is followed by Rajasthan (72.4 per cent), Haryana (71.5 per cent), Punjab (71.1 per cent), and Jharkhand (67.9 per cent).¹



'MYSTERY' FEVER IN UTTAR PRADESH

A nondescript village of Firozabad district, Nagla Aman, became the epicentre of relentless fever that claimed several young lives. The first case of the 'fever', initially termed as 'mystery fever' but later confirmed as a dengue outbreak, was reported here. It took the lives of at least 57 people, mostly young children, and spread to other districts of Uttar Pradesh including Agra and Mathura.

The disease was caused by the Aedes species (Aedes aegypti or Aedes albopictus) of mosquitoes which act as a carrier or the vector of the virus. The outbreak was caused by the 'D2' variant of dengue which can cause haemorrhage (internal bleeding) and can turn fatal. The virus was denoted as DENV with four serotypes - DENV 1, DENV 2, DENV 3 and DENV 4 of which, DENV 2 is considered to be the most fatal and was found to be the leading

cause of infections in Gujarat as well.²

According to reports by *Gaon Connection*, it came to light that many families were reeling under debt to pay large sums of money to treat their sick children.³ There were complaints that lack of sanitation caused the outbreak.

ZIKA VIRUS

Kerala reported cases of Zika virus in July 2021. Zika virus disease is caused by a virus transmitted primarily by *Aedes* mosquitoes, which are known for biting during the day. Although its cases show mild symptoms, the Zika virus can be especially dangerous for pregnant women as it is known to have resulted in child births with congenital deformities.

The symptoms of Zika virus typically last for a week and most people with the infection do not develop symptoms. Though no clear data on the outbreaks of Zika virus in India is available, the country has witnessed outbreaks in 2017 and 2018, with hundreds of cases reported in western Gujarat and Rajasthan states, as well as the central state of Madhya Pradesh. Kerala recorded the outbreak for the first time in 2021.⁴

Apart from Kerala, Zika virus cases were also reported in Uttar Pradesh and cases rose to 105 in the month of October. *Gaon Connection* reported that in Kanpur, where the first case was diagnosed, and saw 105 cases later, there were no Zika virus testing facility and samples were sent to Lucknow.⁵

On December 10, 2021, Mansukh Mandaviya,

Union Minister of Health and Family Welfare, told the Lok Sabha that as many as 177,695 cases of dengue and 237 cases of Zika virus were reported across India. Cases of Zika virus infection have been reported from four states – Uttar Pradesh, Maharashtra, Kerala and Delhi – in 2021. UP has reported the maximum cases.⁶

Further, a total of 497 cases of scrub typhus were reported from various districts of Odisha in 2021. Nowarangpur in Koraput district reported 43 cases last year.

The health ministry also launched a National Programme on Containment of Antimicrobial Resistance (AMR) coordinated by National Centre for Disease Control (NCDC). The containment strategies under the surveillance of AMR in fungal pathogens include strengthening infection prevention and control in healthcare facilities and containment of AMR in fungal pathogens.

TUBERCULOSIS AND COVID19

A total of 1.8 million TB cases were notified under the national tuberculosis programme in 2020 (January–December), which was 25 per cent less than the total cases notified in 2019 (2.4 million). In 2021, despite a larger second wave of COVID-19, the programme notified 1.7 million cases of TB till October, 2021, which is 18 per cent higher compared to 2020 (January–October).

The deaths due to TB reported under the programme remained static in 2020 at around 4 per cent, similar to the pre-COVID times.

In 2021, the TB programme notified 1.7 million cases of tuberculosis till October, 2021, which is 18% higher compared to 2020 (January–October).

MENTAL HEALTH IN INDIA

A 10 per cent rise in the number of deaths by suicide was recorded in India in 2020 as compared to 2019, in a report titled *Accidental Deaths & Suicides in India 2020* by National Crime Records Bureau (NCRB). As per the data, the country recorded 153,053 deaths by suicide which was more than the number of people who succumbed to COVID-19 infection in 2020 which was 150,000 people.

A total of 10,677 people involved in agricultural sector died by suicide in 2020. This included 5,579 farmers or cultivators, and 5,098 agricultural labourers. West Bengal, Bihar, Nagaland, Tripura, Uttarakhand and the five union territories of Chandigarh, Delhi, Ladakh, Lakshadweep and Puducherry reported zero suicides by farmers, cultivators and agricultural labourers.



According to the NCRB report, daily wage earners constituted the highest share – 24.6 per cent in these deaths. The report also noted that “Family Problems” and “Illness” were the major causes of suicides that accounted for 33.6 per cent and 18 per cent of total suicides respectively during 2020.⁷

A study, *Aggregate availability of doctors in India: 2014–2030*, has estimated that India needs 2.07 million doctors by 2030 if it is to provide equitable healthcare.⁸ Aware of this exigency, the Government of India is expanding medical seats, both at the public and private sectors, with an aim of filling rural gaps.

According to latest available estimates, the number of MBBS seats has seen a jump of 48 per cent, from 54,348 in 2014-15 to 80,312 in 2019-20. There has also been a 47 per cent increase in the number of government medical colleges during the period between 2014 and 2019, compared to a significantly lower 33 percent increase in the total number of medical colleges – including government and private – in the past five years, from 404 in 2014-15 to 539 in 2019.⁹





STORY 1

FIROZABAD ECHOES WITH THE WAILS OF GRIEVING MOTHERS

Sudama Nagar in Firozabad district wears a shroud of gloom as many children succumb to a 'mystery fever' later identified as dengue.

Brijendra Dubey

Sudama Nagar (Firozabad), Uttar Pradesh



Pushpinder showed no emotion as he spoke of his six-year-old son Krishna. “Krishna had a fever, and in two days time he died,” he said tonelessly to *Gaon Connection*.

Pushpinder from Sudama Nagar in Firozabad, Uttar Pradesh, took his son to a private nursing home close by, but as there was no improvement in his son’s condition even after two days, he shifted the child to SN Medical College, Agra, nearly 50 kms away. “They asked for blood, but by the time we could give it, Krishna expired,” Pushpinder recounted.

Not too far away from Pushpinder’s home in Sudama Nagar, Birendra sat outside his home. From within his home came the loud wails of women.

“My six-year-old grandson died,” Birendra said. Veer complained of severe stomach ache, felt feverish and was rushed to the nearest government hospital where the family was turned away as there were no beds. “We went to several hospitals and

finally took him to Agra where in no more than forty five minutes, he died,” the grieving grandfather told *Gaon Connection*.

In the same *mohalla* of Sudama Nagar, is yet another heart broken family. “My seven-year-old son Lucky had a fever. We took him to SN Hospital, Firozabad where he died on August 31,” the father, a daily wager, told *Gaon Connection*. “We were told he had dengue... At the hospital, no doctor came for a long time to check my son,” he added.

A day before Lucky breathed his last, five-year-old Manya, also died in Sudama Nagar. “We didn’t even get time to respond properly to her illness. My Manya died two days after she had a fever and stomach ache,” her *nani* (maternal grandmother) told *Gaon Connection*.

MYSTERY FEVER IN FIROZABAD

It is the ‘mystery fever’ that is the common thread that runs through these four grieving families in Firozabad, who have all lost a young member. Hundreds more are sick and



in the district hospital this morning (September 4, 2021), senior officials have descended in the district to monitor and control the spread of the outbreak.

“We are creating additional beds at the Medical College,” Alok Misra, principal secretary, State Medical Education, Uttar Pradesh, told the press after reaching Firozabad. “I will be here for as long as it takes and will be touring the affected areas. This is an outbreak and we are making sustained efforts to clean up the affected areas with fogging, spraying, etc. We are also conducting house to house surveillance,” he added.

The principal secretary said that the district administration was reaching out to primary health centres (PHCs) and private hospitals for help so that all the pressure does not fall on the district hospital.

UNSANITARY CONDITIONS LED TO THE OUTBREAK

Gaon Connection met several residents of Firozabad who complained that the city was filthy with open dumping of garbage and dirty drains, which was the primary cause of the spread of the ‘fever’.

Inhabitants of Sudama Nagar said that the drains in the area were fetid and rarely cleaned. Only after the death or two was there any move towards spraying. “Even then, it is just outside, nothing is being done inside our homes where mosquitoes breed too,” Pushpinder said.

“Dengue is rampant. There is no cleaning,” the grieving father continued, whose home Chief

hospitalised in the district hospital, Firozabad.

This district, about 300 kilometres from the state capital Lucknow, has become the hotbed of a fever outbreak in western Uttar Pradesh. Till September 3, 2021 at least 50 people, most of them kids, had died in the district. Official reports said that nine blocks and one nagar nigam in Firozabad were affected by this fever.

Reports of young children falling sick due to ‘fever’, and some of them dying, are also pouring in from the neighbouring districts of Mathura, Etah and Agra.

As the death toll continues to rise in Firozabad, with one more young child dying



Minister Yogi Adityanath had visited last week post the son's death. "Only after the CM came has there been spraying of medicines and cleaning here," Pushpinder added.

"Firozabad is in a bad shape. Drains are overflowing, our drinking water is contaminated, the tubewells fall to disrepair every other day. We have already lost four kids from this area. Most of us living here are daily wagers and poor. What can we do," he asked.

"Cleaning in our area began only after my son, Lucky, died," Sanjay told *Gaon Connection*. "No one has come to clean the drains before this. Since yesterday, they have been spraying outside," he said.

"We are taking stringent steps to deal with the problem. We know the cases of viral fever have been increasing since August 31," Sudhir Bobde, nodal officer, Firozabad, told the press on September 4. He said a survey was being undertaken of the affected areas and everything was being done to kill the mosquito larvae.

Meanwhile, Chief Minister Yogi Adityanath made a statement, in which he said a special

operation would be carried out in the state under the supervision of senior officers from Lucknow.

"Between September 5 and 12, members of the health department, urban and rural development departments, *panchayati raj* and the women and child welfare department will work together," the CM said. "Every family will be screened, their neighbourhoods will be sanitised and a note will be made of the drinking water situation there," he added. According to Adityanath, such measures were expected to control the spread of diseases such as dengue, encephalitis, cholera, chikungunya, diarrhoea, etc.

Additionally, a central team from the Indian Council of Medical Research (ICMR) is investigating the outbreak and the state government has also stepped up surveillance for dengue and sent medical teams to aid health workers in Firozabad. On September 2, the Union health ministry sent a team from the National Centre for Disease Control (NCDC) to Firozabad to investigate the matter. The first case of the mystery fever was reported on August 18.



STORY 2

RURAL INDIA REPORTS 94% OF SNAKEBITE DEATHS IN THE COUNTRY

Annually, 58,000 people in India die of snakebites, yet rural primary health centres face an acute shortage of antivenom.

Shivani Gupta



Envenomed foot

On August 3, 2021, 23-year-old Sunita Meravi stepped out of her house in Katgo village of Kawardha district in Chhattisgarh and was bitten by a snake. Her family rushed her to a health centre 15 kilometres away where she was given an injection and referred to a hospital that was in the state capital Raipur, another 120 kilometres.

“She was given an injection but she remained unconscious. The centre referred her to Mekahara hospital in Raipur as that was the nearest hospital with an ICU facility,” Shimla Meravi, Sunita’s sister, told *Gaon Connection*. “I thought we would lose Sunita, but she responded to treatment at the hospital and survived,” she added.

India records an average of 58,000 deaths a year – which is almost half of the total annual snakebite deaths across the world.

A July 2020 report titled *Trends in snakebite mortality in India from 2000 to 2019 in a nationally representative mortality study* shows that around 2.8 million cases of

and in the past two decades more than 1.2 million have died of snakebites in the country. Up to 94 per cent of the snakebite deaths in the country are from rural India.

The study found that 70 per cent of the snakebite deaths occurred in eight states – Bihar, Jharkhand, Madhya Pradesh, Odisha, Uttar Pradesh, Andhra Pradesh (which includes Telangana, a recently defined state), Rajasthan and Gujarat. Uttar Pradesh tops the list with 8,700 deaths a year followed by Andhra Pradesh (5,200) and Bihar (4,500).

Half of all snakebite deaths occur during the southwest monsoon seasons from June to September.

Ironically, India is one of the leading producers of antivenoms but its rural health centres face an acute shortage of antivenoms, which is a leading cause of snakebite deaths, Kerala-based Jose Louies, who works with the Wildlife Trust of India, a non-profit conservation group, told *Gaon Connection*. “Snakebite is the neglected



Public health experts point out how most primary health centres (PHCs) at village level are ill-equipped to respond to snakebite cases. “Antivenoms are essential for the treatment. But, availability of antivenoms has always been an issue, especially in rural hospitals, PHCs, and CHCs, where it is most needed. There has always been a shortage,” Amulya Nidhi, a public health activist working on health rights in Madhya Pradesh, told *Gaon Connection*.

“The second aspect is the lack of ICUs. Snakebites are not a priority for the government, because it is a rural-tribal centric illness, and not an urban issue,” Nidhi added. He is also a working member of the Jan Swasthya Abhiyan, a national network of civil society organisations and people’s movements working for health rights.

Timely access to safe and effective antivenoms, could prevent most deaths.

But access is a big problem in many rural areas. “From the health centre, we booked a car and rushed to the hospital which was 120 kilometres away. Sunita regained consciousness only the next morning,” said Shimla. The family had to spend Rs 1,500 to reach the hospital, something many poor households can ill afford.

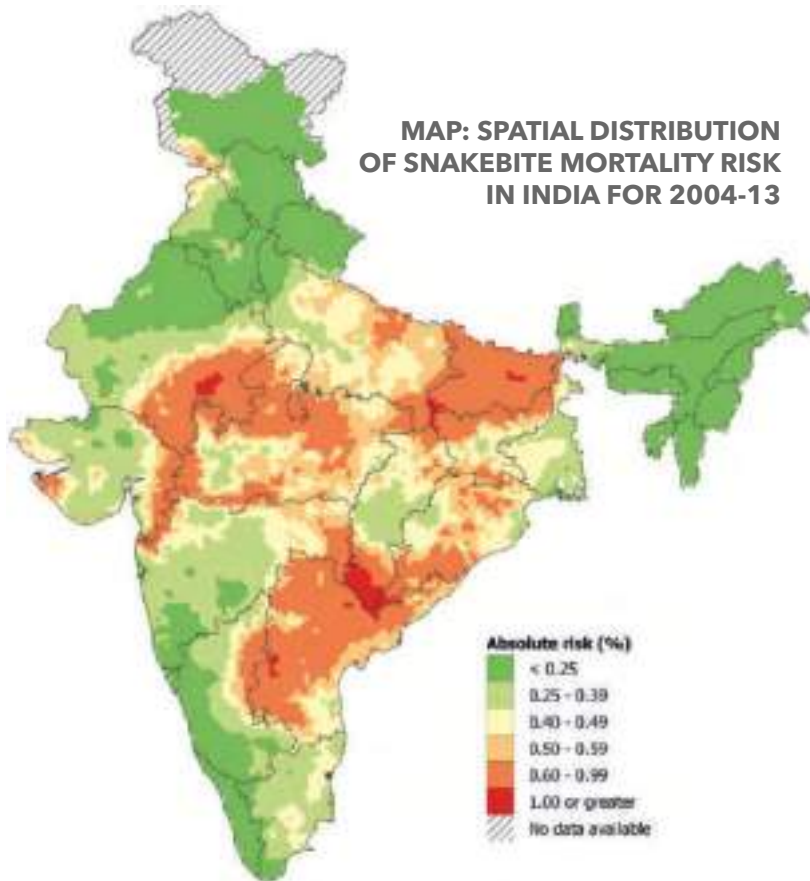
“Last year, fifty such cases of snake bite from our village were reported, of which five people even died. They could not be treated in time,” Shimla pointed out.

The World Health Organization (WHO) also acknowledges that many people in India die of snakebites every year while on their way to a distant health facility.

public health crisis in our country,” he added.

DELAY IN TREATMENT

“Most of the snakebite deaths occur because of the delay in getting the anti-venom injection. Sometimes people resort to witchcraft to treat the patient,” Shailendra Singh, Lucknow-based scientist from Turtle Survival Alliance that works on species that are at a high risk of extinction, told *Gaon Connection*.



“Most of the PHCs and CHCs do not have antivenoms. Sometimes people have to be taken to district hospitals which are generally twenty-thirty kilometres away from the villages,” Patna-based Shashi Yadav, president of ASHA Karyakarta Sangh, Bihar, told *Gaon Connection*.

“Villagers are forced to visit private health centres or faith healers for treatment,” she added.

Anuj Kumar Chaudhary, medical officer, at a PHC in Fatehpur, Uttar Pradesh admitted lack of adequate health facilities. “Snakebites cases come here but we refer them to community health centres (CHC). They are given anti snake venom and tetanus injections. The antivenom is available only at the CHC level. The severity and time of treatment matters,” he told *Gaon Connection*.

SHORTAGE OF ANTIVENOM INJECTIONS

Of the 300 species of snakes in India, the cobra, Russell’s viper, krait and saw-scaled vipers are the cause of 98 per cent of deaths.

Bites by venomous snakes can cause paralysis that may prevent breathing, bleeding disorders that can lead to haemorrhage, irreversible kidney failure and tissue damage that can cause permanent disability and limb amputation, if not death.

Antisnake venom is listed as an ‘essential’ drug for primary health centres. According to the Indian Public Health Standard (IPHS) 2012 guidelines for PHCs, 24 hours emergency services include appropriate

management of injuries and accident, first aid, stitching of wounds, incision and drainage of abscess, stabilisation of the condition of the patient, etc.

“As per IPHS, all rural government hospitals including PHCs should have antivenoms. In flood prone areas [such as Bihar], the snakebite cases increase. Most of these cases happen during night time. It becomes very crucial to provide antivenoms on time. But the issue is neglected despite knowing its prevalence,” rued Nidhi.

“Every hospital at *taluka* level is supposed to have antivenoms. But many times, we see either these vials are not available or are old, meaning they have lost their efficacy,” Louies said.

A Twitter thread by a physician based in Maharashtra, SP Kalantri, said that antivenoms are often unavailable or unaffordable for the poor rural people, who are most likely to be bitten. “Most PHCs either do not stock enough antivenom or administer only a tenth of the full dose—a common practice,” he tweeted.

DEPENDENCE ON QUACKS AND LOCAL HERBS

With no access to adequate health facilities, villagers often end up visiting local *jhola chaap* or traditional herbal practitioners for snakebites. In the monsoons, quacks do brisk business.

“These days I do not have time to even have lunch. I will remain busy for the next three to four months,” Shobhan Singh Bisht, a

With no access to adequate health facilities, villagers often end up visiting local *jhola chaap* (quacks) or traditional herbal practitioners for snakebites.

traditional herbal practitioner, based in Thalisan village in Pauri Garhwal district of Uttarakhand told *Gaon Connection*. “People from many villages come to me. I treat them using *jadi buti* [medicinal plants]. And in one or two days, they get cured,” he claimed.

According to Bisht, who has been treating snakebites for over 30 years, there are no hospitals nearby. “People trust me with herbal medicines. If they do not get treatment for three hours, they die,” he said, adding that he earns Rs 50 to Rs 100 per patient.

RAISING AWARENESS AND RESCUING SNAKES

Despite India reporting the highest snakebite deaths in the world, there is a lack of awareness around symptoms and treatment for snakebites in its rural population.



POISONOUS SNAKE BITE MARKS AT FOOT

“These snakebites are common in villages. Toilets are constructed a little far from home and often people encounter snakes,” Manjeet Kaur, a social worker associated with snake rescue operations in Raipur, Chhattisgarh, told *Gaon Connection*.

“Sometimes people do not even realise that they have been bitten by a snake. If snake bite is reported on time, people can be saved,” said Kaur.

With the help of ‘We the People’, Kaur’s informal network of 50 volunteers, she has been involved in snake conservation and rescue operations since 1988.

“The snakebite cases generally increase in rainy seasons because places where snakes hide get flooded, for instance fields and rat holes... During the monsoons, we get ten times more calls for help,” she added.

According to her, awareness is needed at *gram panchayat* level. “Simple measures like taking torches at night can also prevent snakebites,” she said.

and gloves while out in fields can help prevent snakebites. “They are a bit expensive [costing around Rs 500 a pair] for a villager but this can really be helpful. Often grains lying in the open attract rats thereby snakes. Ensuring cleanliness, proper lighting, avoiding dark corners, using torches while out can avoid such cases,” suggested Louies.

SERPENT MOBILE APP

While the rural health centres grapple with snakebite cases, a mobile application called Serpent was Launched in 2016. This app includes a guide (at present only in English language) to the snakes in India and a search facility to find the nearest hospital that treats snakebites.

The app connects people to the nearest snake expert who can help them in a snakebite emergency. It also helps identify the venomous snakes and gives real-time reports about how many rescuers are out in the field, the number of snakes rescued and other critical data.





THE STATE OF
**Rural
INDIA**
REPORT 2021
CHAPTER 2


HEALTH

STORY 3

SUMIBAI TARAL HAS LIVED WITH A BROKEN ELBOW FOR 20 YEARS

Tribal people in Igatpuri, Maharashtra have to trek miles through the forests and cross swollen streams for treatment.

Varsha Torgalkar
Nashik, Maharashtra



Sumibai Taral, who is in her 70s, doesn't remember what it is like to use her left hand. For over 20 years now, she's been using only her right hand to perform all chores, ever since she fell and injured her hand on the slopes of a hamlet in Chinchale Khair in the reserved forest of west Nashik.

Taral, a Thakur tribal lives in Ughadwadi village in Igatpuri block of Nashik district, 166.8 kilometres (km) from Mumbai. Her injured arm was tended to at home using traditional methods as she could not trek for an hour through the forest, crossing three streams of water. It was only a month after the fall that she managed to visit the rural hospital in Igatpuri.

Less than 200 km from the country's glitzy financial capital, there are several tribal villages in Igatpuri, Nashik, that have no access to basic healthcare facilities. Take the case of Chinchale Khair *gram panchayat*, 1,100 people living in the five villages of Ughadwadi, Vaitagwadi, Khairewadi, UMBERWADI and Chinchale Khair. Except for Chinchale Khair, the other

villages do not have electricity.

All five lack a primary health centre (PHC) or sub-centre. The nearest PHC is at Nandgaon Sado village, 10 kilometres away. The tribal people prefer to go to Igatpuri, which is also 10 kilometres away, as it is more accessible, transport-wise, with a state highway.

Usually, PHC members should visit hamlets once a month, said a block health officer. But, tribal people say that even in Chinchale Khair at the foothills, which has road access, they visit only one in three or four months. And when they do, people from the five hamlets that make up Chinchale Khair trek down to meet the PHC staff.

MAHARASHTRA'S RESERVED VILLAGES

In May 2016, Oarm Jual, the then Union tribal affairs minister informed the Lok Sabha that Maharashtra has 73 villages in reserved or protected areas in forests, having a population of 81,675, of which 80,000 people



And, it is this official standard that the administration cites for the lack of medical facilities in tribal forest villages. “We can develop a sub-centre for a five thousand tribal population, but cannot do so for a population of a thousand people. Besides, we cannot build any structure on forest land as the land needs to be in the name of the health department. We can, however, send ASHA [Accredited Social Health Activist] and ANM [workers or Auxiliary Nurse Midwife] to the hamlets periodically,” Kapil Aher, district health officer, Nashik, told *Gaon Connection*.

POOR ACCESS TO MEDICAL HELP

Thirty-two-year-old Balu Bhaushil’s uncle Sadashiv died in February 2020. “My uncle developed a stomach ache when we were at work in the afternoon. We carried him for two hours on a wooden stretcher to Chinchale Khair and from there to the rural hospital in Igatpuri in a car. We were told to take him to the district hospital in Nashik. He died before we could get an ambulance,” Bhaushil of Ughadwadi told *Gaon Connection*. The tribal people are too poor to afford private healthcare.

Manga Balu Khadake, *sarpanch*, Chinchale Khair, told *Gaon Connection* that when someone in one of the hamlets falls ill, they have to be carried for an hour on a makeshift wooden stretcher or *doli* to reach Chinchale Khair. “Though two to four people can carry a stretcher, we need eight people, so that no one gets too tired, and we can carry it in rotation,” he said.

Khadake said that it was difficult to carry patients after dusk due to fear of wild

belong to the scheduled tribes.

Many of these tribal hamlets, which are located in hilly areas of the state and are thinly populated, neither have a sub-centre nor a PHC. Chinchale Khair *gram panchayat* has none.

As per Indian Public Health Standards, one sub-centre takes care of 5,000 people in the plains and 3,000 people in tribal and hilly areas. In the plains, there is supposed to be one PHC for 30,000 population while in the hilly tribal areas it is one PHC for a 20,000 population.



animals as these villages are located around dense forests. “During rains, we prefer to not take a patient to hospital as we have to cross three swollen streams. Every year, at least one or two people die because they don’t receive treatment on time,” he added.

Meanwhile, there is no road connecting Ughadwadi, Khairewadi and Vaitagwadi to Chinchale Khair, he elaborated.

LABOUR PAINS

To take tribal pregnant women to the hospital in Igatpuri for delivery is daunting, villagers said. “Eight men have to carry the woman in labour, on a make shift stretcher, for at least half an hour,” Chhaya Balushil, 25, an *anganwadi* helper who lives at Ughadwadi, told *Gaon Connection*.

Every month, at least one or two women from these four hamlets deliver a child. Almost all of them are carried to the hospital this way. “No one has so far died en route, but that does not

mean it cannot happen. There should be a sub-centre,” Chhaya added.

Sakru Bhurbude, a 29-year-old resident of Ughadwadi decided to deliver her third baby at home as her earlier experiences were painful. “Villagers took me in *doli* to the rural hospital in Igatpuri for my earlier two deliveries. That experience was painful. And so, I decided to deliver at home with the help of other women,” she told *Gaon Connection*.

Do the villagers have access to the Pradhan Mantri Jan Arogya Yojana (Ayushman Bharat), which aims to provide free access to healthcare for 40 per cent of people in the country? Only 10 to 15 people have it, claimed Khadake.

Bhagwan Madhe, activist, Shramjivi Sanghatana, Nashik, echoed Khadake. He told *Gaon Connection* that “hardly eight to ten people in ChinchaleKhair group *gram panchayat* have Ayushman Bharat cards. Many don’t have the necessary documents



to avail of free treatment under the various schemes. They find it difficult to travel to the taluka office for this.”

CHINCHALE KHAIR ISN'T ALONE IN ITS SUFFERING

Something similar is happening at Yelawali, a tribal village with a population of 108 people in Bhimashankar Sanctuary, which falls under Bamle *gram panchayat* in Rajgurunagar block of Pune. The village has no PHC or a sub-centre. “Our village is in the hills in a dense forest and the mobile network is patchy. An ambulance can reach Bhorgiri near the foothills, but we have to carry patients and walk through the forest for a kilometre-and-a-half, crossing a river and a wooden bridge to reach the ambulance,” Subhash Dolas, a resident, told *Gaon Connection*.

Many pregnant women from this village also go downhill to stay with their relatives so that they don't have to struggle for their regular check-ups, Dolas said.

Abhay Bang, a social activist and community health researcher in Gadchiroli district, Maharashtra, said hundreds of revenue villages in the forests don't have easy access to healthcare facilities. “If the government cannot develop infrastructure in interior villages, it should make villages self-dependent. Youth and women should be trained to work like ASHA workers,” he told *Gaon Connection*.

This story was reported under NFI Fellowships for independent journalists.



STORY 4

WOMEN IGNORANT OF COPPER IUD USED ON THEM POST DELIVERY

Between April 2019 and March 2020, Copper Ts were inserted into 3,984 women across Dindori in Madhya Pradesh, many of them without consent.

Deepanwita Gita Niyogi



After the birth of her second daughter in 2014, Rajkumari Parwar, 25, tried in vain to conceive again. Meanwhile, she suffered frequent pain and cramps.

Five years later, in 2019, she went to the district hospital in Dindori, Madhya Pradesh, where she learnt the pain and cramps were due to an intrauterine contraceptive device (IUD), commonly known as Copper T, that was displaced. Rajkumari said she was not aware that it had been put in the first place after she had delivered her second child.

“The pain was too much to bear, and I requested the health staff in Dindori to take it out,” Parwar, who lives in Jarasurang village in the tribal-dominated Dindori district, told *Gaon Connection*. Parwar gave birth to twin boys in August 2020, but they died.

According to Parwar, she has come across many cases where Copper T, a contraceptive for women, was inserted without consent. Several women in Dindori told *Gaon Connection* they experienced

pain, cramps and increased bleeding during menstruation because of the Copper T. They claimed it was inserted after delivery when they were unconscious or barely so.

However, these allegations were dismissed by Chandrasekhar Dhurve, the medical officer of Samnapur block. “There is an issue regarding Copper T insertion due to low awareness level in the district,” he admitted to *Gaon Connection*, but added that consent is taken from women.

“When women face problems due to Copper T insertion, the health department staff helps them,” he said. “In rare cases, problems may arise in a few but all government guidelines are followed,” he added.

The Madhya Pradesh government has a target for family planning. Between April 2019 and March 2020, 3,984 women across the seven blocks in Dindori, had Copper Ts inserted. It was against a target of 3,000 and the achievement rate was 132 per

For 26-year-old Geeta Thakur, even standing upright was painful so she got her Copper T removed six months after it was inserted without consent, she said.

health officer of Dindori, said postpartum IUD is offered only to those who consent and sign up for it.

ALLEGATIONS OF FORCEFUL INSERTIONS

Geeta Thakur of Bamhani village delivered her first child, a boy, in May 2018. “The device must have been inserted right after birth. No family member was allowed in the labour room. I realised something was wrong after I saw a string hanging while urinating,” she told *Gaon Connection*.

Her friend Reena Armu took her to an ASHA (Accredited Social Health Activist) worker. ASHA worker Dhaneshwari Manikpuri in Bamhani told *Gaon Connection* that Copper T is inserted right after the baby is born by the staff nurse in attendance.

For 26-year-old Thakur, even standing upright was painful so she got her Copper T removed six months after it was inserted without consent, she claimed. “I will never get it put back on again,” she said.

Thakur works in paddy and wheat fields and also takes up work under MGNREGA to earn a living. “How will I work in constant pain? I also want a second child,” she told *Gaon Connection*.

However, Sushma Namdeo, the labour room in-charge at the community health centre in Dindori’s Bajag block also dismissed allegations of insertion of Copper T without consent. The women are counselled before insertion, and never coerced, she said. “Filling up a consent form before the insertion is mandatory,” she told *Gaon Connection*.

And, between April 2020 and January 2021, despite the COVID-19 pandemic, the achievement rate was 84 per cent.

Chhavi Bhardwaj, mission director, National Health Mission, Madhya Pradesh denied there was any target for intrauterine contraceptive device, no-scalpel vasectomy or tubal ligation.

“However, it is true that the female sterilisation rate is high in MP. We have been trying to push for male sterilisation as well, through counselling. This is a patriarchal society and it is not always possible to convince men. Sterilisation is a voluntary process,” Bhardwaj told *Gaon Connection*.

The tubal ligation target is also high in Dindori – fulfilment was 104 per cent from April 2019 to March 2020 as against 4.29 per cent for no scalpel vasectomy. Dhurve admitted the female sterilisation rate was always high.

Meanwhile, RK Mehra, chief medical and



But neither Thakur nor Parwar had filled up any form, they said. Thakur's husband Omkar said they had "no prior information or knowledge regarding this".

PANDORA'S BOX

According to some field-level workers advising women on health and nutrition in Dindori, the Copper T insertion issue came to light in 2017–2018 when regular meetings involving women's self help groups (SHG) started taking place in villages. Slowly, the women spoke up and realised they were not alone in their pain.

Godaravi Maravi, Bhubaneshwari Maravi and Dropati Paraste are part of the 6,500-member-strong Rani Durgawati Tejaswani Mahila Sangh, an umbrella organisation of women's SHGs based in Samnapur block of Dindori.

Maravi, former sangh president, said the Copper T issue was often spoken about in their meetings. "Many women who are not literate do not understand the issue. But, we have told them why consent is important," she

told *Gaon Connection*. In 2018, a few members of the Sangh had raised the matter both verbally and in writing, with Dhurve.

Manorama Pratap Sonwani, a staff nurse at the district civil hospital, Dindori, told *Gaon Connection* said Copper T is inserted as a family planning measure and is popular across the state, due to incentives. It is common to experience pain for one-and-half months after insertion, but many women confuse it with postpartum pain, she added.

ARE INCENTIVES DRIVING COPPER T USE?

Care providers or those who insert the Copper T get Rs 150 a case and every woman who gets it inserted is paid Rs 300. Besides this, the ASHA worker also gets Rs 150 for motivating women. "A birth companion is present during delivery and so nothing is done secretly as some women allege," Sonwani said.

Chhoti, a 32-year old resident of Barga village in Dindori, also did not know she had

an intrauterine contraceptive device inserted, till she went to the hospital following discomfort and pain. “I confided in another woman during an SHG meeting. A nurse removed it at the community health centre,” she told *Gaon Connection*.

Vikram Singh Thakur, district programme manager, health, said that across the 45 delivery points in Dindori, apart from childbirth, tips on family planning are also given. Out of these, IUCD insertion is carried out in nine places. These include primary as well as community health centres and district hospitals.

“Most devices work for five to ten years. We strictly monitor the IUCD and if complications arise, we remove it as well. There are oral contraceptive pills too, and the woman chooses what method she wants,” Thakur told *Gaon Connection*.

BURDEN OF FAMILY PLANNING ON WOMEN

Indore-based Amulya Nidhi, who is associated with Jan Swasthya Abhiyan, a network of several organisations working in public health, said the IUCD must not be viewed in isolation. “Madhya Pradesh has poor implementation of PCPNDT [Pre-Conception and Pre-Natal Diagnostic Techniques Act, 1994] as well as right to safe abortion, and both these issues must be connected to family planning,” he said.

“Often, there is a conflict between male and female sterilisation targets. There is more focus on female sterilisation and the rate is very high in the state. The target for male sterilisation is ignored. During February-



March, when the target completion time nears, often, force is used to get women to comply,” Amulya Nidhi told *Gaon Connection*.

Even though the family planning target for Madhya Pradesh for 2020-2021 was hit by the COVID-19 pandemic, in Dindori, no-scalpel vasectomy achievement rate was a mere 2.23 per cent against tubal ligation achievement rate of 61 per cent. The state-wide figure from April 2020 to January 2021 stands at about 68 per cent.

Rajeev Shrivastava, deputy director, family welfare, Madhya Pradesh, said there is a difference “between initiative and target as far as family planning is concerned. I have not received any complaints at the state level regarding complications post insertion of Copper T without knowledge. However, if there is any specific complaint we can look into it”, he told *Gaon Connection*.

STORY 5

CONSUMED BY HUNGER

Nearly 43% of under-six kids in India, suffering severe acute malnutrition, are in Uttar Pradesh. The pandemic has worsened matters.

Mohit Shukla

Sitapur, Uttar Pradesh



Kanti Devi gave birth to a son Anmol three months ago. At three months, Anmol should have weighed over six kilograms. But, his recorded weight was only three kilograms. Adit, her 18-month old son, weighs only 6 kgs.

“Both my sons have fever and diarrhoea,” Kanti Devi told *Gaon Connection*. “I took them to the community health centre at Tambour, and I was asked by the doctor there to bring them to the district hospital,” she said.

Kanti Devi is from Basantapur in Behta block of Sitapur district, about 112 kilometres from the state capital Lucknow. The frail 27-year-old, is herself a patient of tuberculosis (TB).

“Anmol and Adit both fall into the severe acute malnutrition (SAM) category or the red category of malnutrition,” Mohammed Afaq, the doctor treating them at the nutritional rehabilitation centre, district hospital in Sitapur, told *Gaon Connection*. He added that 18-month-old Adit showed signs of TB and had eczema.

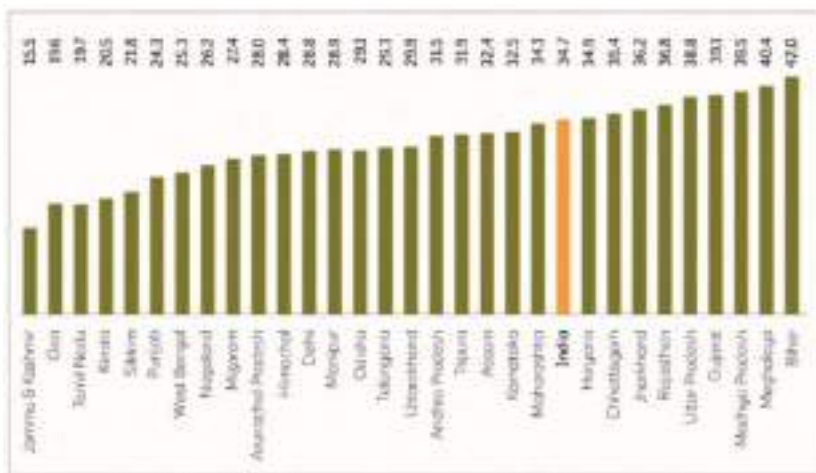
“We are seeing difficult times,” Om Prakash, Kanti Devi’s husband, told *Gaon Connection*. There was sadness in his voice as he revealed they had lost their three-year-old daughter Anshika (who also had TB) to malnutrition in 2018. That memory still haunts them.

Om Prakash owned five *bighas* of land that was washed away during the floods. Now a daily wage labourer at a private plywood factory, he earns about Rs 200 a day.

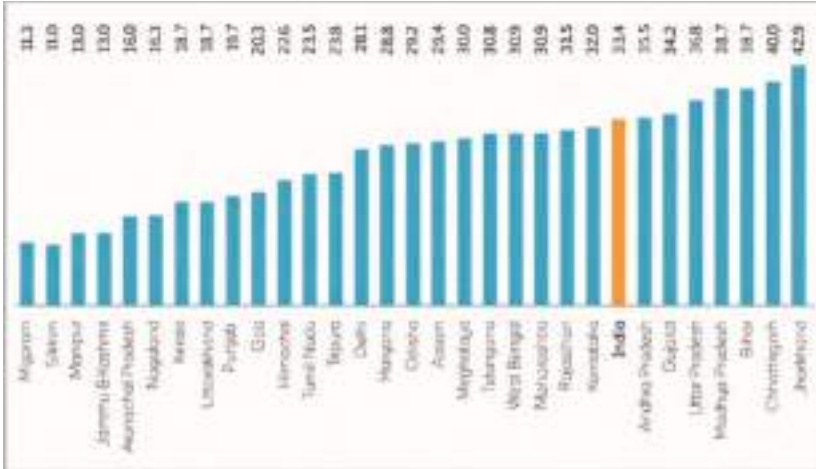
“The doctor has advised my wife and children to eat fruits, vegetables and milk,” Om Prakash told *Gaon Connection*. “We barely get one full meal a day, where am I going to go for fruits, milk and vegetables,” he asked. There were days when they just had *namak roti*, he complained.

In a recent RTI query, the Women and Child Development Ministry stated that till November 2020 it had identified 927,606 cases of SAM kids between the age groups of six months and six years across the country.

STATE-WISE PERCENTAGE OF STUNTED CHILDREN (0-4 YEARS) IN INDIA



STATE-WISE PERCENTAGE OF UNDERWEIGHT CHILDREN (0-4 YEARS) IN INDIA



Source: Comprehensive Nutrition National Survey (CNNS) of 2016-18.



Of these, the highest – 398,359 – were in Uttar Pradesh followed by Bihar at 279,427.

SAM significantly increases the risk of death in children under five years of age and such children need institutional care.

GROWING BURDEN OF MALNUTRITION

As per the Comprehensive Nutrition National Survey (CNNS) of 2016-18, 35 per cent of Indian children aged 0-4 years were stunted (low height for age) and 33 per cent under-4 kids were underweight.

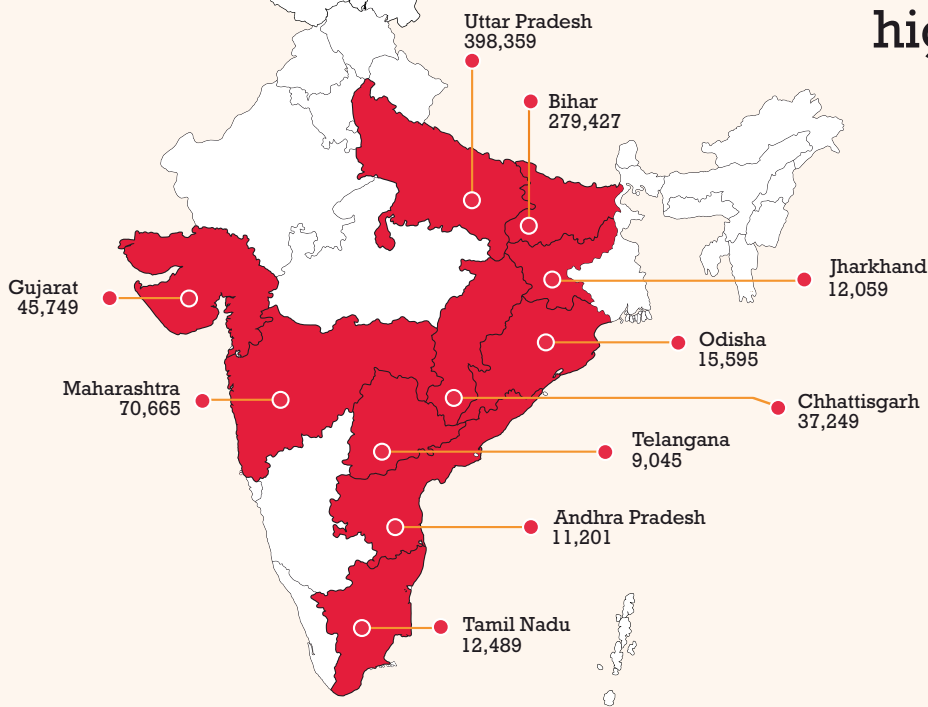
The survey found 38.8 per cent under-4 kids

were stunted in Uttar Pradesh and almost 37 per cent under-4 children in the state were underweight

Raj Kapoor, ICDS (Integrated Child Development Services) programme officer of Sitapur, told *Gaon Connection* that in his district there are 543,241 children in the age group 0-5 years. “Of these, 44,610 children fall in the yellow category [MAM] and 8,229 children fall in the red category [SAM],” he said.

About 383 kilometres from Sitapur, in Mirzapur, 281,065 children are in the under-5 age category. “In our district, 30,225 under-five children are in the MAM category and 5,977 children are in the SAM category,” Pramod

Top 10 states with highest under-6 SAM kids



Note: An estimated 927,606 severely malnourished under-6 kids were identified across India till November 2020 by the Women and Child Development Ministry.

Source: PTI RTI reply

Singh, district programme officer from the child nutrition department, told *Gaon Connection*.

In Pilibhit of the 176,784 children who fall in the 0-5 years category, 508 are in SAM and 1,129 in MAM category.

In Unnao, 241,000 children fall in the 0-5 years category. Of these, at least 28,000 are in the yellow and 4,000 in the red category of malnutrition, Durgesh Singh, programme officer Unnao, told *Gaon Connection*.

PANDEMIC, HUNGER AND MALNUTRITION

In Badaun of the 288,706 registered kids in the age group of 0-5 years, 14,846 are in the MAM and 4,592 in SAM category.

Four-month-old Choti in Belhara village in Ailiya block, Sitapur weighs just three kgs. "We took her to the district hospital, where she was declared *ati-kuposhit* [SAM]," Meena Devi, Choti's mother, told *Gaon Connection*.

In Shahjahanpur of the 299,797 children in the 0-5 years age group, 9,161 are in MAM and 2,474 in SAM categories.

Meena Devi and her husband Ramesh Kumar have five children, all below 10-year-of-age. They own no land, and her husband earns a livelihood breaking stones. But the pandemic and the lockdown have put paid to that and he has no steady income now.

In Barabanki there are 325,965 children in the 0-5 years age group and 5,436 are in the MAM and 1,310 in the SAM category.

The pandemic has worsened child health and malnutrition in India. Parents have lost their livelihoods, schools are shut (so no mid-day meals) and *anganwadi* services are disrupted.

India Child Well-being Report 2020, pointed out how the COVID19 pandemic and the subsequent lockdown has put almost 115 million children at the risk of malnutrition. The *Global Nutrition Report 2020* has also taken cognisance of the grave economic crisis due to COVID19 in developing countries like India.

In November 2020, UNICEF released its report, *Averting a Lost COVID Generation*, which warned that globally an estimated two million additional child deaths and 200,000 additional stillbirths could occur over a 12-month period with severe interruptions to services and rising malnutrition. An additional six to seven million children under the age of 5 will suffer from wasting or acute malnutrition in 2020, a 14 per cent rise that will translate into more than 10,000 additional child deaths per month – mostly in sub-Saharan Africa and South Asia.

WHERE'S THE PROMISED RATION?

Integrated Child Development Services (ICDS) the world's largest programme for early childhood care and development, covers over 158 million children (2011 Census) in the 0-6 years age group, and pregnant and lactating mothers in the country.

ICDS offers six services: supplementary

ICDS, the world's largest programme for early childhood care and development, covers over 158 million children in the 0-6 years age group in India.

nutrition, preschool non-formal education, nutrition and health education, immunisation, health check-up and referral services, through 1.36 million functional *anganwadi* centres spread across all the districts in the country (as of June 2018).

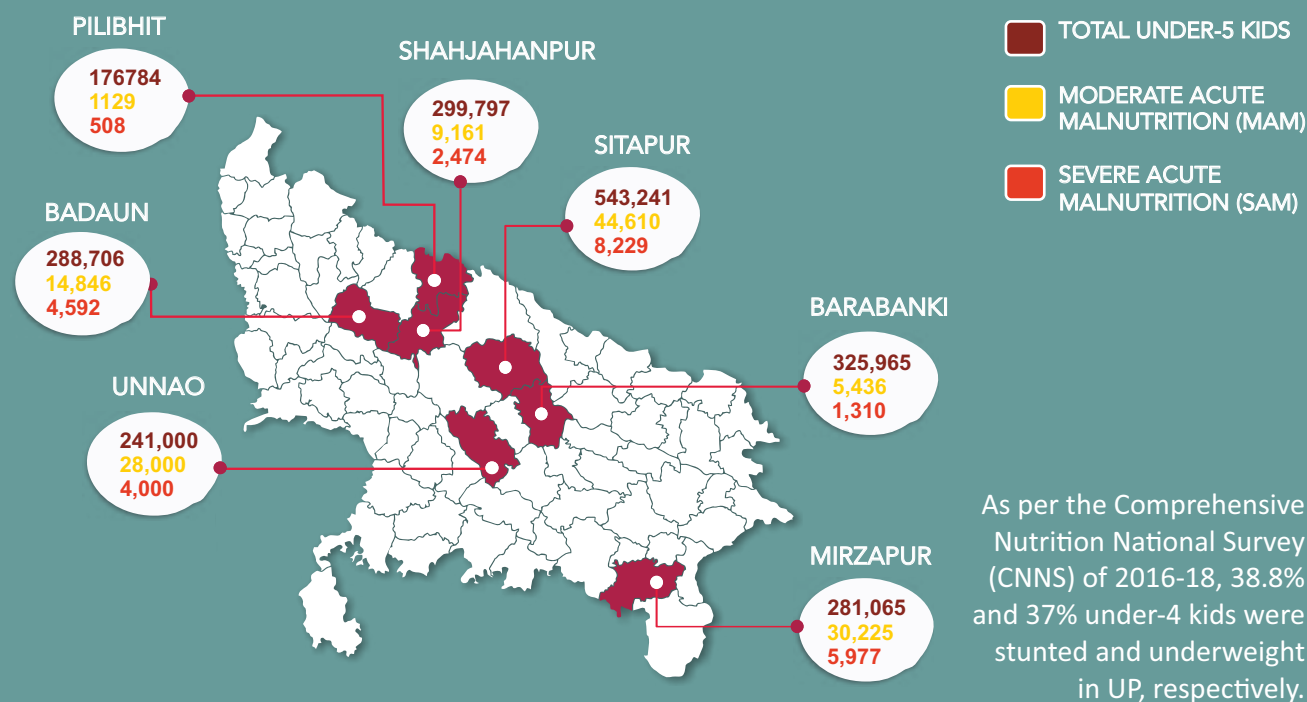
Uttar Pradesh has 189,789 *anganwadi* centres. As per the Bal Vikas Seva Evam Pushtahar Vibhag of the state government, about 8.3 million children between the age group of six months to three years receive take-home ration including *daliya*, etc.

Another over four million children in the 3-6 years age group receive energy dense sweet *daliya*, *namkeen daliya* and special *laddus*. Similarly, 3.55 million pregnant and lactating women are covered in the state under take-home ration of ICDS.

But with *anganwadis* shut since the beginning of the pandemic, supplementary nutrition of young children, and pregnant and lactating women has suffered.

Malnourished children in Uttar Pradesh

43% of all severely malnourished under-6 kids in India are in UP



Sources: District level officials and the Comprehensive Nutrition National Survey 2016-18

Meena Devi told *Gaon Connection* that food was scarce and even the dry ration they get from the *anganwadi* was inadequate to meet their nutritional needs. "If we get wheat, there is no rice, if there is rice, there is no oil, and if we ask the *anganwadi* people, they do not like it and it ends up in arguments," she said.

According to Raj Kapoor, programme officer of ICDS, there are 4,232 *anganwadi* centres in the district. And 182,373 children between the ages of three and six years are enrolled in it.

"The *dal* that was to be distributed in March has only just arrived in June. We are yet to receive the entire ration for April, May

and June," Kapoor told *Gaon Connection*.

"We have four severely malnourished children in our village," Rajkumari Mishra, *anganwadi* worker at Sumli village, Behta block, told *Gaon Connection*. "We have not received dry rations since March this year. How do we ensure grains for these children," she asked. *Anganwadi* workers are also supposed to track the weight and height of the children in their villages. "I have neither a weighing machine, nor a measuring tape. I just go by looking at the children and putting them down as malnourished or severely malnourished," complained Mishra.

"The number of malnourished children in



the district is high and we do not have sufficient Nutrition Rehabilitation Centres,” Afaq, doctor at the nutrition rehabilitation centre, Sitapur district hospital, told *Gaon Connection*. “The hospital just has a ten-bedded ward for the nutrition centre. The post of a dietician has also been vacant for three years,” he added.



Sitapur’s CMO, Madhu Gailrola told *Gaon Connection*, “Our Rashtriya Bal Swasthya Karyakram team is visiting the villages to identify the malnourished children. Other than the nutritional rehabilitation centre, we have no other special arrangements for the malnourished children,” she added.



Gaon Connection tried to contact Vishal Bharadwaj, District Magistrate of Sitapur for his comments on the delay in providing rations. Despite repeated calls and messages, he did not respond.

Meanwhile, as Om Prakash and Ramesh Kumar set out for work, there is just one thought in their minds. “Will I make enough money today to buy milk for my child?”

With inputs from Ramji Mishra in Shahjahanpur, Brijendra Dubey in Mirzapur, Sumit Yadav in Unnao and Virendra Singh in Barabanki.



THE STATE OF **Rural INDIA**

REPORT 2021

CHAPTER 3




AGRICULTURE

- Half of farm households in rural India are in debt and every fifth such household took loan from private moneylenders.
- The average amount of outstanding loan per such household has jumped from Rs 47,000 in 2013 to Rs 74,121 in 2018.
- There has been a rise in the number of suicides of agricultural labourers in the past one year. Death by suicide has decreased among land-owning cultivators by six per cent.
- One in every two interviewee farmers expressed inability to buy the quantity of food they earlier did due to drop in household income, finds a survey the *Impact of COVID-19 second wave on the Indian farming community*.
- One fifth of the farmers also reported borrowing money from informal sources, like friends, informal saving groups and local money lenders.



Every second agricultural household in India is under debt, as per the latest NSO (National Statistical Office) survey *Situation Assessment of Agricultural Households and Land Holdings of Households in Rural India, 2019*, which was released in September 2021.

Half of the farm households in rural India are in debt and every fifth such household took loan from private moneylenders, the official survey revealed.¹

On an average, outstanding loan per agricultural household is Rs 74,121. Only 57.5 per cent of the loan was taken for agricultural purposes.

Whereas the percentage of these agricultural households in debt has slightly

reduced from 51.9 per cent in 2013 to 50.2 per cent in the recent survey, the worrisome fact is that the average amount of outstanding loan per such household has jumped 57.7 per cent in the five years period – from Rs 47,000 in 2013 to Rs 74,121 in 2018.

The National Statistical Office has reported these findings based on its 77th round of survey of more than 45,000 farm households conducted between January 1 and December 31, 2019.

FARM LAWS AND FARMERS' PROTEST

The year 2021 began with the continuation of farmers' protest against the three agricultural laws passed by the



Protection) Agreement on Price Assurance and Farm Services Act, 2020; the Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020; and the Essential Commodities (Amendment) Act, 2020.²

Farmers claimed these laws were detrimental to the cultivators and in favour of large corporates. Their other demands included payment of compensation to the families of farmers who died in the agitation and enactment of a law to make the minimum support price (MSP) mandatory.

Gaon Connection reported about the developments related to the farmers' protest throughout the year. It also covered the protest by over 15,000 farmers from across Maharashtra, led by the All India Kisan Sabha, to demand settlement of their 7/12 land titles, repeal of the three farm laws, a central law on MSP, resumption of the loan waiver scheme and repeal of the new labour codes.³

FARMERS' SUICIDE

According to report titled *Accidental Deaths & Suicides in India 2020*, released last October by National Crime Records Bureau, there has been a rise in the number of suicides of agricultural labourers in the past year. The report showed that the suicide cases have risen among agricultural labourers by 18 per cent in 2020.

However, death by suicide has decreased among land-owning cultivators by six per cent. This accounted for seven per cent of the total suicide cases in the country last year. Maharashtra reported the maximum suicides in the farming sector.⁴

government in 2020. Braving heatwaves, unseasonal rain and harsh winters, the farmers' protest completed a year at Delhi's borders in November 2021, and as the year came to an end, the farm laws were finally repealed by the Indian government in the winter session of the parliament. The protesting farmers packed up and left Delhi.

The three contentious farm laws against which the farmers launched mass protests include the Farmers (Empowerment and

IMPACT OF THE SECOND WAVE ON AGRICULTURE

Whereas the first wave of COVID did not hit India's hinterland, the second wave of the pandemic last year tore through rural India, and the agriculture sector bore its brunt. Several states implemented stringent lockdowns which left vegetable and fruit cultivators staring at huge losses whereas consumers in cities ended up paying exorbitant rates for their fruits and vegetables.⁵

Digital Green, which has been working with National Rural Livelihood Mission and their state counterparts, and the Department of Agriculture in various states, carried out a survey on the *Impact of COVID-19 second wave on the Indian farming community*. This assessment was done in four states – Andhra Pradesh, Bihar, Jharkhand and Odisha.⁶

One in every two farmers (51 per cent) expressed inability to buy the quantity of food they earlier did due to drop in household income, or because of a sharp increase in the food prices. Another one-third of the respondents (34 per cent) shared that they were unable to buy food because of food shortages during the second wave of the pandemic.

As part of this survey, nearly half of the farmers (46 per cent) had started spending their personal and household savings to tide over the pandemic, with another one-quarter of them (24 per cent) reducing expenditure on non-food essentials, like healthcare, education and clothing. One fifth of the farmers (21 per

"One in every two farmers (51 per cent) expressed inability to buy the quantity of food they earlier did due to drop in household income, or because of a sharp increase in the food prices. Another one-third of the respondents (34 per cent) shared that they were unable to buy food because of food shortages during the second wave of the pandemic."

cent) also reported borrowing money from informal sources, like friends, informal saving groups and local money lenders.

Further, two-fifths (40 per cent) of the farmers felt that they might not be able to sell their entire harvested crop in the market. Only around 28 per cent of the respondents said that the farmer producer organisations (FPOs) will be able to help them in selling their produce this season.

COVID IMPACT ON WOMEN FARMERS

Seven out of 10 rural women work in the agriculture sector, mostly as daily wage labourers, under highly exploitative working conditions, and barely 13 per cent of these women own land. Whereas the COVID pandemic has impacted agriculture sector, it has been particularly hard on women farmers.

COVID-19 induced lockdowns have had far



reaching impacts on the rural sector, particularly on women farmers. These impacts have been exacerbated by lack of access to reliable and timely agriculture information, pointed out a March 2020 study *Women's access to agriculture extension amidst COVID-19: Insights from Gujarat, India and Dang, Nepal*.⁷

This study, based on phone surveys, found that “the pandemic adversely affected women farmer's access to agricultural extension and agriculture productivity.” It stressed on “an unequivocal need for creating more resilient and inclusive agriculture extension systems that can ensure that women farmers have access to timely and quality information, especially during periods of crisis. There are several factors that could limit women's participation in agricultural extension activities and programmes, including their access to assets and resources; conditions that influence women's access to information including delivery channel, timing, language, location, duration; and women's role in agriculture.”

Another study, *Locked out of livelihoods:*

impact of COVID-19 on single women farmers in Maharashtra, India, published in October 2021, found that “COVID-19 led to food insecurity, loss of farm incomes, decline in employment opportunities and increased debt traps for single women farmers.”⁸

PRICE RISE AND AGRICULTURE

Increase in prices hit the farmers from all corners this year. The rise in diesel prices led to rise in input and irrigation cost for paddy farmers who complained that the recent rise in the MSP of paddy was woefully inadequate by comparison.⁹

Similarly, the prices offered at the wholesale markets for Haryana's tomatoes were so low it didn't even cover the transportation costs. Farmers found it better to destroy the yield than selling it.¹⁰

Gaon Connection also reported how the apple farmers in Himachal Pradesh struggled after Adani group fixed the price of apples at Rs 16 less than the last year's rate which led to a corresponding slump in *mandis* and caused distress among the



cultivators.¹¹

SHORTAGE OF FERTILISERS

In the past year, during both *kharif* and *rabi* season, farmers faced urea and di-ammonium phosphate (DAP) shortage respectively whereas the government claimed that there was enough supply of the fertilisers. Farmers complained that they had to pay more than the government fixed rate for one sack of urea and also stated that urea wasn't available at several government centres.¹²

The situation replayed again in October 2021 during *rabi* crop sowing season when the farmers queued up for days for DAP to prepare their lands. There were also reports

of two farmers collapsing and dying while they were waiting in line.¹³

Gaon Connection reported about the suicide by a young farmer in Khargone, Madhya Pradesh, due to debt, poor rainfall and a failing crop.¹⁴

Apart from that it also reported about the alleged suicide by farmers due to shortage, overpricing and black-marketing of fertilisers – DAP and NPK – in the country.¹⁵

IMPACT OF EXTENDED MONSOON ON AGRICULTURE

The erratic monsoon pattern impacted the crop yields and affected both the *kharif* and *rabi* crop sowing season.¹⁶

The unprecedented rains in Uttar Pradesh destroyed vegetable cultivation – wholesalers, farmers, retailers and consumers faced the consequences of the damage. Farmers in Madhya Pradesh had similar woes.¹⁷

A similar thing happened with farmers in Bihar, which faced back-to-back flood events, and where large swatches of farmland was inundated and standing crops destroyed.¹⁸

Gaon Connection also reported how incessant rainfall washed away the hope of paddy farmers and buried them under debt.¹⁹ The rains also considerably damaged banana, sugarcane and vegetable cultivation in the state.²⁰



STORY 1

UP FARMERS DISTRESSED DUE TO CROP PROCUREMENT DELAYS

Desperate farmers in Uttar Pradesh were forced to sell paddy at rates much lower than the government-approved MSP because the procurement centres did not pick up their produce in time.

Arvind Shukla

Lakhimpur Kheri and Shahjahanpur, Uttar Pradesh



At the Paliya Mandi in Lakhimpur Kheri, Uttar Pradesh, mounds of golden grain lie on the ground waiting to be weighed and procured by the government procurement centre, which has been open for business since October 1, 2021. But till October 13 not a single grain of rice was bought or sold.

“I brought fifty quintals of paddy here and while it was to be weighed on October 12, nothing has happened,” Joginder Singh, a disgruntled farmer from Naugawa village in Lakhimpur Kheri, told *Gaon Connection*.

Joginder, who has 4.5 acres (1.8 hectares) of land, had harvested paddy 20 days ago, dried it and brought it to the *mandi*, and he was still waiting for it to be procured.

Other farmers like him also waited to sell at the minimum support price (MSP) of Rs 1,940 a quintal at the government *mandi*.

“I have to prepare my land to sow mustard and I have to go back and pay the farm labourers,” Joginder worried.

“We are not procuring anything yet because there is moisture in the grains,” Balend Kumar, manager of the procurement centre told *Gaon Connection*. “There has been excessive rainfall this year and the moisture content in the paddy is a lot more than the allowed seventeen per cent,” he pointed out. “Moisture content is the first parameter that is checked before procuring the grain,” he said.

FARMERS FORCED TO SELL PADDY AT LOW RATES

About 50 kilometres away from Paliya, the story is no different in Shahjahanpur. “No one wants my grain. And nothing has happened at the government procurement centre set up near my village,” Malkit Singh, who has cultivated paddy in his five acres of land, told *Gaon Connection*.

The desperate farmer said he was left with no alternative but to sell his produce at a much lower price than MSP to private

Despite the government procurement centres officially opening shop from October 1 in Uttar Pradesh, farmers in Shahjahanpur and Lakhimpur Kheri complained that no procurement was done till October 13.

traders.

According to him, private traders who are willing to take the grain off him will do so only on a two month credit at Rs 1,200 a quintal. Or, if the farmer wants the money immediately, he will have to settle for Rs 1,000 to Rs 1,100 a quintal, he explained.

“The government procurement agency said the grain does not meet the required standard,” the hapless farmer said. He had already loaded 50 quintals of paddy on to a trolley to take it to the procurement centre, and there was more from his five-acre farm.

Despite the government procurement centres officially opening shop from October 1, 2021 in Uttar Pradesh, farmers in Shahjahanpur and Lakhimpur Kheri complained that no procurement was done till October 13. Meanwhile,

procurement of paddy has ‘officially’ begun in Hardoi, Bareilly, Moradabad, Meerut, Saharanpur and Aligarh.

Meanwhile, flood-hit villagers neither have any work, nor any income, but have loans to repay.

The Uttar Pradesh government has set the target of procuring seven million metric tonnes of paddy, more than the previous year where 6.8 million metric tonnes were procured. Chief Minister Yogi Adityanath has repeatedly said that the farmers should not face any problems in selling their paddy and the transactions should be completely transparent.

According to the website of the Food and Civil Supplies Department, 3436.4 metric tonnes of paddy had been procured from 733 farmers in Uttar Pradesh as of October 18, 2021 at the cost of Rs 66.7 million. There were a total of 255,560 farmers who had registered to sell to the government.

PROCUREMENT PROBLEMS

“Paddy procurement has begun in the district. There were some issues that needed to be sorted out with the rice mill owners, that has been done,” Arvind Kumar Chaurasiya, district magistrate, Lakhimpur Kheri, told *Gaon Connection* on October 18. “The farmers have been asked to bring the paddy directly to the *mandis* where it can be weighed,” he added.

However, according to farmers, because many of the government procurement centres were not going about their job on



time, mill owners and private traders were exploiting the situation, and forcing farmers to sell their produce at low prices.

Countering the accusation, a trader on condition of anonymity told *Gaon Connection*, "There is so much moisture in the paddy. The farmers harvest the crop and directly load it onto their trolleys without drying it first. When it dries it reduces in weight considerably. Who will bear that extra cost? That is the reason we pay them a lower rate," he said.

In a farmers' meet at Tikunia in Lakhimpur Kheri on October 12, Rakesh Tikait, national spokesperson for Bharatiya Kisan Union, had accused the big mill owners and private traders of short changing the farmers and carrying away the cheaply bought paddy in truckloads to sell at MSP elsewhere to make huge profits. He added that it was the responsibility of the government to ensure the grain was procured at MSP.

LAND RECORDS TO SELL PRODUCE IN OPEN MARKET

Meanwhile, in Gola Mandi in Lakhimpur Kheri, farmer Mohammad Shamim waited with about 50 quintals of paddy to sell there. He had already sold about 200 quintals from his 60-acre farm, in the open market.

"The farmer needs the money and the government procurement is yet to gather steam," the 60-year-old farmer told *Gaon Connection*. That was the reason farmers were selling in the open market and to the mills directly, he said. But because of some disagreement with the mills, he had come to the Gola *mandi*.

"If we want money up front, mill owners and private traders will not pay more than nine hundred to eleven hundred rupees a quintal," Shamim said. "If we agree to give the paddy to them on credit, they will pay



us around twelve hundred a quintal, but after two months,” he explained.

“But we have to also furnish them with our land record papers and Aadhaar cards,” Shamim from Lakhimpur Kheri said.

Farmers allege that the same mill owners and private traders, using the land papers, etc., register at the government website and then sell the grain to the government at MSP thereby making a huge profit.

Dharmendra Malik, media-in-charge of the Bharatiya Kisan Union, told *Gaon Connection*, “On one hand the farmers are not getting the MSP for their produce. On the other hand, the private traders are

demanding land record documents and Aadhaar details from them.”

Why does the private trader need these papers, Malik demanded to know. “It can only mean that using these documents the traders are selling the produce they buy from farmers at throwaway prices and then selling it at the government procurement centres at MSP thereby making a profit,” Malik alleged.

Farmer leaders raised this matter of private traders demanding papers from the farmers and buying paddy outside the *mandis* at low rates, at a dharna in Aliganj, Lakhimpur Kheri on October 13. After this, the district magistrate prohibited any direct selling to the mills.

‘NO LUXURY OF TIME’

“I need the money by evening and selling it to the government is not viable for me. It takes way too long for me to sell my paddy to them and receive the payment,” Manjeet Singh a farmer from Chaugda farm, Lakhimpur Kheri, told *Gaon Connection* as he waited to sell 250 quintals of paddy to a private trader at Rs 1,200 a quintal, way below the MSP of Rs 1,940 a quintal.

“I need diesel, I have to plough my land and sow my next crop; I have to pay the labourers. Small farmers do not have the luxury of time. He has to sell his produce before he can sow his next crop. He has to sell fast in order to run his household,” he said.

“When the traders can get two-month credit, why would they want to pay cash



up front,” Malkit Singh from Shahjahanpur, asked. “But the farmer sometimes has no other option as he often has no place to store his grain. I have seen that in several *mandis* across the state the paddy is going at not more than thirteen hundred rupees a quintal,” he said.

On October 12, at Pilibhit, paddy sold at Rs 1,300, but Malkit Singh could not go there as he would have to find money for diesel to transport his grains 85 kilometres to Pilibhit. “Diesel costs Rs 95 a litre,” he said.

The procurement happens in two stages. Government procurement in some districts is between October 1 and January 31, 2021 while in others it is between November 1 and February 28, 2022. Four thousand procurement centres have been proposed across the state.

As of October 13, there were 2,040 procurement centres already in operation. Meanwhile, the woes of farmers continue. “The price of diesel, fertilisers, pesticides, everything has gone up. But we are getting less and less for our grains. If this continues, we will be forced to sell our lands,” Malkit Singh lamented.

With inputs from Mohit Shukla.



STORY 2

A DECADE AFTER THE BIHAR RICE MILL SCAM, 2000 MILLS STILL SHUT

*A multicore scam shut down thousands of rice mills
in Bihar and farmers continue to suffer the consequences as
paddy procurement by the government remains very low.*

Mithilesh Dhar Dubey



A decade ago, Bihar, which ranks in the top 10 states in the country in paddy production, had over 3,000 rice mills.

A large number of farmers in the state sold their paddy to these rice mills. Paddy production in the state has been on a rise. From 6.8 million tonnes in 2015-16, it jumped to 8.09 million tonnes in 2017-18, though last year a production of 6.18 million tonnes was recorded in the state. Paddy productivity has also increased from 1,075 kg per hectare in 2005-06 to 2,447 kg per hectare in 2017-18, as recorded by the department of agriculture, Bihar government.

While the cultivation of paddy has been steadily increasing, procurement of paddy has been well below the desired target of 30 lakh tonnes as set by the state government. Between 2014 and 2019, the state government has procured only 25 to 30 per cent of the produce.

Why is it that in spite of such a high production of paddy, with more than 40 per

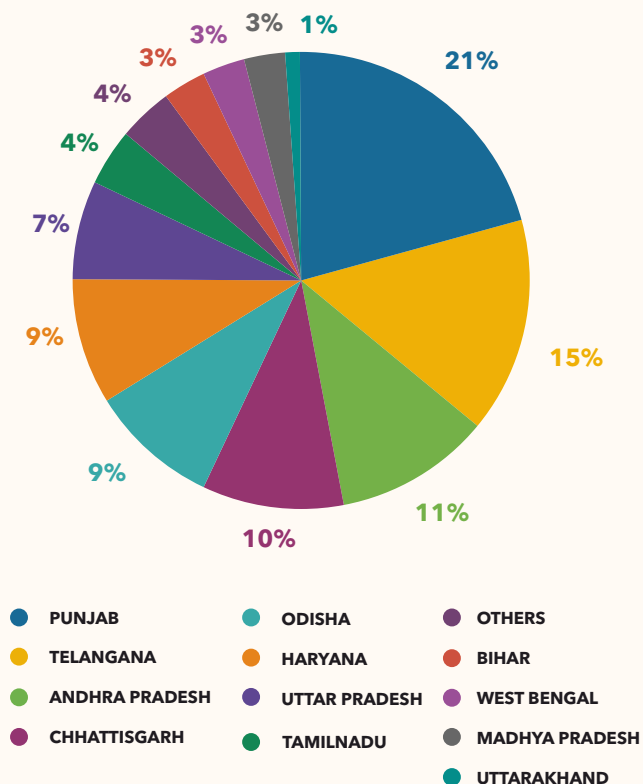
cent of the state's cultivable land under paddy, the procurement remains low?

A part of the answer lies in a multi-crore rice mill scam that rocked the state a decade ago because of which, of the 3,000 rice mills in the state, 2,000 were declared defaulters and shut down. These rice mills are still shut and the court cases are going on.

Paddy procurement has suffered and the farmers are forced to sell their crop below the minimum support price (MSP) to local traders and middlemen. The latter in turn transport Bihar's paddy to other states to sell and make a killing.

The Bihar government procures far less from its farmers than what it needs for its public distribution system (PDS). "Even today, the state government buys only ten per cent of the 40 lakh metric tonnes of rice it requires for the PDS, from the millers," Shashikant Jha, secretary of the Bihar Rice Mill Association, told *Gaon Connection*.

MAJOR RICE PROCUREMENT STATES (2019-20)



Source: Ministry of consumers affairs food and public distribution

He pointed out that the Bihar state government calls in 2.5 million tonnes to 2.8 million tonnes of rice from Punjab, Haryana, Chhattisgarh, Madhya Pradesh and Telangana in order to fulfil its PDS requirements.

“If this rice was procured from the farmers within the state, the government would also save the money, but the government is not doing it,” he complained.

Shashikant Jha blamed the closing down of 2,000 rice mills in the state a decade ago for the woes of paddy farmers who are unable to get MSP for their crops.

Ten years later, court cases are still being fought over the issue, and only 1,000 rice

mills are still operational. Farmers who are unable to sell to the millers now are forced to sell to *arthiyas* or middlemen at prices way below the MSP they would have got had they sold to the government agencies.

BIHAR'S RICE MILL SCAM

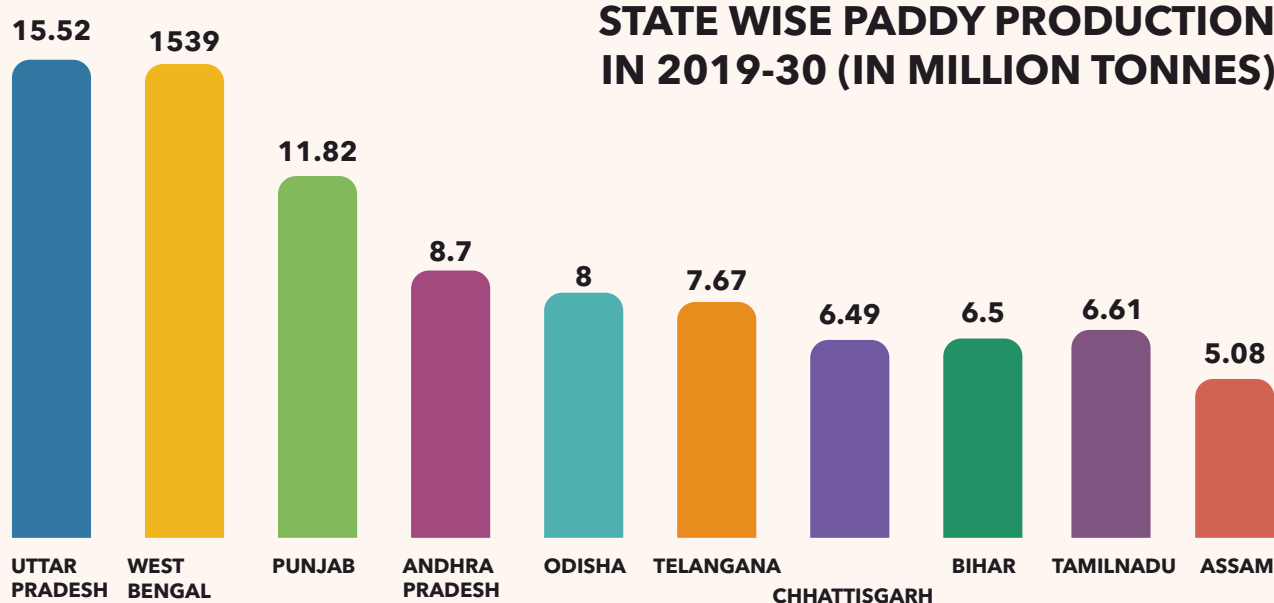
In 2006, the Nitish Kumar government in Bihar abolished the APMC (Agricultural Produce Market Committee) Act claiming to rid farmers of the menace of middlemen. In order to facilitate the farmers, the government set up Primary Agricultural Credit Societies (PACS), that was to be the agency for paddy procurement.

PACS is a *panchayat* and rural level unit that provides loans to farmers and helps sell their produce at a good price. There are about 6,598 PACS centres functioning in Bihar. PACS along with 500 other vyapar mandals (government agencies) procure paddy under the supervision of the Bihar State Food and Civil Supplies Corporation from the farmers, which in turn sends the procured paddy to the millers.

“The millers mill the paddy and give back the processed rice to the Bihar State Food and Civil Supplies Corporation through PACS,” explained Rai. Food Corporation of India, then procures it from there.

The problem arose when the government agencies began to drag their feet in picking up the rice consignments from the mills. “In order to get the paddy from the Bihar State Food and Civil Supplies Corporation, the millers had to make a deposit only after which the consignment of paddy came to them,” explained Rai.

STATE WISE PADDY PRODUCTION IN 2019-30 (IN MILLION TONNES)



Source: Ministry of consumers affairs food and public distribution

According to him the procurement agency kept sending paddy consignments to the mills for which the millers had to pay a deposit each time. Deposits to the procurement agencies kept increasing as did the stock of rice back in the mills.

“Contractors began demanding we carry the rice to the procurement centres at our own expense,” said Rai. That led to a huge protest by the millers and many of them were declared defaulters.

“PACS began to give the paddy to be processed only to those millers affiliated with the government,” Gajendra Singh, the PACS head at Devhalia *panchayat* in Kaimur district, told *Gaon Connection*.

Slowly the millers began to run into losses and this is believed to be one of the reasons for the Bihar rice scam of nearly Rs 1,500 crores between 2011 and 2014 which led to the state government shutting down nearly

2,000 rice mills. In districts like Rohatas, Nalanda, Kaimur, Buxar, Bhojpur and Aurangabad, there were more than 600 rice mills, now there are barely a hundred. Kaimur alone used to have more than 200 rice mills, out of which only a handful remain.

This led to an uproar of protests and court cases that are still being fought with no solution in sight. The disputed rice mills continue to be shut and the farmers continue to be exploited and are forced to sell their produce at low rates to middlemen who then transport their paddy to Punjab and Haryana to sell at MSP.

FARMERS SUFFER

“If we are able to secure the government rate, we may end up getting approximately one thousand eight hundred and eighty eight per quintal as per the MSP, but if we sell in the open market, we get only

If the farmers in Bihar want to sell their paddy to the government, they have to register online with the department of cooperatives. However, the data indicates very poor procurement in the state through the government procurement agencies.

between Rs 900 and Rs 1,200 per quintal,” Deepak Sharma, a farmer from village Bhadheria, block Ramgarh in Ramgarh assembly constituency of Kaimur district, told *Gaon Connection*.

According to him, growing paddy needs huge investment. “We buy paddy seeds for forty to forty five rupees a kilo. We then spend nearly two thousand rupees on ploughing and sowing the seeds. About a thousand rupees goes towards manure and irrigation costs,” he explained. Further, machine harvesting of the crop and its transportation from the field to house is about six thousand. “If all these are added, the cost comes around to Rs 3,600 per *bigha*. One *bigha* yields about two to three quintals of paddy. Now, you do the math and estimate the damage yourself,” he added.

If the farmers in Bihar want to sell their paddy to the government, they have to

register online with the department of cooperatives. However, the data indicates very poor procurement in the state through the government procurement agencies.

In 2019–2020, about 409,368 farmers submitted online applications for paddy procurement.

“Our region mostly cultivates the Mansuri variety of paddy which earlier had a major demand in Jharkhand. That has almost ended,” Deepak Konar, a rice mill owner from Rohtas, told *Gaon Connection*. He said the mill owners were better off in the early days when they used to receive the paddy from the farmers, process it and then sell it. “The farmers also used to get good prices. If the miller fails to get the right price, how would he possibly give a fair price to the farmers,” he asked.

While the government and the millers fight it out in the courts, officials drag their feet on procedure, the paddy farmers in Bihar continue to suffer the backlash of a decade-old multi-crore rice scam.





STORY 3

NO END IN SIGHT TO STUBBLE-BURNING IN PUNJAB

Despite subsidies, crop residue management machines and monetary fines, farmers said they were forced to burn the stubble.

Sarah Khan

Sangrur and Patiala, Punjab



“Wait for 3 pm, the entire sky will turn dark grey as farmers start burning their crop stubble. The visibility decreases, eyes sting and it becomes difficult to breathe,” Raghvir Singh, a farmer from Sangrur district of Punjab, told *Gaon Connection*.

Over 230 kilometers north-west from Delhi, in Sangrur – one of the districts worst affected by stubble burning in Punjab – the farmers prepare their farms for the next crop and burn *parali*, (paddy residue). A thick layer of grey descends and even a double face mask cannot filter out the burning smell. “I don’t like burning stubble either but what other option do I have,” asked Satvinder Singh, a small farmer who owns five acres (about two hectares) of land.

Winter is here and so is the annual season of smog and sickness. It is also the time when the Delhi government will blame farmers in Punjab and Haryana for causing air pollution by burning the crop residue in their fields. Farmers will complain that no government has offered them a viable solution to the

problem.

Meanwhile, the central government will ask ‘tough’ questions to the commission for air quality management it had set up in August 2020 to tackle air pollution in NCR and adjoining areas. And it will be business-as-usual ...

A FIERY ISSUE

According to data by the Punjab Remote Sensing Centre, Ludhiana, till November 10, 2021, Punjab had recorded a total of 55,573 cases of farm fires. Of these, 4,156 fires were recorded on that very same day with Sangrur’s contribution being the highest at 566.

Meanwhile, the government claims to have taken measures to check the number of stubble burning cases by providing subsidising crop residue management (CRM) machines, issuing challans to those farmers who set their fields on fire, and offering financial incentives.

“The packet [about 50 kg DAP] which came for Rs 465 now costs Rs 1,250. The big traders collude with the government and hoard DAP stocks and sell in black market for Rs 1,700,” Satvinder Singh, Gharachon village, Sangrur, Punjab.

This year (2021), environmental compensation of Rs 6.5 million has been imposed on 2,364 sites in Punjab, as per data shared by Krunesh Garg, an official at the Patiala branch of the Punjab Pollution Control Board. But stubble burning remains a burning issue.

MACHINES ARE EXPENSIVE

The Happy Seeder and Super Seeder are tractor mounted machines that cut, lift rice straw, sow wheat into the soil, and deposit the straw over the sown area as mulch. It allows farmers to sow wheat immediately after their rice harvest without the need to burn any rice residue.

The average maximum price of a Happy Seeder is Rs 151,200. The average maximum permissible subsidy per Happy Seeder per beneficiary is Rs 75,600, as per the Ministry of Agriculture & Farmers Welfare 2018.

The Punjab government provides a 50 per cent subsidy to individual farmers to buy the machines and the farmers cooperatives get a subsidy of 80 per cent.

“I will have to spend three lakh rupees to first buy them and then an additional seven lakh rupees for the 55 hp tractor,” Harjinder Singh, a farmer based in Gharachon village, Sangrur, told *Gaon Connection*.

“Then there is the expenditure on diesel to run the tractor. How can a small farmer afford that? The cheapest option is to buy a matchbox and set the stubble on fire,” the farmer added.

“Last year diesel prices were Rs 60–65 a litre and now it has crossed Rs 100 per litre,” Satvinder Singh of Gharachon village in Sangrur, pointed out.

The price of DAP fertiliser has also shot up. “The packet [about 50 kg] which came for Rs 465 now costs Rs 1,250. The big traders collude with the government and hoard DAP stocks and sell in black market for Rs 1,700,” Satvinder complained.

As per the Directorate of Information and Public Relations, Punjab, the state government had decided to provide a subsidy worth Rs 3,000 million to the farmers for the purchase of 23,500 farm equipment for the management of paddy residue. The government claimed it provided over 51,000 such machines to farmers with a subsidy of Rs 4,800 million in the last two years.

Provision of subsidy to the farmers’ cooperatives hasn’t been very effective,



Lakhwinder Singh, former professor and head of department of Economics at Patiala-based Punjabi University, told *Gaon Connection*. “There are very few cooperatives operating effectively in Punjab. They don’t have a very wide reach since they don’t have enough machines to meet the demands, hence subsidies to them also aren’t effective,” he said.

As per official data, 76,626 crop residue management machines were deployed in Punjab in 2020 which included 13,316 happy seeders and 17,697 super seeders machines. Sangrur had the maximum number of happy seeders and super seeders.

On the other hand, the sown area under kharif paddy in Punjab in 2021 was 3.066 million hectares, out of which nearly 16 million tonnes of residue will be generated.

Analysing the available data, the Council on Energy, Environment and Water (CEEW)

India’s 2021 report – *Why Paddy Stubble Continues to be Burnt in Punjab?* – states that the enormous quantum of stubble makes its management a logistical issue.

RESERVATIONS ABOUT THE CRM MACHINES

“The happy seeder doesn’t remove the stubble properly and when we sow our seeds on that land, it gets infected by pests. Last year, my entire crop was destroyed due to this,” Harjinder Singh, a farmer from Gharachon village, told *Gaon Connection*.

The government is also trying to promote PUSA bio-decomposers which convert paddy stubble into compost in about 20-25 days. But this has few takers.

“After harvesting paddy, we only get one week to cultivate wheat. The decomposer sprays take 15-20 days to decompose the



residue. We don't have that much time on our hands," Raghvir Singh, a farmer based in Gharachon village of Sangrur, complained.

He suggested that the government should pay a cash incentive of Rs 200 per quintal for the paddy residue so that it can be used to hire labourers for removing the paddy residue from their fields.

Kurinji Selvaraj, a programme associate at CEEW India, stated that while the government could provide financial assistance to farmers who incorporate stubble back to soil using machines or through composting techniques, the long-term solution lies in moving away from growing paddy.

"Haryana has promoted crop diversification for years through cash incentives. While there are problems with the procurement of crops other than paddy at MSP (minimum support price), the Punjab government should formulate a plan that involves persuasion and incentives to make this happen," said Selvaraj.

MACHINES ALONE ARE NOT THE ANSWER

There is a pressing need to find alternative uses of the paddy residue outside agriculture instead of using machinery to remove the stubble or decomposing it, explained Lakhwinder Singh, former professor with the Punjabi University.

Krunesh Garg, an official at the Patiala branch of the Punjab Pollution Control Board told *Gaon Connection* that a compressed bio-gas plant was under construction near Sangrur which will pick up 30,000 tonnes of paddy straw this year and convert it into biogas. This will aid in reducing the number of stubble burning cases, he said.

"This is not a one year or a three-year job. We are trying to ensure that fewer fire counts take place every year and there is a decrease in burnt area also but it will take time," Garg said.

In its 2021 study, CEEW India concluded that the state government's policy to allow industries to use crop residue in their boilers is a step in the correct direction. However, the report also notes that it will



take time to mature.

“The alternative to these machines is using the residue outside the field. This can take several forms, such as fodder for cattle or raw material for packaging, and its largest (envisioned) use is in the form of fuel in powerplants and industries,” Selvaraj explained.

But, there are logistical hurdles, she pointed out. “Punjab’s capacity to use paddy residue as fuel for power plants remains below one million tonnes per annum. This is less than six per cent of the residue generated this year.”

POLICY NEEDS COURSE-CORRECTION

“The government’s policy-making has been flawed because of which the problem of stubble burning persists. The government has failed to find a long-term

solution to the problem,” the retired professor added.

Kiranjit Kaur, who owns a small piece of land in Gharachon village, blamed the government, and the system for the poor condition of the farmers. “First God betrayed us with a delayed monsoon, then the government and even those whom we go to sell our crops to, pay us half the price for our produce. We are living a hand to mouth existence, we eat what we grow,” she said.





STORY 4

BRIMATO, THE PLANT THAT GROWS TWO VEGETABLES

Agricultural scientists successfully develop the Brimato – that yields both brinjals and tomatoes. Plans to scale up its cultivation.

Divendra Singh



As tomato prices hit the roof, here's some good news. Soon, you may be able to grow both tomatoes and brinjals from the same plant in your own kitchen or terrace garden.

Scientists from the Indian Institute of Vegetable Research (IIVR), Varanasi, Uttar Pradesh, a field unit of the Indian Council of Agricultural Research (ICAR), have developed a technique of grafting that allows two vegetables to grow from the same plant.

"The grafting of the tomato and brinjal has been successful. They are both from the same family though they have different characteristics," Ananth Bahadur, principal scientist at IIVR, Varanasi, told *Gaon Connection*.

According to Bahadur, the scientists have been working on this new grafting method

for a while and the Brimato – the brinjal and tomato combination – has been their greatest success.

The Brimato incorporates the sturdy qualities of the brinjal plant that withstands both excessive water logging and droughts well, the principal scientist said.

While so far they have experimented with grafting vegetables from the same family, the scientists plan to embark on grafting other vegetables together too.

HOW ARE THE PLANTS GRAFTED?

"When the brinjal plant is about twenty five to thirty days old, and the tomato plant is about twenty two to twenty five days old, they are grafted together," Bahadur explained.



“Sixty to seventy days after they have been planted, the plants begin to yield the brinjal and tomatoes. Each plant yields up to 2.3 kilograms of tomato and 2.64 kilos of brinjal.”

Because of its hardiness, the rootstock of the brinjal is used as the base, after which the two vegetable plants are grafted, the scientist added.

After the grafting, the plant is kept in a controlled environment with carefully regulated temperature, humidity and light.

Then, the Brimato plant is kept in shade for five to seven days. In all, the entire grafting operation takes anything up to 18 days after which it is ready to be transplanted into the field, Bahadur said.

There are plans afoot for large scale cultivation of the Brimato. “Sixty to seventy days after they have been planted, the plants begin to yield the brinjal and tomatoes. Each plant yields up to 2.3

kilograms of tomato and 2.64 kilos of brinjal,” the principal scientist said.

This method would be perfect to grow in kitchen and terrace gardens too, said Bahadur. “In a small area you can have two different vegetables,” he pointed out.

Presently, there is more research and recce happening along with farmers to see how Brimato cultivation can be scaled up.

The Indian Institute of Vegetable Research has already successfully grafted the Pomato, a combination of the potato and the tomato.



THE STATE OF
**Rural
INDIA**

REPORT 2021

CHAPTER 4



LIVELIHOOD

- Around 230 million people across India plunged below the minimum wage threshold of Rs 375 per day
- More than 15 million people in the country lost their jobs permanently due to the COVID19 pandemic
- Share of women in the total workforce declined from 31 per cent in 2013-14 to 29 per cent in April-June 2021
- More than 11 million migrant labourers returned to their villages during the COVID19 pandemic
- 90 per cent of the allocated budget for MGNREGA was used up with five months of the financial year 2021-22 still to go
- The lockdown jeopardized 6.33 crore micro, small and medium enterprises



The COVID19 pandemic has plunged millions of people in the world into drudgery and destitution as their livelihoods have taken a direct hit. According to several reports, it is the workers in the informal sector who have taken the most devastating hit. The situation in India is no different.

Between December 2019 and December 2020, around 230 million people across the country fell below the minimum wage threshold of Rs 375 per day, pointed out a report titled *State of Working India 2021 – One Year of Covid-19*, released on May 5, 2021 by Azim Premji University.

The report also stated that more than 15 million people in the country lost their jobs permanently as the COVID-19 pandemic

ravaged the country's economy in 2020.¹

According to the Centre for Monitoring Indian Economy, unemployment levels in the country touched 14.3 per cent in May 2021, with over 17 per cent unemployed in urban India, and nearly 14 per cent in rural India.

On September 27, the Union Labour Ministry launched another survey report *Quarterly Report on Employment Scenario*, which showed that the share of women in the total workforce had declined in the last eight years, from 31 per cent in the Sixth Economic Survey (2013-14) to 29 per cent in the first quarter of the employment survey in April-June in 2021.

A State Bank of India report *Ecowrap* released on October 29, 2021, indicated that the share of the informal economy in the country's gross domestic product (GDP) has decreased from 52 per cent to 15–20 per cent in the past three years following the adoption of Goods and Services Tax (GST), enhanced digitalisation, and demonetisation.²

Meanwhile, it was also reported that more than 11 million migrant labourers returned to their villages during the COVID-19 pandemic. Despite several government welfare schemes, most continue to suffer the consequences of the lockdown as their livelihoods were derailed and their earnings were reduced by half.³

"90% of the allocated budget for MGNREGA was used up within seven months of 2021-22 and the remaining funds could at best provide only 13 days of employment per household till March 31, 2022"

eSHRAM PORTAL

This year, the Indian government launched a national database portal called the eSHRAM portal, for the workers of the unorganised sector to access benefits of various government schemes. The portal was set up in August 2021 after getting a rap from the Supreme Court in June last year.

The workers can register on the portal using their Aadhaar and bank account details after which an eSHRAM card containing a 12-digit unique number is issued to them. While it was seen as a welcome move, experts and organisations working with informal sector workers pointed out loopholes in the portal – limited access as workers without an Aadhaar card won't be able to register, gender exclusion, migration problems with respect to workers who are already registered under different boards among others.⁴

MGNREGA MATTERS

The Mahatma Gandhi National Rural Employment Guarantee Act, 2005, commonly known as MGNREGA, is an Indian labour law and social security measure that aims to guarantee the 'right to work'. The mandate of the MGNREGA is to provide at least 100 days of guaranteed wage employment in a financial year to every rural household whose adult members volunteer to do unskilled manual work.

This central act was a survival scheme for several people in rural India who were scouting for employment during the first COVID19 wave in 2020. However, despite that, the revised allocation for MGNREGA was slashed from Rs 1,115 billion to Rs 730 billion in the 2021-22 budget.

Till February 6, 2021, the data available on MGNREGA website indicated that 3.27 billion person days of employment were created across the country, which was above the target. Thus highlighting the dependence on MGNREGA for employment.⁵

In October 2021, Peoples' Action for Employment Guarantee (PAEG) launched MGNREGA's half-yearly tracker that pointed



out that 90 per cent of the allocated budget for MGNREGA had been used up with five months of the financial year 2021-22 still to go, and the remaining funds available could cover at most 13 days of employment per household till March 31, 2022.

Out of the total person days of employment that were projected to be generated till September 30, 2021, only 91 per cent had been generated while 13.25 per cent of the total households that demanded employment did not get it under MGNREGA, the tracker noted.

Meanwhile, another report, launched by LibTech, a group of engineers, social scientists and policy experts, revealed that caste-based segregation of Fund Transfer Orders (FTO) had led to no benefits and had created caste and religious-based friction.⁶

In response to the findings of PAEG and LibTech, the Ministry of Rural Development clarified that the Centre was committed to releasing funds for implementation of the scheme. It also added that during the financial year 2021-22, funds amounting to Rs 89,210 million were available to meet the wage liability equal to the current availability,

and funds more than Rs 637,930 million had been released for the implementation of the scheme.

Naveen Patnaik, chief minister of Odisha wrote to Prime Minister Narendra Modi requesting him to increase the labour budget of the state under MGNREGA to 250 million person days for the year 2021-22. This was because a significant number of returnee migrants had stayed back in the state due to the reduced level of economic activities during the COVID-19 pandemic. He also highlighted that Rs 10, 887 million liabilities were pending under the MGNREGA scheme for Odisha.

Similarly, MK Stalin, chief minister of Tamil Nadu wrote to the prime minister asking for immediate release of funds under the employment scheme.⁷

IMPACT ON MARGINALISED COMMUNITIES

WaterAid published a report titled *Sanitation workers: the forgotten front line workers of the COVID-19 pandemic* on November 19, 2021 which highlighted the plight of India's



marginalised sanitation workers during the COVID-19 pandemic. It revealed that earning a living to support their families was a bigger worry for them than their personal protection.

The WaterAid report revealed that about four out of 10 sanitation workers in India faced challenges in meeting their daily needs due to loss of income during the pandemic.⁸

As the nation anticipated another lockdown during the second wave of the pandemic in the second quarter of the last year, daily wage workers in cities, with loans to be repaid and financial commitments to be fulfilled, made a beeline for their villages.⁹

While there was no nationwide lockdown announced last year, several states settled for stringent restrictions within the state. This affected the livelihoods of millions.

In a positive development, the Ministry of Social Justice and Empowerment launched the Garima Greh Yojana to encourage the transgender community to attend workshops that impart professional skills to help them earn a living. While shelter homes have already been set up in Vadodara and Jaipur, there are plans to open similar shelter homes in New Delhi, Patna, Bhubaneswar, Kolkata, Manipur, Chennai, Raipur, and Mumbai as well.¹⁰

COVID IMPACT ON LIVELIHOODS OF RURAL WOMEN

A 2021 study by the UdyamStree campaign of EdelGive Foundation, which aims to boost the entrepreneurial spirit in women, stated that 57 per cent of women entrepreneurs cited a deterioration in their business enterprises during the pandemic. Business models that were dependent on offline production or delivery models experienced a far greater decline than those reliant on digital channels. Reinvention of the business model became a necessary element for survival.

For instance, the Leelawati project by the Self-Employed Women's Association (SEWA) incorporated a training model through which women entrepreneurs were trained and encouraged to take their products online, as old models were rendered redundant. Social media proved to be one of the most effective marketing tools that women had access to, and



platforms like Facebook and WhatsApp were used to connect with their client base.

A study by Andhra Pradesh-based Krea University conducted across the states of Bihar, Chhattisgarh, Madhya Pradesh, and Odisha revealed the repercussions of COVID19 pandemic on aspiring women entrepreneurs. It surveyed 2,083 women-led enterprises out of which 44.6 per cent were partially interrupted, 36 per cent were temporarily closed, and 10.9 per cent had shutdown completely.

The lockdown jeopardised 6.33 crore micro, small and medium enterprises - leading to closures of *mandis*, wholesale markets, transport restrictions, disruptions in supply chain and lack of procurement.

It also left an approximate 17 million to 19.3 million women unemployed in the immediate aftermath, between March and April, 2020. The lockdown had an indelible impact on female employment which fell by 43 per cent as compared to male employment that fell by 30 per cent. .





STORY 1

WHY DO RURAL FAMILIES OWN CATTLE NO MORE

Cows once integral to rural homes are no longer so and this has impacted village health and economy.

Ramji Mishra

Shahjahanpur/Sitapur/Bareilly/Badaun (Uttar Pradesh)



Ram Prasad has been *gram pradhan* of Lakshmanpur village, in Sitapur district, Uttar Pradesh, for over 15 years. The 50-year-old said he missed the musical sound of *gai-bail ki ghanti* (cattle bells) that once rang across his village.

“In my childhood there was enough grazing grass on the banks of river Kathina where cattle grazed. Not any more,” Prasad told *Gaon Connection*.

“From nearly thousand heads of cattle in the village about 20 years ago, there are just about three hundred or so now,” Prasad lamented.

It is not mere nostalgia. Disappearing cattle in rural families has a direct impact on agriculture, economy and also the health of village inhabitants who consumed milk, curd and *ghee* that came from the cows at home. Now, more than ever, during the pandemic, the absence of cows at home is being keenly felt as hunger and malnutrition raise their ugly heads.

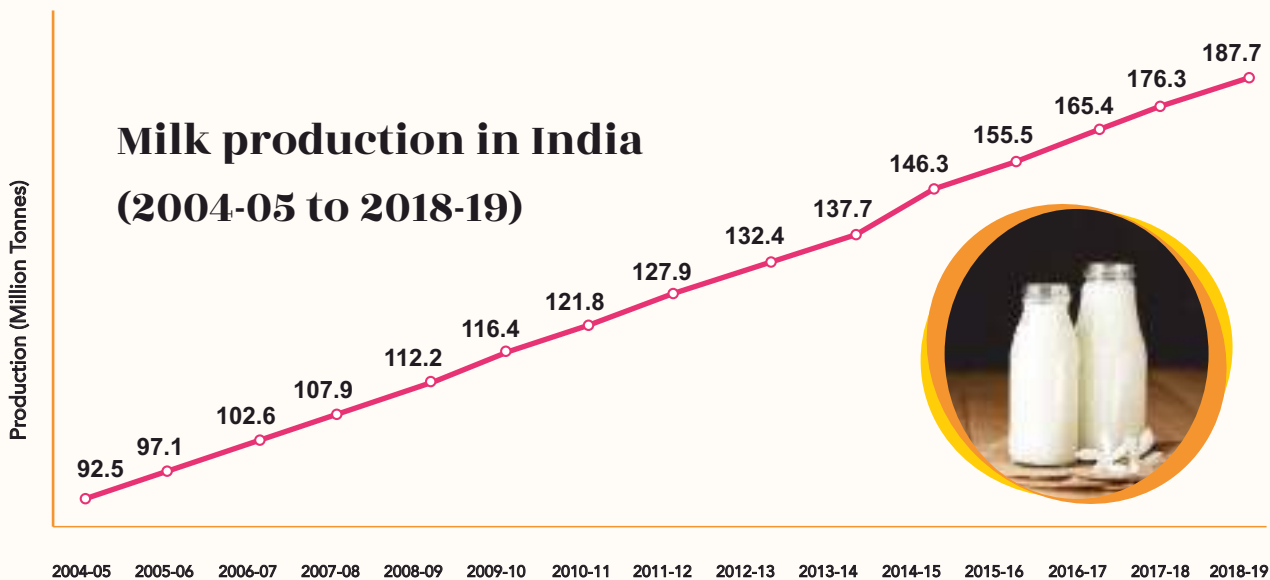
“Besides giving milk, there are so many other ways cattle contribute to a farmer’s income and well-being, including maintaining soil fertility,” Mahesh Chandra, senior scientist with Bareilly-based Indian Veterinary Research Institute, told *Gaon Connection*. “Owning cattle could revive the rural economy,” he believed.

DECLINING CATTLE IN RURAL HOUSEHOLDS

Cattle have always been an integral part of rural lives. They were often the protagonists of literary compositions like Munshi Premchand’s *Do Bailon ki Katha* or *Godan*. Movies set in rural India would be incomplete without a pair of oxen tilling the field. Almost every family owned cows that they named, fed and cared for.

But not anymore.

The cattle pens that were extensions of people’s homes, lie vacant. Where once cows and buffaloes mooed loudly and



Source: Basic Animal Husbandry Statistics, DAHD&F, GoI

chomped noisily at the fodder, there is now only silence.

Girishpal Singh Yadav looked on pensively as his five remaining cows fed from a trough. “About a decade ago, I had 10–12 cows. I had two oxen too, but not anymore,” the 70-year-old farmer and cattle rearer from Kiratpur Bihari village in Shahjahanpur district, told *Gaon Connection*.

In Gauhapur village, 70-year-old Nanhi Devi sat by the side of a trough that once held water for her cows. She has no cows left. “We also owned buffaloes and oxen. We had many calves. But in time, some of them died. We sold some others when my daughter got married,” she told *Gaon Connection*. Her younger family members have migrated to cities and there was no one to look after the cattle at home.

RURAL PARADOX

Ironically, while cattle are fast disappearing from rural households, milk production in the country is at an all time high.

According to the National Dairy Development

Board (NDDB), milk production in India has increased from 55.6 million tonnes in 1991–92 to 198.4 million tonnes in 2019–20. The demand for milk is expected to touch 266.5 million tonnes in 2030.

Uttar Pradesh, Rajasthan, Madhya Pradesh, Gujarat, Andhra Pradesh and Punjab are considered major milk producing states in India.

Along with milk production, the cattle population in the country is also on the rise. As per NDDB data, in 2012 there were 190.9 million cattle, 108.7 million buffalo and 133.3 million milch cattle in India. Their numbers increased to 192.5 million cattle, 109.9 million buffalo and 136.4 million 750 milch cattle in 2019.

But these numbers do not speak of the vacant cattle pens in rural households. Small scale cattle rearing that once supported and nourished rural livelihoods is now dwindling.

Most villagers *Gaon Connection* spoke to, said that the fast-changing social fabric of rural India was a big contributing factor.

“Earlier we ploughed and prepared the field with oxen. The dung fertilised our field too,” said Girishpal Singh Yadav of Kiratpur Bihari village in Shahjahanpur. “Ever since agriculture became mechanised, and tractors came in, the oxen have become irrelevant,” he observed sadly.

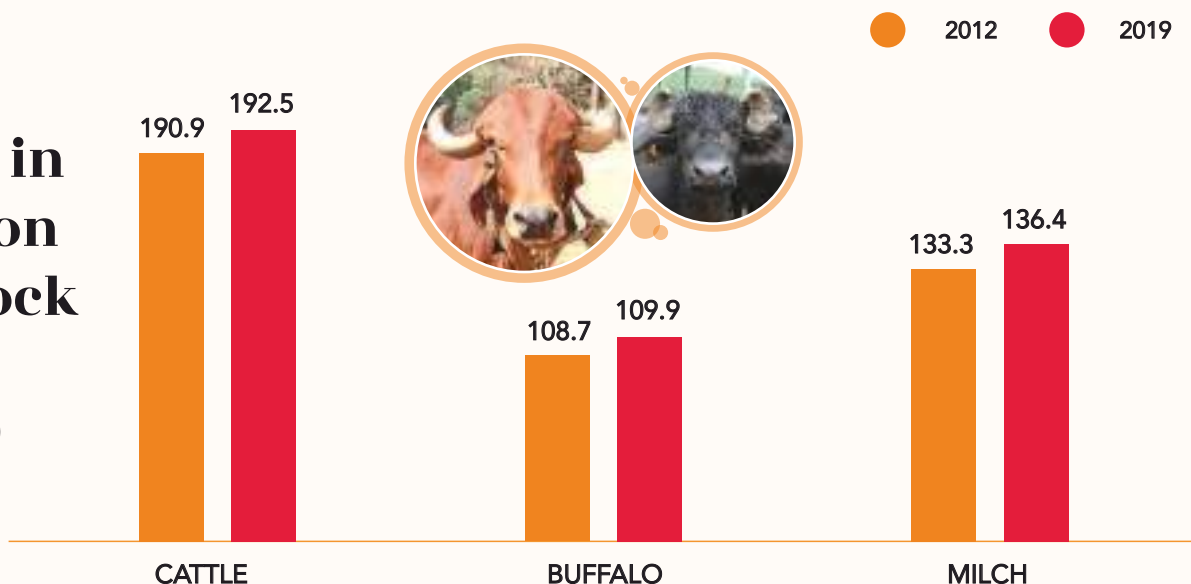
He said that traditional methods of farming and fertilising made the grains more nutritious and tastier. “But many in the younger generation feel a sense of shame working with cattle, clearing dung, etc,” he said.

DISAPPEARING GRAZING LANDS

“The biggest hurdle in rearing cattle is the cost of fodder,” Balak Ram from Galothi village in Badaun district, told *Gaon Connection*. “Wheat is now harvested by machines and because of that there is not much stubble left for the cattle as fodder,” he said.

Ram said most large tracts of empty lands that were once open for grazing, had all but disappeared as they were either fenced

Increase in population of livestock in India (in million)



Source: www.nddb.coop

In neighbouring Bareilly, Dharmendra Singh of Nagariya Nauramad village said, “I have myself ploughed the fields with oxen. But now our village has fifteen tractors, and I use a tractor too. I don’t own oxen now.”

The cattle that was once considered the pride of a family and synonymous with wealth, dwindled in importance. “Nobody wanted the cattle anymore,” Dharmendra Singh sighed.

in or converted into *patta* (private) land. “Few can afford to feed their cows costly store-bought cattle feed,” he pointed out.

According to villagers, on an average a cow consumed 10 kilogrammes (kgs) of fodder a day. A quintal (100 kgs) of fodder costs approximately Rs 500. Thus, on an average, one cow consumes fodder worth Rs 50 a day, or Rs 1,500 a month.

JOINT FAMILIES NO MORE

The fracture of the joint family system in rural India where once resources, labour and costs were shared, could also be a reason. "We are four brothers and we do not live together anymore. Each of us owns four buffaloes and the work is taxing," Rajkumar Singh Chauhan, a resident of Karanpur village in Badaun, told *Gaon Connection*.

"If you want to keep cattle, it is non-stop expenditure. Buy the cattle, buy fodder, buy straw..." Dharmendra Singh Yadav of Nagariya Nauramad village in Bareilly, told *Gaon Connection*.

In the neighbouring district of Shahjahanpur, 70-year-old Karan Varma from Dadraul village said tending cattle was a 24-hour job. "You have to feed them, bathe them, clean out the cattle pens of dung. Not everyone can do it," he said.

DECLINE IN SOIL FERTILITY

"Cattle are a source of wealth. Their milk brings in some income; they are a continuous source of fertilisers for the land," Rajiv Kumar Pathak, from Sugarcane Research Council, Shahjahanpur, told *Gaon Connection*.

"As the cattle in villages are decreasing, we see the effect on the lands. If farmers do not use dung as fertilisers, it is possible, not too far in the future, that more and more chemicals will have to be used that will cut down on the yield by half," Pathak warned. The health of the soil stands to lose out if cattle are ruled out of the equation, he added.

"Farmers are increasingly dependent on chemical fertilisers, as readily available and



free dung is no longer available to them," said Balak Ram, a farmer from Galothi village in Badaun. "More importantly, milk that provided nutrition to the children is missing from their diet as many times the families in the village can not afford to buy milk from the shops," he told *Gaon Connection*.

"We have a lot of cows, buffaloes and oxen. And, because so many villagers reared cattle, it softened the blow of unemployment during the pandemic. Rearing cattle was economically viable," Pramod Kumar of Manpur village in Bareilly district told *Gaon Connection*. Since his village was located

close to Ramganga river, he said there was plenty of fodder and water for the cattle.

REVIVING RURAL ECONOMY

On July 14, 2021, the Cabinet Committee on Economic Affairs, chaired by Prime Minister Narendra Modi, approved revision and realignment of schemes of the Department of Animal Husbandry and Dairying to implement them as part of the special livestock sector package of Rs 98,000 million over the next five years starting from 2021-22 fiscal.

“There are a lot of entrepreneurship opportunities in raising cattle. The cattle’s urine, dung etc., are being used to make pesticides... The economy of a village depends on cattle,” said senior scientist Mahesh Chandra from the Indian Veterinary Research Institute, Bareilly.

According to Chandra, more and more people are moving towards organic farming and for that, cattle is essential. He acknowledged that raising cattle had become difficult and expensive. But there were so many central and state government schemes that were encouraging the farmer to own cattle, he said.

Ram Kishore Ruhela, veterinary officer, Shahjahanpur, told *Gaon Connection* that the government was encouraging people to rear cattle at household level. “We tell them about breed improvement. The department of animal husbandry and dairying, has worked tirelessly to promote cattle rearing,” he said.

“Milch cattle provide villagers a livelihood through milk production, their dung is a good source of fertiliser, and they have a beneficial effect on the economy of the village and the

“There are a lot of entrepreneurship opportunities in raising cattle. The cattle’s urine, dung etc., are being used to make pesticides... The economy of a village depends on cattle.”

country,” the veterinary officer added. He said that there was also a programme underway to provide Aadhaar cards to the cattle.

But are these measures enough to bring the cattle back home?





STORY 2

FIVE FISHERWOMEN DEFY GENDER-STEREOTYPES, SET UP A RESTAURANT

*They wow customers with the food they serve in Dolphin,
and have freed their menfolk from debt.*

Eva Badola



They work harder than anyone else. Their day starts at the crack of dawn and after the chores at home they set off to steer their own enterprise, a restaurant they call Dolphin.

Five fisherwomen from Poompuhar, a small fishing village in Nagapattinam district in Tamil Nadu, about 275 kilometres from the state capital, Chennai, are 'daring' to be innovative.

Stella Gracy, Silvarani, Rajkumari, Uma, and Pushpvalli got together to start a small seaside restaurant called Dolphin in 2016, where they serve fresh and local vegetarian and non vegetarian specialities to their guests on banana leaves. These include idlis, vada, puri, *chapati*, *vatha kuzhambu*, and of course curries made from freshly caught fish served with rice.

FROM POVERTY TO SELF RELIANCE

Five years ago, each of them led a hand to mouth existence. "I had no money to pay my children's school fees," Stella Gracy told *Gaon Connection*. The 35-year-old and her husband were in debt.

"My husband was catching fewer and fewer fishes and was selling the catch to middlemen at throwaway prices," she said.

Today, these women not only own a business but are also earning Rs 10,000 a month each from their restaurant. They are in the process of expanding their reach and will soon be delivering up to 200 orders a day to nearby towns.

It was a difficult journey. The women come from a small fishing village that is tradition bound, has very rigid notions of what a woman should and should not do, and very patriarchal. Most women in the village work long hours, earn a pittance and invariably watch helplessly as their men take to drinking.

Stella tried very hard to earn an extra income by drying and selling fish. But that just fetched her a pittance of Rs 2,000 a month. Stella said while she was used to hard work, it was getting her nowhere and she was fed up.

"We live in a conservative society where women are expected to cook tasty food



But they had no money to invest.

According to the Ministry of Women and Child Development, Government of India, there are schemes to empower fisherwomen. On paper, in the last seven years, approximately Rs 31,000 lakh has been set aside to help them in Tamil Nadu.

But, Stella and her partners have not been able to access any of the schemes that provide loans for start-ups at subsidised interest rates.

But that did not deter them and they managed Rs 75,000 from relatives and another lakh of rupees from private moneylenders to set up the restaurant and the kitchen at Dolphin. "We called our restaurant Dolphin, because it is a unique creature, different from other fishes," smiled Stella.

from birth till death, but never empowered to enter professional kitchens," said Stella. But that thought stuck in her head and the more she thought about it, the more determined she was to cook professionally and earn an income from that. "It means we have to multitask more than usual, but we are used to that," she smiled.

A STRONG BUSINESS PLAN

"We built a strong business plan," Silvarani, one of the partners, told *Gaon Connection* with pride.

The idea for the restaurant came about when they realised that the many fishers and traders who came to Poompuhar to do business had no place to eat in. "We decided to look for a place near where they did business," the 35-year-old said.

"We called our restaurant Dolphin, because it is a unique creature, different from other fishes," Stella, one of the five fisherwomen who have together started a restaurant and are reaping profits.

BREAKING THE MOULD

So, they bargained and managed to rent 1,250 square feet of land for which they pay Rs 1,000 a month. They cleared the land of its undergrowth themselves, and constructed a hut with bamboo walls and a thatched roof.



It was a bumpy start. Especially when they had to contend with disapproval from fellow villagers. “Women are not even allowed to sit with the men, and the fact that we had dared to start a business on our own without any male involved did not go down too well,” Silvarani laughed.

But the five fisherwomen put their heads down, cooked and served food at their restaurant and even managed to repay their debts.

Soon, they were doing brisk business and were catering for several functions in the villages from celebrating birth of babies, weddings and even funeral feasts. And they kept the price point reasonable.

Initially they were getting orders for at least 60 meals a day. Now it is almost 200 orders a day and even during the pandemic they continue to do take aways. It is Rs 60 for a vegetarian meal and Rs 120 for a non-vegetarian one.

Rajkumari, the 42-year-old head chef of

the restaurant, told *Gaon Connection*, “A housewife’s cooking skills are often under-valued. But, even at home, I used to experiment with new dishes and standardise the recipe so that the dish would taste the same every time I made it. I apply the same techniques professionally now for bulk orders,” she added.

Rajkumari said that their Vatha Kuzhambu (a spicy tamarind curry eaten with rice) and their Rava Kesari (a halwa made with semolina) were popular. “I work with pride now. Earlier I was hesitant to come out and serve strangers, especially men,” Uma, who serves food at the restaurant and packs the take aways, told *Gaon Connection*. The 38-year-old said she had gained confidence working in her own enterprise, something she couldn’t have even dreamt of before.

The oldest partner is Pushpavalli who at 65 years of age is responsible for procuring ingredients and fresh seafood that she gets at the harbour every day. But, Rajkumari pointed out that they were all involved in all

The five fisherwomen have freed their husbands from the vicious circle of debt. They have inspired other village women to start their own eateries and become financially independent.

aspects of the restaurant.

A RIPPLE EFFECT

Dolphin became a story of success not just for these five women. They extended their experience and expertise to other interested women in the villages so that they could start their own business too. This motivated three more village women to start their own eateries.

“But if we want to alleviate poverty at grassroots level, low-income women need strong training and funding for small enterprises,” Stella said. “We learnt by trial-and-error method as there was no one to guide us or support us financially,” she pointed out.

Gradually, when they established themselves, a Nagapattinam-based non profit called SNEHA (Social Need Education and Human Awareness) helped them out with getting equipment for their kitchen, such as a rice grinder that made their lives so much easier, they said.

The five fisherwomen freed their husbands from the vicious circle of debt. While in the lean season the fishing activities of the village slow down and often stop entirely, Dolphin remains active supplying takeaway orders, and vending hot fish snacks on a cart to nearby areas.

The life of the fisherwomen is a difficult one, often fraught with anxiety and tragedies. “We worry non stop when our husbands are out in the sea,” Stella said. There are times the sea claims lives of fishermen leaving their families helpless. “So, I motivate women to become independent so they can become independent and face any adversity life throws at them,” she said.

Eva Badola is an independent exploratory writer who engages in climate change and social injustices issues.





STORY 3

THE WHISPER OF BANKA SILK DIES DOWN

The traditional weavers of the renowned Banka tussars in Bihar struggle to survive powerlooms and the pandemic.

Nidhi Jamwal
Banka, Bihar



A few rays of the sun struggle to enter the room through a narrow opening high up near the ceiling.

They weakly light up the unplastered walls and the two looms made of wood smoothed over the years, that stand in a shallow pit on the rough mud flooring. Two men face each other, weaving, their hands and feet moving in non-stop rhythm.

Khat-khat-khat-khat, the gloomy room reverberates with the sound of the handloom as a tussar silk saree – off white with a gold border – starts to take shape. The two *bunkar* (weavers) work silently, pausing only to fix the threads – at least a thousand of them – meticulously and intricately strung on the handloom.

“We sit in this position, weaving on the loom, for twelve hours a day and earn hundred rupees only,” Salamul Ansari, the 45-year-old *bunkar*, told *Gaon Connection*.

Ansari began weaving when he was 20 years old, having learnt the craft from his *vaalid sahab* (father). “It’s been fifteen years, since I packed up my own loom at home as there is no work. I now work as a daily wager,” Ansari from Shobhanpur Katoriya village in Amarpur block of Banka, added.

Banka district in Bihar, is known for its Banka tussar silk. This world-famous silk yarn is made from tussar cocoons and in its unfinished form, is coppery-gold and coarse in texture.

A large section of rural population in Banka and Bhagalpur districts in south Bihar is involved in raising silkworms for their cocoons. These silk cocoons are sold to the weavers – *bunkars* – who first make *resham* (silk) thread by spinning the *charkha* and then weave silk sarees on the handloom. These heavily priced tussar silk sarees, *dupattas*, *kurtas*, scarves, are sold across India and also shipped abroad.



“Last year, Banka district produced about five crore [50 million] cocoons. We are working with the farmers to ensure the production increases in the coming years, and incomes of both the farmers and weavers rise too,” Suharsh Bhagat, district magistrate of Banka, told *Gaon Connection*.

THE LAST GENERATION

About 250-kilometre southeast of Patna, the state capital of Bihar, lies Shobhanpur Katoriya. The village is famous for its traditional *bunkars*, who, for the past several generations, have been extracting silk from the cocoons of silkworms and weaving it on their looms to churn out light-weight tussar silk that travels to distant lands.

“*Humko hosh bhi nahi tha tab se yeh kaam kar rahe hain* [I can’t even remember how young I was when I started this work]”. I know my forefathers began weaving handloom tussars not less than 200 years ago,” Mohammad Ijaz, a weaver from Shobhanpur Katoriya, told *Gaon Connection*.

“But we are the last generation of *bunkars* because no youngster wants to take up this traditional occupation. Weaving on handloom requires hard work and the monetary returns are very low,” he added.

Ijaz, in his 30s, has 60 other weavers working with him and all of them are above 40 years of age. “*Mazdoori hi nahi mil pati. Bahut dayneey sthiti hai. Kuch din main vilupt ho jayega yeh kaam* [Weavers do not even get their rightful daily wage. Their condition is pitiable. In the coming few years, handlooms will be extinct],” he rued.

Sixty-nine-year-old Haider Ali started

While traders and middlemen thrive on these beautiful silk fabrics, those who weave them live in penury. And the COVID19 pandemic has left the *bunkars* struggling.

“The pandemic and the lockdown have affected our work badly. We are sitting idle, waiting for the situation to improve, and receive our pending payment worth six to seven lakh rupees,” Bhim Narayan Singh, a farmer who raises silkworms for cocoons in Inaravaran village of Banka, told *Gaon Connection*.

However, the district administration is working with the farmers who raise silkworms to help them get a better price for their cocoons. It is also planning programmes to promote products prepared by the weavers.



weaving on a handloom when he was 15 years old. But he has dismantled his loom too and said he had not woven anything for a decade now.

“Earlier each house in our village had a handloom. It was impossible to walk through the lanes without hearing the non-stop sound of the looms,” narrated Mohammad Ijaz. “Of the 450-500 handlooms in our village, now barely 150-200 looms are left, and soon they may fall silent too,” he added.

Ijaz said there was a time when his village supplied tussar silk yarn to Japan and America (United States of America): “My *vaalid* used to make us work day and night to complete the export consignment. I remember working on the loom in the light of a *ghaslet* (kerosene lamp). During the peak season, the village streets would reverberate with the sound of looms.”

“There was a time we used to get a lot of orders and the earnings were good. But not any more. We sat idle at home for an entire year during the pandemic with no work at all,” said Mohammad Kamru, a weaver in his 60s, who also began weaving when he

was 15 years old.

AN UNEQUAL PLAYING FIELD

The powerloom has sounded the death knell for the handloom weavers. “How do we compete with the powerloom which makes five to six sarees in a day while we can weave only one saree in one-and-a-half or two days,” asked *bunkar* Ansari.

According to Ijaz, weaving one tussar silk saree involves the entire family: “The cocoons are first boiled and then *resham* is taken out by spinning on the wheel. This work is mostly done by women.”

“Thereafter, menfolk prepare the *taana* [warp] and the *baana* [weft] which is a highly skilled job of threading the yarns on the loom, after which the weaving begins,” he explained.

For this entire process of getting one tussar silk saree ready, which takes two to three days, the weaver’s family earns Rs 500 per saree. “Can any family survive on an earning of Rs 500 in two to three days,” asked Ijaz.

“Twice a year, I harvest cocoons and sell them. In a good year, I earn thirty thousand rupees,”
Karmiha Devi,
Inaravaran village,
Banka, Bihar, who rears tussar silk cocoons for a living.

“Young people from our village have migrated to Bombay [Mumbai] where they work as tailors and earn Rs 25,000 to Rs 30,000 a month. Tailoring can be learnt in six months, but weaving on handloom is a different craft altogether,” Ijaz pointed out.

Naturally, 69-year-old Haider Ali is a worried man. “If the handlooms do not function at home, how will the younger generation learn the craft? Most of our kids have gone to *pardes* and prefer working as tailors there than sitting on the loom,” he lamented.

Ansari said that none of his children knew how to set up the loom. “The skill of preparing the *taana* and *baana* in my family will die with me,” he rued.

BAILING OUT THE BUNKARS

Karmiha Devi of Inaravaran village in Banka rears tussar silk cocoons for a living. “Twice a year, I harvest cocoons and sell them. In a good year, I earn thirty thousand rupees,” Karmiha, a mother of two sons, told *Gaon Connection*. Both her sons help her with

taking care of the silkworms and harvesting the cocoons.

“For two thousand cocoons, I earn between four to six thousand rupees,” she added. Apart from rearing silkworms, she also grows paddy, maize and vegetables on a small patch of land.

Santosh Kumar Singh of Inaravaran village has been rearing silkworms since 2000 and was trained by the district administration. “Initially we started raising silkworms on Arjuna trees in the forest. In 2004, I planted 56,000 Arjuna trees and today I have 50,000 trees,” Santosh Kumar told *Gaon Connection*.

“Since I cannot take care of all the trees, I have given half my trees to another farmer to raise silkworms and harvest cocoons. In return, I get half of his earnings,” he explained.

Santosh Kumar himself harvests a lakh (100,000) cocoons a year which fetches him between Rs 2.5 lakh and Rs 3 lakh. He earns another Rs 60,000–70,000 in a year by raising silkworm seeds in his grainage. “Twice a year, I harvest the cocoons. The October harvest of cocoons is sold to the traders to make silk items. The June–July harvest I use to make silkworm eggs to sell to other farmers,” he informed *Gaon Connection*.

The district administration is not unmindful of the plight of Banka’s weavers and those who rear silkworms. It is trying to raise their income.

“Banka’s one lakh [100,000] hectares area is forest land. We have a large number of Arjuna and Sal trees that are suitable for cocoon growing and sericulture,” said



Suharsh Bhagat, the district magistrate.

“Under the state government’s Jal-Jeevan-Haryali Mission, we have planned to increase the forest cover of Arjuna and Sal trees, which will boost the production of the cocoons. This will raise the income of farmers and also help in conserving the forests,” Bhagat said.

The district administration was also looking at ways of making value additions to the silk products made by its weavers and artisans.

Meanwhile, can the *bunkars* of Banka hold on to their craft and survive the changing times, or will the threads snap?





STORY 4

ROLLING BEEDIS BURNS OUT TRIBAL WOMEN IN MP

The beedi-rolling work pays little and adds to the disease burden of women workers in Madhya Pradesh.

Sachin Tulsya Tripathi
Satna, Madhya Pradesh



Chandrakali Chaudhry is 55 year old and for 30 years of that, she has been rolling *beedis* in her village in Madhya Pradesh.

“In a day, even after putting in eight to ten hours of work, I struggle to make enough *beedis*,” the daily wage *beedi* maker from Kaima Unmulan village in Satna district, about 460 kms away from the state capital Bhopal, told *Gaon Connection*.

Age has slowed her down, she said. While earlier she could easily make 1,000 *beedis* a day, now she barely rolls 500. Chandrakali gets paid Rs 60 for a bundle of 1,000 perfectly rolled *beedis*. If some turn out to be less than perfect, money is cut from her wages.

“The money I am paid for the amount of labour I put in is pitiful. But I have to continue doing it to run my house. And, I know no other work,” Chandrakali added.

Headaches from the smell of the tobacco, shoulder and neck pain from hunching over her work, and eye strain from the fiddly work of rolling *beedis*, has taken their toll on her.

Approximately 250 families live in Chandrakali’s village of Kaima Unmulan, many of them adivasis, and most of them dependent on daily wages and the *beedi*-making for their livelihood.

MP’S BEEDI-ROLLING INDUSTRY

Collecting leaves from the tendu tree (*Diospyros melanoxylon*), and rolling them into *beedis* is a huge industry in Madhya Pradesh, especially in tribal dominated villages near the forests. Adivasi inhabitants of villages in Satna, Rewa and Panna districts in the state depend on *beedi* making for a livelihood.

In the dry and rocky terrain of the Bundelkhand region that falls in both Madhya Pradesh and Uttar Pradesh, there are hundreds of villages where people living near the jungles collect and dry the leaves from the *tendu* tree.

According to the Environment Information System (ENVIS), nearly 25 per cent of the country’s requirement of *tendu* leaf is



furnished by Madhya Pradesh. Annually, 2.5 million *manak bora* of *tendu* leaves are supplied by the state. One *manak bora* consists of 1,000 bundles of *tendu* leaves; each bundle has 50 to 100 leaves in it.

EXPLOITATION OF BEEDI WORKERS

There are about seven million *beedi* workers in the country, of which five million (over 71 per cent) are women, points out a report titled, *Knowledge Gap in Existing Research on India's Women Beedi Rollers & Alternative*

Livelihood Options: A Systematic Review for Promoting Evidence-Informed Policy and Prioritizing Future Research, published by AF Development Care, a New Delhi-based research consulting group. There are other reports that claim “women comprise around 90 per cent of total employment in *beedi* manufacture”.

The *beedi*-making work is done through contract and the daily wage earners rolling the *beedis* get no more than Rs 60 per 1,000 *beedis*. Often, the contractor rejects *beedis* if they do not meet the required standards and the money is cut from the wages of the workers.

“If the *beedis* are improperly rolled, the tobacco is spilling out, or the leaf is torn, or there is less tobacco content in them, they are rejected. The companies want only the best *beedis*,” Chandrika Prasad Kori, a labour contractor in Satna, explained to *Gaon Connection*. The 48-year-old also rolls *beedis*.

“In Satna district alone there are 110,000 *beedi* workers. But the regular and registered workers are very few,” Bashik Ahmed, district president, Beedi Mazdoor Union, Satna, told *Gaon Connection*. There are eight active *beedi* companies in the district employing no more than 50–60 labourers, he added. These regular and direct employees of the *beedi* companies also get the same Rs 60 per 1,000 *beedis*.

According to *beedi* contractor Kandhi Lal Bunkar, from Satna, Rs 6 from the wage is deducted to go into their Employers Provident Fund and the labour welfare department to be given to the workers on retirement or if they resign. It goes without saying that the rest of the labourers who work under a



contractor, have neither any welfare or social security scheme to support them.

REVENUE FOR THE STATE

To help forest dwellers of Madhya Pradesh become economically independent, the state's minor forest produce co-operative was set up in 1984. In order to cut out the role of middlemen in the trade of forest produce, primary forest produce societies were set up. There are 1,072 such primary societies working in the state under 60 district level Forest Produce Co-operative Societies.

According to details from a report by the forest department, in financial year 2020–21, (till December 2020), 1.59 million *manak* bora of *tendu* leaves were collected. Of this, 1.37 million *manak* boras were sold earning a revenue of 560.55 crore rupees. The adivasi forest dwellers who collect the *tendu* leaves are paid Rs 2,500 for each *manak* bora.

On an average, the annual earning from *tendu* leaves has been between Rs 600 crore and Rs 800 crore. In 2018–19, the forest dwellers were paid Rs 2,000 per *manak* bora

of *tendu* leaves.

This year, the target is to collect 65,000 *manak* boras of *tendu* leaves, said Rajesh Rai, officer, forest department, Satna. Of these, 63,449 are already collected, he informed *Gaon Connection*.

“The collection of *tendu* leaves is done through forty two forest committees in the district, and three hundred smaller forums,” Rai said.

In 1966, the Beedi and Cigar Workers (conditions of employment) Act was passed to regulate the *beedi* workers sector and make provisions for their welfare. Ten years after that, in 1976, The Beedi Workers Welfare Fund came about, to provide schemes to help in the education, health, group insurance, maternity, housing assistance, etc.

However, at the grassroot level, not much has changed as millions of *beedi* workers still continue to work in the unorganised sector, with no identity, security or welfare available to them. According to the AF Development Care report, 96 per cent of

Saket gets paid Rs 60 for every thousand beedis she rolls. And even less, after the money for the discarded beedis is cut from her wages.

the people working in the *beedi*-making sector do so from home, while a meagre four per cent works at the factories.

OVERWORKED AND UNDERPAID

Kusum Kali Saket from Godha village in Rewa district of Madhya Pradesh is her family's breadwinner. Her husband is physically challenged and unable to go to work.

"After working for a whole day, I can only manage to make about five hundred *beedis*. But invariably, nearly two hundred are discarded because they are not perfect and I get paid only for three hundred *beedis*," the 50-year-old told *Gaon Connection*.

Saket gets paid Rs 60 for every thousand beedis she rolls. And even less, after the money for the discarded *beedis* is cut from her wages.

"It is definitely an underpaid job," acknowledged the labour contractor, Kori. "But people are still making it," he shrugged.

LOW WAGES, HIGH HEALTH TOLL

"I rolled *beedis* before I got married and I am still doing it after marriage. There is no difference in my life," Somvati Chaudhary of village Hadkhar in Satna, told *Gaon Connection*.

"While the *tendu* leaves and tobacco are provided free by the contractor, the money for the string required to tie up the *beedi* to hold it together, is cut from our wages," she added. Otherwise, they will have to go and buy the string from the market themselves. One hank of string costs Rs 10 and if it is of good quality it can be used for 2,000-4,000 *beedis*, Somvati said.

"The smell of tobacco gives me a headache. Sometimes my eyes water," Vidya Kushwaha, a 36-year-old *beedi* worker from Masnaha village told *Gaon Connection*.

"But we have no land to cultivate and while my husband works at someone else's farm, I roll *beedis* at home. We had to do this to bring up our children," Subharan Kori, a 75-year-old *beedi* maker from Shahpur, told *Gaon Connection*.

"Even though my eyesight is not what it used to be, I continue to do this work," she added."



THE STATE OF
**Rural
INDIA**

REPORT 2021

CHAPTER 5



WATER

- India is the 48th most water-vulnerable country among 181 countries of the world
- At least 90.14 million children in India are affected by water scarcity
- 90 per cent of all deaths from diarrhoea in India, particularly in children, are caused due to lack of access to clean drinking water and basic sanitation services
- Women from the poorest communities in India spend 2.5 months in a year to fetch water for their households
- As of December 16, 2021, out of the total of 192,252,674 rural households, 45.11 per cent households had been provided with tap water connection
- Goa, Telangana, Andaman and Nicobar Islands, Puducherry, Daman and Diu, Dadra and Nagar Haveli, and Haryana have 100 per cent households with tap water supply



Around 2.3 billion people across the world lack the means to wash their hands at home with water and soap, while 670 million have no such facility at all. This was highlighted in a joint report by UNICEF (United Nations International Children's Emergency Fund) and WHO (World Health Organization).

Titled *'State of the World's Hand Hygiene – A global call to action to make hand hygiene a priority in policy and practice'*, the report was released on October 15, 2021. It stated that despite efforts to promote hand hygiene, the rates of access to hand hygiene facilities remain stubbornly low.

Back home, in India, at least 90.14 million children are affected by water scarcity,

revealed another report – *'Water security for all'* – by UNICEF.

In 2021, access to water and the quality of drinking water continued to be a challenge, especially in rural India. Reports released last year highlighted the stark difference in access to water.

In March 2021, WaterAid released a report that highlighted how women from poorest communities in India have to spend 2.5 months in a year to fetch water for their households. It stated that women and girls have to walk miles to get water and spend a considerable time recovering from illness, which keeps them away from accessing education, resulting in a vicious cycle of

poverty.

This WaterAid report titled 'Turn the tide: The state of the world's water 2021' also revealed that India was the 48th most water-vulnerable country among 181 countries of the world and about 10 per cent of the country's total population does not have a basic water facility near their homes.

While there have been reports of problems with respect to access to clean drinking water, steps are also being taken to ensure provision of clean drinking water. *Gaon Connection* reported how as a part of the Smart City Dehradun project, 24 water ATMs have been

Goa, Telangana, A&N Islands, Puducherry, Daman and Diu, Dadra and Nagar Haveli, and Haryana have 100 per cent households with tap water supply, whereas Uttar Pradesh has the lowest with only 13 per cent of households with tap water supply.

installed at various locations in the capital of Uttarakhand. Most of these ATMs are installed in busy market places, or areas widely used by the public.

HAR GHAR JAL SCHEME

In a bid to ensure assured tap water supply to every rural household in the country by 2024, Jal Jeevan Mission – Har Ghar Jal was

launched on 15 August, 2019 by the Government of India and the scheme is being implemented in partnership with the state governments.

As of December 6, 2021, out of a total of 192,252,674 rural households, 45.11 per cent (86,716,276) households had been provided with tap water connection. Of these, 54,353,438 connections were provided under the Jal Jeevan Mission. The government data also stated that 126,718 villages had functional household tap connections.

Goa, Telangana, Andaman and Nicobar Islands, Puducherry, Daman and Diu, Dadra and Nagar Haveli, and Haryana had 100 per cent households with tap water supply, whereas Uttar Pradesh had the lowest with only 13 per cent of households with tap water supply.

WATER QUALITY IN INDIA

Access to water aside, quality of water also remains a big problem in India. A ground report by *Gaon Connection*, published on December 3, 2021, revealed that groundwater of at least ten districts of Bihar have high levels of radioactive uranium along with arsenic, fluoride and iron. These contaminants are linked to various health problems including cancer.

The groundwater in rural India is the primary source of drinking water and the high levels of uranium far exceeds the tolerable limit prescribed by the World Health Organization. Millions in Bihar are already facing a high disease burden due to elevated levels of arsenic, fluoride and iron in their water. Presence of uranium has multiplied their worries.



Bihar's Public Health Engineering Department and Central Ground Water Board will jointly conduct an investigation to assess the levels of radioactive uranium in the state's groundwater reserves. It is learnt that the process to procure the machines for testing water has already begun.

Meanwhile, Ashok Kumar, chairperson, Bihar State Pollution Control Board, and professor and Head of Department, Mahavir Cancer Institute and Research Centre, Patna, who has worked extensively on the arsenic contamination in groundwater in the state, pointed out the shocking levels of arsenic found in the drinking water (groundwater) and revealed that arsenic has entered the food chain through irrigation water and it can cause cancer and mental retardation.

In the neighbouring state of Uttar Pradesh, water quality data for the year 2019 collated by the Department of Drinking Water and Sanitation revealed that out of its total 75 districts, 63 districts have fluoride above the permissible limit and 25 districts are affected

by high arsenic. *Gaon Connection* spoke to villagers who complained that they were forced to drink contaminated water or spend money to buy potable water.

WATER POLLUTION

Water pollution was and continues to be a cause of concern for people in rural India. Many reports that were released in 2021 indicated the lack of free and safe drinking water in India.

The National Faecal Sludge and Septage Management (NFSSM) Alliance in its virtual discussion '*State of Knowledge: Public Health and Sanitation*' pointed out that 90 per cent of all deaths from diarrhoea in India, particularly in children, are caused due to lack of access to clean drinking water and basic sanitation services. Adopting appropriate water, sanitation and hygiene (WASH) practices can reduce water borne diseases.

Another study titled '*Quantitative analysis*



While floods ravaged Bihar in 2021, a joint rapid needs assessment survey conducted by Bihar Inter Agency Group and Sphere India found that 90 per cent flood-affected respondents from Pashchim Champaran, Purvi Champaran and Muzaffarpur lacked access to safe drinking water.

Up north, the Ladakh government launched *Pani Maah* (water month) in the month of August to inform villagers about the importance of clean water. The government also announced a reward Rs 2.5 million for the first block in each district that achieved the status of *Har Ghar Jal*.

FLOODS AND CROP LOSSES IN RURAL INDIA

of *Microplastics along River Ganga* conducted by a Delhi-based non-profit Toxic Links found that the stretch of the Ganges flowing in Varanasi has the highest amount of microplastics (small plastic pieces less than five millimeters long); even more than in Kanpur and Haridwar. Experts said that microplastics could have entered into the food chain too.

A new study by another Delhi-based non profit, iFOREST –*Baseline Assessment Study on solid and plastic waste in Haridwar and Rishikesh* – revealed how waste segregation suffers as 70 per cent of households in Haridwar and 90 per cent in Rishikesh use a single bin for waste disposal; and a large chunk of plastic waste flows into the local water bodies, including the Ganges.

There were also reports of northeast India's Kameng river turning black with thousands of fishes floating on its surface prompting the state government to caution people not to catch or consume the fish.

Several water-related disasters dominated the globe this year. A new study published in *Nature* journal showed India has the largest population in the world that is at the highest risk of floods.

Another assessment by the World Meteorological Organization found water-related hazards as dominant disasters in the past 25 years. The findings of the report were reflected in the year in 2021 when rural India, which was already reeling under the COVID19 crisis, faced unseasonal rain and floods.

Rural India faced unprecedented destruction due to unseasonal rainfall, extended monsoon and incessant rains. Areas that had never faced floods were inundated. Several states in the country faced flash floods, landslides and destruction of property.

Gaon Connection brought reports about floods, throughout the year, from every nook and cranny of the hinterland. From the



coastal plains of Kerala and Tamil Nadu to the hilly terrains of Uttarakhand – all were inundated with the unseasonal monsoon rains, which led to loss of lives and caused massive destruction.

While the North Bihar region is India's most flood-prone zone, districts in South Bihar that predominantly faced drought-like conditions were inundated with floods last year. The region has faced floods since the arrival of the monsoon in June 2021.

In the 2021 southwest monsoon season, between June 1 and July 27, Kishtwar district in Jammu and Kashmir reported a rainfall departure of minus 60 per cent, while a cloudburst triggered flash floods and took away lives of seven people.

River Ganga also caused massive floods in Uttar Pradesh's Mirzapur where it inundated 406 villages and left villagers reeling under food shortage and migrating in search of a safer ground. Apart from Ganga and Yamuna

ivers, other rivers like Ghagra, Sharda and Rapti also disrupted the lives of about 800,000 people. The Ghagra river in particular washed away villages in Sitapur forcing people to migrate to other areas, *Gaon Connection* had reported.

Towards the end of August, nearly 260,000 people across 16 districts of Assam were flood-affected, and a total of 732 villages were inundated including Bongaigaon which was the worst affected district.

While a large part of the country was dealing with floods, the eastern state of Odisha was preparing for a drought year. Till the third week of August, 27 of its total 30 districts had received deficient rainfall and farmers were staring at huge crop losses. The three districts that officially fell under the category of 'normal' rainfall had also reported a negative departure in rainfall. The state government announced preparation of an emergency drought plan. However, by next month, the state received very heavy rainfall.

The torrential rain in October 2021 also affected villages in Barabanki district in Uttar Pradesh thus wreaking havoc for villagers who had barely recovered from the earlier cycle of floods. Diwali was bleak for farmers in Kannauj district of the state as their both standing and ready-to-harvest crops were flattened by heavy rainfall.

By the end of 2021, Cyclone Jawad formed in the Bay of Bengal causing heavy rainfall in Odisha, Andhra Pradesh, and West Bengal. Clearly, as far as water is concerned, 2021 has been a year of extremes – either too much water in a short period of time, or too little water for an extended period.



STORY 1

HIGH URANIUM LEVELS IN BIHAR'S GROUNDWATER

Groundwater in rural Bihar has radioactive uranium that far exceeds the limit prescribed by WHO and is linked to serious diseases.

OP Singh
Balidih (Siwan), Bihar



Baby Devi and her three sons frequently suffer stomach ache, indigestion and vomiting. According to their doctor, it is because of the contaminated drinking water that has harmed their livers, kidneys and gallbladder. While they have medicines to deal with the pain and boil the water they drink, it has been of little help.

“The water itself is *zehreela* (toxic). I have lived enough but my sons have just begun their youth, I fear for them,” 45-year-old Baby Devi, are sident of Daraundha block’s Balidih village in Bihar’s Siwan district, told *Gaon Connection*.

Nearly every family in Balidih with an estimated population of 1,500, is suffering the consequences of consuming water laden with uranium, a radioactive metal. Baby Devi’s neighbor, 65-year-old Doodhnath Singh, is also struggling as his lungs, kidneys, and liver are damaged.

“I am fed up with the constant pain. Sometimes my chest hurts and another days it’s a stomach ache which makes it hard for me to sleep or eat,” Singh complained.

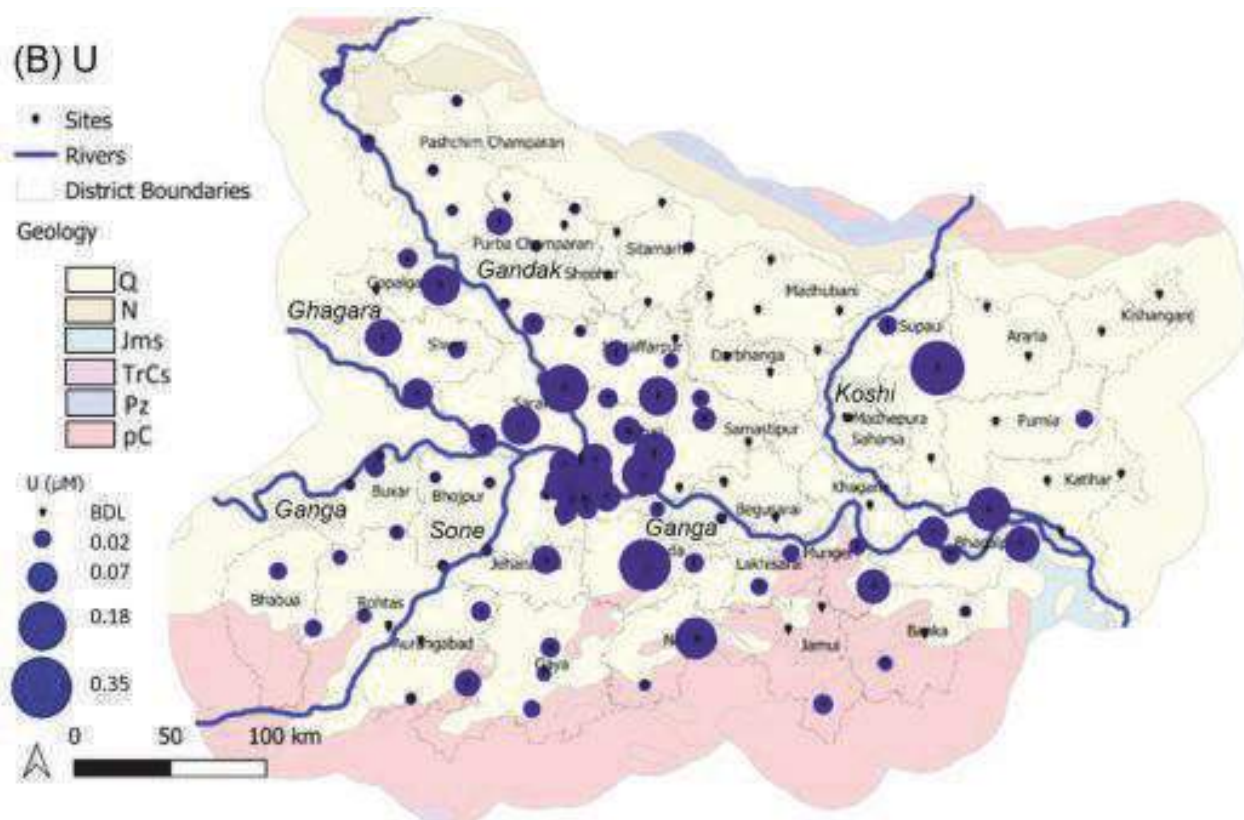
A joint research conducted by Patna-based Mahavir Cancer Institute and Research Centre, and The University of Manchester found high levels of uranium in the groundwater of 10 districts in Bihar. Groundwater is the primary source of drinking water in rural Bihar.

HIGH URANIUM IN 10 DISTRICTS

The research titled ‘Distribution and Geochemical Controls of Arsenic and Uranium in Groundwater-Derived Drinking Water in Bihar, India’ was published in the *International Journal of Environmental Research and Public Health* on April 6, 2020.

It revealed that the ten affected districts are located along the Ganga and its tributary Gandak where the levels of uranium in the groundwater exceed the tolerable limit specified by the World Health Organization (WHO).

The research was conducted by collecting the samples from 273 locations across the state. Supaul, Gopalganj, Siwan, Saran, Patna, Nalanda, Nawada, Aurangabad, Gaya and



Jehanabad are the 10 affected districts."

"Groundwater in Bihar's Supaul district was found to have the maximum concentration of uranium at 80 micrograms per litre. This is almost three times higher than the tolerable limit fixed by the WHO at 30 micrograms per litre," Ashok Ghosh, professor at the Mahavir Cancer Institute and Research Centre, and chairperson of Bihar Pollution Control Board (BPCB), told *Gaon Connection*.

"Siwan also has 50 micrograms of the radioactive element in a liter of water," said Ghosh, who was also part of the research team.

According to Ghosh, the scientific community was baffled by the high incidence of uranium in Siwan. Due to its higher elevation, the district was not expected to have such high levels of it.

Interestingly, the Bureau of Indian Standards, which sets the tolerable limits for toxins and

chemicals in edibles and drinking water, has not yet set any limit for uranium in drinking water.

HEALTH EFFECTS OF URANIUM

"Uranium is a radioactive element. It is used for the production of energy in the nuclear reactors. Once inside the human body, it begins to accumulate in the tissues of the digestive system. It not only damages the kidney and the liver but also leads to cancer which is not treatable," Arun Kumar, a senior scientist and a colleague of Ghosh, and a member of the research study, told *Gaon Connection*. It compromises the immune system, he added.

A Central Ground Water Board's report titled '*Uranium Occurrence in Shallow Aquifers in India*' published in June, 2020, said that preliminary studies on the health effects of drinking uranium-tainted water among animals and humans revealed that it causes nephritis (kidney damage).



Samples that tested for high quantities of uranium in the area were collected from the vicinity of Balidih village. A sample that was collected from the Siwan district headquarters is situated about 20 kilometers away from the village while the other sample taken from Daraundha block is about seven kilometers away. According to Kumar, the water table in a radius of 50 kilometres is of the same composition.

Meanwhile, several districts in Bihar already report high levels of arsenic in their groundwater. Arsenic was first detected in Bhojpur district of the state in 2003. At least 18 districts of the state now have high arsenic content, a carcinogen, in its groundwater. The

groundwater of several districts also has high fluoride and iron content, leading to an increased disease burden. The detection of uranium last year has now added to the problem.

A HEALTH RISK IN EVERY SIP

Meanwhile, the residents in Siwan's Balidih village remain unaware of the health risks posed by the radioactive metal in their drinking water.

"When my *haalat* (health condition) deteriorates the *daaktar* (doctor) asks me to drink *ubla paani* (boiled water) for a few days. But when I boil it, a *safed papdi* (white flake) deposits on the surface, which I remove and drink," Doodhnath Singh, who suffers from chronic pain in the chest and abdomen, told *Gaon Connection*.

A few metres away from his home lives 62-year-old Raghav Singh who echoed Doodhnath's words. "I have never heard of this word (uranium). If there's something dangerous in the water we drink, people should be made aware about it. Also, arrangements should be made to get an alternative supply of clean water," he told *Gaon Connection*. "I have never seen any government campaign in my village about drinking water contaminated with uranium or arsenic," the villager added.

Almost a kilometre away from Balidih is Kharasara. The April 2020 study found high levels of uranium in the groundwater of Kharasara too.

None of the residents that *Gaon Connection* spoke to in Balidih or Kharasara had even heard of the cancer-causing radioactive uranium before.



WHERE DID THE URANIUM COME FROM?

Arun Kumar, who was part of the research team, mentioned that the nearest place where uranium was mined lay about 500 kilometers away from Siwan at Jaduguda in Jharkhand, too far for it to reach the groundwater in Bihar.

“Even the scientific community is not sure about the source of uranium in Bihar’s water table,” he told *Gaon Connection*.

“The rivers flowing in North Bihar come all the way from the Himalayas. The mountainous rocks have deposits of diverse elements. It is possible that the rivers are bringing in the uranium-laden water which is finding its way into the groundwater reserves,” he said.

“Also, it is possible that there may already be deposits of uranium in the areas where it has been detected in the groundwater. Finding the source of contamination is a lengthy procedure and it is underway. There are no specific answers as of now,” Kumar told *Gaon Connection*.

“Even the scientific community is not sure about the source of uranium in Bihar’s water table,” Arun Kumar, researcher.

“We have received reports of the presence of uranium in the groundwater in some districts,” Brahaspati Yadav, Muzaffarpur-based chemist at the state government’s Public Health and Engineering Department (PHED) told *Gaon Connection*.

“Some organisations had apprised the department about arsenic contamination and we got the samples of water tested from 100 locations. A team from the Centre was also sent here but arsenic was not detected in the samples,” he said.

GAON CONNECTION IMPACT

Almost two weeks after *Gaon Connection* published a detailed ground report on the presence of high levels of uranium in Bihar's ground, PHED official Yadav informed that the state bureaucracy was preparing for an assessment of the water table in the state.

"The report has had an impact. The chief minister's secretariat has directed the PHED to conduct testing of the groundwater in Bihar and assess the levels of uranium in it. The procedure will commence in the government laboratories in Patna and gradually, the investigation will also be carried out throughout the state," Yadav told *Gaon Connection*.

"A tender has already been issued to procure the machines needed to carry out the assessment of the groundwater," he added.

According to Naveen Singh, director of Siwan-based Shankhnad Centre for Dialogue, Research and Resource Development, people living in rural Bihar are usually daily wagers or agricultural labourers and do not have the time to worry about the groundwater quality. Mass campaigns should be organised to make them aware of the risks of drinking contaminants laden water.

Meanwhile, MP Sinha, convenor of a social organisation called Ahar Pyne Bachao Abhiyan, told *Gaon Connection* that the problem of contaminated groundwater should be dealt with at the *panchayat* (village council) level.

"Every district needs to have an advanced water treatment plant to ensure that the water is fit for human consumption," Sinha said.

The groundwater in Bihar is over exploited. It is one of the reasons why contaminants like arsenic, fluoride, etc are finding their way into the groundwater.

"The water table in Bihar is over exploited. It is one of the reasons why impurities are finding their way into the groundwater. Efforts should be made to replenish the groundwater," he said. "The *panchayat* should help inculcate the habit of boiling the water before drinking. It can relieve the crisis to some extent," he added.

However, according to researcher Arun Kumar, "Just boiling water laced with uranium is not the right thing to do. It can intensify its adverse effects. But filtering the water in a sieve after boiling it can help. Only advanced water filters can get rid of uranium," he pointed out.



STORY 2

FLOODS IN GHAGHRA RIVER WASH AWAY LIVELIHOODS

Village after village in Sitapur district of Uttar Pradesh inundated as the furious Ghaghra forces the people to flee.

Arvind Shukla
Akhari (Sitapur), Uttar Pradesh



Shankar, a 65-year-old marginal farmer from Akhari village in Sitapur district, gazed pensively at the rising waters of the Ghaghra river. It has marooned Shankar's village and washed away fertile agricultural lands.

"The river's taken away my land, all I am left with is my house and I'm not sure as to how long that will withstand the flood. Seeing the river's fury this year, the future seems really bleak," Shankar, who owned half an acre (0.2 hectares) of land, told *Gaon Connection*.

Shankar's village is situated about 80 kilometres from the state capital Lucknow. Like his village Akhari, over 500 villages in 24 districts of Uttar Pradesh are facing floods as several rivers, such as Ganga, Yamuna, Ghaghra, Sharda, Chambal and Sindh continue to remain at high flood levels.

Ghaghra river (also known as Sarayu), which is a tributary of the Ganga, is known for flooding, but the destruction caused this monsoon was unprecedented. Most of the residents of the Akhari village have

migrated to nearby villages for safety.

"Last year the river used to flow 500 metres north of this village, but now it's flowing right on the periphery," Brajesh Tiwari, a 35-year-old resident of Akhari, told *Gaon Connection*.

"Many villages have disappeared into the river. The erosion of land has been enormous this year. A few kilometres away from here, two villages – Paramgauda and Kanchanapur – no longer exist," he added.

Brajesh Tiwari feared that his village would be next if check dams and embankments were not constructed urgently.

FLOODS, EROSION AND MIGRATION

Anil Tiwari's house in Akhari village has managed to survive the onslaught of the flood water. The 50-year-old is the sole occupant of his house as his sons have migrated to Lucknow where they work as labourers.



"I used to have *dus bigha* of agricultural land (about a hectare) but the river consumed it all. Nothing is left to do here and I have sent my sons to work in the city so that they can make a living," Tiwari told *Gaon Connection*.

"I have nowhere to go at this age. I'll die on the same land where I was born. We had demanded alternative lands to be allotted to us but the government has done nothing so far," he added.

VILLAGES WIPED OFF

About four kilometres away from Akhari, the Angrora village is completely engulfed by the Ghaghra river. Its residents have migrated to other villages. One of them is 50-year-old Gayatri, who now lives in the neighbouring Harpalpurwa village.

"My grains and fodder that I had stored have all spoiled. I had no option but to shift to this village," she told *Gaon Connection*.

Meanwhile, Vishal Porwal, executive engineer of Sharda-Ghaghra canal section in state's Irrigation Department in Sitapur, told *Gaon Connection* that all the projects of the department are presently safe from the floods.

"Action is being taken at the Akhari-Angora villages in the Rampur Mathura block. We are placing sandbags in these areas to check the erosion of land and the process is underway to remove the silt in the area," Porwal said.

"Ganga and Yamuna don't cause such erosion but rivers like Ghaghra and Sharda have a tendency to change their courses and erode lands. In the last twenty to twenty five years, the rivers must have changed their course by many kilometres," the executive engineer added.

FLOOD ALERT FOR GHAGHRA-SHARDA

According to the Central Water Commission (CWC), under the Ministry of Jal Shakti, the Ghaghra river is 1,080 kilometres long. It originates in the Himalayas in Tibet and passes through Nepal before reaching the northern plains.

The Sharda river originates in the Kalapani area of Uttarakhand and flows along the western border of Nepal before reaching the area around Sitapur. It is 546.6 kilometres long and 223 kilometres of it flows in India.

As per the CWC's executive engineer of the

middle-Ganga division, from June 1 to August 20 this year (81 days in 2021), the Elgin bridge in Barabanki was on alert for 54 days as the Ghaghra was flowing above the danger mark.

“It wasn’t the case last year as the water flowed above the danger mark for 60 days in 2020. But due to the river Rapti joining Ghaghra, the water levels are soaring this year. At Turtipar (Ballia district), the water level was above the danger mark for 51 days as compared to 24 days last year,” Ashish Awasthi told *Gaon Connection*.

GOVT’S MEASURES TO HELP THE AFFECTED

In a bid to safeguard the villagers from the floods that affect these areas every year, a 54 kilometre long embankment was constructed from Chalari *ghat* (Bahraich) to Barabanki’s Elgin bridge in 2016.

Government officials claim that 58 villages in Sitapur and 250 villages across the districts of Bahraich and Barabanki have been ‘protected’ from the floods by the construction of the dam.

But, this has not kept the 20 villages that are situated inside the embankments in the Mehmoodabad tehsil of Sitapur safe. They face heavy flooding every year and their inhabitants have demanded they be relocated to safer areas.

Gaon Connection talked to Nripendra Yadav, the Revenue Department’s *lekhpal* for the affected area. He said that a list of people to be relocated was released by the additional district magistrate. He said that Rs 95,100 was allotted to recompense each pucca house that was lost to the floods, and Rs 4,100 was given to those who lost their

“My field was ready to be harvested in June. But the floods ruined it and nothing is left. I have little hope for compensation,” said 60-year-old Badlu from Harpalpurwa village.

huts as compensation.

“Those who lost a hectare of land will receive Rs 37,500 whereas crop loss is compensated with Rs 13,500 per hectare of land,” Yadav said.

“My field was ready to be harvested in June. But the floods ruined it and nothing is left. I have little hope for compensation,” said 60-year-old Badlu from Harpalpurwa village.



STORY 3

'IT IS POISON, NOT WATER, COMING OUT OF THE HAND PUMPS'

63 districts in Uttar Pradesh have high fluoride in their groundwater, and 25 districts have arsenic.

Sumit Yadav
Unnao, Uttar Pradesh



Shiv Kumar and his family are leaving behind his ancestral home at Dakari village in Unnao district, 70 kilometres from the state capital, Lucknow. Dakari has a population of about 600.

“I am the third generation that has lived in this house,” said the 54-year-old, sadly, as he prepared to leave the home where his grandfather and father had lived and where he spent his childhood.

It is highly contaminated water that has forced Shiv Kumar to move home and hearth to another village.

UP Jal Nigam Unnao’s water quality test report for Sikandarpur Karamblock, where Shiv Kumar’s village is, showed total dissolved solids (TDS) level of 4,089 milligram per litre (mg/l) against the desirable limit of 500 mg/l. The hardness of water was found to be 2,072 mg/l while the prescribed limit is 300 mg/l.

“Not potable for TDS, chloride, hardness, alkalinity,” reads the water quality report dated May 28, 2021, that was obtained by *Gaon Connection*.

“The extended family has already left the village. I was hoping things would change, but nothing has,” Shiv Kumar said as he loaded his last piece of luggage onto the tractor that would carry them away.

POISON IN GROUNDWATER

Dakari in Unnao is just one of the hundreds of villages in Uttar Pradesh affected by a cocktail of contaminants in their groundwater – the only source of drinking water for them.

According to the 2019 data of the Department of Drinking Water and Sanitation, of the 75 districts in the state, 63 have fluoride above the permissible limit and 25 are affected by high arsenic. Groundwater in 18 districts of the state has both high fluoride and arsenic.

The Bureau of Indian Standards’ (BIS) Drinking Water Standards IS 10500: 2012 specifies an ‘acceptable’ limit of fluoride in drinking water as 1 mg/l, but in the absence of a safe water source, the ‘permissible’ limit of fluoride is 1.5 mg/l.

Similarly, for arsenic in drinking water, the permissible and acceptable limits are 0.01 mg/l and 0.05 mg/l, respectively.

But, some districts, such as Baldeo block in Mathura district in UP, have reported fluoride levels up to 5.9 mg/l, as recorded in the *Ground Water Year Book 2019–20* prepared by the Central Ground Water Board, under the Union Ministry of Water Resources.

A March 2021 research article published in the *Indian Journal of Public Health* points out how fluorosis is a major public health hazard in 20 states of India.

Replying to a parliament question on March 18, 2021, Gajendra Singh Shekhawat, Union Minister for Jal Shakti, said that in 2017, there were 27,544 arsenic/fluoride habitations in the country, to which the government has been trying to provide potable water.

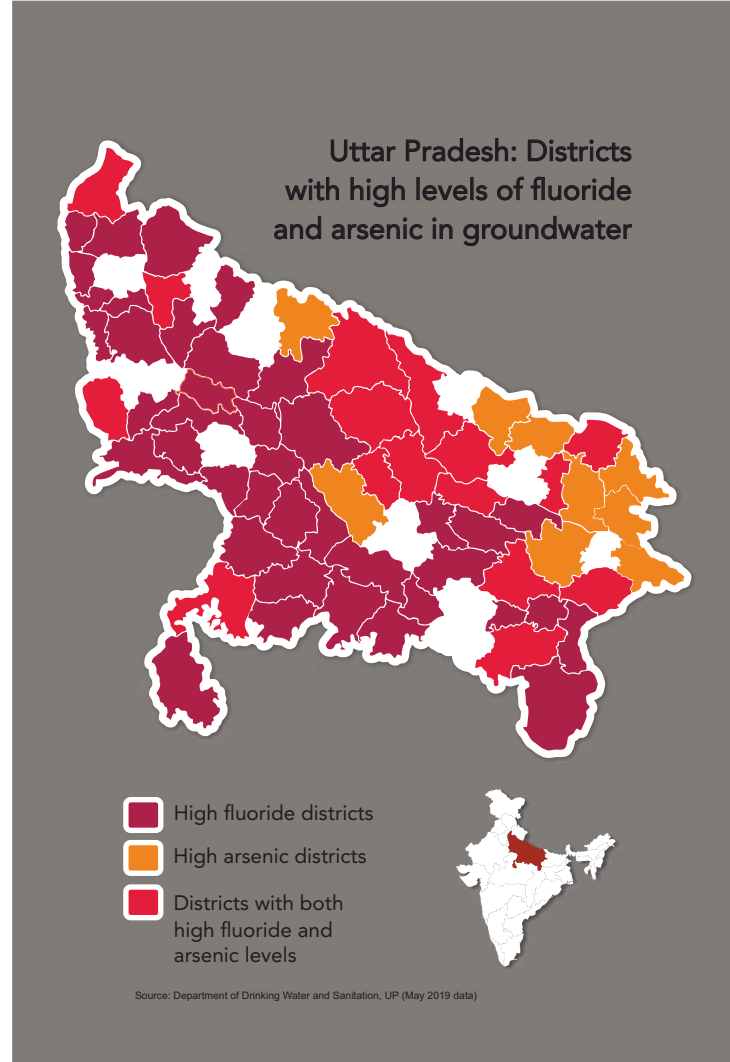
According to him, “Except for 1,386 habitations, potable water is now available in all these habitations.”

CONTAMINANTS AND HEALTH HAZARDS

“High fluoride water harms the teeth and gums, causes skin-related problems and over the years affects the bones,” Alok Pandey, physician at the Unnao district hospital, told *Gaon Connection*.

Pandey added that high fluoride could affect a person’s vision. Children, he said, were more vulnerable to the adverse effects of fluoride in the water sources and it reduced their immunity.

There are approximately 257,672 people living in the 4,355 villages in 1,445 *gram panchayats*



of Unnao district. Of them, 1,427 villages were found to contain high amounts of fluoride – between 2.20 mg/l and 4.20 mg/l – in their groundwater according to the testing lab of the state.

“It is poison that comes out of the handpumps in Dakari, not water,” said Shiv Kumar.

“There is discharge of chemical laden water from the leather tanneries nearby. And, every day the water in our village is getting more and more polluted,” Raghavendra Singh, also from Dakari, told *Gaon Connection*. Something in the water is so corrosive that it is eating into the metal of the handpumps and taps, he added.

“We are helpless. We drink this very same water knowing fully well it cannot be good for

STATE-WISE DETAILS OF ARSENIC AND FLURIDE-AFFECTED HABITATIONS PROVIDED WITH SAFE DRINKING WATER SINCE LAUNCH OF JJM

S. No.	NAME OF STATE	NUMBER OF ARSENIC-AFFECTED HABITATIONS PROVIDED WITH SAFE DRINKING WATER	NUMBER OF FLURIDE-AFFECTED HABITATIONS PROVIDED WITH SAFE DRINKING WATER
1	ANDHRA PRADESH	0	119
2	ASSAM	2291	35
3	BIHAR	385	844
4	CHHATTISGARH	0	6
5	HARYANA	0	59
6	JHARKHAND	5	52
7	KARNATAKA	0	191
8	KERALA	0	13
9	MADHYA PRADESH	0	74
10	MAHARASHTRA	0	15
11	ODISHA	0	5
12	PUNJAB	43	10
13	RAJASTHAN	0	2820
14	UTTAR PRADESH	222	73
15	WEST BENGAL	3115	276
TOTAL		6061	4592

Source: JJM-IMIS



our health,” Shanti Devi, who sat scrubbing vessels at a handpump, told *Gaon Connection*. “When we are really thirsty, we drink a glass or two of the foul smelling water and then wash it down with the good water we buy,” she added.

Sixty-five-year-old Indrana came to Raghunath Kheda village of Unnao some 40 years ago, as a new bride. “Back then, the water was fine and so was my health. It is in the last ten years that the quality of water has become terrible and I began experiencing back trouble,” Indrana told *Gaon Connection*. She is bent over double because of her bad back.

Like Indrana, 38-year-old Manju Devi also said that when she came to Raghunath Kheda after her wedding 20 years ago, there were no problems with the water. “Now, I feel like throwing up even if I rinse my mouth with the water,” she told *Gaon Connection*. I can not remember when I last drank sweet water to my heart’s content, she said sadly.

“I am constantly unwell. I struggle to sweep the floor on account of painful knees, a bad back,” Manju Devi said. Her family buys water from an RO (reverse osmosis) plant for cooking and drinking; the floors of her house remain dirty no matter how much they are scrubbed, and their handpump is completely eroded.

Meanwhile, Sishupal Yadav from Raghunath Kheda complained that people had stopped visiting their village, and if anyone did visit, they brought water along with them.

Villagers go to other villages to fetch 15 to 20 litres of water to be used by the entire family. “We pay twenty rupees for the water, and spend about the same for the petrol to go there and bring water home,” Yadav said.

DEFUNCT WATER SCHEMES

“One reason for the high incidence of fluoride in the groundwater is because of the geographical lay of the land; it is naturally occurring there in the aquifers,”

Mohit Chak, executive engineer of Unnao's water board, told *Gaon Connection*.

Chak explained that the uppermost layers from where the handpumps drew their water, were the most vulnerable to contamination as effluents easily leached into them. Water below the depth of 300 metres was safer for drinking, he said.

But, he acknowledged that toxic effluents being discharged from the many leather tanneries in the district had a big role to play in contaminating the groundwater.

As many as 71 drinking water schemes were introduced in the district about 25 years ago, said the executive engineer. "These were designed to last for not more than 15 years. So, most of the schemes are defunct now, or not running on full capacity," he said.

About two decades ago, the government laid a pipeline all the way from Poni village about five kilometres away from Dakari. It is meant to supply clean water to the village.

"But because of old, rusted pipes, the water barely makes it to only one or two taps in the common public areas in Dakari. The supply is just once a day for an hour at six in the morning, and we manage to get only about eight to ten litres from it," Raghavendra complained.

JAL JEEVAN MISSION

The central government's Jal Jeevan Mission will reactivate the older drinking water schemes, Chak informed *Gaon Connection*. This scheme of the Ministry of Jal Shakti promises piped water for every household in India by 2024.

"People hesitate to give their daughters in marriage to our boys. Who will want to send their girls to a village where the water is rotting and it cripples people for life,"
Sishupal Yadav.

"The work to provide potable water to every household in Unnao district will start soon," assured Chak. The new tubewells that will be installed under the scheme will draw water from below 300 metres, he said.

But, till that happens, villagers like Sishupal Yadav continue to worry. "People hesitate to give their daughters in marriage to our boys. Who will want to send their girls to a village where the water is rotting and it cripples people for life," he said.

Written and edited by Pankaja Srinivasan.



STORY 4

DROWNING IN THE CONSEQUENCES OF CLIMATE CHANGE

*World population exposed to floods has increased by 24% since 2000
and India has the largest population at the highest risk of floods.*

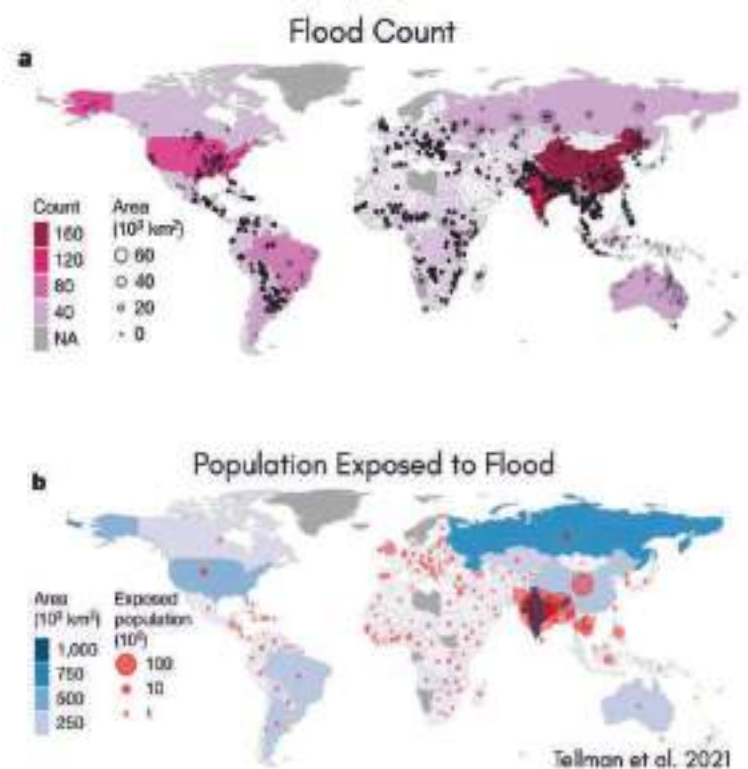
Nidhi Jamwal



While Madhya Pradesh, Rajasthan, Bihar and West Bengal, are facing extreme floods triggered due to heavy monsoon rainfall, a new study published in *Nature* journal shows “an increase of 20 to 24 per cent in the proportion of the global population exposed to floods, ten times higher than previous estimates”. This increase has been recorded since the year 2000.

What is worrisome is the fact that the US-based researchers of this landmark study, who used daily satellite imagery at 250-metre resolution, have pinned India as the country with the largest population at the highest risk of floods, followed by China, Bangladesh and Pakistan (see map: *Population exposed to flood*) This study, titled ‘*Satellite imaging reveals increased proportion of population exposed to floods*’, was published on August 4, 2021.

Based on the satellite imagery, researchers studied 913 large flood events from 2000 to 2018 and found a total inundation area of 2.23 million square kilometres, with 255-290 million people directly affected by floods.



They have estimated that the total population in locations with satellite-observed inundation grew by 58-86 million from 2000 to 2015, which translates to an increase of 20 to 24 per cent in the proportion of the global population exposed to floods.



Authors of the study published in *Nature* also warn that climate change projections for 2030 indicate that the proportion of the population exposed to floods will increase further. And if the ongoing floods in India is something to go by then this recent study should act as a serious warning bell.

WATER-RELATED DISASTERS RISING: WMO

While the study published in *Nature* has focused on floods, a comprehensive analysis by the World Meteorological Organization (WMO) points out that water-related hazards dominate the list of disasters in terms of both the human and economic toll over the past 50 years.

Of the top 10 disasters world wide, the hazards that led to the largest human losses during the period 1970-2019 have been droughts (650,000 deaths), storms (577,232 deaths), floods (58,700 deaths) and extreme temperature (55,736 deaths).

Commenting on the study, Roxy Mathew Koll, climate scientist with the Indian Institute of Tropical Meteorology, Pune, told *Gaon Connection*: “The fact that an increasingly large population is at high risk of severe weather events like floods indicates the urgency with which we need to act. These floods and cyclones are projected to increase further into the future as countries are not curbing their emissions.”

Talking specifically about India, the scientist said: “We need to urgently map the risks across India due to the changing climate. Any kind of development should be planned based on an assessment of these risks – whether it is public or commercial infrastructure or even a farm or a house.”

The WMO’s assessment, released on July 23, 2021, shows that of the top 10 disasters world wide, the hazards that led to the largest human losses during the period 1970-2019 have been droughts (650,000 deaths), storms (577,232 deaths), floods (58,700 deaths) and extreme temperature (55,736 deaths). With regard to economic losses, the top 10 events include storms



(US\$ 521 billion) and floods (US\$ 115 billion).

A detailed report on this analysis – *WMO Atlas of Mortality and Economic Losses from Weather, Climate and Water Extremes (1970–2019)* – was published in September 2021. The data released so far show that over the 50-year period, weather, climate and water hazards accounted for 50 per cent of all disasters (including technological hazards) 45 per cent of all reported deaths and 74 per cent of all reported economic losses at global level.

"Weather, climate and water-related hazards are increasing in frequency and intensity as a result of climate change. The human and economic toll was highlighted with tragic effect of the torrential rainfall and devastating flooding and loss of life in central Europe and China in the past week," said WMO Secretary-General Petteri Taalas, while

releasing the assessment.

He went on to say that "increasingly, heavy rainfall episodes also bear the footprint of climate change. As the atmosphere gets warmer it holds more moisture which means it will rain more during storms, increasing the risk of floods".

According to Taalas, "No country – developed or developing – is immune. Climate change is here and now. It is imperative to invest more in climate change adaptation, and one way of doing this is to strengthen multi-hazard early warning systems."



THE STATE OF **Rural INDIA**

REPORT 2021

CHAPTER 6



DIS  **STERS**

- In 2019 alone, over 19 million people were displaced by natural hazards in Asia and the Pacific.
- From 1970 to 2019, natural hazards accounted for 50 per cent of all disasters, 45 per cent of all reported death sand 74 per cent of all reported economic losses.
- In the same time period, Asia accounted for nearly one third or 31 per cent of weather, climate and water-related disasters globally, for nearly half of all deaths and one-third of associated economic losses.
- Between May 2020 and June 2021, India reported 116 industrial accidents in chemical and mining industries in which about 231 workers were killed.
- There was 22.6 per cent increase in lightning in India in 2020 as compared to 2019. Karnataka and Maharashtra reported the highest lightning pulse counts during 2020.



In 2021, the world was still struggling with the biggest disaster of the COVID19 pandemic. The struggle was exacerbated with multiple natural and biological disasters that India witnessed, in addition.

The *Asia-Pacific Disaster Report 2021* addressed the complexity of these converging and cascading risks by analysing natural and biological hazards simultaneously. The report highlighted those disasters frequently drove people away from their homes. In 2019 alone, over 19 million people were displaced by natural hazards in Asia and the Pacific, which accounted for around three-quarters of the global total.

The Asia-Pacific region had the four largest number of people displaced that year –

India, 5.1 million people; Philippines, 4.1 million people; Bangladesh, 4.1 million people; and China, 4 million people. The report stated that displacement is likely to increase as a result of climate change, particularly in the Pacific subregion.

This report, released by United Nations' ESCAP (The Economic and Social Commission for Asia and the Pacific), also highlighted the emergence of fungal pathogens, in addition to viral and bacterial diseases, that pose a significant threat to human health, environment, and food security. In India, amidst the COVID-19 pandemic, over 8,400 cases of black fungus were recorded.

Furthermore, the report noted that during natural disasters, these fungal infections



Citing the example of COVID19 pandemic and cyclone Amphan in India and Bangladesh, the report noted that disasters often occur simultaneously and compound each other. Amphan itself caused over 100 fatalities, damages in excess of 13 billion USD and displaced 4.9 million people, the report noted.²

Elaborating further, it noted that in an area where almost 50 per cent of the population is living under the poverty line, the COVID19 pandemic and subsequent lockdowns left many people without income options, including migrant workers who were forced to return to their home areas and were housed in cyclone shelters while under quarantine.

DISASTERS, DEATHS AND LOSSES

In August 2021, the World Meteorological Organization (WMO) launched its *Atlas of Mortality and Economic Losses from Weather, Climate and Water Extremes (1970–2019)* which stated that from 1970 to 2019, natural hazards accounted for 50 per cent of all disasters, 45 per cent of all reported deaths and 74 per cent of all reported economic losses.

There were more than 11,000 reported disasters attributed to these hazards globally, with just over two million deaths and \$3.54 trillion in losses. More than 91 per cent of the deaths occurred in developing countries.

Focusing specifically on Asia, the report highlighted that the region recorded 3,454 disasters with 975,622 lives lost and US\$ 2

can spread rapidly. It also stated that climate change can exacerbate the threat of spreading these fungal infections since floods and cyclones disperse aerosolised fungi causing wider dissemination.¹

INTERCONNECTED DISASTERS

A report titled *Interconnected Disaster Risks 2020/2021* was released by the United Nations University for Environment and Human Security. The report analysed 10 different disasters from 2020/2021 and found that even though they occurred in vastly different locations they were interconnected though initially they didn't appear to have much in common.

trillion reported in economic damages. It also stated that Asia accounted for nearly one third or 31 per cent of weather, climate and water-related disasters globally, for nearly half of all deaths and one-third of associated economic losses. Forty five per cent of these disasters were associated with floods and 36 per cent with storms.³

INDUSTRIAL DISASTERS


It was reported that in 116 industrial accidents in chemical and mining industries across the country, about 231 workers were killed between May 2020 and June 2021. The figures were reported by IndustriALL trade union affiliates. It claimed that the real number of accidents and fatalities might be higher than the actual figure.

The trade union also highlighted that deployment of a large number of untrained, precarious or contract workers, poor safety inspection system, weak implementation of safety protocol, among others have exacerbated the impact of accidents.⁴

A massive explosion at the Indian Oil Corporation's Haldia refinery in West Bengal on December 21, 2021 killed at least three workers and injured another 44 persons, of whom 16 were critical. Those dead and injured include migrant labourers who work on contract basis at the refinery.⁵

Five days later, on December 26, an explosion at a noodle-making factory in Bihar's Muzaffarpur resulted in the violent deaths of seven workers while at least

seven others sustained injuries. The workers alleged the death toll was much higher, and blamed the callous attitude on the part of the factory authorities that did not act on fixing a boiler which led to the blast.



In 116 industrial accidents in chemical and mining industries across India, about 231 workers were killed between May 2020 and June 2021.

DISASTER: EXTREMELY HEAVY RAINFALL AND FLOODS

Heavy rainfall was a common phenomenon in 2021. According to data released by the India Meteorological Department (IMD), the month of October received the highest downpour, in Kerala, in the last 120 years. Kerala received 589.9 mm rainfall in October in 2021 which was highest since the year 1901 and more than double what the state got in 2020.⁶

It was also reported that India recorded 125 extremely heavy rainfall events during September and October in 2021 – the highest in five years. The reasons behind this were the late withdrawal of the southwest monsoon and higher than normal low-pressure system, the IMD stated.



The country recorded 89 extremely heavy rainfall events in September 2021 against 61 in the same month in 2020, 59 in 2019, 44 in 2018 and 29 in 2017. In October, 36 such events occurred as against 10 in the corresponding period in 2020, 16 in 2019, 17 in 2018 and 12 in 2017, the Met department added.⁷

India witnessed 645 events of heavy rainfall and 168 events of very heavy rainfall in November 2021, the highest in the month in five years, the IMD stated.

Peninsular India reported most of the extremely heavy to very heavy rainfall events which claimed 44 lives in Andhra Pradesh, 16 in Tamil Nadu, 15 in Karnataka and three in Kerala.⁸

Floods were rampant in India throughout 2021. In Bihar, Gujarat, Odisha, Tamil Nadu, Uttarakhand and Kerala flash floods and unseasonal rains, lashed the states. Even as the year ended, Tamil Nadu witnessed torrential rains which led to issuing of alerts for floods by the state authorities.

These floods led to loss of lives, livelihoods, caused landslides in the Himalayan region of Uttarakhand and also led to loss of crops. About 298 deaths and 66 were reported missing in weather-related disasters in 2021 in Uttarakhand according to the data compiled by the State Operation Emergency Center (SOEC). It also added that over 100 people sustained injuries in weather-related calamities this year.

The year 2021 turned out to be the second-worst in terms of loss of lives in such calamities after 2013 when the Kedarnath flash floods took thousands of lives. As per the sixth assessment report of the United Nations' Intergovernmental Panel on Climate Change, India is expected to witness heavier rainfall in the coming decades.⁹

Gaon Connection reported how excessive rains destroyed crop after crop of farmers leaving them facing great losses. For instance, in Uttar Pradesh's Barabanki, torrential rains in October inundated several villages that were yet to recover from the earlier cycle of floods and destroyed the paddy and sugarcane crops.¹⁰



A survey titled *Joint Rapid Needs Assessment: Bihar Flood 2021* done by Bihar Inter Agency Group and Sphere India assessed that 90 per cent affected respondents in three-worst flood-hit districts of Bihar – Pashchim Champaran, Purvi Champaran and Muzaffarpur – lacked access to safe drinking water and faced food shortage. Also, half the toilets were broken.¹¹

There was 22.6 per cent increase in lightning in India in 2020 as compared to 2019.

Karnataka and Maharashtra were among the top 10 states with the highest lightning pulse counts during 2020.

LIGHTNING DEATHS

The *2020 India Lightning Report* released by Earth Networks revealed that there was 22.6 per cent increase in lightning in India in 2020 as compared to 2019. Karnataka and Maharashtra were among the top 10 states with the highest lightning pulse counts during 2020.¹²

Over 39.5 million pulses were detected in India in 2020 by Earth Networks' Total Lightning Network. Of these, 12,022,402 were dangerous cloud-to-ground strikes. More lightning pulses were in Tamil Nadu, Andhra Pradesh, Odisha, West Bengal, and Karnataka. There were 7,447 Dangerous Thunderstorm Alerts issued in India, most of them in Tamil Nadu. Odisha, followed by Chhattisgarh experienced more than one million cloud to ground pulses in 2020, the report stated.





STORY 1

AN AVALANCHE OF DISASTER IN CHAMOLI, UTTARAKHAND

Villagers in disaster-hit Chamoli brave the cold and camp inside forests as their homes become unstable.

Megha Prakash
Dehradun, Uttarakhand



Brahmi Devi lives in Paing in Chamoli district, one of the 13 villages cut off from the rest of the region after the lone connecting bridge was washed away in the Uttarakhand disaster. She was amongst the first to witness the event unfold on the morning of February 7, 2021 in the snow-draped mountain region.

“I had gone to the forest to collect fodder and firewood when I heard a deep roar. It felt like a thousand dynamite sticks were blasted simultaneously,” she told *Gaon Connection*.

“Before I realised what was happening, a mountain of ice came down bringing with it boulders, silt, uprooted trees and water. I panicked, and ran down towards the village to alert the others. Women who had taken their cattle downhill for grazing were washed away. The houses on the slope were buried under silt. The earth was trembling,” she recalled.

It has been four days since the disaster that also damaged hydropower projects in Raini and Tapovan of Chamoli district. Because of

the bridge snapping, 13 villages, including Brahmi Devi’s Paing, are completely cut-off. Raini village, the birthplace of the Chipko movement, is also cut-off. Essentials are being supplied through a zip-line, but the stranded villagers claim essentials are in short supply.

While 32 bodies were recovered, more than 200 people are still feared missing in the disaster. About 25 to 30 workers are feared trapped in a tunnel and rescue work is on.

Raini and 13 other villages are located in the Niti-Mana Valley, bordering Tibet. People move from here to low-lying areas during the harsh winters, and life here is hard. Laxman Singh Butola, the young *gram pradhan* of Suki Bhalgaon village, told *Gaon Connection* that a motorable road was sanctioned in the early 1990s, but was never constructed.

“During disasters, connectivity becomes a major challenge. Since the only connecting bridge was washed away, dry ration is being brought to the base of the village



“The boulders have cracked due to the ongoing tunnelling work for the dam projects. Even before the floods, small pieces broke off and damaged the village. The aftermath of the floods has left us homeless,” Shobhana Rana, *gram pradhan* of Paing.

Natural springs, which are their only source of drinking water, have been damaged too.

Shobhana Rana, *gram pradhan* of Paing told *Gaon Connection* that they have been living in constant fear. “The boulders have cracked due to the ongoing tunneling work for the dam projects. Even before the floods, small pieces broke off and damaged the village. The aftermath of the floods has left us homeless. Only yesterday did dry rations, a few lanterns and some soaps reached us.”

The fear of a similar incident repeating is so pervasive that the women of Paing are insisting they be relocated. “Our village is located on a boulder, which may break off any time if something similar hits our region. Already, many of our homes have developed cracks due to the tunneling work, Baisakhi Devi, a resident, told *Gaon Connection*.

through a zip line that has been recently set up,” Butola explained.

Paing was one of the first villages to be affected by the fury of the waters, and women and children have abandoned their homes and sought shelter in the forest, despite the near-freezing temperatures. The elderly look worried. “We are very afraid. How will we escape if this happens again,” was their fear.

Jyoti Devi, a member of the Paing *gram panchayat*, told *Gaon Connection* the villagers have no electricity or fuel to cook.



Local villagers alleged that in the name of development, their region was being destroyed. Ambitious hydropower projects offer the local people a temporary source of income. Working as labourers, they earn between Rs 5,000 and Rs 8,000 a month, enough to keep their family fed. Some spend any remaining money on liquor. Some people even get a contract for river mining, the villagers said.

But, nothing has really changed at the ground level. There are no schools, no hospitals, and no roads. Ironically, despite the presence of projects that help generate electricity, the Uttarakhand hills are cloaked in darkness. "People's homes are lit by the night sky or the morning Sun," Atul Sati, an

environmental activist working in Joshimath region for two decades, told *Gaon Connection*.

Meanwhile, the water level in the Rishiganga and Dhauliganga rivers has begun to rise, triggering fresh panic, Bhuwan Singh Rana, gram pradhan, Raini village, told *Gaon Connection*. As a result, the rescue operation at Tapovan tunnel, where about 30 workers are trapped, was temporarily halted this morning, before it resumed with limited teams.



STORY 2

CONSTANT DISPLACEMENT LEAVES VILLAGERS IN BIHAR IN MISERY

Abandoning water-logged homes due to recurring floods, people in Katihar and Bhagalpur live in makeshift shelters, and not for the first time.

Hemant Kumar Pandey



The annual phenomenon of floods in Bihar forces villagers into a game of musical chairs as they move around looking for a dry and safe patch of land, till the next wave of flood displaces them.

Manju Devi and her family are, sadly, a part of this endless cycle of displacement and despair in India's most flood-prone state. About 25 years ago, in the 1996 floods, her village Malainiya, in Katihar district of Bihar was eroded by the flood waters of Ganga River, and Manju Devi lost her home and land. Ever since, she and her family have been on the move. It has been no different this year.

"The waters of the Ganga and the Kosi rivers flooded my home about a fortnight ago, and I left everything and fled," Manju Devi told *Gaon Connection*.

Manju Devi and hundreds of others like her are now living dangerously close to the railway tracks near her village Malainiya in Kursela block of Katihar, about 250 kms away from the state capital Patna. They eat and sleep under tarpaulins and plastic sheets

and have access to neither proper drinking water nor toilets.

When the floods of 1996 eroded their village, Manju Devi and her fellow villagers set up *kuchcha* homes on railway land, near their village. They claim they received neither compensation nor alternative land to build their houses. Year after year, flood waters have entered their homes forcing them to uproot themselves and move. This year's floods have pushed them to the edge of railway tracks, where it is a challenge not to get run over by high speed trains.

Of the 38 districts of Bihar, 17 districts are in the grip of severe flooding. According to the daily flood report (August 30, 2021) issued by the state's disaster management department, about 3.2 million people from 525 *panchayats* were affected by the floods. Of these, more than 200,000 were moved to safety into shelter homes.

Floods have been plaguing Bihar since June 2021 and so far 43 lives have been lost

“We have to defecate outdoors as there are no toilets, and for women this is a problem,” 48-year-old Chinta Devi from Kursela.

due to that.

“The water began to flood the area around my house about a month and a half ago. It seeped into the drums where I had stored about seven quintals of maize. I had also planted radish and ladyfinger on a small patch of land, and they rotted too under all that water,” Manju Devi complained. Her house will become liveable only after Dussehra (mid-October), she hoped, adding she had spent Rs 80,000 on its repairs just last year.

FLOODS, FILTH AND FEAR

“We have to defecate outdoors as there are no toilets, and for women this is a problem,” 48-year-old Chinta Devi from Kursela, told *Gaon Connection*. Even for drinking water, she said, they had to go to the railway station. “Our temporary homes, next to the railway tracks, are surrounded by filth,” the

48-year-old complained. Instances of diarrhoea, fever and other ailments are common. And, there are no signs of any move by the authorities to keep the area clean by way of spraying bleach, Chinta Devi complained.

The displaced people living near the railway tracks are never far from danger. “My sister visited me on Raksha Bandhan and when she was returning home, she was run over by a train,” Sadanand Sharma, told *Gaon Connection*, grief stricken. The fear of trains is never far away. “There is always one adult who is charged with ensuring the children do not stray onto the way of the trains,” said one of the inhabitants of the area.

Displaced villagers said they had received little or no help from the government. “There has been no financial help whatsoever. Political leaders come, observe and go, that is all. There is no help forthcoming,” Muso Mandal, one of the displaced flood-victims, told *Gaon Connection*.

Manju Devi added: “All we received as help from the government were polythene sheets and food that we are served at a government school, and even that is not every day.”

“The community kitchens that are set up here cook a lot less than what is required to feed so many people,” a local people’s representative, on condition of anonymity, told *Gaon Connection*. For many of the flood affected people, reaching the community kitchens is also a struggle.



Manju Devi said she had borrowed a lakh (Rs 100,000) from a self-help group and she had no idea how she would repay it. "I am being pressured to repay the amount, but the floods have left me with nothing to eat, where will I find the money to repay my loan," she lamented. Her husband 50-year-old Manik Lal Mandal who worked as a daily wage labourer in Kursela market is also without a job.

SOPs BEING FOLLOWED

While villagers complain there has been no help from the government, Ajay Kumar, Block Development Officer (BDO), Kursola, Katihar, told *Gaon Connection*: "Standard operating procedures are being followed in all wards that are flood hit and community kitchens have been set up there." He dismissed the complaints of insufficient food and no help as baseless.

According to Ajay Kumar, flood relief funds had been released, arrangements had been

made for drinking water at community centres, and wherever necessary, hand pumps have been set up by the Public Health and Engineering Department.

According to the state government, 327 community kitchens have been set up in the flood affected areas. Also, there are 17 teams from the National Disaster Response Force (NDRF) and 12 teams from the State Disaster Response Force (SDRF) that were stationed there to help.

NO SIGN OF HELP IN BHAGALPUR

Despite being just 500 metres away from the Rangra Block Office, in flood-affected Bhagalpur district, people out of their own initiative and with no help from the authorities are setting up a hand pump. Inhabitants of the Rangra village say the government has not even provided them with polythene sheets.

“Some officials from the district headquarters did come a couple of days ago, but they returned as there was too much water everywhere,” one of the village inhabitants told *Gaon Connection*.

Meanwhile, flood-hit villagers neither have any work, nor any income, but have loans to repay.

“The public has neither received rations, nor polythene from the authorities. We do not even have fodder for our cattle,” Om Prakash Mandal, a 41-year-old inhabitant of Rangra, told *Gaon Connection*. “All our crops were destroyed in the floods. The government should at least provide compensation to the farmers who lost everything,” Om Prakash said. The farmers here are not even aware of crop insurance, he added (Bihar does not implement the Pradhan Mantri Fasal Bima Yojana).

“We had asked for more than five thousand polythene sheets, but we received only one thousand five hundred and thirty sheets that we distributed. But in a few days an amount of six thousand rupees will be credited to the accounts of the flood affected,” Ashish Kumar, circle officer of Rangra, told *Gaon Connection*.

Meanwhile, just behind the office of the circle officer, is a *basti* where people’s homes are still waist deep in water, and they have received no help yet from the authorities.

Thirty-year-old Pappu Mandal and his 21-year-old wife Lakshmi Devi, who live in this *basti*, became parents to a baby girl on August 19, 2021. The baby was born in a government hospital. Though the state



government had announced that if a baby girl was born to a flood affected family, they would receive Rs 15,000 and if it was a boy, the parents would receive Rs 10,000, the Mandals claim they have received nothing.

“The hospital refused to give us any money saying only if the pregnant mother came to the hospital in a boat would she get the amount. There was no boat available to us,” Pappu Mandal told *Gaon Connection*.

Ashish Kumar, the circle officer who was aware of this, assured the new parents that it was a mistake and the money would soon be given to them.



STORY 3

FAULTY BOILER EXPLODES IN MUZAFFARPUR KILLING SEVEN WORKERS

An explosion at a noodle-making factory in Bihar's Muzaffarpur kills seven and injures seven more. Authorities negligent, claim workers.

Lovely Kumari
Muzaffarpur, Bihar



Little did 35-year-old Sandeep Kumar know that his routine work day on December 26, 2021 at the factory premises of Anshul Snacks and Beverages Private Limited, where he worked, would be his last surviving one. About two hours into his work, the boiler operator was blown to pieces as a boiler in the factory in Muzaffarpur in Bihar exploded. His remains were handed over to his family in a bag.

Kumar was the breadwinner for his family and his death has left his dependents stranded. Besides his wife who has a mental health issue, he leaves behind an eight-year-old son, a five-year-old daughter and a sixty-year-old mother.

“His wife, 30-year-old Rani Devi hasn’t comprehended that her husband is no more and continues to wait for him to return from the factory. Kumar’s mother is in a deep state of shock,” Sangeeta Devi, the sister of the deceased, who also works at the factory, told *Gaon Connection*.

Six other workers lost their lives in the accident while as many as seven others sustained critical injuries. However, workers from the factory allege that the actual death count is higher than the official figure. They said that a fault in one of the boilers was ignored for months which led to the blast.

Krishna Mohan Jha, a 35-year-old worker at the noodle-making factory in Muzaffarpur’s Bela industrial area told *Gaon Connection* that at least 17 bodies were retrieved from the debris moments after the explosion.

“I was luckily on leave that day. The explosion was so loud that it was heard as far as five kilometers away. We rushed to the factory to see what had happened. The factory was unrecognisable. Everything was covered in dust and smoke. We saw 17 bodies being taken out from the rubble,” Jha, who works at the factory’s spices mixing section, told *Gaon Connection*.



"All workers are employed on contract basis and there are no employment benefits except for a daily wage of two hundred to two fifty rupees (Rs 200-Rs 250)," a factory worker.

against accused factory owner Vikash Modi along with six others who were a part of the factory management," Dubey said.

CONTRACT WORKERS WITH NO EMPLOYMENT BENEFITS

The factory is a source of livelihood for the families of about a thousand workers.

"There are about a thousand workers employed by the factory. About 600 are men while 400 are women. The workers here work on two 12 hours shifts – morning shift is from 7 am to 7 pm and night shift is from 7 pm to 7 am. All workers are employed on contract basis and there are no employment benefits except for a daily wage of two hundred to two fifty rupees (Rs 200-Rs 250)," a worker, who wanted to remain anonymous, told *Gaon Connection*.

According to him, apart from eight workers who were present in the boiler room, about 30 migrant workers who lived in the staff

"We had informed the factory management about a fault in the boiler control room in June itself. It's been six months since then. The fault was overlooked and poor workers have paid the cost of management's neglect," he added.

Reacting to the incident, Senior Superintendent of Police (SSP) Nand Ji Dubey told *Gaon Connection* that the factory owner Vikash Modi and six others have been booked for negligence.

"At around 9:30 am, we heard the explosion and quickly rushed to the site. We have registered an FIR (first information report)



quarter room inside the factory premises were also present when the boiler exploded.

“The main supervisor of the factory named Digvijay escaped after the blast and is still on the run,” he added.

The factory has been operating in Muzaffarpur since 2018. Its products which include snacks and noodles are supplied across Jharkhand, Uttar Pradesh, West Bengal and Odisha.

OFFICIAL RESPONSE SO FAR

Ram Surat Rai, Bihar’s State Minister for Revenue and Land Reform, visited the factory on the day of the explosion and assured the workers of an in-depth probe.

“A high-level inquiry will be conducted on the incident. The factory rules were violated

as it was operating on Sunday even though factories are closed on that day. Strict action will be taken against those found guilty,” the minister assured the workers.

The Union government announced an ex-gratia payment of Rs 200,000 from the Prime Minister’s National Relief Fund to the next of kin of the deceased. The injured would be given Rs 50,000 each.

Chief Minister Nitish Kumar announced an additional compensation of Rs 400,000 for the families of the deceased workers.



STORY 4

FLOODS IN GHAGHRA RIVER SWALLOWS LAND, LEAVING FARMERS LANDLESS

Hundreds of villagers in Uttar Pradesh in despair as flood waters wash away their lands and homes turning them landless.

Virendra Singh

Sitapur and Barabanki, Uttar Pradesh



Squatting on the edge of the overflowing Ghaghra river, 55-year-old Keedi Ram spends most of his time staring at the vast ocean of the floodwaters that has engulfed his 12 *bigha* land (almost two hectares). “*Bina zameen ke ho gaye ab, ka ki jaaye bhaiya* (I am landless now, have no idea what to do now),” the resident of Akhri village in Rampur-Mathura block in Sitapur, told *Gaon Connection*.

Before the floods, Keedi Ram was a landed farmer in his village, which is located 77 kilometres from state capital Lucknow. But now he is *bhoomiheen* (landless).

Ghaghra river, a tributary of Ganga river, has inundated almost 40 villages in the districts of Barabanki and Sitapur. Villagers have lost their homes, farmlands and stored grains and complain that little support has come from the state government.

A total of 644 villages across 16 districts in Uttar Pradesh are flood-hit right now as all the major rivers, including Ganga, Yamuna,

Ghaghra, Sharda, and Chambal are swollen due to heavy monsoon rainfall.

“No *sarkaari afsar* (administrative officer) has cared enough to visit my village and know about our miseries. It’s only during *chunaav* (elections) that *neta logan* (politicians) remember us and shamelessly come to seek votes,” complained 40-year-old Rajni, a resident of Belhari village in the Fatehpur block of Barabanki which is also flood-hit.

“I have sent my children to my relative’s house as there is not much to eat here and water has entered my house... I fear for their lives as they can fall from the *charpaayi* (charpoy) and drown in knee-deep water,” said the worried mother.

“There has been no relief material or food grains provided to us for 11 days straight. Two days ago I received some supplies of rice but how long will it support the family,” Rajni worried.



“People here build their houses every year and in the rainy season, they have to relocate. How would we do anything else if survival itself is a challenge every year,” Ramgopal Shukla, Sarsanda village, Barabanki.

villages, they would have been better off.

“The villages along the Ghaghra need a *thokar* (embankment) to protect them from the overflowing river. If that happens, we will not have to face this destruction every year,” Ramgopal Shukla, a resident of Sarsanda village in Barabanki, told *Gaon Connection*. “But I don’t know why the government cannot think of this; we have been demanding a *thokar* for a long while but nobody listens,” he added.

“People here build their houses every year and in the rainy season, they have to relocate. All this is detrimental to development. How would we do anything else if survival itself is a challenge every year,” Shukla asked.

Fatima, a 40-year-old resident of Kachnapur village in Barabanki, uses a cane to walk outside her thatched roof house as there is knee-deep water and a fall can result in a serious injury.

However, Rajeev Kumar Shukla, Deputy District Magistrate of Barabanki maintained that the flood-affected villagers were being provided with the required aid.

“People in the affected villages are being provided with relief measures. We have ensured that boats are available in these areas for easy transportation. Aid in the form of food supplies are also being provided,” he said in a statement.

‘EMBANKMENT DESPERATELY NEEDED’

The villagers living on the bank of the Ghaghra river told *Gaon Connection* that had there been an embankment to protect the overflowing river from submerging their



“There’s a deep pit right outside my house. The power supply was cut off as the electric pole got damaged due to the floods. It’s pitch dark at night and there’s constant fear of snakes and scorpions,” Fatima told *Gaon Connection*. “If somebody falls sick here, medical aid is four kilometres away and it can only be reached by boat. We pray that nobody falls sick during these times,” she added.

FLOOD RELIEF MEASURES

On August 28, 2021 Barabanki district magistrate Adarsh Singh and Member of Parliament from Barabanki Upendra Singh Rawat inspected the Hetmapur area on the Ghaghra bank.

According to an official statement, 360 ration food kits were distributed amongst the villagers. Officials also met the villagers and enquired about their living conditions.

“The officials have been instructed to estimate the losses incurred by the affected population,” the press statement noted.

Meanwhile, chief minister Yogi Adityanath directed the officials to ensure that the flood aid is not delayed to the suffering villagers.

THE STATE OF
**Rural
INDIA**

REPORT 2021

CHAPTER 7



FORESTS  **And
Wildlife**

- India has pledged to achieve net zero emission by 2070 and reduce its carbon emissions by one billion tonnes by 2030.
- A total of 30,871.33 hectares of area has been diverted under the Forest (Conservation) Act, 1980 between Jan 1, 2020 and Dec 31, 2020.
- 2,537.65 ha of forest area was destroyed by at least 1,797 fire incidents in Uttarakhand in 2021.
- Over 500 elephants were killed between 2014–2015 and 2018–2019, most related to human–elephant conflict. During the same period, 2,361 people were killed as a result of conflict with elephants.
- A total of 126 tiger deaths were recorded in 2021 in India, the highest death toll in a decade.



The year 2021 marked significant declarations about forests and wildlife, the most crucial being India's pledge to commit to net-zero emissions at the 2021 United Nations' Climate Change Conference, commonly known as COP26. While India committed to net-zero by 2070, it refrained from pledging its support for ending deforestation by 2030.

On November 1, Prime Minister Narendra Modi presented India's agenda to tackle climate change at COP26 held at Glasgow, in the United Kingdom. This is the first time that India pledged to achieve net zero emission by 2070. He also announced the reduction of carbon emissions by one billion tonnes by 2030.

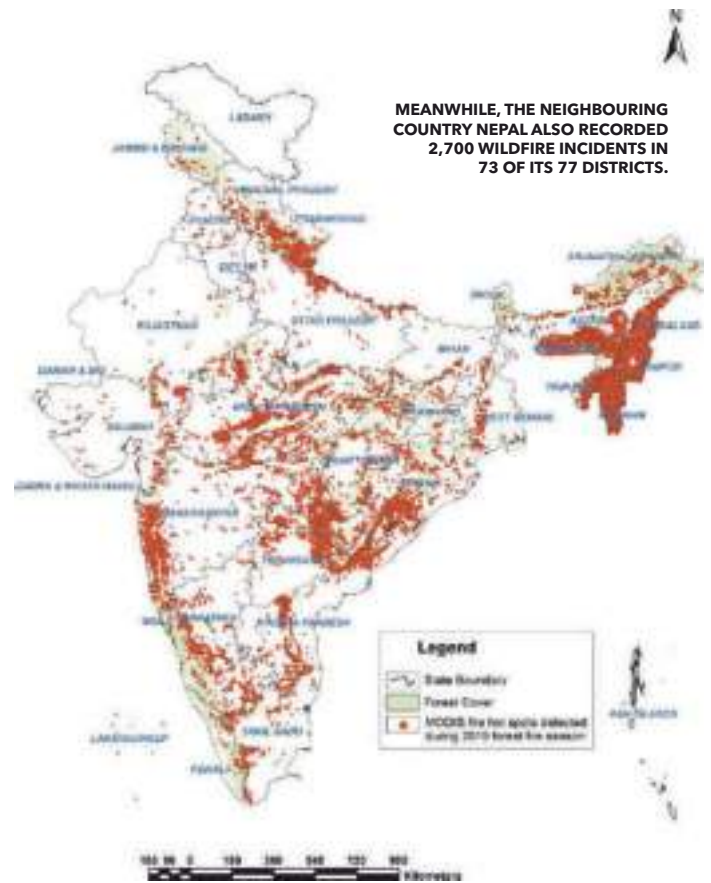
The five-point agenda, *amrit tattva* (nectar elements), presented by Modi, included raising non-fossil fuel based energy capacity (renewable energy) of the country

to 500 GW by 2030; meeting the country's 50 per cent energy requirements using renewable energy sources; reducing the total projected carbon emission by one billion tonnes by 2030; reducing carbon intensity of the economy to less than 45 per cent by 2030; and achieving net zero emissions by 2070.¹

However, India was among the countries that chose not to sign the Leaders' Declaration on ending deforestation by 2030. The Glasgow Leaders' Declaration on Forests and Land Use commits the signatories to halt and reverse forest loss and land degradation, backed by almost 14 billion pounds in public and private funding.²

DIVERSION OF FOREST LAND

As per the *Annual Report 2020–2021* published by the Union Ministry of Environment, Forest and Climate Change, a



total of 30,871.33 hectares (ha) of area has been diverted under the Forest (Conservation) Act, 1980 between Jan 1, 2020 and Dec 31, 2020.³

At 7,672.49 ha, Madhya Pradesh has shown the highest land diversion followed by Arunachal Pradesh at 4,880.79 ha and Gujarat at 4,324.79 ha.

FOREST FIRES

Amid the second wave of the COVID-19 pandemic, as the coronavirus spread like wildfire in the country, India's forests were also on fire.

The Himalayan state of Uttarakhand faced the heat of forest fires in 2021. *Gaon Connection* reported that 2,537.65 ha of forest area was destroyed by at least 1,797 fire incidents in Uttarakhand, as per the

official records. The loss in monetary terms was estimated at Rs 6,477,400. Six people and 17 animals lost their lives in these forest fires.⁴

Gaon Connection also reported that 12 of the 21 ranges in Odisha's Similipal Tiger Reserve were affected by forest fires. Nearly half of Odisha's total forest cover of 51,618.51 square kilometres is fire-prone in varying degrees - 2.82 per cent is extremely fire prone, 7.73 per cent is very highly fire prone, 13.31 per cent is highly fire prone, 19.96 per cent moderately fire prone and 56.17 per cent less fire prone.

The frequency and duration of forest fires have gone up due to an increased dry spell - Forest Survey of India's reports said that from February 27, 2021 to March 1, 2021 more than 10,000 fire alerts have been reported across Odisha's forests.⁵

Meanwhile, the neighbouring country Nepal



also recorded 2,700 wildfire incidents in 73 of its 77 districts. The air quality had turned poisonous and residents had a burning sensation in their eyes and breathing difficulties too. Poor visibility meant flight movement was affected too. High levels of air pollution forced authorities to shut all educational institutions in Nepal. ⁶

HUMAN-WILDLIFE CONFLICT

A joint report titled *A future for all – the need for human-wildlife coexistence*, released in July 2021 by World Wildlife Fund (WWF) and United Nations Environment Programme (UNEP) warned that human-wildlife conflict is the main threat to the long-term survival of some of the world's most emblematic species.

The report stated that when struggles arise from people and animals coming into contact, it often leads to people killing animals in self-defence, or as preemptive or retaliatory killings, which can drive certain species to extinction. Issues like deforestation and urbanisation have

brought the human population and the wildlife at an unprecedented proximity. ⁷

In India, data from the Ministry of Environment, Forest & Climate Change indicates that over 500 elephants were killed between 2014-2015 and 2018-2019, most related to human-elephant conflict. During the same period, 2,361 people were killed as a result of conflict with elephants. ⁸

In an episode of *Gaon Cafe*, Gaon Connection's live discussion, Biswajit Mohanty, Secretary of the Wildlife Society of Orissa spoke about the increased elephant-human conflict in the past 10-11 years. He underlined that human interference with the animal's natural pathways (known as elephant corridors) is the single biggest factor that contributes to the crisis.

Mohanty also added that there are an estimated 2,000 elephants in Odisha and every year, 75-80 elephants die in confrontations with humans. According to him, in 2020-21, almost 122 persons were killed by elephants in Odisha alone.

ELEPHANTS DEATH REPORT

A total 1,160 elephants were killed in the last ten years, up to December 31, 2020, due to reasons other than natural causes according to the Union Ministry of Environment, Forest and Climate Change. India had a total of 29,964 wild elephants as per an estimation done in 2017, the environment ministry said.

The southern region comprising Tamil Nadu, Kerala, Karnataka, Andaman and Nicobar Islands, Andhra Pradesh, and Maharashtra accounted for the highest population of 14,612 elephants. Karnataka (6,049), Assam (5,719), Kerala (5,706), and Tamil Nadu (2,761) were the top four states that had the highest number of elephant population as per the ministry.

Electrocution was the biggest reason behind elephants' death – it took away the lives of 741 elephants. This was followed by train hits that led to the death of 186 elephants, and poaching killed 169 elephants.⁹

DATA ON TIGER POPULATION IN INDIA

According to the latest data from the National Tiger Conservation Authority (NTCA), released on December 30, 2021 a total of 126 deaths of the big cats were recorded this year, the highest since 2021 death toll in a decade. The NTCA began to record the deaths of tigers in India in 2012. In a period of ten years, the second highest deaths of the tigers were recorded in 2016 as 121. Various reasons of death were recorded

According to the latest data from the NTCA, released on December 30, 2021, a total of 126 deaths of the big cats were recorded in 2021, the highest since 2012 when the NTCA began to record tiger deaths.

such as poaching, accidents and due to natural reasons.

However, environment ministry issued a clarification on these 'highest' tiger deaths in a decade. "Certain media reports have highlighted the death of tigers during 2021 in a manner which is a lopsided view of tiger conservation in the country," the ministry was quoted in a Twitter post by the state-owned radio broadcasting agency, the All India Radio. "...the manner in which figures available on National Tiger Conservation Authority's website have been used in reports causes alarm and does not take into account the gamut of processes that go into dealing with tiger death in the country," it added.¹⁰

Madhya Pradesh has the highest tiger population among all states. As per the latest population estimation that was carried out in 2018, India has 2,967 tigers.¹¹



PROTESTS TO SAVE THE FORESTS

In October 2021, about 350 protesting tribal villagers marched for ten days to reach Chhattisgarh's capital Raipur and met Governor Anusuiya Uikey, and the state chief minister Bhupesh Baghel who assured them of a probe into the 'forged' approval of gram sabhas for coal mining in the Hasdeo-Aranya forests of the state. However, later the Union environment ministry approved coal mining in the Parsa block of Hasdeo-Aranya leading to protests.¹²

With respect to the same coal mining in Parsa block, a report titled *Biodiversity assessment with emphasis on select faunal groups in the Hasdeo Arand Coal Field, Chhattisgarh* released last year by Wildlife Institute of India substantiated the "No Go Area" status for Hasdeo Aranya Coal mines and recommended to stop further mining in the area considering the irreplaceable, rich

The report also revealed that the PEKB coal block is habitat to rare, endangered, and threatened fauna. It added that the biodiversity assessment of Hasdeo Arand Coal Field has 'significant conservation value.'¹³

Meanwhile, in Odisha too there are protests going on to save the forests and the Mali *parbat* (hill). On September 22, 2021, a public hearing was held to grant permission for bauxite mining in the tribal dominated Semiliguda block which had led to the arrest of 28 tribal leaders.

On November 22, exactly two months after the previous public hearing, another public hearing was organised which also met with stiff resistance from the local adivasi population dependent on the Mali *parbat* for its livelihood and sustenance.¹⁴





STORY 1

'GREEN' PROJECTS THREATEN TO WIPE OFF ANCIENT 'ORANS' IN RAJASTHAN

The sacred groves of Jaisalmer, home to endangered species of trees and birds, are disappearing due to solar power projects.

Kamal Singh Sultana
Jaisalmer, Rajasthan



Maybe it is because they are from a desert state, that their love for water and trees runs so deep. Many Rajasthani traditions are inextricably linked to the environment, and the oran, a term derived from the Sanskrit *aranya* meaning forest, is one of the most sacred ones to the inhabitants of the desert state.

Orans are sacred groves and pasture lands, usually abutting temples, where no cultivation takes place and flora and fauna are allowed to grow and roam free. Trees are never cut here and the area belongs to no one. It is a common land.

“Jaisalmer has nearly hundred orans and most of the mare seven to eight hundred years old,” Bhopal Singh, environmental activist from Jhalora village, Jaisalmer, told *Gaon Connection*. “And many of them are associated with history and lore that every inhabitant here is acquainted with,” the 30-year-old said.

The orans in Jaisalmer are repositories of history, lore and faith of the people. In them are found endangered and rare species of

birds. These orans were free from any administrative interventions, until recently.

Many nature lovers and environmentalists of Rajasthan are concerned at how several orans are being cleared of their trees, shrubs and pasture land to make way for ‘green’ power plants and windmills. The cost of progress is being felt keenly by the creatures that inhabit these sacred groves.

A ‘GREEN’ ASSAULT

On July 26, 2021, at the oran near the 610-year-old Degrai Mata temple in Devikot, Jaisalmer district, a chinkara came into contact with a live wire and died. Earlier in the month, on July 3, a camel died in the same way.

Local inhabitants complain that in the name of progress, private companies are taking over the ‘commons’ to put up solar plants.

“The administration is turning a blind eye to the environmental damage and putting up



“There are nearly 80 windmills standing within the Dungar Ji Pir oran, where highway work is underway too. Contractors are digging up the oran. The local people fear that in a few years nothing will be left of the oran.”

“We have presented a memorandum to the [Jaisalmer] district collector so that work on setting up wind and solar power plants here can be stopped,” Sawant said.

About 80 kms northwest of Degrai Oran, lies the 800-year-old oran of Dungar Ji Pir, in Mokla village. It is about 15,000 acres (approximately 6,000 hectares) large, and is about 40 kms in circumference.

Today, there are nearly 80 windmills standing within the Dungar Ji Pir oran, where highway work is underway too. Contractors are digging up the oran for mud. The local people fear that in a few years, nothing will be left of the oran.

ORANS HAVE NO FORM OF LEGAL PROTECTION

The lack of documentation or registration of the orans, is proving to be a big hurdle for those raising their voice against building activity in and around them. Only a handful of orans in Rajasthan are legally registered, and therefore they cannot be legally

overhead electric lines in villages such as Bhimsar, Bhopa, Savata and Rasala,” Sumer Singh Sawant, a camel breeder and an environmental activist, told *Gaon Connection*. “The forest department has abandoned all efforts to save birds. The high tension electric cables everywhere have already killed so many birds,” the 50-year old Sawant pointed out.

Not too long ago a Great Indian Bustard was killed as it got entangled in the overhead wires. The Great Indian Bustard is a critically endangered bird that figures in the International Union for Conservation of Nature Red List of Threatened Species, and in the National Wildlife Action Plan (2002-2016).



protected.

In almost every village in Jaisalmer district, there are such orans, big and small, that are not registered legally. However, people are raising slogans, taking out marches and giving representations to government officials to prevent the destruction of the orans.

Already this year, several protest processions have been taken out in Jaisalmer. A two-day yatra was staged on June 23 and 24, in order to expedite the registration of the Dungar Ji Pir oran. People from Mokla and neighbouring villages took part.

Local outrage at the taking over of an oran at Salkha village in Jaisalmer has been gathering strength ever since the administration and private companies have launched 'green energy' projects there.

The Veervar Aala Ji Jhunjhar oran in Salkha village is spread over almost 20,000 *bighas* (5,058 hectares). The oran is in memory of

all those heroes who sacrificed their lives between the 16th and 18th centuries to protect Jaisalmer's freedom. And according to the local inhabitants, private companies are eyeing these lands.

A REPOSITORY OF HERITAGE

"It is a crime to enter an oran with an axe," Chatar Singh Jaam from Ramgarh village, Jaisalmer, told *Gaon Connection*. "The oran conserves and protects local vegetation. Even to think of hunting here is a crime. We believe that gods inhabit these forests and lands," the 65-year-old added.

According to Jaam, the oran is where many creatures seek protection and sustenance. Cattle graze on the oran pasture lands. The water sources in it are not just sacred, but in times of such environmental changes in the world, they are vital, Jaam continued. He said he was happy so many young people felt so keenly about the orans but was visibly upset about the stance the government was taking.



“The orans are a sanctuary not just for local birds, but also for migratory birds. The forest department of the government spends millions of rupees on conservation. Yet, authorities do not realise the important role the orans play in safeguarding the environment and the ecology,” Jaam said.

“It is a shame that such a magnificent environment is being destroyed in the name of progress,” Ilse, a German researcher on camels, who has been visiting Jaisalmer for over 30 years, told *Gaon Connection*.

She added that the orans were safe spaces for camels to graze and rest in. If they are destroyed, not just the animals but even the people living around the orans will be adversely impacted, she said.

“We will sacrifice our lives to protect the oran,” Sangh Singh Bhati, a former Bharatiya Janata Party legislator, told *Gaon Connection*. He was referring to the Tanot

oran attached to the Tanot Rai Mata temple in Asakandra village in Pokaran, Jaisalmer, about 20 kms from the Indo-Pakistan border.

“The Tanot Rai oran carries the heritage of our ancestors. It also protects Nature. The government is committing a grave mistake by handing over the sacred orans to private companies,” Sawant said. “If this oran is handed over to any private company, we will sacrifice our lives,” he said, charged with emotion.





STORY 2

MINING IN CHHATTISGARH FORCING ELEPHANTS TO MOVE HOME

*Wild elephants seek refuge in the forests of Madhya Pradesh
as mines destroy their habitat in Chhattisgarh.*

Anil Tiwari

Anuppur, Madhya Pradesh



On August 25, folk singer Gaya Prasad Kewat along with his wife and three-year-old grandson were fast asleep in their home on the edge of the forest in Belgam village. Somewhere at midnight a herd of elephants trampled the family to death.

The mother of the three-year-old, who lived three kms away from where the incident took place, was inconsolable. “I did not know elephants moved around in the area. Had I known, I would not have left my son there,” she told *Gaon Connection*.

The deaths in Anuppur district of Madhya Pradesh, about 550 kilometres from the state capital Bhopal, have sent ripples of fear through the local villages.

“It was horrible. When I passed by the following morning, there was no house standing (of the Kewats). And, it was a shock to see the three of them dead,” Sugreev Kumar, a neighbour, told *Gaon Connection*. “We are so scared that we do not even want to leave our homes in

daylight to go and work on our fields,” he added.

The forests of Madhya Pradesh are not traditionally elephant-land. People are not used to seeing elephants in the forests. But, for a few years now, elephants have been entering into the state from across the border from Chhattisgarh into the forests of Madhya Pradesh.

Since January 1, 2020, ten people have lost their lives in elephant-human encounters in Madhya Pradesh.

“On April 2 last year, in Anuppur alone, three people lost their lives to elephant attack. Ten days later, on 12 April, one more person died in north Seoni,” coordinating officer at the office of the Chief Wildlife Warden, Madhya Pradesh, told *Gaon Connection*.

“So far, this year, six people have died in elephant encounters. Three were from Anuppur and three from Sidhi. No elephants have been killed,” he said.



“Elephants require anything up to five thousand square kilometres of pristine forest. They wander twenty to twenty five kilometres per day,” coordinating officer at the office of the Chief Wildlife Warden, Madhya Pradesh, explained. “As a result, they occasionally enter residential areas near Bandhavgarh National Park that covers seven hundred square kilometres,” he said.

According to Ajay Dubey, a Bhopal-based wildlife expert, bamboo, crops, and water create a natural attraction for elephants in the Bandhavgarh Tiger Reserve. “Forest dwellers in Madhya Pradesh, however, are unaccustomed to elephants. And, that is why elephant-human conflict is on the rise here,” he told *Gaon Connection*.

ELEPHANTS WITHOUT BORDERS

According to forest officials and local villagers, elephants entering Madhya Pradesh is a recent phenomenon. The Kanha Tiger Reserve, Bandhavgarh Tiger Reserve, and Sanjay National Park are located on the border between Madhya Pradesh and Chhattisgarh.

“Elephants began migrating from Odisha and Jharkhand to Chhattisgarh in the 1980s,” said the coordinating officer. And from Chhattisgarh, they have started entering Madhya Pradesh.

“A herd of forty elephants that travelled from Chhattisgarh in 2018, strayed into the Bandhavgarh forests in Madhya Pradesh and stayed on and did not go back from where they came,” the official continued.

MINING ACTIVITIES PUSH ELEPHANTS TO MIGRATE

The happenings on the other side of the border in the state of Chhattisgarh are catalysing the movement of elephants into Madhya Pradesh.

According to the Mineral Resources Department of the Chhattisgarh government, about 5.6 million tonnes of coal are stored in the state, which represents 16 per cent of all coal deposits in India.

Twelve coalfields located in north Chhattisgarh, including Raigarh, Surguja, Koriya, and Korba districts, account for approximately 44,483 million tonnes of coal.

The state’s iron ore reserves total 4,031 million tonnes, accounting for around 19 per



cent of India's total iron ore reserves. Kondagaav, Narayanpur, Jagdalpur, and Dantewada in south Chhattisgarh, are the primary locations for iron ore extraction.

While there is a wealth of minerals to be had in this area, it is also a natural habitat for elephants, leopards and lions (over 350 species of animals).

At least 4,900 hectares of forest in Chhattisgarh's northern state have been diverted for iron ore mining, according to the state's forest department, thus affecting elephant corridors.

"Traditionally, elephants roamed freely in Hasdeo Aranya Chetra. Since mining began, the forests have been fragmented," Alok Shukla, convenor of Chhattisgarh Bachao Andolan, told *Gaon Connection*.

Territory where elephants traditionally roamed, has shrunk, he said. "The environment here is in jeopardy because

the government is more preoccupied with the commercial worth of minerals, than the rich biodiversity above ground," he said.

In 2019, the newly elected Congress government in Chhattisgarh announced the establishment of the Lemru Elephant Reserve in Hasdeo Aranya Chetra. A 400-square-kilometre area was proposed for this elephant reserve that fell within Surajpur, Korba and Sarguja.

But the Adani group operates a large coal mine in this very region in Hasdeo Aranya Chetra. The coal mined here is supplied to Rajasthan government's Rajya Vidyut Utpadan Nigam Limited. An Adani Watch report titled Adani and the Elephants of the Hasdeo Aranya Forest, published in 2020, suggests that over 100,000 trees were cut in Hasdeo Aranya Chetra when mining operations began there.

These concerns have also been raised by the Wildlife Trust of India, a leading Indian

nature conservation organisation. According to its report titled *Right of Passage, Elephant Corridors of India*, the fragmented nature of the Indian landscape, with people everywhere, has increased encounters between elephants and humans, which have claimed the lives of approximately 400-450 people and 100 elephants, each year in the country.

RISING HUMAN-ELEPHANT CONFLICT

In Chhattisgarh, according to the government figures, 204 humans and 45 elephants lost their lives between 2018 and 2020. A total of 66,582 crop losses were reported, there were 5,047 damage to homes, and 3,151 property destruction cases were recorded.

This conflict is rising in neighbouring Madhya Pradesh too. "My constituency has seen three incidents where elephants strayed into human inhabitation, and damaged crops and property, since I was elected in 2018," Sunil Saraf, a Congress MLA from the Kotma constituency of Madhya Pradesh, told *Gaon Connection*. "There appears to be a failure on the part of the forest department, the sub-divisional magistrate and the local administration," he added.

According to the wildlife expert Ajay Dubey, "There is no coordination mechanism between forest officials of different states and they do not check the elephant movement across their state borders.

In the recent case of a human-elephant encounter in Belgam village where three

In Chhattisgarh, according to the government figures, 204 humans and 45 elephants lost their lives between 2018 and 2020.

villagers were killed, there was no significant monitoring when elephants crossed over to the Bandhavgarh forest and the adjacent forests in Madhya Pradesh.

The people living in and around the forests in Anuppur now fear for their lives. They complain that the recent incident was a failure to coordinate and communicate on the part of forest officials and village *panchayat* members.

"I received information on the elephants' movements during the night of the incident. A few villagers were informed by telephone," Rajbhan Singh, Belgam's *sarpanch*, told *Gaon Connection*. However, a majority of villagers said they had heard nothing.



STORY 3

TRIBAL COMMUNITIES IN ODISHA PROTEST MINING IN MALI HILL

Thirty six perennial streams flow through the Mali hill and ultimately feed the Kolab river. The tribal communities are worried that mining in the hills will dry out the river.

Ashis Senapati



Protests against bauxite mining in the forests of Koraput in Odisha are growing as the local tribal communities oppose mining operations in Mali *parbat* (hill). On November 22, 2021 the Odisha State Pollution Control Board organised a public hearing on bauxite mining in Kankadaamba village, nearly 500 kilometres away from the state capital, Bhubaneswar, which was met with stiff resistance from the local Adivasis.

According to local inhabitants, the number of armed security forces and officials far outnumbered the local tribal people at the public hearing. Members of the Mali Parbat Suraksha Samiti (Mali Hill Save Committee) staged a protest demanding that the officials cancel the mining project and protect the virgin hill and forest area.

“If the Odisha State Pollution Control Board gives a no objection certificate to the company [Hindalco Industries Limited], we will intensify our agitation,” Prafulla Samantra, the president of Lok Shakti Abhiyan, one of the protesting groups, told

Gaon Connection. “Mining disturbs groundwater, air and soil in the area. We will not allow this to happen,” he added vehemently.

On September 22, the district administration had tried to hold a public hearing for the same project. However, no headway was made. The protestors had raised anti-government slogans. Between September 24 and 26, the police arrested 28 tribal leaders who are still in jail. “The hearing process on September 22, could not be completed due to local resistance because of which we organised another public hearing on November 22,” Rajendra Majhi, additional district magistrate, Koraput, told *Gaon Connection*.

There were allegations by the local public that the venue was cordoned off and only those people who supported the project were allowed in after being duly screened by the police, government officials and the employees of Hindalco. The hearing was also hurriedly concluded in an hour without



providing people opposed to the project an opportunity to voice their objections, villagers complain.

BAUXITE MINING IN KORAPUT

The agitators protested against mining in and around the Mali hillock at Kankadaamba village in the tribal dominated Semiliguda block in Koraput district. The area around Mali Hill is home to Kondha, Paraja, and Gadaba tribal communities who live in 44 villages there. The area that falls under the mining lease is spread over 268.110 hectares.

The mining lease and an environmental clearance was granted to Hindalco

The area around Mali Hill in Odisha is home to Kondha, Paraja, and Gadaba tribal communities who live in 44 villages.

Industries Limited in 2003, despite reservations about the project by the local inhabitants. The local resistance however prevented mining activity in the area and the lease and the environmental clearance ended in 2013.

Now, the industry is going in for a fresh lease of 50 years. But it has to get the nod from the local people for which a public hearing is necessary. The public hearing was organised on November 22, as the district administration postponed the public hearing on September 22 alleging large scale violence.

But according to many local inhabitants and Samantra, the authorities, taking advantage of the absence of the influential tribal leaders (arrested after the September 22 public hearing), organised another public hearing amid tight security.

The venue for the public hearing on November 22, three kilometres away from Mali hill, was cordoned off by a wired fence, claim the local villagers. There were



allegations that hundreds of villagers were prevented from entering the area by the police force, reminiscent of the earlier public hearing on September 22. Some villagers were detained at the police station for the duration of the hearing, said Sharanya, an activist of Koraput.

TRIBAL PEOPLE WANT THEIR FORESTS PROTECTED

The local Adivasi population vociferously expressed its concern over what would happen to the forests and people, flora and fauna who inhabited the Mali hillock area.

Thirty six perennial streams flow through the Mali hill and ultimately feed the Kolab river. The tribal communities use the river water for irrigation, and are worried that mining in the hills will dry out the river. The hill also has many valuable medicinal trees, besides being an important elephant corridor.

“Bauxite mining in the forested hills is also responsible for the drying up and siltation of several natural streams, waterfalls, and rivulets and that is why we are opposing it

so vehemently,” Samantra said.

Rampant mining in the forest is one of the main reasons behind the destruction of elephant corridors in the state. On August 17, earlier this year, the National Green Tribunal (NGT) directed the Odisha government to notify 14 elephant corridors in two months time, amidst growing demand for conservation and protection of the jumbos, said Biswait Mohanty the secretary of Wildlife Society of Odisha.

Meanwhile, as per the additional district magistrate Majhi, a large number of local inhabitants gave their consent to this proposed bauxite mining project on November 22 during the public hearing.

“The district administration deployed thirty platoons of security forces to check any untoward incident. The Odisha State Pollution Control Board will submit the public hearing report to the state government soon,” the official added.





STORY 4

SIMILIPAL TIGER RESERVE AND KULDIHA SANCTUARY IN ODISHA IN FLAMES

Multiple forest fires across Odisha raise grave concerns amongst environmentalists as these incidents have increased in frequency. Are heatwaves to be blamed?

Monalisa Patsani
Bhubaneswar, Odisha



The Similipal Tiger Reserve in Odisha's Mayurbhanj district has been burning for a fortnight. Twelve of the 21 ranges in the 2,750 square kilometre-reserve, have been affected by forest fires, claim news reports. While forest officials are trying to bring the forest fire under control, M Yogajayananda, regional chief conservator of forest, Baripada circle, was quoted by newspapers as saying that "some amount of rain is necessary to keep more fires from coming up".

Meanwhile, latest reports say that the adjoining Kuldiha sanctuary has also caught fire. A local outfit 'Bhanja Sena' has called for a 12-hour bandh in Mayurbhanj district March 10, 2021 to protest what it alleges is the administration's failure to control the fire in the tiger reserve.

A number of forest fires were reported on February 22 in Betnoti, Deuli, Pithabata, Kaptipada and Udala ranges of Similipal. It has since also affected the Bangriposi, Dukura, Rasgobindpur, Podadia,

Thakurmunda Barehipani and Astakuan ranges. The forest officials claim the fire has been brought under control but, on the evening of March 7, social media users put out videos of another fire in Bhanjabasa range.

"The fire is under control and the department has increased manpower working on the field," JD Pati, deputy director of the Similipal Tiger Reserve, told *Gaon Connection*.

"Whenever we get local information about a fire, we immediately douse it. The fire here is not a canopy fire, but ground fire [it moves more slowly than canopy fire]," he said, warning that the impending heatwave and dry spells in the summer season would result in more fires.

According to him, since September last year, [2020] there has been no rainfall in Odisha and a heatwave started from February 1.

"This is the reason we are witnessing multiple fire points not only in Similipal but also in other parts of Odisha. This is the situation in the entire eastern region," Pati said.



Nearly half of Odisha's total forest cover of 51,618.51 square kilometres is fire prone – 2.82% is extremely fire prone, 7.73% very highly fire prone, 13.32% highly fire prone, 19.96% moderately fire prone and 56.17% less fire prone.

NEARLY 50% OF ODISHA'S FORESTS FIRE-PRONE

According to the 2019 Forest Survey of India (FSI), nearly half of Odisha's total forest cover of 51,618.51 square kilometres is fire prone – 2.82 per cent is extremely fire prone, 7.73 per cent very highly fire prone, 13.32 per cent highly fire prone, 19.96 per cent moderately fire prone and 56.17 per cent less fire prone.

Usually, forest fires are reported from February to April. However, the frequency and duration of these fires has gone up due to an increased dry spell, said Pati. In fact, FSI reports said that from February 27 this year to March 1, more than 10,000 fire alerts have been reported across Odisha's forests.

A fire was reported on March 4 from Hindol forest in Dhenkanal district. A few elephants were trapped there, but escaped unharmed, and the fire has been doused. Forest fires have also been reported from Keonjhar, Ganjam, Paralakhemundi, Rayagada and other districts, but have since been controlled, officials said.

More than 1,200 people have been engaged to control the fire in Similipal. This includes 750 forest department staff and 450 temporary staff who double up as fire watchers. They manage fires using 40 four-wheelers and 320 blowers, a high-ranking forest official said. A fire line has been created for around 2,000 kilometres in the reserve, he added.

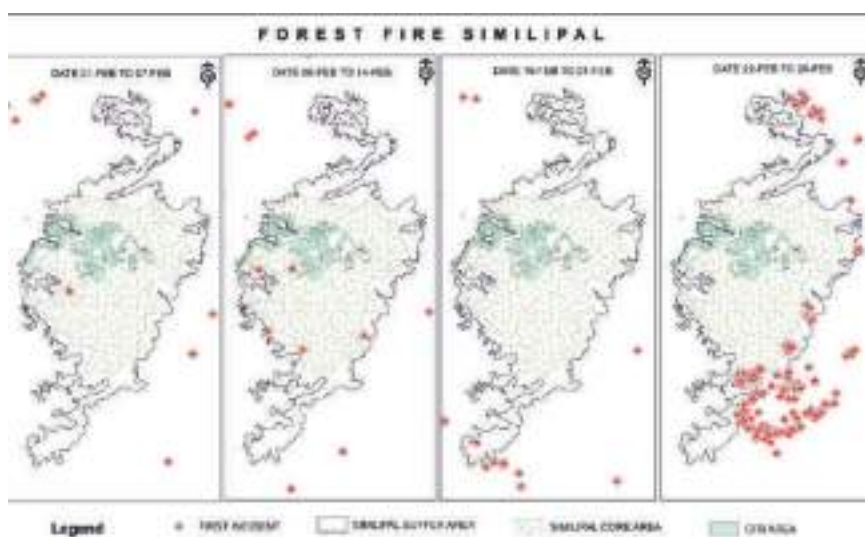
Bijoy Kumar Mohapatra, ranger of Kuldiha Sanctuary, told *Gaon Connection*: "There were a few incidents of forest fire in the sanctuary, but they have been controlled. We created a fireline for around a hundred kilometres, but observed that villagers started a fire in another area to catch wild boars."

“In Odisha, once every three years, we witness heat waves and longer dry days, which contribute towards forest fires,” informed Pati. Also, during winter, the leaves of the ubiquitous sal trees fall and anthropogenic fire (caused by humans) incidents are reported.

Ranjan Panda, a Bhubaneswar-based environmentalist also blamed the rising heat for a rise in the forest fires. “Rising heat

Space Administration’s (NASA) Fire Information for Resource Management System on March 6 shows hundreds of ‘red’ fire spots in Similipal.

Pati told *Gaon Connection* that “the majority of the fire has been controlled in Similipal, and our staff has doused a few minor fire points”. He said there was no threat of a large-scale forest fire since “there is no bamboo or pine forest in Similipal”.



could trigger forest fires. The heat is increasing and we are experiencing some kind of forest drought. The early arrival of summer inside the forest and temperature rise are factors that enable the spread of fire,” Panda said.

On March 5, Sashi Paul, principal chief conservator of forest wildlife, Odisha, visited the core area of Similipal (around 1,194 sq km) to assess the forest fire and loss of flora and fauna. He admitted the fire had caused extensive damage in Thakurmunda and Podadiha ranges, but claimed it had been controlled. Other officials said most fire points across Similipal had been controlled.

However, satellite imagery from the FSI and the US-based National Aeronautics and

Pati also claimed the fire points on satellite images might also be fire points created by the forest department – fire lines, controlled burning, counter burning, and the like. “Satellites can only identify the temperature and not the intention,” he said.

HUMAN FACTOR AT WORK?

Ajit Satpathy, district forest officer (DFO) of Anandpur, and former DFO of Similipal said such forest fires are fairly regular in Odisha. “Fires here are usually caused by humans and its spread depends on natural factors such as wind, and high temperature, besides the presence of dry leaves. This year, we have been experiencing high temperatures since late February, and so, the number of fire points has increased,” he told



"This year, we have been experiencing high temperatures since late February, and so, the number of fire points has increased," Ajit Satpathy, district forest officer (DFO) of Anandpur, Odisha.

under the *mahua* tree, when they burn some patches to help growth of succulent grass for their livestock, or light a fire to keep animals at bay. Accidental fires caused by a still-smouldering *beedi* or cigarette are common too, said Pati.

Giri Rao from Vasundhara, that works for the rights of forest dwellers said accusations by some officials that tribal people caused the fire when they went to collect *mahua* flowers is wrong. "There are no *mahua* trees inside Similipal forest. They can only be found outside the buffer zone," Rao claimed.

According to him, tribal communities living in forest areas often work together to protect the forest. "When there is a forest fire, a member from every household comes out to stop the fire. If not, they pay a fine of thousand rupees as decided by tribal elders. So, blaming villagers for forest fires is not right. Instead, forest officials should involve villagers to control such fires," said Rao.

Gaon Connection.

Biswajit Mohanty, Bhubaneswar-based former member of the National Wildlife Board blamed poachers for causing the maximum number of forest fires. "As per our observation, around sixty per cent of forest fires are caused by poachers, twenty per cent during collection of *mahua*, ten per cent during collection of *tendu* (kendu) leaves, and the balance by nomadic tribes who light fires while collecting honey," he elaborated.

Forest officials also claimed most forest fires are caused when villagers set fire



FOREST FIRE RAGES ON

Dhaneswar Mohanto, a social activist from Jashipur in Mayurbhanj district, claimed he saw fire points inside Similipal even on March 6. "Similipal is still burning. Claiming that the fire is under control is wrong as we can still see fire and smoke in many parts of the reserve. Every day, a team of forest officials goes in to douse the fire," he told *Gaon Connection*.

Akshita M Bhanj Deo, an erstwhile royal whose residence Belgadia Palace in Mayurbhanj is located between the Similipal and Baripada forest reserves, has been tweeting about the fire since March 1. She told *Gaon Connection*: "Satellite images show a fire in the buffer zone of Similipal. My field visits to villages indicate the same. The smoke is affecting all of us."

Rao told *Gaon Connection* the fire would affect the life and livelihoods of many villagers, who are already suffering the

economic effects of the COVID-19 lockdown and job losses. "They are dependent on the forest for food. The Kharia community of Similipal is known for its honey collection. They fear hives could have been destroyed in the fire, or the bees might have abandoned the hive due to the smoke. They might not have any honey to gather," he told *Gaon Connection*.

According to Mohanty, the Similipal fire might have caused much destruction to ground-dwelling creatures such as mongoose, snakes, lizards, frogs and pangolins. "The fire would have also destroyed many young plants. The forest will take time to recover," he told *Gaon Connection*.



THE STATE OF **Rural INDIA**

REPORT 2021

CHAPTER 8

CLIMATE 
Change

- As per the IPCC's Sixth Assessment Cycle AR6 there will be severe increase in rainfall over south India.
- Globally, severe, heavy precipitation events that now occur on an average once every ten years, are projected to nearly double in frequency.
- 12 out of 15 warmest years in India were between 2006 and 2020.
- In the past 50 years, 7,063 extreme weather events were recorded in India. That's about 21 every year.
- 77 per cent of Maharashtra's cropped region is highly to moderately vulnerable to the prevailing climate crisis.
- More than 80 per cent of Indians live in districts vulnerable to climate risks.



The year 2021 has made one thing clear – no country on this planet is safe from the impact of climate change. Both the frequency and the intensity of extreme weather events, linked to climate change and global warming, are on the rise.

Reports on climate change that were released in 2021 highlighted the gravity of its impact on our daily lives – from livelihood to environment, everything has been affected by climate change.

The scientific report on climate change, *Climate Change 2021: the Physical Science Basis of the United Nations'*

Intergovernmental Panel on Climate Change (IPCC) focused on how human-caused emissions are leading to fundamental planetary changes to the

climate system. This Summary for Policymakers of the Working Group I contribution to the Sixth Assessment Cycle AR6 released in August 2021, paints a grim scenario for India.

IPCC'S SIXTH ASSESSMENT REPORT

As per the new report, commonly referred to as WGI (Working Group I), globally, the planet will warm by 1.5°C in all scenarios. Even in the most ambitious emissions pathway, it will reach 1.5°C in the 2030s, overshoot to 1.6°C, before the temperature declines to 1.4°C at the end of the century.¹

Warming over India is projected to track the global average and the country is expected to see an increase in frequency

and severity of hot extremes, warns the IPCC report, which has projected an increase in annual mean precipitation. Monsoon rainfall is also projected to increase.

According to the WGI report, the increase in rainfall will be more severe over southern parts of India. On the southwest coast, rainfall could increase by around 20 per cent, relative to 1850-1900. If the planet warms by 4°C, India could see about a 40 per cent increase in precipitation annually.

This is not all. Monsoon precipitation is projected to increase in the mid- to long term over South Asia. Globally, severe, heavy precipitation events that now occur on an average once every ten years, are projected to nearly double in frequency at 2°C (1.7 times in a ten-year period). At 4°C, the likelihood of these events will jump 2.7 times in a ten-year period, warn the authors of the report.

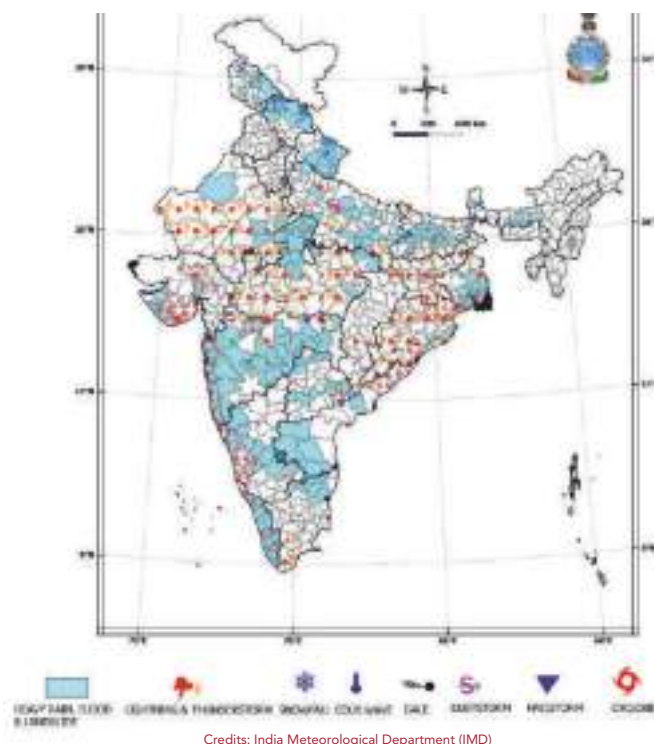
IMD'S REPORT ON EXTREME WEATHER EVENTS

The India Meteorological Department (IMD) in its statement on Climate of India during 2021 documented the various extreme weather events in the country in 2021 and highlighted that the state of Maharashtra was the most adversely affected state due to extreme weather conditions during 2021 that reported 350 deaths due to extreme weather conditions. Data released by IMD also showed that a total of 1,750 deaths were reported across the country due to extreme weather conditions in 2021.²

Further, *An assessment of long-term*

changes in mortalities due to extreme weather events in India: A study of 50 years' data, 1970-2019, by the Union ministry of earth sciences, published in volume 32 of *Weather and Climate Extremes* journal, pointed out that in the past 50 years, 7,063 extreme weather events were recorded in India. That was about 21 every year.

MAJOR EXTREME WEATHER EVENTS DURING 2021



These extreme weather events killed 141,308 people between 1970 and 2019 – that is 2,826 deaths every year. The most frequent freak weather events included floods, lightning, heat waves, and cold waves whereas cyclones were least frequent.

The ministry's report also found that maximum mortality – 46.1 per cent – was due to floods followed by tropical cyclones at 28.6 per cent. However, despite a significant rise in such extreme events, the mortality rate has decreased over the years.³

Evaluating the impact of climate change on livelihood and agrarian economy, a research study titled *Socio-economic*



vulnerability to climate change – Index development and mapping for districts in Maharashtra, released on August 6, 2021 by Indian Council of Agricultural Research (ICAR), found that 24 districts of the total 36 districts in Maharashtra were vulnerable to extreme weather events, drought and dwindling water security. It warned that 77 per cent of Maharashtra’s cropped region is highly to moderately vulnerable to the prevailing climate crisis.⁴

Another study titled *Mapping India’s Climate Vulnerability: A District-Level Assessment* conducted by Council on Energy, Environment and Water (CEEW) and released on October 26, 2021 highlighted that more than 80 per cent of Indians lived in districts vulnerable to climate risks. Of the total 35 states and Union territories in the country, 27 are vulnerable to climate risks.⁵

A Lancet Countdown report released in October 2021 pointed out that India was among the top five countries with highest exposure of the vulnerable population to extreme heat. It also stated that India had witnessed 15 per cent higher extreme heat in

2019 as compared to 1990.⁶

Another report titled *Climate hazards are threatening vulnerable migrants in Indian megacities* released in July 2021 by Nature Climate Change highlighted that extreme weather events linked to climate change increase vulnerabilities of migrant workers in Indian cities. The study pointed out that climate-related hazards paint an alarming scenario in which the major migrant destinations will emerge as hot spots of climate change-induced disruptions, wherein the migrant population would be the most affected.⁷

COP26

2021’s major breakthrough was at the United Nations Climate Change Conference, also known as COP26, held in Glasgow, Scotland in the United Kingdom between October 31 and November 12, 2021. COP stands for ‘Conference of the Parties’.

At COP26, countries revisited climate pledges made under the 2015 Paris



COP conference, an explicit plan to reduce the use of coal was chalked out. However, countries agreed to a weaker commitment to 'phase down' instead of 'phase out' coal after a late intervention by India and China.

World leaders also pledged to increase money to poor countries to cope with the effects of climate change, and make the switch to clean energy. A prospect of a trillion dollar a year fund from 2025, after a previous pledge for richer countries to provide \$100 billion a year by 2020 was missed. It was also agreed to phase-out subsidies that artificially lowered the price of coal, oil or natural gas (see *Chapter: Forest and Wildlife*).

UNSEASONAL RAINFALL AND UNPRECEDENTED FLOODS

2021 witnessed unprecedented, and unseasonal rainfall across the globe that led to flash floods, landslides and loss of lives. Visuals of massive and devastating floods in Germany and China shocked the world.

The change in monsoon withdrawal dates in 2021 had a huge impact on monsoon rainfall patterns. Since the monsoon has been breaching its normal withdrawal date for many years now, the state-run IMD has also revised the commencement date of monsoon withdrawal from September 1 to September 17.

The delay in monsoon withdrawal dates led to Uttarakhand witnessing heavy rainfall and landslides which took lives of people and caused heavy devastation. In February 2021, an avalanche in Chamoli district led

Agreement and a new global agreement called the Glasgow Climate Pact was reached to set the global agenda on climate change for the next decade.

Crucial agreements included agreement among countries to meet in 2022 to pledge further cuts to emissions of carbon dioxide (CO₂). The current pledges, if met, will only limit global warming to about 2.4°C. The goal is to keep cutting emissions until they reach net-zero by mid-century.

Coal is responsible for 40 per cent of annual CO₂ emissions and for the first time at a



to flash floods that killed over 200 people and washed away two hydropower projects.

An analysis by CEEW showed how vulnerable Uttarakhand was to climate change. The state recorded an increase in both extreme floods and droughts in the last five decades. Since 1970, there has been a four-fold increase in extreme flood events in Uttarakhand.

The analysis by CEEW India found a two-fold increase in droughts in the state during the same period. Over 69 per cent of districts in the state are now drought-prone.⁹

Around the same time as Uttarakhand, the coastal plains of Kerala were inundated with floods that caused severe destruction and loss of lives.

The affected areas included districts of Idukki, Kottayam, and Pathanamthitta. Relief camps were set-up and rescue operations were carried out by the National Disaster

Relief Force.

Mrutyunjay Mohapatra, Director General of Meteorology at IMD blamed climate change for leading to an increase in sea surface temperatures that in turn resulted in sea level rise by 10 to 15 per cent. He also stated that global warming had increased the frequency of heavy rains, even if it was associated with a low-pressure area.¹⁰

2021, A YEAR OF CYCLONES

According to climate scientists, there is a link between the changing climate and intense cyclones. Since 1970, the oceans have been absorbing the excess heat generated due to the emission of greenhouse gases. This absorbed heat energy around the Indian peninsula acts as an agent that intensifies the cyclones formed in Bay of Bengal and the Arabian Sea.¹¹

The year 2021 was marred by several

cyclones that wreaked havoc in various parts of the country. The main ones included cyclones Tauktae, Yaas, Gulab, Shaheen and Jawad.

Cyclone Tauktae in May 2021 affected more than half of India and hit all states on India's west coast. Formed in the Arabian Sea, the cyclone killed more than 100 people which is more than the toll from any single cyclone from the Arabian sea over the last one decade. It was the second 'extremely severe cyclone' category storm to hit Gujarat in 23 years. It affected five states including Kerala, Karnataka, Goa, Maharashtra, and Gujarat along with the two union territories of Lakshadweep and Daman and Diu.

Cyclone Yaas made its landfall south of Balasore in Odisha towards the end of May 2021. It was classified as a 'very severe cyclone' by the IMD. It affected the bordering regions of West Bengal and Odisha and weakened into a cyclonic storm leaving behind a trail of destruction on the eastern coast.

It was reported that the Bay of Bengal, where cyclone Yaas formed, was at least two degrees warmer than what is normal for this time of the year. The north Bay of Bengal was exceptionally warm with temperatures up to 32 degrees Celsius.¹²

Four months after cyclone Yaas, another cyclone called '**Cyclone Gulab**' made landfall on September 27, 2021 on a stretch between Kalingapatnam in Andhra Pradesh and Gopalpur in Odisha. It is important to note that the IMD had stated that the remnants of the ongoing depression of Gulab could

Formed in the Arabian Sea, Cyclone Tauktae killed more than 100 people which is more than the toll from any single cyclone from the Arabian Sea over the last one decade.

intensify after coming in contact with the waters of the Arabian Sea on September 30, 2021.

As expected, **Cyclone Shaheen** intensified in the north Arabian Sea on October 1, 2021. A remnant of cyclone Gulab, the new cyclone emerged from the Gujarat coast and moved towards the coast of Pakistan. Though the storm moved away from India, it caused heavy rainfall and turbulent weather in areas like Saurashtra, Kutch, Daman, Diu, Dadra and Nagar Haveli, and Mumbai.¹³

It was possibly the first time in the recorded history of IMD that a cyclone that had formed in the Bay of Bengal, crossed the entire breadth of peninsular India and reemerged in the Arabian Sea as a new cyclone.

Climate scientists warn that as the globe heats up and the oceans absorb that heat, cyclones will increase in both frequency and intensity.



STORY 1

SUNDARBANS MANGROVES BUILD RESILIENCE TO CLIMATE CHANGE

Rural women in the Sundarbans help restore mangroves to reduce the impact of cyclones and the rising sea-level, and earn a livelihood too.

Shivani Gupta



It's been over a year but the residents of Gopal Nagar *gram panchayat* in the Sundarbans are yet to recover from the fierce Cyclone Amphan cyclone that hit them in May 2020. Amphan tore through their village, uprooted coconut trees and inundated farmlands and freshwater ponds with sea water.

"We lost *jomeen* (land), *jaijaat* (property), *pukur* (pond), *graha* (house), *dhan* (crop) in the cyclone," 35-year-old Rintu Das, who lost her goats, cows, and *kachha* house in the cyclone, told *Gaon Connection*. "Salt water entered our fields and ponds. It damaged our soil and killed our fishes. Now every where there is salinity. *Amra ki korbo?* (What will we do?)" asked an anguished Das.

The villagers in Sundarbans delta of West Bengal are no strangers to cyclones. But in a warming world and the changing climate, as tropical cyclones get more intense and their frequency increases too, inhabitants of the delta islands are finding it hard to sustain

their lives and livelihoods. As the sea level rises, several of these islands are slowly sinking.

A unique initiative led by a group of rural women in the Sundarbans and supported by a non-profit, is trying to create 'green barriers' along the coast in order to build resilience to face extreme weather events and natural disasters such as cyclones.

Over 16 women associated with Banashree Mangrove Suraksha Committee in Gopal Nagar *gram panchayat* of South 24 Parganas district are working with Sustainable Environment and Ecological Development Society (SEEDS) India, a non-profit building the resilience of people exposed to disasters, to plant and guard thousands of mangroves in their Gopal Nagar village.

As part of the joint initiative, over 6,500 mangroves, including indigenous species such as timber, are being planted in



THE SUNDARBANS DELTA

Over the past three decades, the ecologically fragile Sundarbans region in India and Bangladesh has lost 24.55 per cent of mangroves (136.77 square km) due to erosion. Most of the erosion is permanent.

It is vital to understand the importance of mangroves at a time when frequency and intensity of extreme weather events such as cyclones are predicted to increase in the future. Mangroves are a group of plants that can survive in salty soil and tides. They act as an effective barrier against disasters such as cyclones by protecting the earthen banks as well as reducing the damage.

A 2005 study published in the *Journal Science* indicates that a density of 30 mangrove trees per 100 square metre can reduce the flow of a tsunami wave up to 90 per cent.

“Land mass in West Bengal is very shallow. Because of high surface temperature, the intensity of cyclones and high tides has gone up. Mangroves break the speed of waves during a cyclone. They are a line of defense,” Sanjay Vashisht, Director, Climate Action Network South Asia (CANSA), told *Gaon Connection*. CANSA is a coalition of more than 300 civil societies organisations working in eight South Asian countries to promote action to address impacts of climate change.

“Mangrove is also a hotspot of biodiversity and plays an important role in building resilience for communities that live in the coastal areas. Fisheries is one of the

five-acre (two hectares) land along the bank of the local Gobadhia river, a tributary of Hooghly. The project was kicked off on August 15, 2021 when over 3,000 mangrove saplings were planted by the village women on a single day. They look after the saplings now.

Apart from responding to climate change induced threats, such as sea level rise and salinity ingress, the mangrove plantation is providing livelihood opportunities to the rural women, who have signed a contract with SEEDS India and are being paid to nurture the mangroves.



livelihood options for communities in Sundarbans. The mangroves provide habitat for fishes,” Vashisht added.

MANGROVES TO THE RESCUE

Gopal Nagar *gram panchayat* in South 24 Parganas district is a vulnerable village in the Sundarbans. It has faced several cyclones including Cyclone Yaas (2021), Cyclone Amphan (2020), and Cyclone Aila (2009).

The inhabitants have time and again lost their livelihood, livestock and homes. A survey by SEEDS India showed that about 300 settlements in this village were destroyed by Amphan in 2021. By planting mangroves, the villagers hope to create a natural barrier to protect them from the impacts of cyclones.

“As part of the mangrove plantation in our village, we first went to the forest early in the

morning by boat to collect the saplings from the mangrove forest. Next day [August 15], some saplings were planted by the forest officials and then we women took over. We dug small pits and planted all the saplings till evening,” Rintu Das, a member of the self help group, told *Gaon Connection*.

“Apart from planting these mangroves, we also guard these saplings. We have to protect them from cows and goats who eat their leaves. Besides, fishermen also uproot these saplings,” the 35-year-old added.

As part of the contract with the non-profit, these rural women have to guard these saplings till they grow over five feet in height. This means an additional responsibility for at least one to one-and-a-half-years.

“It is precisely for this reason that we have signed a year-long contract with these women,” Faiz Ahmed Khan, the Kolkata-based, programme manager, SEEDS India,

West Bengal has 42.45 per cent of India's mangrove cover. It is followed by Gujarat (23.66 per cent) and Andaman and Nicobar islands (12.39 per cent):
India State Forest Report (2019)

told Gaon Connection.

BUILDING RESILIENCE, INCREASING INCOMES

As part of this joint initiative and the year long contract, Rs 90,000 is to be given in three installments to the 16 self-help group women.

"We have released the first installment of thirty thousand... We are trying to cover the five acre land with mangroves. In the past two-three years, ten to fifteen acres (four to six hectares) mangrove cover in Gopal Nagar and nearby villages has been destroyed due to cyclones," Khan said.

"Because of the cyclones, the land mass near the habitations erode, and several houses are damaged. This is where the mangroves help. We are eyeing local species of mangroves such as vine. Its

capacity to prevent erosion is very high," said the programme manager. Climate experts point out that community ownership of mangroves is important.

"Unfortunately such initiatives are only a day-long drive. If these saplings are not maintained, mangrove mortality gets high," Vashisht warned. He stressed that the restoration of native mangrove species needs to be prioritised to save the communities from extreme weather events.

According to India State of Forest Report (2019), West Bengal has 42.45 per cent of India's mangrove cover. It is followed by Gujarat (23.66 per cent) and Andaman and Nicobar islands (12.39 per cent). The mangroves in Bengal are spread over an area of 2,112 square km across South 24-Parganas (2,082 sq km), North 24-Parganas (25 sq km) and Purba (East) Midnapore (four sq km).

Like other forests, the mangrove cover is also under threat, which is leading to coastal erosion. Das and 15 other women in her SHG are hopeful that the green barriers they are planting will help lessen the impact of cyclones and safeguard their village.





STORY 2

UTTARAKHAND IS INCREASINGLY VULNERABLE TO EXTREME FLOODS AND DROUGHTS

Since 1970, there has been a four-fold increase in extreme flood events and a two-fold increase in droughts in the Himalayan state.

Nidhi Jamwal



The disaster that struck Chamoli on the morning of February 7, 2021, in the form of a landslide and an avalanche, continues to play out. At least 55 are dead, of which only 29 have been identified, while over 150 are still missing. The rescue operations are underway.

Meanwhile, satellite imagery analysts have warned about a lake that has formed due to the landslide and is blocking the flow of the Rishi Ganga river. Any breach could lead to another flash flood.

But flash floods aren't the only disaster the Himalayan state is dealing with. The latest analysis by Council on Energy, Environment and Water (CEEW India), a New Delhi-based think tank, shows how vulnerable Uttarakhand is to climatic changes.

Since 1970, there has been a four-fold increase in extreme flood events in Uttarakhand. A similar spike in landslides,

cloud bursts and glacial lake outbursts has been recorded. Chamoli, Haridwar, Nainital, Pithoragarh and Uttarkashi districts have been the most vulnerable to extreme floods.

The analysis by CEEW India found a two-fold increase in droughts in the state during the same period. Over 69 per cent of the districts are now drought-prone. In the last decade, floods and droughts occurred simultaneously in Almora, Nainital and Pithoragarh districts.

"The recent devastating flash flood in Uttarakhand is further proof that the climate crisis can no longer be ignored," said Abinash Mohanty, programme lead at CEEW. "In the last twenty years, Uttarakhand has lost more than fifty thousand hectares of forest cover, leading to micro climatic changes in the region. This, in turn, has triggered a rise in extreme climate events in the state," he added.



India, Bengaluru.

According to him, the incident [disaster] is not yet over. “The debris is all around. In some places, the riverbed has risen by several metres. The debris has also formed a blockage at the confluence of Ronti ghat and Rishi Ganga river, leading to the formation of an artificial lake,” he said.

According to him, in October 2016, satellite images had picked up a landslide or an avalanche at the same place, and there was debris flow too. “Whether these events are natural or caused due to human influence is a matter of future research. But, for sure, we know that this is an extremely vulnerable area,” he added.

Meanwhile, on February 12, the state disaster response force (SDRF) team reached the artificial lake that has formed upstream of Reni village, near Tapovan. The lake appears to be around 350 meters long, and as per the officials, water is getting discharged and it does not pose any immediate risk.

LANDSLIDE AND FLASH FLOODS

Geologists, glaciologists and satellite imagery analysts are studying what triggered the recent Chamoli disaster and the causes behind it. “So far, what we know is that the landslide did occur and it seems to have fallen directly on the glacier and might have triggered an avalanche in the process... Eventually, the rocks debris and snow started to flow downstream to the Rishi Ganga river and then the Dhauliganga river,” said Raj Bhagat Palanichamy, GIS and satellite imagery analyst with WRI

CLIMATE VULNERABILITY IN UTTARAKHAND

On June 19, 2019, the Union Ministry of Earth Sciences released *Assessment of Climate Change over the Indian Region*, India’s first climate change assessment report. The report noted that the average temperature in the country has risen by around 0.7 degree Celsius (°C) between 1901 and 2018 and is projected to rise by approximately 4.4°C by the end of the century. This means an increase in the intensity and frequency of extreme weather events. The rise in



temperature is induced due to greenhouse gas emissions, it said.

The report also made some critical observations about the Hindu Kush Himalayan region, which, it said, has experienced a temperature rise of about 1.3°C from 1951 to 2014. Several of its areas have experienced declining trends in snowfall and retreat of glaciers in recent decades.

By the end of the 21st century, the annual mean surface temperature over the Hindu Kush Himalayas is projected to increase by about 5.2°C. There are projections of an increase in annual precipitation, but a decline in snowfall.

The recent CEEW India analysis also notes that the temperature increase by about 1.3°C in the Hindu Kush Himalayas during 1951–2014 has led to microclimatic changes and faster glacial retreat in the state. It has warned that in the coming years, receding

glaciers and flash floods could also impact 32 major ongoing infrastructure projects in the state, worth more than Rs 150 crore each.

“The tragedy in Uttarakhand reiterates the need for detailed district-level climate risk assessments and enhancing adaptive and resilience capacities at various administrative levels. Further, given that vulnerable communities are often the most affected by extreme climate events, they must be made an integral part of risk assessment planning,” said Arunabha Ghosh, Chief Executive Officer, CEEW.

“There is a need to fix accountability in disasters such as the recent Chamoli flash floods in which hydropower projects have been damaged and people killed,” said Himanshu Thakkar, coordinator of South Asia Network on Dams, Rivers and People (SANDRP). “In these areas of the Himalayan region, there should be no hydropower projects, which act as threat multipliers,” he told *Gaon Connection*.



The temperature increase by about 1.3°C in the Hindu Kush Himalayas during 1951–2014 has led to microclimatic changes and faster glacial retreat in Uttarakhand. Receding glaciers and flash floods could also impact 32 major ongoing infrastructure projects in the state, worth more than Rs 150 crore each.

With the rising frequency of extreme climate events, India needs to urgently develop a nationwide but decentralised and structured, real-time digital emergency surveillance and management system, said Ghosh.

According to Mohanty, a focus on land use-based forest restoration could not only reverse the climate imbalance but also help promote sustainable tourism in the state. “Equally important would be climate-proofing of infrastructure, investments, and policies. This is no more an option, rather a national imperative to tackle such extreme events and ensure minimal loss and damage,” he said.

The recent flash flood in Uttarakhand is only an example of India’s climate vulnerability. Another CEEW India study published in 2021 found 75 per cent of the country’s districts and over half of the country’s population were vulnerable to extreme climate events. There is a need for a robust plan for climate resilience and adaptation, it said.

“In the end, we cannot continue with the folly of a business-as-usual development model. This is costing lives, livelihoods and billions in infrastructure damage. India must chart a more resilient and climate-friendly pathway to economic prosperity and human development,” he added.

According to Thakkar, the recent disaster is another wake up call. “It is high time the Indian government reviewed its hydropower policy. The two projects damaged in the Chamoli disaster – Tapovan Vishnugad and Rishi Ganga – should be scrapped immediately. The rest of the under-construction projects should be reviewed,” he said.



STORY 3

CLIMATE CHANGE ADVERSELY IMPACTS WOMEN'S HEALTH IN BANGLADESH

Sea-level rise due to global warming is leading to an increase in salinity, which is directly or indirectly affecting the reproductive health of women in coastal Bangladesh.

Rafiqul Islam Montu
Dakop Upazila, Bangladesh



Early this year, 42-year-old Buli Begum went into labour, but before she could be taken from her village Nalian in Sutrakhali Union to reach the Dakop upazila (sub-district) Health Complex, 20 kilometres (km) away, her baby was born. Dakop lies 290 km south west of the national capital Dhaka.

The baby survived, but Buli Begum died due to excessive bleeding. “Had there been medical help available closer home, she may have survived,” Moniruzzaman Ghazi, her husband, told *Gaon Connection*, despondently.

Thirty one kilometres away from Buli Begum’s home, something similar happened, at Pratapnagar village, Asashuni upazila. Halima Begum also went into labour but she was luckier. The 23-year-old survived child birth, but only just. Her labour pains began shortly after Cyclone Amphan hit her village in May 2020. Her husband, Nur Islam Tuku, a day labourer, had to row her to a clinic at Nawabe ki Bazar in Shyamnagar upazila, 35

kms away, on the other side of the Sibshariver.

The roads were submerged for more than nine months in the aftermath of Cyclone Amphan. Halima Begum’s baby survived too, but was underweight and suffered other health complications.

It is not uncommon for women in low lying coastal areas in Khulna district of Bangladesh where Nalian and Pratapnagar are located, to be forced to travel considerable distances to reach their closest sub-district health centres. The community health facilities in these villages in Sutrakhali union were dysfunctional, and both Buli Begum and Halima Begum had to make the excruciating journey to the upazila health centres, for help.

Adding to the woes of the women, their villages are frequently hit by natural disasters such as floods and cyclones. Global warming and climate change are



turned the road into a canal and communication was almost entirely cut off. The local health facilities either completely collapsed in the aftermath of the cyclone or were hopelessly under equipped to deal with emergencies, he said.

“As most roads in the area have been damaged in the cyclone and floods, reaching the disaster hit areas quickly enough is difficult,” SK Tohirul Haque, medical officer of Koyra upazila Health Complex in Khulna district, told *Gaon Connection*. Similarly, it is not easy for patients to reach the hospital. “There is no X-ray machine here, nor is there a facility for ultrasonography,” Haque said.

“There are many problems in reaching health services to people in marginalised areas. Natural disasters disconnect them even further,” Sujat Ahmed, civil surgeon at Khulna Medical College, told *Gaon Connection*.

CLIMATE CHANGE WORSENING THE HEALTH CRISIS

It is no secret anymore that global warming and climate change are leading to warming of the oceans and rise in sea levels. As a direct consequence of the sea waters rising and flooding the coastal villages, saline content in the water sources and soil in coastal areas of Bangladesh have gone up alarmingly, Atiq Rahman, executive director of Bangladesh Centre for Advanced Studies (BCAS), and co-recipient of the Nobel Peace Prize, 2007 along with Al Gore and the Intergovernmental Panel on Climate Change, pointed out.

exacerbating these disasters. A number of research studies show how the warming of oceans is leading to more intense tropical cyclones. Also, as sea levels rise, coastal areas in Bangladesh lose land and face salinity ingress. Suffering of coastal women has multiplied manifold.

“Before, we could go to the upazila headquarters by road. Now we have to row half the way,” Kartik Mandal of Hajatkhali village in Uttar Bedkashi union of Koyra upazila, told *Gaon Connection*. He recounted how Cyclone Amphan had



In the west coast of the country, the villages are located in low lying areas and their water sources are often inundated by rising sea water, resulting in increased salinity in the groundwater.

According to a 2019 study, *'Impact of Salinity on Women's Health in Coastal Bangladesh'*, undertaken by a non-profit Leaders-Bangladesh, women who used water with excessive saline content in it were prone to uterine inflammation and uterine ulcers, which in turn could lead to cancer.

Women in coastal areas spend long hours fishing in salty waters. The water they bathe and wash their clothes in is also high in salt content, that, among other things, also invariably leads to vaginal infections.

Researchers from the Imperial College, London undertook a survey on salinity and maternal health titled *Climate Change and the Environment* recently on how salt water entering drinking water sources in low lying

coastal areas could impact health and increase the risk of high blood pressure especially in pregnant women. And one of the worst affected countries in the world was Bangladesh.

According to Asma Begum Shilpi, project manager of the survey, "Tests revealed that the salt levels in the system of some of the women surveyed in Dakop was seven times more than what was permissible."

"About sixty per cent of the people in the region drink salt water, which is particularly harmful to pregnant mothers," Santosh Kumar Majumder, gynecology consultant, Dakop upazila Health Complex, informed *Gaon Connection*. It causes high blood pressure which in turn may cause eclampsia, or seizures during pregnancy. These may lead to miscarriages or an underweight and malnourished baby, Majumder explained.

According to *Environmental Health*



As a result, the number of pregnancy crises and premature deaths in this region is much higher than other parts of the country, Hassan Mehdi, chief executive of the Coastal Livelihoods and Environment Action Network (CLEAN), a non-government research organisation, pointed out.

Between 2012 and 2016, the International Center for Diarrhoeal Disease Research, Bangladesh, monitored 12,867 women from the time they conceived to the time they gave birth to their babies. Among them were women from coastal and hilly areas. The study found that women living in coastal areas (within 20 kilometres of the sea) were more likely to miscarry than women living in the highlands.

According to Mehdi, embankment management is key to ensuring well being in the area. This will ensure water sources in the villages do not get flooded with salt water. The Bangladesh government has taken an initiative to conduct a Strategic Environmental Assessment in the region.

“Efforts have to be made for economic and social development there. Resolving the water crisis will go a long way in reducing the health risks in this area,” he reiterated.

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Perspective, a journal published with the support of the US National Institute of Environmental Health Sciences, the salt intake from potable water in the coastal villages of Bangladesh exceeded recommended limits, and it could be aggravated further by climate change-induced sea-level rise.

SEA-LEVEL RISE, SALINITY INGRESS AND MISCARRIAGES

In 2003 and again in 2011, Centre for Environmental and Geographic Information Services, a government agency in Bangladesh, found that people in the Dakop region, especially women, consumed 18 to 20 times more salt than what the World Health Organization (WHO) prescribed.





STORY 4

IPCC WARNS OF INCREASED PRECIPITATION AND HEATWAVES IN INDIA

The AR6 Working Group I report warns of a severe increase in rainfall over south India. Both annual as well as the summer monsoon precipitation will increase by the end of the 21st century.

Nidhi Jamwal



The much-awaited scientific report of the United Nations' Intergovernmental Panel on Climate Change (IPCC) on how human-caused emissions are leading to fundamental planetary changes to the climate system was released on August 9, 2021. The Summary for Policymakers of the Working Group I contribution to the Sixth Assessment Cycle (AR6), titled *Climate Change 2021: the Physical Science Basis*, paints a grim scenario for India.

The new report, referred to as WGI (Working Group I), predicts that globally, the planet will warm by 1.5°C. Even in the most ambitious emissions pathway, it will reach 1.5°C in the 2030s, overshoot to 1.6°C, before the temperature declines to 1.4°C at the end of the century.

Warming over India is projected to track the global average and the country is expected to see an increase in frequency and severity of hot extremes, the IPCC report warned, with a projected increase in annual mean

precipitation.

The increase in rainfall will be more severe over southern parts of India. On the southwest coast rainfall could increase by around 20 per cent, relative to 1850-1900. If the planet warms by 4°C, India could see about a 40 per cent increase in precipitation annually, revealed the report.

Monsoon precipitation is projected to increase in the mid- to long term over South Asia. Globally, severe, heavy precipitation events that now occur on an average once every ten years, are expected to nearly double in frequency at 2°C (1.7 times in a ten-year period). At 4°C, the likelihood of these events will jump to 2.7 times in a ten-year period, warns the report.

This WGI report is the first biggest update report of the IPCC on the state of knowledge on climate science since the



Commenting on the new report, Roxy Mathew Koll, Senior Scientist, Indian Institute of Tropical Meteorology (IITM), and Lead Author, *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate*, said: "Previous IPCC reports have already demonstrated that the climate is changing due to human made greenhouse gas emissions. The most important point from the IPCC AR6 report is that the mitigation and adaptation strategies submitted by nations, known as Nationally Determined Contributions or NDCs, through the Paris Agreement are insufficient to keep global surface temperature increase within the 1.5°C or even 2°C limit."

"Climate projections unanimously show that all these severe weather conditions will become more frequent and intense with temperatures going up since we humans are not sufficiently curbing the emissions," Roxy Mathew Koll, scientist, IITM Pune.

release of AR5 in 2014. It covers topics like extreme weather, human attribution, the carbon budget, feedback cycles, and charts the future state of the climate.

It contains a much-improved understanding of how humans are unequivocally responsible for the climate change observed since pre-industrial times. Human activities have warmed the planet and that rapid and widespread changes have occurred, and that some impacts are now locked in. The report concludes that the planet will continue to experience unprecedented change unless there is a drastic and deep emissions reduction.

According to Koll, with the global mean temperature rise now going above 1°C, India is at a crucial juncture where the country is already facing increasing extreme weather events such as cyclones, floods, droughts and heatwaves. "Climate projections unanimously show that all these severe weather conditions will become more frequent and intense with temperatures going up since we humans are not sufficiently curbing the emissions," the climate scientist pointed out.



UNPRECEDENTED RATE OF WARMING

Human influence has warmed the climate at a rate that is unprecedented in at least the last 2,000 years, says the WGI report. In 2019, atmospheric carbon dioxide (CO₂) concentrations were higher than at any time in at least two million years and concentrations of methane and nitrous oxide, both significant green house gases (GHGs), were higher than at any time in at least 800,000 years.

Authors of the recent report warn that the global surface temperatures increased faster since 1970 than in any other 50-year period over at least the last 2,000 years.

INCREASED RAINFALL IN INDIA

For the first time, the AR6 report also provides in detail regional assessment of climate change that helps regional climate assessments, adaptation and other decision

making. There are five types of scenarios that have been used to frame the projected changes of the future.

“On an average basis, moderate and heavy rainfall is projected to increase and at 1.5 degree Celsius warming, heavy rainfall events will increase further. However, there isn’t much consensus among the models as change in internal variabilities are dominating but we can expect an increase in precipitation by the end of the 21st century,” said Swapna Panickal, scientist, IITM, Pune.

“In the near term of 20–30 years, we aren’t seeing much increase in the rainfall beyond the internal variability change, but both annual as well as the summer monsoon precipitation will increase by the end of the 21st century,” the scientist continued.

According to her, hot extremes are projected to increase, and cold extremes are projected to decrease in the 21st century.

Across six Indian port cities – Chennai, Kochi, Kolkata, Mumbai, Surat and Visakhapatnam – 28.6 million people will be exposed to coastal flooding if sea levels rise 50 centimetres.

Ulka Kelkar, Director, Climate Program, World Resources Institute India, said: "This new report comes amid consternation over extreme weather despite 30 years of warnings from the IPCC. For India, the predictions in this report mean people labouring in longer and more frequent heat waves, warmer nights for our winter crops, erratic monsoon rains for our summer crops, destructive floods and storms that disrupt power supply for drinking water or medical oxygen production."

INDIAN OCEAN HEATS UP

With 7,517 kilometres of coastline, India will face significant threats from rising seas. Across six Indian port cities – Chennai, Kochi, Kolkata, Mumbai, Surat and Visakhapatnam – 28.6 million people will be exposed to coastal flooding if sea levels rise 50 centimetres (cm), previous studies have warned. The assets exposed to flooding will be worth about US\$4 trillion.

The WGI report also notes that the Indian Ocean is warming at a higher rate than the global oceans. Half of the sea level rise is contributed by thermal expansion, hence sea level over the Indian Ocean region is also rising.

"The global mean sea level is rising at a rate of around 3.7 millimetre per year, that is estimated between 2006–2018. At 1.5 degrees, the sea temperature is expected to increase by one degree. So, in accordance with that, the global sea level and the Indian Ocean sea level is also projected to rise at a similar rate," said Panickal.

The new IPCC report concludes that global mean sea levels will continue to rise over the 21st century, even in the lowest emissions scenarios.

"The assessment highlights the unsettling pace of global warming and climate change, this time with even more confidence and scientific evidence. It is high time that policy makers and negotiators deliver on the promises made to future generations almost three decades back," said Vaibhav Chaturvedi, Fellow, Council for Energy Environment and Water (CEEW), New Delhi.

HEATWAVES MELT HIMALAYAN GLACIERS

The WGI report is divided into 11 regions, including Asia, Africa, Australia, etc. The Asia region section, warns of an increase in marine heatwaves and fire weather seasons that will lengthen and intensify, particularly in North Asia regions.



Glacier runoff in the Asian high mountains will increase up to mid-21st century, and subsequently runoff may decrease due to the loss of glacier storage.

During the 21st century, snow covered areas and snow volumes will decrease in most of the Hindu Kush Himalayan mountains, and snowline elevations will rise and glacier volumes will decline, says the WGI report. This is worrisome because glaciers in the Hindu Kush Himalaya Region are a crucial water supply for the 240 million people who live in the region, including 86 million Indians.

Various scientific studies have documented that the glaciers such as in the Lahaul-Spiti region of western Himalaya have been losing mass since the start of the 21st century, and if emissions do not fall, glaciers in the Hindu Kush Himalaya would decline by two-thirds, thereby threatening the water security of millions in the region.

“The science is clear, the impacts of the climate crisis can be seen around the world and if we don’t act now, we will continue to see the worst effects impact lives, livelihoods and natural habitats,” said Alok Sharma, a British politician, who is serving as President for COP26 (26th UN Climate Change Conference of the Parties).

According to Chaturvedi, vulnerable countries should create their own climate risk atlas, map their vulnerable population and invest in their adaptive capacities. At the same time, mitigation actions have to be ramped up. Coal use has to be phased out decisively in this decade, he said.

The Working Group I (AR6 WGI) report – finalised and approved by 234 authors and 195 governments – is the biggest update of the state of knowledge on climate science since the release of the IPCC’s AR5 in 2014, and its landmark 1.5 Special Report.

The WGI release follows a two-week long plenary session held virtually from July 26 to August 6, 2021, in which the report was scrutinized line-by-line for approval by government representatives in dialogue with report authors.

The first-order draft of the WGI report had 23,462 review comments from 750 expert reviewers, the second-order draft got 51,387 review comments from governments and 1,279 experts, and the final government distribution of the SPM saw over 3,000 comments from 47 governments. Over 14,000 scientific papers are referenced in the report.



THE STATE OF **Rural INDIA**

REPORT 2021

CHAPTER 9



ADIVASI

- 8.6 per cent of the total population of India comprises of scheduled tribes
- As per UNICEF's June 2021 report, full immunisation coverage is the lowest among the tribal population.
- Whereas tribal areas were not affected much during the first wave, in the second wave, the coronavirus invaded tribal districts.
- Due to the pandemic, an estimated 10.45 million indigenous population in India was at stake because of economic inequality and social stigma, found a research study.
- Crimes against scheduled tribes communities increased by 9.3 per cent to a total of 8, 272 cases in the year 2020, as per NCRB data released in September 2021.



India's scheduled tribes comprise 8.6 per cent of the total population as per the 2011 census data. These tribal communities mostly inhabit forested areas. For centuries they have lived close to Nature, in harmony with their surroundings. Their livelihoods are also directly dependent on the forests and forest produce.

Whereas in 2020, there weren't any reports of the coronavirus invading rural and tribal areas of India, the second wave last year, tore into these regions and caused havoc. These tribal areas are already afflicted with poor health infrastructure, and fare low on several social and economic indicators.

Gadchiroli, a tribal district of Maharashtra, offers a classic example. Between March 2020 and March 2021, the district documented 10,000 COVID-19 cases and 100 deaths. However, in just the one month of April 2021, it reported approximately the same number of cases (10,000) and deaths (1000). This information was shared by Yogesh Kalkonde, a public health researcher working in the rural-tribal areas of Maharashtra.

There were also reports of people from secluded Bonda tribes, along with those from Dongria Kondh, Kutia Kondha Didiya, and Saura tribes in Odisha, testing positive for COVID19. The situation was not this dire in tribal areas in 2020, in the first wave.

A survey conducted in September 2020 by the Indian Institute of Technology, Delhi, for the Ministry of Tribal Affairs had found that there was no major outbreak of Corona in 117 districts, with 25 per cent or more tribal population and it was found that about three per cent of the tribal population was infected by the virus.¹ However, situation worsened in the second wave in 2021.

The full immunisation coverage is the lowest among the tribal population, 56 per cent, as compared to the national average of 62 per cent in India. This disclosure was made by a report titled *Immunization among Tribal Population in India* by United Nations Children's Fund (UNICEF) that was released in June, 2021.



The needs assessment study by UNICEF was conducted in seven tribal dominant states of India and it unwrapped realities and paved the way for state specific action plans to address inequities for the tribal immunisation.

The report noted that the frontline workers faced resistance among tribal communities due to the fear of adverse effects following immunisation, loss of daily wages, and non-acceptance of modern medicine.

IMPACT ON LIVELIHOODS OF TRIBAL PEOPLE

According to a research titled *Pushed to the Margins: The Crisis Among Tribal Youth in India During COVID-19*, an estimated 10.45 million indigenous population that resides in India was at stake because of economic inequality and social stigma. Lack of developmental measures in India also led the tribal population to dwell at the margins without proper resources of economic sustenance, and the announcement of lockdown further aggravated their condition.

Since the tribal population in India is not a homogenous group, the effects of the pandemic and lockdowns on their livelihood differed region to region, and occupation to occupation.

As per the Ministry of Tribal Affairs, 1.5 - 2 million tribal people from tribal areas worked across different parts of the country. The lockdown led to suspension of manufacturing and service sectors activities, workers were either laid off or did not receive salaries. And in the absence of social security, there was widespread financial distress among migrant informal sector workers, including tribal migrants.

Timber, non-timber forest products and associated industries are of significant importance for forest-dwelling tribal populations. An estimated 30-40 million people are involved in the collection and processing of *tendu* leaves and *beedi* making. The market for minor forest products (MFP) was hit due to the imposition of lockdown measures. Since the lockdown period coincided with the collection period of MFPs, the tribals were unable to collect and

sell their produce because of physical distancing norms, lack of buyers, and movement restrictions. Closing down of local *haats* also deterred their sales and in the current situation, traders are unwilling to buy MFP.

Tribal women who travelled to different villages to sell their products were also stigmatised and labelled as coronavirus carriers and many villagers did not allow them to enter villages during the lockdown as strangers were prohibited from coming from outside.

Apart from employment, education of tribal children was also severely affected. These children used to go to the ashram schools i.e residential schools that were established in tribal areas where they were getting free education, tuition, textbooks, stationery items, proper meals, shelter, and scholarship. The lockdown shut down these schools and while in urban areas, the schools tried to provide online education, the schools in villages lacked these facilities. ²

MAJOR PROTESTS BY THE ADIVASI COMMUNITY

The year 2021 began with a three-day-long sit-in protest in February at Barsur in Dantewada, where tribal villagers of south Chhattisgarh opposed the Bodhghat dam project that was revived by Bhupesh Baghel, the state's chief minister. Initially proposed as a hydropower project, the 300 megawatt (MW) Bodhghat multi-purpose dam project on the Indravati river was in cold storage for over four decades.

However, Baghel started promoting it as an irrigation project to cover 366,580 hectares (ha) of farmland. In May 2020, the central

On October 13, 2021, as many as 350 tribal people from the districts of Sarguja and Korba undertook a *padyatra* of 300 kms to reach Chhattisgarh's capital, Raipur, in order to protest against coal mining in the Hasdeo Aranya forests.

government gave an in-principle approval for the first phase of this project, which included a survey of the site and preparation of a detailed project report. This move of the state government was met with stiff opposition from local tribal communities who claimed that they would lose both their lands and forests if the project went through. While the project is expected to irrigate close to 400,000 hectares of farmland, it will also displace over 40 villages and submerge more than 5,000 hectares of forests. ³

Tribal communities in Chhattisgarh are also strongly protesting against the coal mining in the Hasdeo Aranya forest of the state, which is one of the largest contiguous stretches of dense forest in Central India, spanning 170,000 hectares.

On October 13, 2021, as many as 350 tribal people from the districts of Sarguja and Korba undertook a *padyatra* (foot march) of 300 kms for 10 days to reach the state's capital, Raipur, in order to protest against the 'illegal' acquisition of coal mines in the



bauxite mining in Kankadaamba village was met with stiff resistance from the local Adivasis.⁴

NCRB REPORT ON CRIMES AGAINST SCHEDULED TRIBES

Crimes against scheduled tribes (ST) communities increased by 9.3 per cent to a total of 8, 272 cases in the year 2020, as per data provided by the National Crimes Records Bureau (NCRB) in its latest report – *Crime in India 2020* – released in September 2021.

The registered crime rate increased from 7.3 per lakh population in 2019 to 7.9 per lakh population in 2020, as per NCRB. It also highlighted that during 2020, simple hurt cases formed the highest number of cases of crimes or atrocities against STs – 2,247 cases – followed by rape with 1,137 cases and assault on women with intent to outrage her modesty with 885 cases.

Hasdeo Aranya forest area, that had been initiated under the Coal Bearing Areas Act, 1957 without *gram sabha* consent.

In the neighbouring state of Odisha, on September 22, 2021, a public hearing was held to grant permission for bauxite mining in the tribal dominated Semiliguda block which had led to the arrest of 28 tribal leaders.

On November 22, exactly two months after the previous public hearing, protests against bauxite mining in the forests of Koraput in Odisha continued as the local tribal population opposed the mining operations in their *Mali parbat* (hill). A public hearing on

**Crimes against
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in the year 2020:
NCRB Report 2020**

In 2020, Madhya Pradesh accounted for the highest number of cases – 2,401 cases



followed by Rajasthan with 1,878 cases. Maharashtra logged 663 cases, Odisha had 624 cases and 573 cases were registered in Telangana.⁵

PADMA SHRI FOR TRIBAL WOMEN

In 2021, India's fourth highest civilian honour, *Padma Shri*, was conferred upon sixty-two year old Chutni Mahto from Jharkhand. She was a victim of witch-hunting, but went on to rescue as many as 125 women from a similar plight. For her crusade against witch-hunting, she was awarded *Padma Shri* by President Ram Nath Kovind on November 8, 2021.

It was a reason for dual celebration for tribal women as the Padma Shri was also awarded to Rahibai Popere, the 'seed woman' of India. Popere, who hails from a small tribal village Kombhalne in Maharashtra's Ahmednagar, has conserved 154 indigenous varieties of seeds and dedicated her award to all the farmers and the soil of her village.⁶

TRIBAL WOMEN AND ENTREPRENEURSHIP

Last year, a number of tribal women came together as entrepreneurs and started their own businesses. For instance, Santhal tribal women in Banka, Bihar started their own honey business. In 2020, amidst the pandemic they formed the Banka Madhu Farmers Producer Organisation and supplied seven tonnes of honey as far as Mumbai. The district administration has also identified a honey corridor to boost their honey production.⁷

Another such entrepreneurial initiative by tribal women was reported in Mirzapur, Uttar Pradesh (UP) where the forest department roped in a design consultant from Assam who honed the handicraft skills of tribal women and helped increase their income by using the locally available bamboo. These women were given free training to make jewellery, *raakhi*, mats, show pieces, flower pots, etc from bamboo.⁸



STORY 1

ADIVASIS BREATHE AND EAT CHROMITE DUST IN ODISHA

Tribal communities near the Sukinda chromite reserve bear the brunt of mining and suffer a hoard of health problems.

Bijaya Biswal



As you move from Jajpur town towards Sukinda in Jajpur district of Odisha, the fields look parched, trees look sickly with dust-laden wilting leaves and there is a haze of dust everywhere that refuses to settle down.

The dust comes from the chromite mines all around. Of the total chromite reserve in India, 98.6 per cent is found in the Sukinda region of Odisha. The area has around 12–14 mines currently in operation which includes government owned Odisha Mining Corporation (OMC), TATA owned Sukinda Chromite Mines, IMFA (Indian Metal and Ferro Alloys Limited), etc.

A board outside the TATA owned mines displays real time air quality monitoring. A research study published in May 2021 found 10–400 parts per million (ppm) total chromium in the air of Sukinda, way above the permissible limit of 0.1 ppm.

In 2007, US-based Blacksmith Institute's report declared Sukinda as one of the most polluted places in the entire world, alongside Chernobyl in Ukraine. But, on the front gate to the TATA mines is a sign that boldly reads "Welcome to Swachh Sukinda". The Odisha

State Pollution Control Board had dismissed the report, claiming that "the overall management is reasonably satisfactory and the situation is not as bleak as was reported".

CHROMITE MINING IN ODISHA

The chromite mines in Sukinda use the open cast mining methods for extraction of chromite ore which generates huge volumes of seepage water that flows into the quarry, dissolves the chromium and produces hexavalent chromium that contaminates the groundwater.

This leaching of heavy metals and the effluents from mines after ore-washing finds its way into Damsala Nalla, the principal drainage channel of the valley which serves as the surface water source for 2.6 million people in 75 villages.

The inhabitants of the valley, predominantly tribal communities such as Sabara, Munda, Santhals and Juanga, depend on this water for drinking, washing and agriculture. Chromium hexavalent is not only more easily absorbed by the body but is also carcinogenic, teratogenic and has been recognised as a priority pollutant.



The 2018 Annual Report of ICAR-Indian Institute of Water Management shows 70 per cent of water and 28 per cent of soil in Sukinda were found to be unsuitable for agricultural purposes due to their high toxicity.

Drinking hexavalent chromium on a daily basis could lead to gastro-intestinal bleeding, ulcers, allergies, brain damage, premature deaths and liver/kidney ailments.

A survey conducted between 1994-1997 by Odisha Voluntary Health Association had reported that annually 84.75 per cent of deaths in the mining areas and 86.42 per cent of deaths in the nearby villages occurred due to chromite mine-related diseases. It also discovered that villages less than one km from the mining sites were the worst affected, with almost 25 per cent of the inhabitants suffering from pollution-induced diseases. Many people have died of rectal (gastro-intestinal) bleeding.

A number of more recent research studies confirm how people in mining areas have a much higher disease burden than the general population of India. In Sukinda, this disease burden is further aggravated because of the perpetually low nutrition status, which was highlighted in 2017 by the malnutrition deaths among Juangs residing in the Nagada village.

POISON IN WATER AND DISEASE BURDEN

Surface water and groundwater in the Sukinda region contain peak hexavalent chromium levels of 2.5 ppm, which is 50 times higher than the permissible limits of 0.05 ppm.

Just to put into perspective, in the well-known Hinkley Groundwater Contamination Case of California, investigated by legal clerk Erin Brockovich (made into a Hollywood movie with Julia Roberts as Brockovich), peak hexavalent chromium level was 0.02 ppm and average levels were 0.001 ppm.

RICH LANDS, POOR PEOPLE

Since independence, the annual production of minerals in Odisha has increased more than sixty-fold, yet 46 per cent of families in the state live below the poverty line, earning less than Rs 15,100 in a year. Seventy three per cent of Adivasis and 53 per cent of Dalits in the state live below the poverty line.

The National Mineral Policy 2019 defines minerals as shared inheritance by citizens of a state and mentions that the government is only a trustee on behalf of the people. This means, governments don't own mines. Exploration companies (PSUs or private) don't own mines. People own mines. Why then, are the Adivasis turned into starving, diseased, daily wage labourers on the mines discovered under their very own lands?

The Mines and Minerals Amendment Act in 2015, directed that a District Mineral Foundation (DMF) be formed in every state that will act as a welfare fund, to be used for development of people and regions affected by mining operation. It mentioned that the high priority areas of spending will be drinking water supply, healthcare, environmental protection, education, welfare of women and children among others.

The collection of the fund would be 10 per cent of royalty from auctioned mines (leases granted on or after 12.01.2015) and 30 per cent of royalty from mines allocated prior to 12.01.2015.

Odisha has collected the highest amount in the entire country in its District Mineral Foundation, almost 12 billion rupees. However, the areas of spending of DMF are extremely problematic.

MISUSE OF DMF

The Odisha Cabinet recently approved Rs 266 crores to be taken from DMF Sundergarh for the construction of an international hockey stadium in Rourkela ahead of the Men's Hockey World Cup in 2023. A recreational facility that would cost Rs 30.42 crore (funded from the DMF) and would have a musical fountain,

Using District Mineral Fund, a recreational facility that would cost Rs 30.42 crore and would have a musical fountain, amphitheatre, jogging track, children's play area, gazebo, cluster sitting, etc, is being built in Sundergarh, Odisha.

amphitheatre, jogging track, children's play area, gazebo, cluster sitting, etc, is being built in Sundergarh as well.

Previously, in the Jharsuguda district, the district administration sanctioned works related to the power supply for the Jharsuguda airport from the DMF funds. Sundargarh district administration has also purchased 25 police patrolling vehicles and constructed boundary walls of the circuit house using DMF in the past.

The DMF fund of Keonjhar district was utilised to create a patient facilitation centre in Cuttack, as well as handball stadiums and playgrounds. In Sukinda, they are using Rs 10 crores to grow guava trees over 500 acres of land even as a proper road remains to be built for the connectivity of Nagadavillage, where the hunger deaths happened in 2017.

The Odisha Mineral Bearing Areas Development Corporation (OMBADC) was



formed as a Section 25 company in 2014 as per the directive of Supreme Court for “undertaking specific tribal welfare and area development works so as to ensure inclusive growth of the mineral bearing areas” but according to information gathered by RTI Activist Pradip Pradhan, only one per cent of the total fund has been utilised for

development of tribal people in the mineral bearing districts within four years. The remaining 99 per cent of the amount has been withdrawn and invested without legislative sanction.





STORY 2

TRIBAL WOMEN IN JHARKHAND SOW SEEDS OF CHANGE

More than 4,000 women in Simdega district collect seeds from the forests, extract oil and earn a livelihood.

Shivani Gupta



At 8 am every morning, Sushma Samad, hops on to her bicycle to cycle five kilometres from her village Kesra to her 'office' in Thethaitanagar block of Simdega district in Jharkhand. On the way, she is joined by four of her friends who cycle to work at the village centre set up by the Jharkhand State Livelihood Promotion Society (JSLPS), a state government body that provides economic empowerment to rural women.

At the centre, Samad daily meets hundreds of women farmers, locally known as *kisan didis*, who come to sell forest produce such as *kusum* (*Schleichera oleosa*) and *karanj* (*Millettia pinnata*) that they have painstakingly collected. She buys these at the market rate, packs them into huge sacks and sends them to another centre of the JSLPS where the seeds are processed for oil extraction.

At least 120,000 women in Jharkhand are associated with JSLPS's Mahila Kisan Sashaktikaran Pariyojana (MKSP), a scheme launched in 2011 that aims to improve the

status of rural women. On an average 10,000 women under the MKSP scheme are working in the Simdega district. The Kusum and Karanj project in the district alone has 4,000 tribal women involved.

This scheme is not limited to Simdega district alone. It is also being implemented in 10 blocks of other districts in the state, including Hazaribagh.

RURAL WOMEN AS AGRI-ENTREPRENEURS

At every stage of this scheme, rural women are the partners. *Kisan didis* collect the forest produce, such as *mahua*, *kusum*, *karaj*, *imli* (tamarind). This mix of produce is purchased by the self-help group members (all women) of JSLPS. Another set of women's groups process these seeds for oil extraction and sale. Thus, a chain has been set up to empower rural women at every stage of the project.

"*Kisan didis* bring us *vanopaj* (forest produce). We buy those from them at the



HOW DOES THE PROJECT FUNCTION?

There are three categories in which the Mahila Kisan Sashaktikaran Pariyojana functions in Simdega district – forest produce collection, processing and oil extraction. At least 3,000 women farmers, 1,200 women collectors such as Samad, and 150 women processors are involved in the project in the district.

By June-end, forest produce such as *karanj* ripen and *kisan didis* harvest them in bulk. The produce is collected from farmers at Rs 18 per kg thus providing an additional income of Rs 3,000 on average for one season crop.

market price. This saves them the travel expenses to visit faraway markets. We collect the produce and send it to the JSLPS centre,” 42-year-old Samad, told *Gaon Connection*.

“This project also ensures that women farmers now do not have to sell the forest produce at a loss to the local *mahajans* (intermediaries),” she added.

By working for four to five hours at the centre, Samad and other rural women like her are able to earn a livelihood for themselves. “I am able to manage my household expenses now. *Hath me paise ata hai na didi to acha lagta hai* [It feels good to receive our earnings in our hand],” giggled Sushma, who has three kids and whose husband is a farmer.

“Earlier, farmers would get zero rupees for kusum, *karanj*, imli seeds. Now, *kisan didis* earn up to Rs 3,000 - 4,000 in a season. The collectors, who would sell these to middlemen at throwaway prices, now earn up to Rs 6,000,”
Arif Akhtar, JSLPS.

“Earlier, farmers would get zero rupees for these seeds. Now, *kisan didis* earn up to Rs 3,000 - 4,000 in a season. The collectors, who would sell these to middlemen at throwaway prices, now earn up to Rs 6,000,” Arif Akhtar, state programme manager and state level value chain lead of JSLPS, told



Gaon Connection. “Women associated with processing and packaging, and extraction earn up to Rs 4,000–5,000,” he added.

According to him, before this project was launched, local tribal people, who should be getting maximum benefits from the forest produce, were not getting any profits. “Industrialists and other groups were benefiting from it. Now tribal women have earned an identity as farmers. We are also imparting training for operating and repairing machines to women workers,” said Akhtar.

ENSURING LIVELIHOOD THROUGH SUSTAINABLE AGRI PRACTICES

Through this project, members – all women – are ensuring sustainable agriculture practices as well. “Earlier, women farmers in villages did not have the means to harvest or sell non-timber seeds. These tribal groups are closely related to the environment but their method of harvesting would lead to deforestation as they would cut all the

branches,” Akhtar explained.

“Our first initiative was to develop a scientific harvesting system so that deforestation could be stopped and these produce would not go extinct. When we gave training to farmers they understood there is an economic return for their produce. They started planting more trees,” he added.

There are health benefits of non-timber forest produce such as *karanj* and *kusum*. Akhtar informed that *karanj* oil is a very good substitute for neem oil. It is not edible but is used for medicinal purposes such as preventing skin diseases, allergy, and dandruff. It is a pest repellent as well. Unlike *karanj*, *kusum* oil is edible.

“Kusum oil is also a good substitute for white oil (refined oil). If you track the procedure of white oil manufacturing, you will find how it is adulterated,” said the state programme manager of JSLPS. Other than that, the residue left after oil extraction from the *kusum* seeds is used as an NPK [nitrogen-phosphorus-potassium]



substitute to increase soil health and fertility.

MARKETING AND SALES

At least 300 milliliters of oil gets extracted from one kg of *kusum* or *karanj*. The leftover, called cake, is sold for Rs 40 a kg. A litre of *kusum* and *karanj* oils is sold for Rs 165 and Rs 155, respectively. Last season, over 10 metric tonnes of both *Karanj* and *Kusum* oil were extracted under the project in Simdega district.

“This is a very lucrative business. We are working to support tribal groups. As of now, we sell oils through our FPOs [Farmer

At least 300 milliliters of oil gets extracted from one kg of *kusum* or *karanj*. The leftover, called cake, is sold for Rs 40 a kg. A litre of *kusum* and *karanj* oils is sold for Rs 165 and Rs 155, respectively.

Producer Organisations], and Palash app. Soon, we will launch a *sakhi*-e-cart app where one can buy these oils,” Akhtar informed *Gaon Connection*. “We have to strengthen the production unit to maximise the supply chain,” he added.

The change being brought about by this rural livelihoods scheme is visible. Samad now calls herself a business woman. “We rural women have learnt to do business. We used to do *len den* (business) of one hundred. Now we deal in thousands. We hope to soon do business in fifty thousands. This is just the beginning,” she smiled.



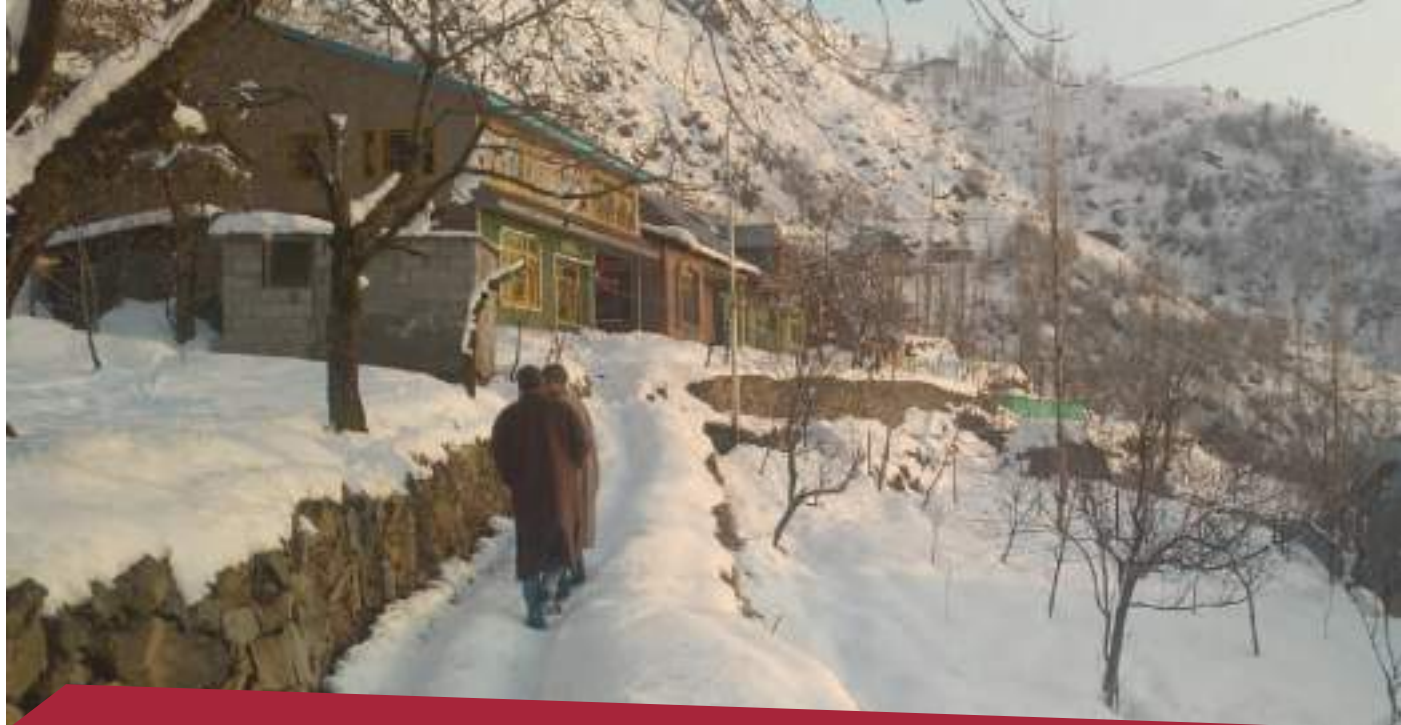


STORY 3

TRIBAL COMMUNITIES IN J&K STRUGGLE TO ACCESS BASIC HEALTH FACILITIES

Pregnant Gujjar tribewomen in remote parts of Kashmir often deliver before they can reach distant health centres.

Bisma Bhat
Srinagar, J&K



On January 5 last year, Akhtar Jaan, a 20-year-old tribal Gujjar from Zarkan Shalidar village of south Kashmir's Shopian district, gave birth to her second child on a wooden stretcher even as she was being carried through ankle-deep snow by her husband and 15 of his friends to the sub-district hospital, five kilometres from home. Luckily, both mother and child were fine.

"When my labour pain began, my husband tried to find a doctor in the nearby PHC [primary healthcentre], but there was no one," Akhtar Jaan told *Gaon Connection*. "In the morning, my husband called for an ambulance, but that did not come either because of the heavy snow. I was embarrassed to deliver my baby in front of my husband's friends," she recalled.

Thousands of women like Akhtar Jaan, belonging to the Gujjar and Bakarwal communities of Jammu and Kashmir (J&K) living in the upper reaches of the union territory, have no access to basic healthcare. They are mostly involved in cattle rearing and live in makeshift tents. They are nomadic and don't have permanent houses.

Bakarwals and Gujjars are the third largest ethnic group in J&K, after Kashmiris and Dogras. According to the 2011 census, Gujjars and Bakarwals constitute 11.9 per cent of the population – 1.5 million of 12.5 million people.

Papa Poswal, Akhtar Jaan's husband, said there are no transport facilities to ferry those in an emergency to the sub-district or district hospitals as the roads are bumpy. "Every year, we have to trek miles to take patients to the hospital on stretchers. Sometimes, they die on the way. We don't have an efficient healthcare system in rural areas, and tribal people suffer immensely," Poswal told *Gaon Connection*.

LACK OF AMENITIES IN PHCS

PHCs are the first base, acting as referral units for six sub-centres. They flow into community health centres (CHCs), followed by the sub-district and district hospitals, and then medical colleges and tertiary care centres, such as the Sher-i-Kashmir Institute of Medical Sciences (SKIMS) and SMHS hospitals in Srinagar.

A 2019 research study titled *Traversing the*



NOWHERE TO GO

Like Akhtar Jaan, a pregnant Sufiya Jaan, 24, was also carried to hospital on a makeshift stretcher by 12 people when it snowed heavily. Sufiya's husband Zubair Ahmad said the local PHC is just half a kilometre from their home, but there was no doctor or nurse on call. Nor was there an ambulance.

"This is common during winter. Two other pregnant tribal women in my neighbourhood were also taken to the hospital last month in a similar manner," Ahmad said.

In the mountainous Fakir Gujjari village of Srinagar, Manzoor Ahmad Khatana travelled 25 kilometres with his pregnant wife every month to visit a doctor in Lal Ded Hospital, Srinagar's lone maternity care centre.

"A doctor visits the PHC twice or thrice a month. We are four thousand Gujjar families in four villages in this hilly area, and we have to rely on one dysfunctional PHC," Manzoor said.

Manzoor claimed that there used to be an ambulance at the PHC before abrogation of Article 370 in 2019. "But now, we have to arrange a private cab for those in a health emergency. It costs us about a thousand rupees, two-ways, every time," he told *Gaon Connection*. The Centre's Janani Suraksha Yojana (JSY) grants expectant mothers a one-time grant of Rs 1,400, but to receive it, people end up spending Rs 3,000 to reach Srinagar.

A Basic Health Worker (BHW) in Srinagar district, on condition of anonymity, said there is a shortage of doctors and health

margins: Access to healthcare by Bakarwals in remote and conflict-prone Himalayan regions of Jammu and Kashmir, reveals that on an average, PHCs had only 51 per cent of the necessary physical infrastructure and amenities. Health workforce shortage was found to be the greatest predicament.

It was also found that there was a shortage of medicines and consumables owing to supply constraints – only 42.2 per cent of medicines from the essential drugs list were available on the date of the survey. In winter, most roads in Kashmir remain blocked with snow, due to which tribal people have to take emergency patients on makeshift stretchers or carry them on their shoulders for long distances.



workers in PHCs. “The ultrasonography machine was installed in the hospital I work in three years ago, but no one has used it, because there is no technician to operate it. Even basic machines like X-Ray and ECG are not available here,” he pointed out.

The government, however, provides iron and calcium for pregnant women and paracetamol tablets, the worker explained. People have to “buy” other medicines.

TEMPORARY TENTS, FREEZING TEMPERATURES

Besides pregnant tribal women, even children from the Gujjar and Bakarwal communities suffer. When temperatures dipped to minus 8 degrees celsius, two minor kids of Zubair Ahmad Mandar, a Bakarwal whose 21-member family lives in a makeshift tent in Brinal Lammer village of Kulgam district, became ill and died. The family could not take 10-year-old Sahil or his sister to the local PHC, three kilometres

away, as it had snowed. After their kids died, the district administration provided the family free accommodation.

Choudhary Irshad Khatana, activist and general secretary of Jammu and Kashmir Gujjar and Bakarwal Youth Welfare Conference, said the children would have been alive had the government provided this accommodation earlier. “The PHC in the village is useless. Doctors are not available always. When this incident happened, the PHC was closed — they don’t open at night,” Khatana told *Gaon Connection*.

The 2019 research paper also revealed that almost every individual surveyed mentioned incurring out-of-pocket expenditure on treatment for inpatient and outpatient care.

According to Jammu-based Veenapani Rajeev, co-author of the research, “The government should develop a satellite-based telemedicine network for



“The PHC in the village is useless. Doctors are not available always,”
Choudhary Irshad Khatana,
activist and general secretary
of Jammu and Kashmir Gujjar
and Bakarwal Youth Welfare
Conference.

hard-to-reach areas. ISRO has already partnered with many state governments to set up the infrastructure in remote areas.” This model, called hub and spoke, links primary-care health clinics and small hospitals to large tertiary-care facilities, and provides for an ambulance network too.

Varma suggested that mobile dispensaries in migratory routes and summer pastures should be increased and equipped with trained medical staff.

Zahid Parwaz Choudhary, union territory president of Jammu and Kashmir Gujjar Bakarwal Youth Welfare Conference, said

the government claimed to provide health facilities at the doorstep, but that did not translate into action on the ground. “Even medicine for cold and fever is not available in PHCs,” said Choudhary.

Mohammad Saleem, director of tribal affairs in the union territory, passed the buck to the health department. “Our mandate is to put health infrastructure in place; not arrange for manpower,” Saleem said.

Director of health services, Kashmir Sameer Mattoo and principal secretary health Atal Dullo did not respond to repeated messages and calls from *Gaon Connection*.



STORY 4

SANTHAL WOMEN IN BIHAR SCRIPT A SWEET STORY

*Tribal women in Banka, south Bihar boost their livelihoods
by taking up beekeeping and honey production.*

Nidhi Jamwal
Taruniya (Banka), Bihar



Wearing a bright pink sari, astride her scooty a helmet tightly strapped along her jawline, Seema Hasda rode to a farm of flowering sesame (*til* in Hindi), and made her way to the wooden boxes that were lined up in neat rows.

A few other Santhal women from Taruniya and its neighbouring villages were already there tending to honey bees. Their faces well protected with nets hanging from the hats on their head, these women carefully pulled out the frames from the boxes to check on the honey production.

“Soon *til* flavoured honey will be ready for sale. I already have a quintal [100 kgs] of honey with me,” Seema smiled. “Last year, during the *mahamari* (pandemic), we sent about nine quintals of *madhu* (honey) to Mumbai,” she added.

Mumbai, India’s financial capital, is about 2,000 kilometres away from Taruniya village in Banka district of south Bihar, where tribal women like Seema are part of Banka Madhu Farmers Producer Organisation (FPO) that produces and sells honey far and wide.

The FPO was registered last year in 2020. Of its 350 members, 200 are rural women. More than 60 per cent members of this FPO are tribal. Of the total annual honey production of 50 tonnes in Banka district, 40 tonnes is produced by this FPO alone.

A SMALL BEGINNING

Maria Tutu, a young Santhal from Taruniya, who is the co-director of the Banka FPO, is instrumental in encouraging other rural women to take up bee-keeping.

Two years ago, in 2019, Maria took up bee-keeping with 15 boxes. She received technical guidance from the local Krishi Vigyan Kendra and financial support from the government. Today she has 65 boxes.

“These boxes, including the bees, were provided at a subsidy of 90 per cent. I had to contribute only ten per cent of the cost and decided to try my hands at the honey business,” the FPO co-director told *Gaon Connection*. “I felt that we women can do almost everything, be it farming, raising kids, looking after the aged and running the

household. Why can't we run our own business," asked Maria.

She encouraged four other women from her extended family and together these five Santhal women started bee-keeping in 2019. "I told these four women that if there was any loss, I would bear it. *Aur ussi main humne baaze mar li* [and we turned victorious]," said Maria, her eyes shining.

Now, women from all the 15 households in Maria's tribal village are into bee-keeping and earn a regular income by selling honey in a variety of flavours – sheesham, mustard, litchi, palash (*Butea monosperma*), mahua (*Madhuca longifolia*) and more. Women from several other villages of Banka district located near the Bihar-Jharkhand border are also into bee-keeping and their business is buzzing.

"Right now the *til* crop is getting ready, and so there is *til* honey. By December, it will be time for mustard honey as farmlands will be covered with yellow flowers of the mustard crop," informed Seema, who lives in Sarlaiya village, Banka.

"January to March is the best time for honey as there are multiple flowers, and honey production gets a boost. On an average, one honey box earns Rs 2,000-2,500 per year," said Seema who has 150 bee boxes.

"Last year, despite the pandemic and the lockdown, Banka district produced 50 tonnes [50,000 kgs] of honey. This year, if the season favours us, we will produce a lot more," said Ripusudan Singh, CEO and co-director of Banka Madhu FPO. Himself a farmer from Bindi village, Banka, Singh has worked closely with the tribal women in the district to train them in bee-keeping and has helped them

Last year, despite the pandemic and the lockdown, Banka district in Bihar produced 50 tonnes (50,000 kgs) of honey and supplied as far as Mumbai in Maharashtra.

access various government schemes and benefits.

SCRIPTING A SWEET STORY

"I used to watch YouTube videos on bee-keeping and wondered if I could take it up to supplement the family income. But I wasn't sure how," Soni Murmu of Rasuiya village, told *Gaon Connection*. "Last year, before the national lockdown was announced, I got to know about a training programme on bee-keeping at the *krishi* centre. I attended it and felt confident enough to bring 50 boxes home," she added.

"Even during the lockdown, our work did not stop as flowering continued and the honey bees kept working. A large chunk of my honey was purchased by the local villagers and traders," said Soni, who sells the honey at a rate between Rs 300 and Rs 500 a kilo.

"During the lockdown, as my husband had no job, my honey business, helped me feed my family," said Soni. "At present, I have



sheesham honey and multi flower honey with me at home,” she added.

“Initially I was scared about failing, but once I started dealing with honey bees, I gained confidence. Now I am super confident and wish to buy more boxes,” Soni smiled.

HONEY PRODUCTION AND BOX MOVEMENT

The tribal women in Banka received bee-keeping boxes at 90 per cent subsidy. Each woman paid only 10 per cent (Rs 500) of the box cost.

“Depending on the season and wind direction, per box honey collection is two to two-and-a-half kilos every 15 to 18 days,” Beena Murmu, a *madhu palak* (bee keeper) from Taruniya, who has 20 boxes, informed *Gaon Connection*. “February and March are the best months for honey due to large scale flowering. In the monsoon, there is no production. Also, if there is *purva hawa* [east winds], we get 2.5 kilo honey per box. But *pachiya hawa* [west winds] lead to a decline

of two kilos per box only,” she added.

“During the litchi season, we send boxes to Amarpur [about 50 kilometres away]. We hire labourers who travel with the boxes and harvest the honey,” said Seema. “We pay close to three hundred rupees per day to them,” she added proudly.

The district administration is helping these women expand their business. “We have identified a honey corridor, which passes through Purnea, Bhagalpur, Banka, Godda, and Dumka. By moving the boxes along this route, honey production can be boosted in six to seven months of a year,” Suharsh Bhagat, district magistrate of Banka, told *Gaon Connection*.

“Earlier honey production in Banka was limited to two to three months, but now this has been raised to six to seven months a year. We have trained marginalised tribal women in honey keeping and results are promising,” he added.

“We have launched a web portal to sell



products made by rural women and Jeevika *didis*. Through this portal, the women can directly sell to the consumers anywhere in India and get good profit,” Balamurugan D, chief executive officer of Bihar Rural Livelihoods Promotion Society (popularly known as JEEVIKA), told *Gaon Connection*.

IMPROVED QUALITY OF LIFE

“Honey helps ward off cold and cough. And corona is all about cold, cough and fever. So villagers started consuming honey regularly in the pandemic and this helped our sales too,” said Beena Murmu.

“People in my village daily consume honey by smearing it on *roti* [flat bread]. This is the change that the *mahamari* has brought about. Honey also provides relief from knee and joint pains,” said Sabina Murmu of Taruniya, who has ten boxes.

The money these Santhal women are earning by selling honey is transforming their lives and those of their family members too.

“My 15-year-old daughter wants to become a nurse. For her nurse training, I need to save money and the honey business is helping me do that,” Seema Hasda.

“Since the beginning of the pandemic, my *maalik* [husband] has had no regular work. I was worried about my son and his education. But now, we plan to enrol our son into an English medium school,” said Soni Murmu.

“Only if our children study, will they succeed in life. I am funding my daughter’s education in an English medium school in Lucknow through my honey sale,” said Sabina Murmu whose daughter studies in standard 9 in a residential school in Lucknow, Uttar Pradesh.

Seema Hasda’s older daughter also studies in a residential school. “My 15-year-old daughter wants to become a nurse. For her nurse training, I need to save money and the honey business is helping me do that,” she told *Gaon Connection*. “The scooty that I ride, I bought it from my earnings,” she said with childlike excitement.

“I could study only till class 5, but I always wanted to do something of my own. *Par koi rasta nahi tha. Madhu makkhi ne rasta dikha diya* [there was no way, but then honey bees showed me the way],” she said, as she turned on her scooty and sped off, to chase some more dreams.

THE STATE OF Rural INDIA

REPORT 2021

CHAPTER 10

GENDER 
Matters 



- India is the third worst performing country in South Asia in gender equality, as per the World Economic Forum's *Global Gender Discrimination Report 2021*.
- The National Family Health Survey (NFHS-5) data released this year reported that more than half of the children and women, including pregnant women, are anaemic.
- While NFHS-5 data showed that percentage of women married before 18 years of age has decreased to 23 per cent, sex ratio at birth continues to be lower than what is naturally expected. The survey also found that sex ratio is better in rural areas as compared to urban areas.
- A UNICEF report stated that an additional 10 million girls are at a risk of becoming child brides in the next decade as a result of the pandemic. Of the 650 million girls, and women who were married in childhood, five countries including India, Bangladesh, Nigeria, Ethiopia, and Brazil accounted for about half of this total number.
- In December 2021, the Union Cabinet cleared a proposal to raise the legal age of marriage of women from the present 18 years to 21 years. A draft Bill was tabled in Parliament and sent to a parliamentary panel.



India accounts for about a third of the global incidence of child marriage and the country is home to over 223 million child brides. The recently released National Family Health Survey (NFHS)-5 of the Health Ministry showed that the percentage of women who were married before 18 years of age has decreased from 27 per cent in 2015-16 to 23 per cent in 2019-21. The same data also suggested that one in four rural women are married before 18 years of age.

Last month, in December 2021, the Union Cabinet cleared a proposal to raise the legal age of marriage of women from the present 18 years to 21 years. The 'Age of Marriage' Bill was tabled in Parliament and amid uproar sent to the parliamentary panel.

A 2021 study commissioned by the Population Foundation of India titled *Investing in Adolescent Development – A Case for India* pointed out that the girls who are married before 18 years of age are more likely to be those who are less educated, reside in rural areas, and live in poorer households.¹

Meanwhile, the funds to meet the nutritional needs of women and children were reduced from Rs 3,700 crores in 2020-21 to Rs 2,700 crore in budget 2021-22. This was done despite the fact that 35 per cent of kids under the age of five in India are malnourished, and more than half of all women of reproductive age are anaemic, according to Comprehensive National



Nutrition Survey, 2016-18.²

SEX RATIO

The rise in India's overall sex ratio – females per thousand men – was a reason of celebration and caution as India now has 1,020 women for every 1,000 men, revealed the data by National Family Health Survey 5 (NFHS-5). However, the sex ratio at birth continues to be lower than what is naturally expected. The NFHS-5 data also found out that the sex ratio is better in rural areas as compared to urban areas.

The sex ratio in 2015-16 was 991 indicating that India made significant strides in the last five years. However, the analysis showed that 13 states and union territories still have more males than females. The sex ratio was

in favour of males in rural areas of 14 states, whereas 22 states had a sex ratio favouring males in urban areas, the data noted.

It is also important to note the sex ratio at birth which has improved from the 2015-16 figure of 919 to 929 in 2019-20, is still lower than the natural standard of 952 female births per 1,000 male births. It was also reported that 19 states and union territories had a lower sex ratio than the natural standard, and the sex ratio at birth was more skewed in urban areas than rural areas.

In addition to that, 29 states had a lower sex ratio at birth than the natural standard in urban areas as compared to 21 states in rural areas.³

GENDER EQUALITY

India's ranking slipped by 28 places to rank 140 among 156 countries, according to the World Economic Forum's *Global Gender Discrimination Report 2021*. Thus, India became the third-worst performing country in South Asia in gender equality. In 2020, India had ranked 112 among 153 countries.

According to the report, only Pakistan and Afghanistan are below India in the list. It stated that South-Asia is the second worst performing region of the world, in terms of gender gap.⁴

The World Economic Forum report that was released on March 30, 2021 also stated that COVID19 pandemic has led to increased inequality in the world. The year of the pandemic also increased the time taken to achieve gender equality and it went up from 99.5 years to 135.6 years.



NATIONAL FAMILY HEALTH SURVEY-5

The findings of NFHS-5 offer an insight into the economic and social status of women, and their role in decision-making, in Indian households. The all-India figures showed that close to 80 per cent women now had a bank account that they used – a jump from 53 per cent in 2015-16 to 78.6 per cent in 2019-20. The phone use among women also went up from 45.9 per cent in 2015-16 to 54 per cent in 2019-21.

The data also indicated that among the 14 states, barring Madhya Pradesh, Odisha, Uttarakhand, Delhi NCT and Puducherry, land or house ownership among women had gone up. In Uttar Pradesh, the share of women owning land or house went up from 34.2 per cent to 51.9 percent. It's important to reflect that while the survey showed the percentage of women who were land or house owners, it does not shed light on the average size of women's land holdings.

In case of women owning bank accounts that they use themselves, there has been a

surge across the surveyed states with Madhya Pradesh, Jharkhand, Odisha, Puducherry, and Punjab topping the list.⁵

The survey also reflected that the increased use of contraception across the country has been a major contributing factor in preventing unwanted pregnancies, and in turn decreasing the total fertility rate to below replacement level. In the last five years, the use of modern contraceptives for family planning has increased from 47.8 per cent to 56.5 per cent, the data revealed.⁶

INCREASE IN INCIDENCES OF CHILD MARRIAGE

A 2021 study commissioned by the Population Foundation of India, titled *Investing in Adolescent Development – A Case for India*, pointed out that the girls who are married before 18 years of age are more likely to be those who are less educated, reside in rural areas, and live in poorer households. The NFHS-5 data shows 27 per cent of rural women were married before they were 18 years in age. While the Union Cabinet has cleared the proposal to



including India, Bangladesh, Nigeria, Ethiopia, and Brazil accounted for about half of this total number.⁸

SEX WORKERS AND PANDEMIC

According to the National AIDS Control Organisation (NACO), there are 900,000 female sex workers in India. Of the 62,317 transgender persons in 17 states, 62 per cent also engage in sex work which has been at a standstill since the onset of the pandemic. The pandemic hit the community hard and in multiple ways. Issues ranging from debt to depression to the risk of contracting COVID19 plague sex workers in the country.⁹

Gaon Connection reported how in Asansol, West Bengal's second largest city, thousands of sex workers had neither undergone the mandatory screening for HIV (human immunodeficiency virus) infection, nor had they received any free condoms or counselling on safe sex.

These activities were a part of the central government's 'Targeted Interventions Under National AIDS Control Programme' implemented by NACO. It was also reported that not just in West Bengal, Targeted Interventions have been suspended in other parts of the country too since there was no official data in the public domain on the functioning of Targeted Interventions. The last annual report on these interventions available on the NACO's website was for the year 2018-19.¹⁰

PANDEMIC IMPACT ON WOMEN'S LIVELIHOODS

A study by the UdyamStree campaign of EdelGive Foundation, which aims to boost the entrepreneurial spirit in women, stated

increase the legal age of marriage for women, the COVID19 pandemic seems to have worsened the predicament.⁷

A 2021 report by United Nations Children's Fund titled *COVID-19: A threat to progress against child marriage* had stated 10 million more girls would be at risk of becoming child brides in the next decade because of the pandemic. The report added that worldwide, 650 million girls, and women were married in childhood and five countries

that 57 per cent of women entrepreneurs cited a deterioration in their business enterprises during the pandemic. Business models that were dependent on offline production or delivery models experienced a far greater decline than those reliant on digital channels. Reinvention of the business model became a necessary element for survival.

A study by Andhra Pradesh-based Krea University conducted across the states of Bihar, Chhattisgarh, Madhya Pradesh, and Odisha found that the lockdown left an approximate 17 million to 19.3 million women unemployed in the immediate aftermath, between March and April, 2020. The lockdown had an indelible impact on female employment which fell by 43 per cent as compared to male employment that fell by 30 per cent.

LGBT COMMUNITY

Numerous studies have highlighted specific health problems that affect the transgender population and barriers that limit their access to healthcare services. For example, the prevalence of human immunodeficiency virus (HIV) in transgender women and *hijra* persons is the second highest (3.14 per cent) across all most-at-risk population groups (i.e., people injecting drugs, female sex workers, and men who have sex with men) and remain higher among all adults in India (0.22 per cent). Additionally, the incidence of physical violence, substance use, and various adverse mental health outcomes have been reported in this special group in India.¹¹

Transgender-friendly healthcare services in India are nearly non-existent. Healthcare workers continue to treat gender

It is estimated that 20 per cent of the transgender individuals in India have unmet transgender-specific healthcare needs. And the pandemic and the lockdown have made the matters worse for this community.

incongruence with the sex assigned at birth as a psychological deviation or consider it a mental illness. It is estimated that 20 per cent of the transgender individuals in India have unmet transgender-specific healthcare needs. And the pandemic and the lockdown made matters worse for this community.

Since most transgender individuals solely depend on dealing with others in society, the pandemic has adversely impacted their livelihood during the lockdown. In order to fulfil their daily needs during the lockdown, they borrowed from multiple loaning sources, usually from private lenders who charge higher interests and thus remain in debt, points out a July 2021 study.¹²





STORY 1

MENTAL HEALTH OF WOMEN TEA PLUCKERS IN ASSAM NEGLECTED

The pandemic has increased the mental health issues of women tea-pluckers in Assam, but they have nowhere to turn.

Chandrani Sinha
Sivasagar, Assam



Riya Mahananda is eight months pregnant and worried sick. The 25-year-old works at a tea estate in Bamunpukhuri in Sivasagar district, Assam. She worked right up till her seventh month of pregnancy and is now on a paid maternity leave. When she was working, she had to pick her daily quota of 15 kilograms of tea leaves, in order to claim her daily wage of Rs 275.

Taking a day off, or not meeting the quota, translated into a wage cut, which, the to-be-mother said, she could ill afford.

“I can’t help feeling anxious about my unborn child. What if I get corona,” Mahananda asked *Gaon Connection*. “There is a hospital in the tea garden where I work but rarely is a doctor present there. It is usually the midwives and nurses who deliver the babies,” she said.

The COVID-19 pandemic has made matters worse for the tea-pluckers, primarily women, in the 800 odd tea gardens in Assam. During the second wave, over 500 of the tea

gardens in the state were affected with more than 100,000 workers testing positive for the coronavirus, with approximately 100 loss of lives reported.

“Some of the women work well into the advanced weeks of pregnancy without having access to even basic facilities such as toilets or even drinking water. This stress combined with domestic violence, substance abuse, and being married off at an early age, has led to mental health problems,” Renuka Gowala, a social activist in issues related to women tea workers, told *Gaon Connection*.

“And these mental health issues have exacerbated due to the COVID19. Working during the pandemic, fear of the unknown and no support has led to depression amongst many of the women tea pluckers,” added the 55-year-old school teacher from Chakimukh in Sivasagar district who, along with a delegation of tea workers, met Chief Minister Himanta Biswa Sharma on August 30, 2020 to apprise him on the problems of women tea workers including the rising



“Depression, anxiety disorder, panic attack, addiction, post traumatic stress disorder and psychosomatic disorders are very common among the women tea workers, and most of the time they are not even aware of it,” Nilesh Mohite, consultant psychiatrist, told *Gaon Connection*. He works with Parivartan Trust and the non profit, the Action Northeast Trust (ANT) that works in the Chirang district of the state. Mohite has been working with tea tribe communities for four years and has worked in tea gardens in Sivasagar, Chabua, Biswanath Chariali, Tezpur, Dhekiajuli and Silchar.

“Mania, schizophrenia, and bipolar conditions are some of the severe mental health illnesses found among tea workers. We have also seen a huge rise in suicidal tendencies during the pandemic,” said the psychiatrist.

“During pregnancy the level of progesterone hormone rises. The COVID situation has pushed the pregnant tea-workers towards more stress,” Sangeeta Dutta, senior consultant, neuro psychiatrist, Medicity Hospital based in Guwahati the capital city of Assam, told *Gaon Connection*. “Now these women are forced into more contact time with their abusers. And, with the schools shut they have to give more time to their kids as well,” Dutta said.

mental health problems.

Mental health of tea pluckers is an area that remains neglected. Most of the gardens do not have psychiatrists or even clinical psychologists, and if one needed to consult them she would have to travel long distances for diagnosis and treatment, Gowla said.

RISING MENTAL HEALTH ISSUES AMONG TEA WORKERS

Like it has in other parts of the country, the pandemic has brought out the abysmal health infrastructure in Assam, more so in the tea gardens that support a huge community. And, mental health issues are emerging as a very real problem there, more so amongst the women.

POOR HEALTHCARE SYSTEM

According to data released by National Health Mission Assam, 50 per cent of the tea gardens in the state don't have doctors in attendance. Sources in the health department of the state, who did not wish to be named, said several health workers' posts are lying vacant.



The vacant positions include 175 posts for health assistants, 200 general nursing and midwifery (GNM) nurses, 660 pharmacists, 300 auxiliary nurse midwife (ANM), 350 laboratory technicians and 600 ward boys. With even the basic medical resources being scarce in the tea gardens, taking care of mental health issues is a far cry.

While the medical advisory board for plantation workers had directed that the tea garden hospitals must have a stock of 200 essential drugs, most of them do not have more than 50 such drugs, the sources in the health department said.

WOMEN TEA WORKERS SUFFER

For Mahananda, her only support system is Jayanti Baag or *baideo* (sister in Assamese), the 43-year-old accredited social health activist (ASHA) from Nazira, Sivasagar. In fact, in many parts of Assam, it is the ASHA workers who tend to the problems faced by the tea-pluckers who have no one else to turn to. But they are not trained to handle mental health matters.

At Ghoghrajan Tea estate in Dibrugarh

district, 455 kms away from Guwahati, it was an ASHA *baideo* that Shanti Kurmi turned to when she was expecting her baby. The 21-year-old Kurmi, who delivered her baby boy at the Assam Medical College Dibrugarh three months ago, said, "There were no medicines available to me and it was *baideo* who managed to obtain them for me," Kurmi told *Gaon Connection*.

When Assam's public health facilities were burdened with patients being treated for COVID-19, mental health took a beating too. The lockdown imposed across the state, made accessing health facilities and health providers even more difficult for tea workers.

The Assam Tea Tribe Students Association (ATTSA), in a press release on May 7 this year, made a series of demands to the chief minister on behalf of the tea garden community. This included instituting COVID-19 Care Centres with oxygen support in each garden, vaccinations for workers and families, N-95 masks distribution, etc.

Several COVID19 vaccination drives are going on in tea gardens under the National Health Mission Assam, and the Director of Health

Service (Family Welfare). The Assam government claims it has taken active measures such as launching the Wage Compensation Scheme for pregnant women in tea gardens, in 2018. Under this cash transfer programme, pregnant women working in the tea gardens are provided Rs 12,000 by the government.

Additionally, the state government has also deployed 130 mobile medical units of which 80 are in the tea garden areas. At present 414 tea gardens are covered by these mobile units every month. The mobile medical units are clinics on wheels with a doctor, nurse, paramedical staff in attendance and equipped with basic free diagnostic services and medicines.

More than 2.03 million patients have been treated in 47,020 camps organised by these mobile medical units between June 2017 and January 2019, as recorded by the National Health Mission Assam. However, these do not address mental health issues faced by the tea workers.

MENTAL HEALTH CLINICS

In 2017, the first of the monthly clinics on mental health was set up in Chabua. It was initiated by Jeevan Siksha, a non profit based in Chabua, Dibrugarh district along with the support of Action Northeast Trust.

These clinics operate mostly in Tinsukia and Dibrugarh district. In 2020-21, the camps that were held even during the pandemic, have seen a rise in the number of patient registrations. However, high consultant fees and medicine costs are keeping several tea workers from seeking aid.

“Many have stopped coming because they are unable to pay the fee of Rs 400 for the first registration, and then Rs 350 a month till the patient recovers. The fee includes

Because of lack of awareness and extreme poverty, tea garden workers depend on local quacks and tantriks for treatment. This often pushes the mental health disorders to severe levels

consultation with doctors and medicine,” Proshik Das, managing trustee of Jeevan Siksha said.

“The government does not have adequate resources to support mental health programmes, so we took up the initiative,” the managing trustee said. “We have patients with severe mental disorders in our clinics. Because of a lack of awareness about mental disorders, they come to us only when the disorder takes the shape of schizophrenia, etc.,” Das said.

Because of lack of awareness and extreme poverty, tea garden workers depend on local quacks and tantriks for treatment. This often pushes the mental health disorders to severe levels, concluded Das.

This story was reported under the National Foundation of India Fellowship for independent journalists. Names of women tea workers have been changed as per request.

STORY 2

THE HIJRA COMMUNITY OF NORTH BENGAL FEELS BETRAYED

The transgender community is sceptical of the lofty electoral promises ahead of the 2021 West Bengal Legislative Assembly election.

Purnima Sah
Cooch Behar, West Bengal



The noise of election campaigning in West Bengal is getting louder, as candidates from the All India Trinamool Congress (TMC), headed by chief minister of Bengal, Mamata Banerjee, and the Bharatiya Janata Party (BJP), trade insults, accusations and challenges. One marginalised community in the state looks on, wondering if this election will be any different than the ones before it?

Most of the *hijra* community, also known as eunuch, third gender, or transgender, dismiss the impassioned promises of the campaigners as just empty rhetoric.

“Every time, before an election, political parties come to us promising they will do so many things for us, but after the election season is over, we never see them again,” Sweety from Chakir More village in Cooch Behar, North Bengal, told *Gaon Connection*. The village has 21 *hijras*.

“How will we vote when most of us have been struggling to get a voter ID for so long,” complained Chandni, also from Chakir More. The community feels that government bodies do not take them seriously. They

struggle to get voter IDs, Aadhaar cards and ration cards, all so necessary to access welfare schemes.

West Bengal prepares to vote in eight phases, spread over a month, between 27 March and 29 April, 2021. The results will be declared on May 2. The battle is for 294 seats. Cooch Behar district goes to vote on April 10.

Whether it is health, education, employment or even a square meal a day, it is an uphill task for the state’s *hijra* community. Discrimination, sexual harassment, constant bullying and humiliation are their lot. They say they have nowhere to turn to, and don’t think the elections will bring about any change in their lives.

A DYSFUNCTIONAL TRANSGENDER DEVELOPMENT BOARD

In July 2015, a West Bengal Transgender Development Board was set up in Kolkata by the state government’s department of women and child development and social



“Though there is no census on the number of hijras in the state, I think there are around two thousand of them in North Bengal alone,” Sonamoni Sheikh, Uttar Bangaand Assam Hijra Association.

welfare. It was ostensibly to help the transgender community access government welfare schemes.

But, only a handful of the *hijras* are aware of the board’s existence, and those who do, say it has been inactive and ineffective in solving any of their problems. The board does not even have data on the population of the *hijra* community in the state.

Asked about the number of *hijras*/transpeople in the state, Manabi Bandhyopadhyay, vice-chairperson of the West Bengal Transgender Development Board said, “Can you tell me how many beggars, sex workers, hungry and homeless people there are in this country? Why should we know the number of *hijra* or transpeople? It is a tough job to trace and make people register.”

Meanwhile, Sonamoni Sheikh, also referred to as *boro maa* (head) of the Uttar Bangaand Assam *Hijra* Association, told *Gaon Connection*, “Though there is no census on the number of hijras in the state, I think there are around two thousand of them in North Bengal alone.” She is from Raiganj in Uttar Dinajpur district and recently became a member of the West Bengal Transgender Development Board.

“How can the *hijra* community be merged with the department of women and child development and social welfare? Why is the chairperson a woman and not a transperson?” Ranjita Sinha, advisor, association of transgender/Hijra in West Bengal, and secretary of Gokhale Road Bandhan, a community-based organisation working towards the development of the transgender community, asked *Gaon Connection*.

“The whole point of forming the board was to address our issues, and make society more inclusive. But for three long years after the board was formed, nothing happened,” she alleged. According to her, till 2018, the



board members drew a handsome salary every month, after which it ceased to function. It was only in January the board was resurrected and some of its members replaced.

Sinha was sharply critical of the board's insensitivity. "Instead of addressing our basic issues like housing, education, dignity, I don't understand why we are asked to participate in the Sindur Khela during Durga Puja for married women, when we still don't have the right to marry or adopt," she said.

"I have never heard of any transgender board," Madhusudan Sarkar, of Dalgaon Basti in Birpara, told *Gaon Connection*. The 62-year-old is one of 16 *hijras* in the village.

The community is still reeling under the effects of the COVID-19 pandemic. For nearly five months, members had no source of income. They were dependent on neighbours who reached out with rice and potatoes. "But we had no money to buy firewood, oil or spices," Sarkar said. "Post-lockdown, I have cut down on my meals to save enough money to buy medicines for some breathing difficulties I face," she added.

Five months after the COVID-19 lockdown, the panchayat helped Sarkar register under an old-age pension scheme that gives her a thousand rupees a month. "That's the only benefit I have received recently," she said.

LOSING THEIR LIVELIHOOD

In Bairagi Haat village in Cooch Behar district, about 700 kilometres from state capital Kolkata, lives a group of sixteen *hijras*. The members say they are Koch Rajbonshi, from an ancient tribe that hails from the Koch kingdom that once ruled Cooch Behar town. This community also performs the *jatra* — Bengaland Assam's folk theatre — and sings *Bishohara* and *Satyapir* (devotional songs) in cultural programmes, fairs and exhibitions in various parts of the district.

Mona Barman is one the best dancers in the group. Before the COVID-19 pandemic, people invited the 30-year-old to perform at religious and social functions. But, everything halted with the lockdown, and even after it was lifted, matters did not improve. "We were asked to leave from the gate of people's homes; some threw two or five rupees from a distance... We collected

the coins and left. People are scared to even come close to *hijras*, where once they would allow us to hold newborns in our arms and dance," she said.

If they get lucky, they make about Rs 200 to Rs 300 a day. "Before the pandemic, we would get at least a thousand rupees from each event," said Mona.

"During the lockdown, our ration ran out and we survived on water and a handful of puffed rice for days. We couldn't pay our rent. A local club came forward to offer us rice, pulses and potatoes," Chandni Biswas, member of the Uttar Banga (North Bengal) Hijra Association from Cooch Behar, told *Gaon Connection*.

BEYOND THE BALLOT

Sheikh informed *Gaon Connection* that last month, the West Bengal Transgender Development Board held a meeting in which she put forth the requests of the *hijra* community for housing, jobs, pension schemes, education, health and medical facilities. But on being approached, Manabi Bandhyopadhyay of the board, refused to share information about the board's future plans.

"In 2014, the third-gender recognition was given to transpeople/*hijras* but what has happened since then?," Tapan Dey from Mathabhanga village asked. "Other states have absorbed *hijra* and transgenders in the workforce in hospitals, police stations, schools and so on. Why is our state so way behind?" she asked.

Access to education is the other big issue for the community. "Educational institutes are not welcoming of us. We can only

"We struggle to rent homes. Owning a home is a dream out of reach. Hijras are insignificant in the eyes of society," said Ria Burman, from Mathabhanga.

provide basic reading and writing to our children at home, there are thousands like us who have no place to go," lamented Biswas. "My request to the government is to open a night school for the *hijra* community so that we can learn something and change our lives," she said.

Meanwhile, sexual harassment is something the community faces regularly, but they say they have no place to turn to for help. "Which police station will accept an FIR from a *hijra*? One of us was recently beaten up by a group of men for refusing sexual favours. A man broke her phone and injured her arm. People watched, nobody thought to call a cop," Palak from Chakir More village lamented.

"We struggle to rent homes. Owning a home is a dream out of reach," said Ria Burman, from Mathabhanga. "*Hijras* are insignificant in the eyes of society," she concluded.

Will the outcome of the Bengal elections bring any change in the lives of the state's *hijra* community, which is living on the edge?



STORY 3

GIRL-CHILD TRAFFICKING ON THE RISE IN THE PANDEMIC

A 12-13 year-old Kol adivasi girl's 'marriage' was stopped in Mirzapur, UP with timely intervention.

Brijendra Dubey
Mirzapur, Uttar Pradesh



On July 2, 2021, an anonymous phone call tipped off the district administration of Mirzapur in Uttar Pradesh about a child marriage. The caller informed Praveen Kumar, the district magistrate, about a minor girl being married off in a village in Lalganj area of the district.

Without losing any time, a team of officials led by Shakthi Tripathi, district probation officer, and child protection officers Ramesh, Pooja Maurya, Shailendra Singh and Rajlakshmi Yadav, along with the Lalganj police reached the location. The police arrested Bhanuprasad Shukla, the 'groom', and his party of six. Shukla is believed to be 38 or 40 years old. Meanwhile, the girl, belonging to the Kol tribe, is only 12-13 years old.

On interrogating the 'groom', he confessed that he had paid the 13-year-old girl's family one lakh rupees to marry her. This makes it a case of human trafficking, too.

"When we reached the village, we learnt that the girl was a student of class eight. She had no idea who she was marrying or where she would be going after the wedding," Shakthi

Tripathi, district probation officer, Mirzapur, told *Gaon Connection*.

Further investigation found that the 38-year-old man and his male companions had come from near the India-Nepal border. "There was not a single woman in their party. According to the villagers, the girl belonged to the adivasi Kol community. The boy was a Shukla, from an upper caste," Tripathi pointed out. "We will use the strictest of laws including POSCO, to punish the criminals," she added.

This isn't the only case of child marriage and human trafficking that has surfaced in the pandemic. A number of organisations and activists working in this sector have been warning against a rise in child marriages in India due to the pandemic. As families have lost their livelihoods and girls have dropped out of the education system, several teenage girls are being married off. There are reports of a rise in child trafficking too.

"Definitely child marriages in lockdown and pandemic situation is a serious concern, as are cases of trafficking," Subhashree Raptan,



PANDEMIC, CHILD MARRIAGES AND CHILD TRAFFICKING

On the same day when the Mirzapur district administration was tipped off on July 2, about 115 kilometres away, the police station in Obra, in Sonbhadra district, also received an anonymous phone call. The caller tipped off the police that a child wedding was about to take place at a village under its jurisdiction.

A police team, headed by Abhay Singh, the inspector in charge, reached the village and stopped the marriage between a minor girl and a much older man. The police arrested the groom, Sanjay Baiga and his father Chote Lal Baiga. Both are in jail. The girl's parents were counselled not to marry off their daughter till she was of legal age.

As per the Indian government's Child Marriage Restraint Act, 1929, a boy has to be 21 years old and girl 18 years old for solemnising of the marriage. But that hasn't stopped child marriages in the country, especially in the low-income group families that are the hardest hit in the pandemic.

In September 2020, *Gaon Connection* did a ground report on child marriages in West Bengal, which reported a sharp increase in the COVID19 pandemic. Between March 2020 and August 2020, at least 119 child marriage cases were recorded in Cooch Behar district alone.

The tribal communities, especially in remote villages, are vulnerable to human trafficking. It is no secret that children from these areas are often 'married off' and sent to Rajasthan, Nepal, Haryana, Punjab, etc. The poverty in these areas are exploited by middlemen who pay a lakh or two to desperate parents,

programme co-ordinator with Goranbose Gram Bikash Kendra (GGBK), Sundarbans, West Bengal, which works on anti-human trafficking and sexual abuse, told *Gaon Connection*.

"In the marginalised communities even when a child marriage is stopped, follow up mechanism and monitoring is very weak and as a result there are instances of the child being married off once the authorities have left the place," Raptan said.

Between March 2020 and August 2020, at least 119 child marriage cases were recorded in Cooch Behar district of West Bengal.

offer to bear the cost of the entire 'wedding' and take the girls away to a life of bonded labour and sexual exploitation.

"Between March 2020 and March 2021, twelve child marriages were prevented in Sonbhadra district," Amrendra Pautsyayan, Sonbhadra district probation officer, told *Gaon Connection*. The year before (2019-2020), five child marriages were stopped before they could go through, he added. "The rise in cases is worrying. The pandemic has increased the incidence of child marriage but we are working hard to stop this," Pautsyayan said.

Unlike Sonbhadra district, in Mirzapur the cases of child marriages coming to light have been few and far between. "From March 2019 to March 2020, we stopped one child marriage. There has not been a single case between March 2020 and March this year. Now only one child marriage case came to light, that happened on July 2, and we stopped it," Pooja Maurya, child protection officer, Mirzapur, told *Gaon*

Connection.

According to Sangeeta Sharma, member of the child welfare committee, Lucknow, when money and such young children are involved, the Protection of Children from Sexual Offences (POCSO) Act comes into play. "It [July 2 child marriage in Mirzapur for which Rs one lakh was paid] is clearly a case of child trafficking," she told *Gaon Connection*.

Raptan stressed on the need to activate and strengthen the role of Village Level Child Protection Committees, Block level Child Protection Committees and the functioning of Integrated Child Protection Scheme (ICPS) in order to check such incidents.

"The Trafficking in Persons (Prevention, Care and Rehabilitation) Bill, 2021 can be helpful when it's a comprehensive bill that talks about different forms of trafficking including forced marriage, child marriage etc," she said. The Centre has recently invited suggestions for this draft bill.



STORY 4

A MILLION WOMEN IN ODISHA LEFT OUT OF PDS

*Married women in Odisha unable to access the foodgrains
as their names do not figure in any ration cards.*

Shivani Gupta



It's been three years since 25-year-old Uma Kumbhar received rice under the public distribution system (PDS). Despite several visits to the local ration shop, she remains excluded from the Indian government's food security scheme.

All because she got married.

"I was married three years ago. Six months after that, my name was removed from my father's ration card," Kumbhar, a resident of Kansapal village in Odisha's Balangir district told *Gaon Connection*. And, despite several attempts, her name has not been included in her husband's ration card. "I've not received my share of ration even once in these three years," she said. A large number of married women like Kumbhar are unable to benefit from the PDS as their names have been cancelled from their parents' ration card but not added to their husbands'.

The Right to Food Campaign, a network of organisations and individuals working on food rights in Odisha, has estimated that at least a million married women in the 18-29 age group in the state have been excluded

from PDS after their wedding, since the enactment of the National Food Security Act, 2013. Under this central act, priority households are entitled to five kilogrammes (kg) of food grain (rice or wheat, or a combination) per person per month at one rupee per kg.

"The names of these women are easily deleted from their parents' ration card. However, it is a real task to get their name into the husband's card," Sameet Panda, lead member of the non-profit, told *Gaon Connection*.

This exclusion sometimes extends to the children too, claimed Panda. For instance, Kumbhar said her daughter's name was not included in the family's ration card. Both she and her 15-month-old daughter are entitled to five kgs of subsidised rice each month. But, they are unable to get it.

Hence, the family of three has to survive on the PDS supply of only one family member — Kumbhar's husband. "My husband gets five kilos of rice every month. But is that enough? We have to feed our family. We are poor.

Households that received wheat or rice from the government during the 2020 lockdown (in %)

Ration card-holding households (83%)	71
Non-ration card-holding households (17%)	27
Ration card-holding households in Green Zone districts	77
Ration card-holding households in Orange Zone districts	70
Ration card-holding households in Red Zone districts	61



We somehow manage to buy rice from outside. We don't have a choice" rued Kumbhar.

Twenty-two-year-old Hali Bisoi, a resident of Kamora village in Nabarangpur district, and 22-year-old Deepa Bagh of Jorpada village in Kalahandi district face a similar predicament. Bagh has been married for a year now, but is unable to receive her share of grain under PDS.

"After three months of our wedding, my wife Deepa's name was removed from her father's ration card. Last year, in April, we submitted an application in the *panchayat* to include her name in my ration card. Every time we visit the ration shop, we are told there is no progress in our application," 25-year-old Mukesh Bagh told *Gaon Connection*.

MS Haque, joint secretary of the food supply and consumer welfare department, Odisha, told *Gaon Connection*: "Our process is based on inquiry. If their claim is correct,

these women will get what they are entitled to."

What is the government's response to the non-profit's estimate that a million women have been left out of PDS? "Out of 3.5 crore women [35 million] in the state, we do not know who is getting married, who is getting divorced or who is moving out of her village. The government has provided the facility of porting names from one place to another. If these women do not apply for that, then those left out may be one lakh [0.1 million] or ten lakh [one million]. We do not have any data," Haque said.

"They can apply for the ration card both online and offline. If they are illiterate, they can visit the block, and seek help from the supply inspector," he added. However, the women say that despite making several rounds to the *panchayat* and block offices, their names remain excluded.

The COVID-19 pandemic year has been particularly tough, as several people lost

their livelihoods and families stared at hunger. Not being able to access foodgrain due to them under PDS made matters worse.

A survey by *Gaon Connection* on the impact of COVID19 on rural India conducted in 2020 showed only 27 per cent of surveyed households without a ration card received foodgrains support from the government during the pandemic. In the case of poor households, seven out of 10 families did not receive government ration.

Mukesh lost his job due to the crisis that followed the COVID-19 lockdown last year. "I used to work in a rice mill forty kilometres away from my village. Due to corona, I lost my job. There were times when we did not even have rice to eat. Had my wife received her share of ration, it would have been of great help," said Mukesh, who now farms in a landholding of less than an acre.

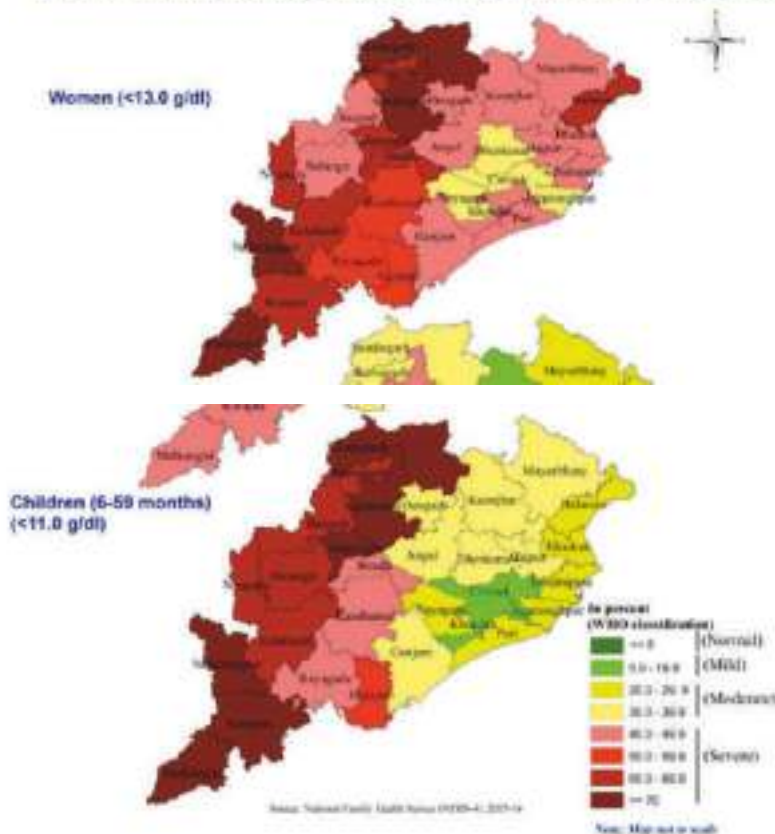
NUTRITION AT STAKE

With women and kids getting excluded from PDS, experts fear there might be further deterioration in the state's already-poor nutrition status.

The National Family Health Survey-4: 2015-16 showed that in Odisha, every second (51 per cent) woman between 15 and 49 years of age is anaemic. Further, 44.6 percent of kids between six and 59 months are anaemic, and every third (34.1 percent) under-5 child is stunted (height-for-age).

"As part of the PDS ration, the beneficiaries are given only rice. Health and nutrition requires more than just rice. And, they are deprived of even that," Vandana Prasad,

Map 5.4: Percentage of People with Anaemia by Districts in Odisha, 2015-16



Noida-based public health expert who works with tribal communities in Odisha, told *Gaon Connection*. "This is a basic denial of the rights of women and children, just that someone has got married and moved from one household to another," she added.

COMPLEX SYSTEM

On October 22, 2020 Odisha chief minister Naveen Patnaik launched an online system through which people could apply for ration cards. Baidnath Madhi, a 48-year-old ration distributor from Kongra village, Tentulikhunti *tehsil* (an administrative unit), Nabarangpur district told *Gaon Connection* that "the portal for excluding the names of these women is always open. But the portal where we can add names of the beneficiaries is not open all the time. The portal has been closed since December last year."

Every village in the state has a fixed target



for PDS beneficiaries, but, often, the target does not include the entire population.

Joint secretary Haque informed *Gaon Connection* that as per the 2011 census, the PDS target for the state is fixed at 34.64 million (346,41,000) – around 82 per cent of the state’s population – is covered by the food security net. The new target will be decided as per the next population census.

Ration distributor Madhi pointed out the names of some women beneficiaries might not have been added to their husbands’ ration cards, because the village PDS target could have already been met.

However, Haque gave an assurance that “there is no need to increase the target, because if a name gets deleted from one place, it will be added to another automatically”. This will happen once there is a vacancy in a place’s PDS target.

Vacancies arise only in the case of someone dying or crossing the poverty index. “Every day, deaths are recorded. We need to first delete the names of the dead from ration cards. But, people do not come forward

voluntarily for that,” said Haque.

Amid this bureaucratic turmoil, tens of thousands of women like Kumbhar are uncertain about the food supplies they are entitled to receive.

“Although the state government claims the process of registration is digitised, there are delays. What is the use of this digitisation?” asked Panda.

On March 5, the Right to Food Campaign, Odisha, wrote to the chief minister informing him that “... even if the public distribution system has supposedly been completely digitised, no system of porting the names exists”.

“There is a portal for the ration card management system at the block level, which is operated by the state government. Government officials have access and data entry operators work with them at the block level. Adding or excluding names is under their control,” explained Panda.



THE STATE OF **Rural INDIA**

REPORT 2021

CHAPTER 11

EDUCATION
Youth and Sports 

- Due to the pandemic, lockdowns and the subsequent closure of schools, 201 million students worldwide were impacted.
- Out of these, 170 million students had no access to education for the past one year.
- Amongst the south Asian countries, internet access was available to 8.5 per cent students in India.
- There has been an overall increase in the proportion of children enrolled in government schools between 2018 and 2020 – up from 64.3 per cent to 65.8 per cent.



According to the 2011 census, India has the world's largest proportion of the young population. Today, every fifth person in the country is an adolescent (10-19 years) and every third – a young person (10-24 years). Hence, it's important to analyse how the youth of the country fared in 2021 on various parameters, out of which three key factors – employment, education and sports are documented in this chapter.

EDUCATION DISRUPTION

2021 saw massive disruptions in the academic calendar and students were severely impacted. Their classrooms became online which affected their learning pattern, mental and emotional well-being.

A report titled *COVID-19 and School Closures: One year of education disruption* released by United Nations Children Emergency Fund (UNICEF) stated that due to the pandemic, lockdowns and the subsequent closure of schools, 201 million students worldwide were impacted. Out of

these, 170 million students had no access to education for the past one year.

The report also revealed that amongst the south Asian countries, internet access was available to 8.5 per cent students in India, 0.9 per cent in Afghanistan whereas Sri Lanka, Bangladesh, Nepal and Pakistan fared better than India with internet access to 74.6 per cent, 69.7 per cent, 36.6 per cent and 9.1 percent of students, respectively.¹

The Annual Status of Education Report (ASER) 2021 (Rural) was released by Pratham Foundation on November 17 last year. ASER reports on the schooling status of children in the age group of 5-16 across rural India and their ability to do basic reading and arithmetic tasks.

The survey conducted in September-October 2021 investigated how children in the age group of 5-16 years studied at home since the onset of the pandemic, and the challenges that the schools and households faced as schools reopened across states.



As per the ASER report, 52 per cent of the respondents, including teachers and principals in government schools, cited financial distress due to the pandemic as the reason behind the increase in government school enrolments whereas another 50 per cent said that it was due to free facilities available at the government schools.

Forty per cent of the respondents said that private schools' failure to conduct online classes led parents to move their children to public schools, while 15 per cent said migration during the lockdown was the reason behind the shift.²

In order to compensate for the learning loss suffered by 250 million children who returned to school after 18 months, in November 2021, a report titled *A Future at Stake – Guidelines and Principles to Resume and Renew Education* was released, by the National Coalition on the Education Emergency (NCEE). It made a set of recommendations to help with reopening of schools.

The guidelines in the report recommended a comprehensive set of actions that covered regular coaching and mentoring of teachers; provision of additional learning materials for the re-organised curriculum and back-to-school enrolment drives.

The NCEE report recommended focusing the education recovery effort on language and mathematics competencies and adopting a socio-emotional development approach. It also highlighted the loss of the most basic language and mathematics skills among children of the rural and urban poor, Dalits,

The report highlighted that there has been an overall increase in the proportion of children enrolled in government schools between 2018 and 2020 – up from 64.3 per cent to 65.8 per cent. In 2021, the enrolment suddenly shot up to 70.3 percent.

Enrolment rate in private schools, however, was down from 28.8 per cent in 2020 to 24.4 per cent in 2021. The report highlighted the inequality in access to digital devices – availability of smartphones increased from 36.5 per cent in 2018 to 67.6 percent in 2021, more children from private schools had access to smartphone (79 per cent) as compared to government school going children (63.7 per cent).

Adivasis, minorities and migrant labourers, leading to millions of drop-outs.³

YOUTH AND EMPLOYMENT

A new report titled *State of Working India 2021: One Year of Covid-19* was released by Azim Premji University in May 2021. The report documented the impact of one year of COVID-19 in India, on jobs, incomes, inequality, and poverty. The report showed that the pandemic further increased informality and led to a severe decline in earnings for the majority of workers resulting in a sudden increase in poverty. Women and younger workers were disproportionately affected.

Households coped by reducing food intake, borrowing, and selling assets. While government relief helped avoid the most severe forms of distress, the reach of support measures was incomplete, leaving out some of the most vulnerable workers and households, the report noted.

About 100 million jobs were lost during the nationwide April-May lockdown in 2020. While most were back at work by June 2020, even by the end of 2020, about 15 million workers remained out of work. Job losses were higher for states with a higher average COVID case load, the report highlighted. Maharashtra, Kerala, Tamil Nadu, Uttar Pradesh, and Delhi, contributed disproportionately to job losses, as per the report.⁴

Data by the Periodic Labour Force Survey showcased that the unemployment rate in urban areas, that witnessed a large exodus of migrant workers after the nationwide

About 100 million
lost jobs during
the nationwide
April-May lockdown
in 2020: A Report by
Azim Premji University

lockdown in 2020, had decreased to pre-lockdown levels, to 9.4 per cent in the first quarter of 2021. But the overall employment levels fell again from April to June 2021, as per Centre for Monitoring Indian Economy (CMIE) data, after several states imposed lockdowns to control the COVID-19 second wave.

However, with the economic recovery, by November 2021, employment nationwide had improved to pre-second wave levels. With the rampant rise of COVID-19 cases due to the new Omicron variant, it's yet to be ascertained how long this will last.⁵

SPORTS GLORY

Apart from education and employment, sports made headlines this year especially with the winning of a Gold Medal in Tokyo Olympics, 2021 by Neeraj Chopra in javelin throw. As curtains fell on the Tokyo



Olympics, it also became important to recognise that widespread sporting culture still exists in India's villages.

Between 2016 and 2021, the slew of government policies were implemented that recognised the potential among India's youth to produce outstanding sports persons.

From Samagra Shiksha Abhiyaan and Khelo India programme to Fit India Movement and the National Talent Search Scheme – all have been instrumental in strengthening sports infrastructure at the grassroots level.

Another scheme that is worth mentioning is the Eklavya Model Residential School (EMRS) scheme that was started by the Ministry of Tribal Affairs in 1997-98 and was launched with the objective to not only impart quality education to children belonging to Scheduled Tribes in remote areas but also to build their all-round developments.

The Ministry of Tribal Affairs also announced that by the year 2022, every block with more

than 50 per cent ST population and at least 20,000 tribal persons, will have an EMRS.⁶

Gaon Connection brought reports from the hinterland highlighting the prominence given to sports in rural India. It reported how in a small village in Hanumangarh, Rajasthan, girls who were discouraged from even dreaming about higher education or going out into the world, are now winning medals and trophies, as their sports teacher, Chandrapal Beniwal trained them to shine in the sporting arena.

Earlier in 2021, at the 26th district level football tournament held between October 20 and 23, the team of the Baramsar school was at the top of its game and came first in the district. Six of the team members were selected to represent the district at the state level.⁷





STORY 1

WRESTLER CHANCHALA KUMARI BEATS THE ODDS TO REPRESENT INDIA

The 14-year-old wrestler from Jharkhand's tribal community is the first athlete from the state to represent India at the upcoming sub-junior world wrestling championship in Hungary.

Anand Dutta

Hatwal (Ranchi), Jharkhand



There's an air of festivity and hope in the otherwise quiet village of Hatwal, situated almost 30 kilometres from Jharkhand's capital Ranchi. Chanchala Kumari's home has suddenly become the most prominent address in the village and the stream of guests, well-wishers and reporters seems to be never-ending.

The 14-year-old tribal girl was selected at the wrestling trials held in New Delhi on June 22 and is all set to represent India in the under-15, 40 kilograms category of the World Cadet Wrestling Championship which will be held in Hungary's capital Budapest from July 19 to July 25, 2021.

Chanchala's success is a pioneering achievement as she is the first wrestler from the state to represent India at an international event.

Kumari's mother Maino Devi, who is constantly occupied with hosting the frequent guests, is visibly proud of her daughter. "I want her to earn name and fame and grow up to become successful

and support us too," she told *Gaon Connection*.

Chanchala, who sat beside her mother, joined in and expressed her desire to win medals for India at the international events.

"I want to win medals like Sakshi *didi*, Phogat *didi*," she said. (Geeta Phogat and Sakshi Malik – the two national wrestling icons in India)

HUMBLE ORIGINS

Chanchala's family belongs to the *adivasi* community of Oraon, which is categorised as a Scheduled Tribe.

Her father Narendra Nath Pahan is a plumber but also works as a farm labourer to support his family of six – his wife, three daughters and a son. Chanchala is his youngest daughter.

"I have a small patch of land (half an hectare) on which I grow some vegetables



"My father-mother worked very hard, they still do. Watching them struggle, I feel like doing something for them too,"
Chanchala Kumari,
14-year-old wrestler.

"Mummy-Papa log bahut mehnat karte hain... papa mummy ko dekh ke lagta hai wo itne struggle kar rahe hain unke liye humein bhi kuch karna chahiye," the young wrestler told *Gaon Connection*. [My father-mother worked very hard, they still do. Watching them struggle, I feel like doing something for them too]

A HERO'S WELCOME

On June 23, 2021, when Chanchala came back to Ranchi after being selected for the world championship, a crowd awaited her. Her family members, media and officials from the Jharkhand State Wrestling Association were present at the Ranchi junction railway station to welcome the 14-year-old and her coach Bablu Kumar. A band played music to add to the festivities.

The budding athlete also met Chief Minister Hemant Soren who congratulated and thanked her for bringing laurels to the state. He also assured her that all the expenses

and rice and sell them in the market. The earnings are just enough for the family to survive," he told *Gaon Connection*.

"But I have ensured that all my children get education. Chanchala showed an interest in sports, so I supported her in this field as well," he added.

Chanchala is grateful to the hard work and sacrifices made by her parents in raising her and her siblings.



and technical support will be provided to her by the state government.

The Jharkhand CM instructed the Secretary of the sports department Pooja Singhal to provide Chanchala with the resources needed.

Chanchala was 10 years old when she was selected to be trained as a wrestler under the Jharkhand State Sports Promotion Society – a state government scheme to identify sporting talent from the rural areas of the state. The organisation was launched by the government in 2016 by the then Chief Minister Raghubar Das.

Chanchala wrestles at the sports village (*khel gaon*) – a sport complex which

came up in 2009 in Ranchi’s Hotwar area.

Talking about her diet, Chanchala told *Gaon Connection* that she used to eat the simple vegetable-rice, or *maad bhaat* (boiled rice with starch) at home. “But ever since I started my training at the government centre, I have been on a nutritious diet there,” she told *Gaon Connection*.

‘GOVT’S SUPPORT HAS BEEN CRUCIAL’

Chanchala’s coach Bablu Kumar told *Gaon Connection* that the Jharkhand State Sports Promotion Society’s scheme has been crucial in recognising the sporting talents.



"I am proud of Chanchala. About eight-nine more players like her are in the fray to represent India at the international level. You will soon find more such players coming from Jharkhand," he said.

"Kushti me zyadatar Haryana ka hi bolbalaraha hai," said the coach. (Haryana has a monopoly on representing India at the world stage). "But now, Jharkhand is hopeful of doing that too. Chanchala's success is motivating for the sports community in the state," Kumar said.

"Children from the tribal farming communities are naturally fit. They have great stamina and are more suited for sports," he added.

Meanwhile, at Chanchala's academy in Ranchi, her friends — Rimpa, Riya and Simran — who are also trained wrestlers are inspired by Chanchala's success and can't wait to watch her representing India at an international platform and making Jharkhand proud.





EDUCATION
Youth and Sports 

STORY 2

UNTOUCHED BY EDUCATION: CHILDREN OF THE VALMIKI COMMUNITY

Due to discrimination, most of the Valmiki community children in rural Uttar Pradesh drop out much before they reach middle school.

Neetu Singh
Jalaun, Uttar Pradesh



Rhea's ordeal began early, when she was only six years old. Within a few days of her being enrolled in a school she got her first taste of discrimination. She was not allowed to sit with her classmates and was made to carry an empty sack from home to sit on the floor. Rhea dropped out of school and never went back. She is fourteen years old now, and still remembers how horrible it was for her.

"I was seated away from other children. If I couldn't form my letters, the master wouldn't hold my hand to assist me in writing, he kept away from me too," she recalled.

Rhea lives in Sandi village of Kadaura, about 17 kms away from Jalaun district headquarters in Uttar Pradesh. She belongs to the Valmiki community, and hence considered untouchable.

"I have four children," Rhea's mother told *Gaon Connection*. "We tried our best to educate them, but they are so discriminated against in school. We

requested people to take tuitions, but no one did, since they consider us untouchable."

There are five Valmiki families living in Rhea's village and not one has a child in school who has studied beyond the eighth standard.

Due to caste-based discrimination, most children of Valmiki community are reluctant to attend school.

MANUAL SCAVENGING CONTINUES IN THE VILLAGES

Like Rhea, there are about 25 children from Sandi, Maragayan and Chamari villages of Kadaura block in Jalaun district of Uttar Pradesh.

Their families work in sanitation in the area with many of them still doing manual scavenging. While Rhea's parents don't, her grandmother still does manual scavenging, cleaning up human waste. Manual scavenging is banned in India.



manual scavenging.

According to Rashtriya Safai Karamchari Andolan, a movement to eliminate manual scavenging, there are still 2,059 toilets (dry latrines) in Jalaun district which require manual scavenging. Uttar Pradesh still has 5.58 lakhs such latrines.

As per 2011 census, 412 families of Valmiki community live in Jalaun district. Out of these, 301 are in rural areas and 111 live in urban areas. There are 3.26 lakh Valmiki community households in Uttar Pradesh with 2.19 lakh households in rural areas and one lakh in urban areas.

Rhea's family does not earn much. She lives with her three siblings, her parents and her grandmother. Her father works as a utility worker in a hotel, her mother works for wages and grandmother does manual scavenging. None of Rhea's brothers and sisters has studied beyond the fifth.

NO DATA

The state project director of Sarva Shiksha Abhiyan (SSA) in UP had issued a letter in November 2012 to the basic education officers of all the districts regarding "providing education to the children of manual scavengers". The director had sought the number of children (6-14 years) of manual scavengers attending as well as the number of such children having been admitted in schools.

The education department was unable to provide information on the data, asked for in the letter from Sarva Shiksha Abhiyan.

In a survey conducted in April 2018, the government had identified 649 women manual scavengers within Jalaun district. Of them, 546 received Rs 40,000 as a one time payment when they quit manual scavenging, but many others are still scavenging and have not received any benefits.

Rhea's grandmother is one of those who have not received the livelihood compensation till date and continues to do



“Every year, out-of-school children are identified and are enrolled in the council schools by the department. This year too, a survey was conducted and about five lakh children across the state were enrolled in the council schools,” Rohit Tripathi, senior expert (school education) of the project council of Uttar Pradesh Sarva Shiksha Abhiyan told *Gaon Connection*.

However, he was unable to provide data on the number of children from manual scavenging families that were enrolled. “No such census or survey is conducted by the department for the category, so you will not be able to get any data on this,” he responded.

DISCRIMINATION CONTINUES

It is no secret that the Valmiki community has been discriminated against socially, economically, politically and in matters of education. “When we started working with

them twenty years ago, the situation was very bad. At that time, only a handful of children were able to attend the school. Now, while the situation is better, the number of rural children attending the school is still quite dismal,” Bhaggu Lal Balmiki of Jalaun district, a member of the state-level monitoring committee for rehabilitation of manual scavengers, told *Gaon Connection*.

“In many rural areas, the children of our caste are told to sweep at the school,” Bhaggu Lal said adding that he himself had sent three teachers to jail on 15 August, 2008 for discriminating against children on grounds of untouchability. Still, in many schools, children carry their own mats and utensils from their homes and are seated separately from other children.

According to Bhaggu Lal, it was such treatment that made children drop out of school. “Because of the discrimination, the

elementary education of children does not go beyond fifth and eighth, let alone higher education," he pointed out.

"Who does not wish to be educated but people thought my presence pollutes the place, so I gave up attending school. There was not much money in the house to get me enrolled at a far-off school where no one would know my caste," Rhea said.

"The government should ensure education from primary to higher education for the children of manual scavengers," Bhasha Singh, a senior journalist and author of *Invisible India* a book on the subject of manual scavenging, told *Gaon Connection*.

"We observe how they fail to get admission in schools. So, we are telling them that the broom is their only future. Their parents do not want them to do what they themselves have been forced to do for generations," said Singh. The onus of ensuring education and a dignified employment was on the government, she added.

In a bid to leave behind the stigma, seven-year-old Anshika Valmiki of Sandi village was enrolled in a private school by her parents who could ill afford it. But the taint of untouchability followed Anshika even there.

"Children remain away from me, no one plays with me readily. No one shares lunch with me. Although I feel bad, I know I must study," said Anshika who is missing school due to the pandemic.

"You can well imagine the status of education of children whose mothers wake

"In many rural areas, the children of our [Valmiki] caste are told to sweep at the school... in many schools, children carry their own mats and utensils from their homes and are seated separately from other children," Bhaggu Lal.

up in the morning and leave for work," said Sumit Ujjainwal, who has a PhD from Delhi University on the status of Safai Karamcharis, "There is no one to help them get ready and accompany them to school. Livelihood for their mothers is more important than children's education for they know they won't be able to feed their children if they do not go to work. And then, our civilised society boycotts the children who somehow manage to reach school from their slum."

Eight-year-old Radhika of Chamari village is in the second grade but has attended the school for only a few days. "Only if someone comes along with me to the school do I go there. I don't go alone," said Radhika who does not respond when asked what she has learnt at school.

"You know how much is taught in a village school. Because of untouchability, teachers do not pay attention to our children at all. We too are not educated



directs the setting up of district and state level survey committees to identify those who are into manual scavenging, and provide them links to employment.

Still, according to a survey in August 2019 by the National Safai Karamcharis Finance and Development Corporation (NSKFDC), an organisation working under the ministry of social justice and empowerment, in the 170 districts across 18 states surveyed, 87,913 people had registered themselves as manual scavengers out of whom only 42,303 people were acknowledged by the state governments as manual scavengers.

According to the survey, 41,068 people from 47 districts of Uttar Pradesh (the highest in the country), had registered themselves as manual scavengers, while the state government had accepted only 19,712 people as manual scavengers.

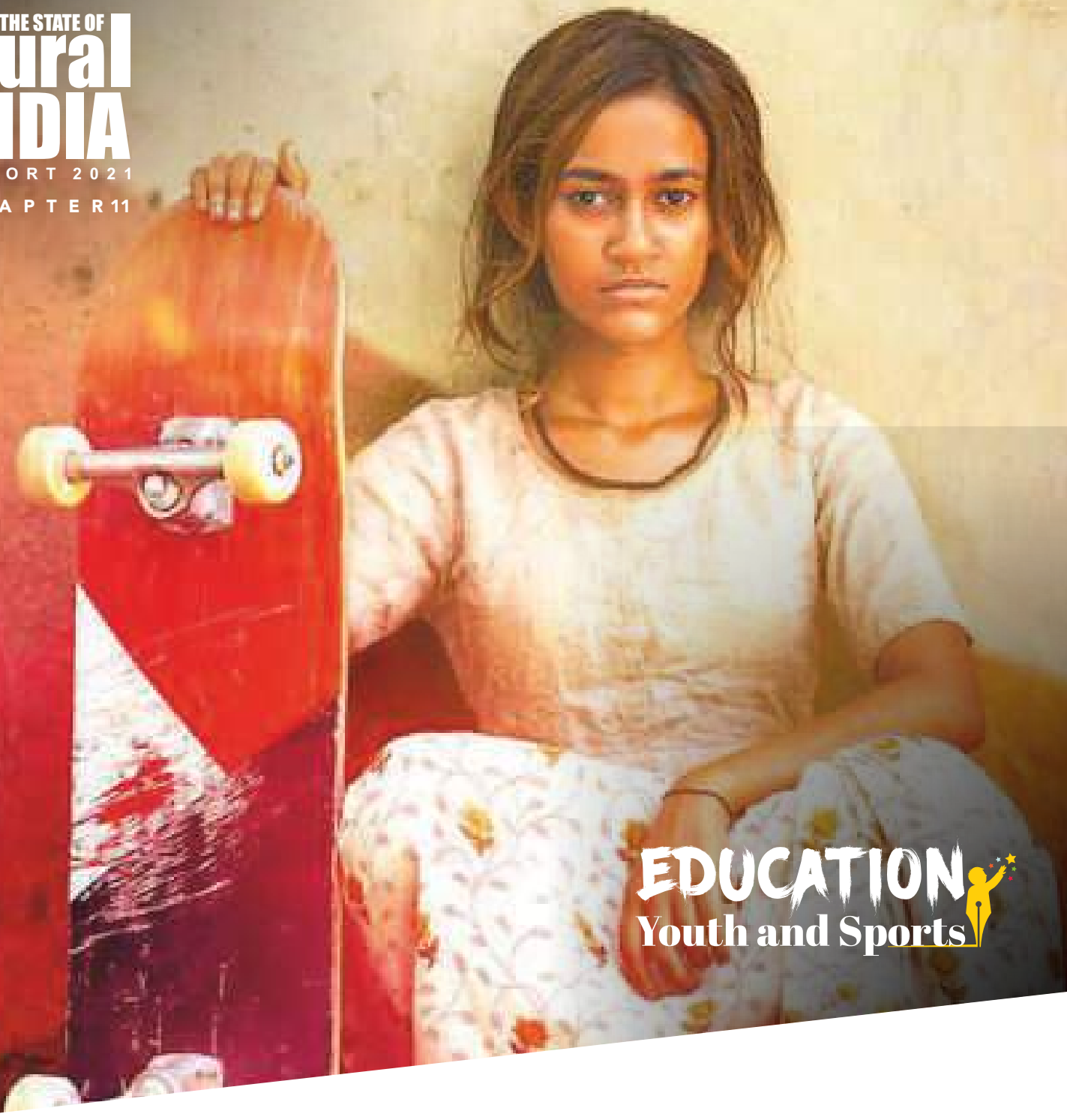
“The education of these children is a very big problem at the moment,” said Magsaysay Award winner Bezwada Wilson, coordinator of the Safai Karamchari Andolan, “It is difficult as it is for them to arrange rudimentary study material, now the online classes are being held and they do not have mobile phones, laptops or computers. How will they be taught,” he asked.

Wilson feared that the negligence of the government in educating the children of *Dalit* and *safai karamcharis* would make them easy prey to child labour.

and so we cannot teach them at home,” her mother told *Gaon Connection*.

REHABILITATING MANUAL SCAVENGERS

Prohibition of Employment of Manual Scavengers and Their Rehabilitation Act 2013, absolutely bans manual scavenging in the country. The law provides for the rehabilitation of manual scavengers. It



EDUCATION
Youth and Sports 

STORY 3

SKATER GIRL ON NETFLIX: INSPIRATIONAL FILM, BUT DOGGED BY CONTROVERSY

Skater Girl is doing well globally, but accusations and allegations about its inspiration have dulled its shine somewhat.

Subha J Rao



S*kat*er Girl on Netflix is the deeply inspiring story of a girl from an area called Bhil Basti in Rajasthan who defies deep-rooted patriarchy to do the one thing that gives her an exhilarating sense of freedom – skateboarding.

The film, directed by Manjari Makijany, and co-written and produced by her sister Vinati Makijany, stars Rachel Saanchita Gupta as Purna, who has to fight at every stage of her life – to go to school, to skate, to not get married... Amy Maghera plays Jessica, the young woman from London who comes in search of her roots and ends up finding a new purpose in a village where caste, patriarchy, misogyny and child marriage rule. The film team did theatre workshops with many local children in Khempur, Rajasthan, many of whom faced the camera for the first time in their lives. More than 350 local people were part of the film.

Skater Girl is your textbook feel-good film, with a rousing background score that makes your heart swell, eyes mist up, and leaves you smiling. It has a run-time of about one hour 50 minutes.

THE BOUQUETS AND THE BRICKBATS

In real life, even as the film has been receiving accolades from across the globe, there have been murmurs that *Skater Girl* is actually based on the life of a tribal girl Asha Gond from Janwaar in Panna, Madhya Pradesh, and Ulrike Reinhard, a German national, who set up the Janwaar Castle skatepark there in March 2015 that changed lives.

Reinhard and Asha have been vocal about this and have been posting on social media about how unfair it is that they were not credited in the film.



Twenty-year-old Asha was one of the first from her village to travel abroad. She represented the country in the 2018 World Skate Park World Championships at Nanjing, China. The children from Janwaar have won over 30 medals at the national and international levels. She told *Gaon Connection* that “skateboarding had changed her life”. She has mixed feelings about the film, though.

“I think this is Asha’s story, my story, and how I came into Janwaar. I had a contract with the filmmakers. There are way too many similarities even in small little details that it is hard to believe this is not our story,” Reinhard told *Gaon Connection*.

Speaking to *Gaon Connection* over a conference call, along with her sister Manjari, Vinati said this claim is baseless since this is not a biopic. “The film is about the impact of skateboarding and not based on any one person. It is inspired by the stories of hundreds of girls and skaters we met across India during our research,” she added.

The film, the Makijany sisters said, is inspired by the skateboarding movement in India and every effort has been made to tell an authentic, original story. Many international and Indian skaters feature in the movie and are celebrating a film on skateboarding, they added.

IT’S MY STORY, SAYS ASHA

Speaking to *Gaon Connection*, which has written about her earlier, Asha Gond said she refused to be part of the film because she felt it was her story and that she was



only being asked to be a part of the background in the last scene.

“If it’s my story, why should I be in the background? So, I opted out,” said Asha, who said she was sad and angry when she saw the film. “But, I’ve decided to move on. I meet different people in this small life of ours. I learn from everyone.”

Vinati, however, said Asha was “just one of many girls we interacted with on one occasion where she was part of a larger casting workshop we conducted for that village, all of which is documented. When she was offered a cameo to play herself (just like other skaters), she declined saying if it’s not their story, they do not want to be in the film” (sic).

Meanwhile, Reinhard admitted her name did figure in the list of ‘thank yous’ during the end credits. But she wants to see Asha

credited too. She referred to two particular phrases, ‘No school, no skateboarding’ and ‘skating as a disruptive power’, as being her own philosophy. “They could not have known that had they not spoken to us,” she pointed out.

The film, incidentally, is set in Khempur (Udaipur) in Rajasthan, where the film’s team built the Desert Dolphin Skatepark and shot the film. It is about 770 kilometres from Asha’s village.

Manjari said Reinhard was hired as a research consultant, along with other skate consultants from across the world. “We engaged these consultants to understand the sub-culture as filmmakers, because we were not skaters,” she explained.

“Ulrike is legally still under contract as a research consultant, and is aware of the scope of her work, which included

facilitating casting workshops in Panna, and is spreading misinformation in spite of her saying she doesn't want to associate with the film," Manjari Makijany told *Gaon Connection*. To this, Reinhard said she exited the contract, as she did not like the way the filmmaker approached the film.

As for the end credits, the film team said that all those who entered into a contract find due mention in the end credits. "No contracts were cancelled and one cannot just 'walk away' from a contract. We have legal teams in the US and India and our paperwork is in compliance. This is a fictional film and it has resonated with so many people of all ages, across countries," said Vinati.

"I think that legally they [filmmakers] are in the right, but morally in the wrong. They should have signed a contract with Asha and the other kids of Janwaar to tell their story – just like they did with me," said Reinhard.

"This is yet another proof of how *adivasis* are treated. The filmmakers knew what they were doing, and they came, they learnt and they did not give credit," Reinhard alleged.

IT'S EVERY GIRL'S STORY: DEEPA YADAV

In all this, said Vinati, mention must be made of Deepa Yadav, who is a skater from Janwaar and who is part of the film's climax. "It is unfair in all this to not mention Deepa. She believes this is every girl's story," the co-writer added.

Speaking to *Gaon Connection*, 15-year-old Deepa said she was happy to be part of *Skater Girl*. She's yet to watch the movie,

**"When I heard
the story and
whatever I saw
during shooting,
I think this is the
story of all girls
who skate," skater
Deepa Yadav.**

because she does not have access to Netflix, but said she had signed a contract with the team and was paid for her time and work too. "When I heard the story and whatever I saw during shooting, I think this is the story of all girls who skate," said Deepa, who still skates in Janwaar along with 20-25 girls.

Like the others, Deepa too picked up skating from Reinhard and other foreigners who initially taught the children. "They spoke to our parents and convinced them to let us skate," said Deepa, who now practises on her own, and has won awards too.

THE FASCINATING SKATE SCENE IN INDIA

Asked if they approached the film as the story of one girl Prerna, or as the sum total of many children's achievements, the filmmakers said the film started with fascination for the skate scene in India.



They said it became a very personal journey after they decided to construct a skatepark in Rajasthan for a rural community.

Many scenes were inspired by their own experiences making Rajasthan's first skatepark and by the social impact they witnessed firsthand at the Desert Dolphin in Skatepark in Khempur (the impact of skating is not just exclusive to Janwaar but across India and even in underprivileged communities in Afghanistan and Africa). The film, in fact, openly mentions the communities that have inspired us, said the filmmakers.

The film has done well on OTT. "It was number 1 in India for the opening week and in the top 10 in so many countries. After all these years [2017-2021] making

the movie, it is refreshing to see people of all ages engage with the film, be it in Brazil, Oman, Bangladesh or Australia. Rajasthani women in their mid 40s have been telling me "this is my story too". We celebrate this as storytellers as we were able to write something universally relatable yet something very specific about a subculture," said Vinati.



STORY 4

BUDGET 2021 SLASHES FUNDS FOR FLAGSHIP SCHEMES FOR GIRL CHILD EDUCATION

The budget for Beti Bachao Beti Padhao Yojana, for the education of girl students belonging to SC and ST categories reduced drastically.

Daya Sagar



A thousand kilometres separate Seema, 12, and Himani, 10, who live in Bayara, Sant Kabir Nagar district, Uttar Pradesh, and Ataria, Rajnandgaon district, Chhattisgarh, respectively. They study in class eight and class four, but COVID-19 locked down their schools and now they find themselves caught up in domestic chores and fear their studies will come to an abrupt halt for no fault of theirs.

Thousands of girls like Seema and Himani have been unable to focus on education during the pandemic. Which is why educationists and education rights activists were hopeful that the Budget 2021-22 would give special attention to education, especially girls' education, to prevent increased drop-outs. Instead, they found the budget for schemes encouraging girls' education have been reduced.

The flagship Beti Bachao Beti Padhao scheme, which received a revised allocation of Rs 100 crore in 2020-21, does not have a

separate allocation this year, and has been clubbed under the Samarthya Yojna scheme. The scheme that encourages education of girl students belonging to SC and ST categories has seen its budget slashed from last year's proposed allocation of Rs 110 crore to Rs one crore.

"In this era of online studies, girls have been the worst victims of the digital divide," Angela Taneja, head of Oxfam India's health and education unit, told *Gaon Connection*. "Priority is being given to boys over girls in providing smartphones or laptops for studies at home. We had expected the government would provide a separate budget for the promotion of girl child education, but the slashed budget is unfortunate and disappointing," Taneja added.

"The Beti Bachao Beti Padhao scheme could have proved to be of great use at this time of the pandemic," Mitali Nikore, Mumbai-based independent scholar who researches



BETI BACHAO, BETI PADHAO

This scheme, which translates into ‘Save the girl child, educate the girl child’ is a flagship scheme of the Centre, and various schemes such as Sukanya Samriddhi Yojana, Balika Samriddhi Yojana, Ladli Lakshmi Yojana, Kanyashree Kalpa Yojana and Dhanlaxmi Yojana providing numerous benefits and incentives for the birth, education and marriage of the girl child, come under it.

This scheme received an allocation of Rs 200 crore in 2017-18, Rs 280 crore in 2018-19 and only Rs 85.78 crore in 2019-20. In 2020-21, Rs 220 crore was proposed, later revised to Rs 100 crore.

Budget 2021, however, has not allocated any separate budget to the scheme, and, instead, clubbed it under ‘Samarthya Yojna’ (capacity schemes) along with other schemes such as Pradhan Mantri Matri Vandana and Mahila Shakti Kendra and Research, and provided it Rs 2,522 crore.

To put it in context, if last year’s original allocations of these four schemes had been merged, the amount would have been Rs 2,828 crore.

Mitra Ranjan, media coordinator of Right to Education Forum informed *Gaon Connection* that about 70 per cent of the ‘Beti Padhao, Beti Bachao Yojana’ budget used to be spent on advertising and publicity. With the clubbing of its budget with other schemes, the scheme had been rendered even more insignificant, at a time when it could have proved to be an important step towards controlling the school drop-out rate of girls.

the UN’s Sustainable Development Goals and public policies, told *Gaon Connection*. “School girls should have been provided with smartphones and Internet facilities. Even in private and aided schools, education up to class twelve should have been made free at least during the pandemic so that when schools reopen, the dropout rate of girls could have been curbed,” she added.

What are the schemes that have taken a hit?

Limited and gendered access to technology

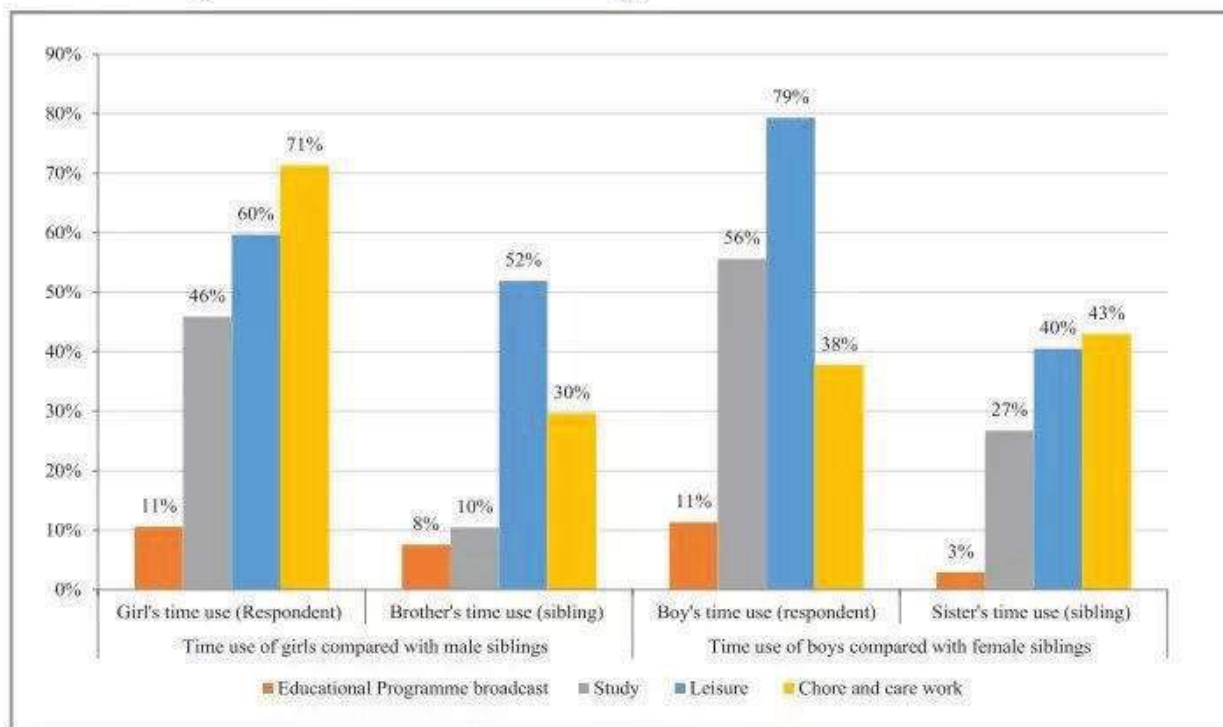


FIGURE 2: Intrahousehold time use: Respondents and Siblings

NATIONAL GIRL EDUCATION PROMOTION SCHEME

The Centre-sponsored National Scheme of Incentive to Girls for Secondary Education was launched to encourage girl students belonging to scheduled castes (SC) and scheduled tribes (ST) to study beyond class eight.

Under the scheme, SC and ST students who have passed class eight, all girl students of the government-run Kasturba Gandhi Balika Vidyalaya and married girls under 18 years of age are encouraged by the government to study further and provided incentives. The girls get this amount with interest after passing class 10, and attaining 18 years of age. The scheme was launched to increase the enrolment rate of girls who have passed class eight.

According to the *Children in India*

2018 report of the Union ministry of statistics, 30 per cent of girls drop out of school after passing class eight, while 57 per cent do so after passing class 10. This number is projected to increase further in the post-COVID-19 situation.

In Budget 2021, the government has reduced the scheme's budget by 99.1 per cent from last year's budget – it has received Rs one crore. In the budget 2020, the proposed allocation was Rs 110 crore, revised to Rs one crore. Under this scheme, Rs 87 crore was spent in 2019-20 and Rs 164.58 crore in 2018-19.

SAMGRA SHIKSHA (HOLISTIC EDUCATION)

There has been a deficit of Rs 7,000 crore in the budgetary allocations for the Samagra Shiksha (holistic education) programme compared to last year's original allocation.

A major portion of this scheme's funds is spent on girls' education. This year, Rs 31,300.16 crore has been earmarked in the budget under holistic education. In Budget 2020, an amount of Rs 38,750.50 crore was proposed for the scheme, and revised to Rs 28,077.57 crore.

STUDY PREDICTS LIKELY INCREASE IN SCHOOL DROP-OUTS AMONG GIRLS

Meanwhile, in November 2020, the Centre for Budget and Policy Studies, Champions for Girls Education and the Right to Education Forum conducted a survey, and found out that the pandemic had severely affected schooling of girls and 10 million girls are likely to drop out of schools.

The joint survey revealed that only 26 per cent of girls get access to smartphones and Internet facility for online studies as compared to 37 per cent of boys. In the same survey, 71 per cent of girls affirmed that at home, they were asked to do domestic work even during online classes versus only 38 per cent of boys asked to do this.

Taneja said the government should have announced special funds in the budget to prevent dropouts. "In this era of the pandemic, girls fear discontinuance of studies, but we are also getting reports of child marriages, early pregnancies and human trafficking coming in from various parts of the country," said Srijita Majumdar, the research and advocacy coordinator of the Right to Education Forum, an institution working on school education.

Only 26 per cent of girls get access to smartphones and Internet facility for online studies as compared to 37 per cent of boys.

"The government, while implementing the new education policy last year, also spoke of a separate fund to reduce gender-based discrimination and promote gender equality. But it seems that the government does not wish to execute its own policies," Majumdar told *Gaon Connection*.

Majumdar is among those running an online campaign prior to every budget and appealing to the education minister and finance minister to increase the budget on education to six per cent of GDP as per the suggestions of the Kothari Commission (1966) and extending the RTE Act. About 80,000 people have signed on this online petition so far, including some MPs, veteran officials and members of civil society.

THE STATE OF
Rural
INDIA

REPORT 2021

CHAPTER 12



ART  **Craft**
and
Tradition

Art imitates life, and for centuries works of great creativity and beauty have been inspired by what artists have observed around them. Art and craft in tribal communities stem almost entirely from Nature, folklore and necessity.

Stories and wisdom passed down by elders in the community have been preserved for posterity through art.

The Gond artists, hailing from one of the largest tribal communities in the country, paint of their pagan beliefs and rituals. Plants, animals, earth, water and soil that their ancestors worshipped, continue to inspire their brushes.

Most art started off on the walls of caves and gradually moved to the walls of mud that the ancient people built and inhabited. While brick and mortar has almost entirely replaced mud homes, the wall art continues, but only just.

Some forms of art were luckier than others as they found patronage. The artists were discovered and feted. They travelled the world and their paintings hang in museums far and wide. Such as the Gond artists who are found in large numbers in Madhya Pradesh and also in other parts of the country.

However, the pandemic made no concession to artists and reduced many of them to penury. They were forced into doing odd jobs, selling vegetables, digging trenches, and whitewashing buildings. There were no exhibitions





In Uttar Pradesh, an entire craft teeters on the brink of extinction. The simple joys of gifting and sharing toys crafted out of sugar may no longer be ours as jazzily packaged and promoted sweets take their place. Slowly, artisans, who wrought the delightful candies made with no more than sugar and citric acid, are now moving away to other occupations that provide them a better livelihood.

It is the same story with handlooms that are being elbowed aside by power looms. Across the country, handloom weavers watch helplessly as their business is taken away by power looms that produce large volumes of similar carpet, or a similar saree, at much lower cost to the customer.

In Tamil Nadu, where the jamakaalam or the sturdy cotton carpet that was a part and parcel of every household, however humble, for centuries, is now on the brink of disappearing altogether. From thousands of handloom weavers in several villages, just a few have stuck on, as most of the weavers have abandoned their traditional craft to move to other jobs that are often menial.

Progress is good, but the collateral damage it inflicts is something one has to consider deeply. Otherwise, art and craft traditions that have survived hundreds and thousands of years, may not live to see the next decade.



where they could showcase their work, no one could see and buy their paintings and they could not travel.

Like it did with almost everything, the pandemic exposed the serious chinks in our system, cracks through which artists and artisans fell through. It was glaringly obvious that there was no safety net for these custodians of art in times of crisis.

Even well before the pandemic, modernity began taking its toll on handicrafts. Aggressive marketing of 'modern' products left no place for the traditional and the old to stand on.



STORY 1

GOND ARTISTS FORCED TO SELL VEGETABLES AND DIG TRENCHES

Hundreds of Gond artists in Madhya Pradesh struggle to feed their families in the pandemic as commissions dry up.

Pankaja Srinivasan



After spending the better part of the day selling vegetables on his *thela* (pushcart), a tired Santosh Shyam had just entered home. His day began before dawn when he hired an autorickshaw, went to nearby villages and the mandi to source vegetables, arranged them on his *thela* and set out to sell them in the bylanes of Bhopal.

“I cover about four to five kilometres a day and there are times I get by just eating biscuits dipped in chai,” Shyam, a 45-year-old who belongs to the Gond tribal community, told *Gaon Connection*.

Santosh Shyam was not always a vegetable vendor. Until a few months ago, before the second wave of the pandemic, he was better known as a Gond artist. Several of his paintings hang in museums and on the walls of art connoisseurs in the country and abroad. He was invited to give demos of his work and his paintings have graced several art exhibitions.

But painting is the last thing on his mind now, said the artist. To feed his family – a wife and two teenage daughters – Shyam has to sell vegetables.

About 500 kilometres away from Bhopal, another Gond artist, Sunil Tekam, and his wife Aashna work as MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act) labourers and they dig trenches near their village Patangarh in Dindori district of Madhya Pradesh. Patangarh is home to one of Gond art’s most famous practitioners, the late Jangarh Singh Shyam who put Gond art on the world map.

Tekam and Aashna’s family include his mother, Chhinda Bai, a four-year-old daughter and a-year-and-a-half old son. The artist and his wife leave home at about five in the morning to do whatever work they can find through MGNREGA, be it laying bricks, whitewashing or digging



ditches. A couple of hours later they return and after Aashna cooks the meal for the day, they leave once again for work. They are currently occupied at a construction site nearby where they are building boundary walls for a new house that has come up.

“My mother takes care of the children while my wife and I go to work,” Tekam said. “Depending on the availability of work,

together my wife and I earn about a thousand rupees a week,” the Gond artist added. “I try and paint a little every day if I am not too tired,” Tekam added.

The pandemic has taken away patrons of Gond art leaving these tribal artists with no alternative but to work as daily wagers, vegetable vendors or manual labourers.

“We do not own any land. We live in a *kuchcha* [mud and thatched roof] house, Tekam told *Gaon Connection*. “I try and paint a little every day if I am not too tired,” Tekam added.

A COLOURLESS EXISTENCE

Gond art is a folk and tribal art that is practised by one of the largest tribes in India – the Gond –who are predominantly from Madhya Pradesh, but can also be found in pockets of Andhra Pradesh, Maharashtra, Chhattisgarh, and Odisha. The work of Gond artists is rooted in their folk tales, culture and Nature.

The pandemic has left these tribal artists struggling to feed their families and children. Bhopal has a sizeable number of Gond artists living there. “Most of them live in sordid penury. They are uneducated, exploited and miserable,” Dushyant Dangi, who works with the Gond artists, told *Gaon Connection*. And the pandemic has driven them deeper into poverty.

“How can I paint when my mind is only filled with anxiety and thoughts of my unpaid bills and debts,” Santosh Shyam asked *Gaon Connection*.



Shyam lives in a rented space in Bhopal with his wife and two daughters, one studying in the 12th and the other in the 8th. His 42-year-old wife Siya Devi often accompanies him on his rounds.

“I bought this *thela* from a *kabaad khana* for five thousand rupees and sell vegetables for a living now,” the Gond artist said. He has to pay his house rent of Rs 5,000 a month, pay the school fees of his daughters and put food on the table.

“I have no bank balance and we are managing with the two to three hundred rupees I make a day selling vegetables,” Shyam said. “One needs time, focus and peace to imagine and to create works of art. All I can think of are my unpaid bills. And the eight thousand rupees worth of paints I bought on credit before the lockdown, that I am yet to repay,” he worried.

GOND ARTISTS AS MGNREGA WORKERS

While the pandemic has reduced Tekam to a daily wager, he still spoke wistfully of his childhood, growing up on the edge of forests. “There were fields next to the jungle. During the harvests, farmers would build a machchan on tree tops from where he could watch his field and ensure wild animals do not destroy his crops...,” the artist recalled.

“This is the scene that I carry in my head and I love painting it. In fact I have painted this ten to twelve times and all those paintings sold,” Tekam smiled. The rest of his paintings are also straight from his imagination fuelled by stories his grandparents told him of fantastic beasts and birds, trees and fishes.

When Tekam wed, he passed on his love to



paint Nature to his wife. "I paint when the children are asleep, usually late at night," Aashna, his wife, said. Though she too came from the Gond community, she learnt to paint only after she got married. "I learnt it from my husband and I love to paint trees," she said.

LOOKING FOR A LIVELIHOOD

Twenty-three-year-old Raman Singh Vyam is a young and struggling Gond artist. "We had no orders for the past two months," he told *Gaon Connection*.

Raman came to Bhopal when he was in the third standard with his father, Mann Singh Vyam. Raman, his sisters and his mother, Budhwariya Vyam are artists too. Mann Singh worked at the Indira Gandhi Rashtriya Manav Sangrahalaya, a national museum in Bhopal, as a security man, but in the first lockdown last year, he lost his job.

"We have no fixed source of income now. My sister, mother and I do the paintings on

order. I wanted to prepare for the SSC CGL exam (to be recruited into government service), but gave it up to take up painting again as we needed money," he said.

Artists Santosh Shyam, Sunil Tekam and Raman Vyam are but three of the hundreds of Gond artists who have been reduced to daily wagers struggling to organise the next meal for their families.

HELP AT HAND

Moved by the pitiable condition of the artists who have so far received no support from the government, Dangi launched a website – www.tribalartindia.com – in January this year to help them.

Dangi with a few of his friends put up the works of some struggling Gond artists on Facebook. "Their paintings sold out pretty fast and we realised that we needed a more streamlined and sustained way of selling them," Dangi said. And, so tribalartindia.com was born.

According to Dangi, nearly 50 per cent of the Gond artists are women. "Almost everyone in the Gond community paints. They may not consider themselves as 'artists' because for them it is a part and parcel of their ethos, but they all do paint. And in many households the man usually sketches the outline and the more laborious process of filling in the colours falls on the woman," he explained.

Dangi who had just returned from Patangarh said the condition of artists there is no better than what it is in Bhopal.



“Tekam, who is such a good artist, begged me ‘*Aur kuch nahin to pothai ka kaam dila dejiye* [if nothing else get me a job whitewashing walls],” he said.

Dangi hoped the new website would help the artists along. “We seek out those artists who are not tech savvy, who know nothing about marketing their work, or are just too poor to even approach anyone for help. We get their work, upload pictures of those on our website and when the orders come in, courier them to the buyers,” Dangi explained.

“Things are moving. In the past few months since we launched the website we have

managed to sell about two hundred paintings, big and small, of around eight to ten artists through the website,” he said.

Meanwhile, the hard-working hands of the Gond artists become calloused as they wield spades, push handcarts and mix cement. “The imagination, creativity, thought and narratives have to wait. All my focus is on the vegetables on my *thela* and how much of it I can sell today,” Santosh Shyam said.

You can support the Gond artists by visiting the website – www.tribalartindia.com – and buying their paintings, if you like any.



STORY 2

SOHRAI ART BRINGS ALIVE PEACOCKS, FLOWERS AND LUMBERING ELEPHANTS

Traditional Sohrai art, which has a GI tag and has been done by tribal women in Jharkhand for centuries, gets a fillip.

Deepanwita Gita Niyogi
Hazaribagh, Jharkhand



It is a hot, humid and sweaty day and the narrow lanes of village Oriya are brown and dusty. But in all that heat and dust, there is startling beauty. The walls of the mud houses in the village are like a canvas, bursting with flowers, birds, and fantastic animals in red, white and black colours.

This is Sohrai art, practised by many tribal communities in Jharkhand, and others too. The women paint their walls as a celebration of the harvest and as a thanksgiving to Nature.

Sohrai is prevalent in about 13 villages of Hazaribagh district. These include Bhelwara, Lukaiya, Purninano, Isco, Ango, Oriya, Kharanti, Saheda, Purnapani, Jarwadhi and Jorakath.

“The *adivasis* do the Sohrai paintings after January. But in our village, women paint the walls during Diwali or just after it,” Duryodhan Mahato, from Oriya village, told *Gaon Connection*. Oriya is dominated by the

Mahato community; its women have drawn inspiration for their wall paintings from the *adivasis*, he added.

The walls bear paintings of elephants facing each other, fishes swimming past, a preening peacock with its feathers unfurled and fluttering birds. It is like looking at a giant picture book of magical creatures, staring out of its pages.

Some of the paintings are on a black backdrop, or on the natural colour, on the mud walls. Red, black and white are the predominant colours used. The women first draw the outlines in white and fill up the figures with black and red.

EARTH COLOURS

Most of the colours used for the paintings are derived from the soil. The red is derived from iron oxide and the black comes from a manganese-rich clay found in certain hilly areas. The creamy



It is a time consuming labour of love. Each wall can take up to two hours to finish. “How will I find time for the painting? I am a single woman overburdened with work,” Tileschwari Devi, a 40- year-old artist, told *Gaon Connection*.

Yet, almost all the homes on either side of the dusty lane of Oriya proudly bear these wall murals.

Dhaneshwari Devi learnt Sohrai art from a neighbour, she told *Gaon Connection*. She has been creating murals for almost five years now. She wished she had the colour yellow to use in her paintings. “Many villages use it and it looks so attractive, but we in Oriya do not have it,” she rued.

THE WALLS IN A SANTHAL VILLAGE

About five kilometres away from Oriya, in the Santhal dominated village of Purninano, in Hazaribagh district, Sohrai paintings are made mostly in the months of November and December.

“Till even a few years ago, all the houses in the village had colourful wall motifs,” Manju Devi of Purninano, who is in her 40s, told *Gaon Connection*. “It all depends on how much time the women can spare for the art,” she said.

But, the construction of cement houses, under the Pradhan Mantri Gramin Awas Yojana (in 2018-19), aimed at providing cheap houses to the rural poor, has adversely impacted Sohrai art, Manju added. “The paintings look beautiful on mud

white colour is kaolin and called *dudhi matti*.

The red colour is often found in ore form. It is crushed and ground and the pigment is extracted. Nirasu Ranjan Bharti, mixes each of the three colours in a separate container with water, till she has the right consistency. “Whenever women are free, they paint. But as we have a lot of household chores to finish, we hardly get time,” the 35-year-old artist told *Gaon Connection*. The women usually paint early in the day before they go to work, or after they return from the fields.



walls and they do not look the same on walls of brick and cement,” she pointed out. Also, she added, that the women in the village faced a shortage of colours.

Sourcing the colours from Nature is a long drawn out process. For instance, some of the colours are obtained from minerals found on river beds and it is tedious business getting it. The red colour is obtained from hematite or iron ore that comes from the mines of Noamundi in West Singhbhum district.

While women do go into the forests in groups to forage for the colours, it is a lot of hard work. With their other chores at home, including repairing their homes, etc., it is time they can sometimes ill afford to spare.

GI TAG FOR SOHRAI

Sohrai art as practised by each community and village is distinct. For instance, in Purninano, the motifs are very different

from the ones found on the walls in Oriya village. Most walls here have horizontal narrow bands of flowers and geometric shapes adorning the lower parts of the walls.

“Last year [2020], on May 13, Sohrai received the GI [geographical indication] tag,” Justin Imam, who has been working on the conservation and promotion of Sohrai paintings for several years across the villages of Hazaribagh, told *Gaon Connection*. A GI tag is given to products that have a specific geographical origin and possess qualities of a reputation that are due to that origin.

Imam who is the secretary of the Hazaribagh-based Virasat Trust that works with the conservation of Sohrai said, “In 2008, nearly fifteen thousand square feet of walls across Jharkhand were painted by the women.” These included paintings in the state capital of Ranchi and the platform and reception area at the Hazaribagh town railway station before



spaces in Delhi, Gurugram and NOIDA, and exhibited in art galleries, Imam informed *Gaon Connection*.



REVIVING A FADING ART

According to Imam, Sohrai was beginning to languish and dwindle. "The women needed motivation to keep the art alive, besides the colours to use," he said. In some villages, a broken comb or a twig from a neem tree is used as a brush, in others, like it is in Oriya, cloth is dipped in colour and used as a brush on the walls.

Along with his wife Alka, who travelled across villages, meeting and talking to the artists, Imam procured the colours for them so that they could continue the age-old tradition. A series of exhibitions also helped spread awareness about the art. "Alongside walls, women artists have also been encouraged to paint on handmade paper and canvas," Imam added.

In 2013, there were 70 houses in four villages of Hazaribagh that bore these paintings on their walls. Women artists were given incentives such as sarees, wall clocks and blankets to continue painting.

In 2018, the Sohrai Kohvar Mahila Kala Vikas Samiti, a cooperative body comprising women artists, was formed in Hazaribagh. The cooperative today has over 300 members, who will, it is hoped will save the art form from disappearing.

This photo feature series was produced in partnership with the Pulitzer Center on Crisis Reporting.



Prime Minister Narendra Modi inaugurated it in 2015.

The prime minister even made a mention of it in his radio programme, *Mann Ki Baat*. These women painted the walls in public



STORY 3

THE DISAPPEARING HANDLOOM JAMAKAALAMS OF ERODE

*The jamakaalam of Erode in Tamil Nadu, has a GI tag,
but the powerloom has rung a death knell for its weavers.*

Pankaja Srinivasan

Erode, Tamil Nadu



It is nearing lunch time. The smell from the bubbling *rasam*, followed by the hiss of spluttering mustard seeds hitting it, is probably why K Vadivel and M Selvaraj smile happily.

The two bare bodied men, childhood friends, now 65 and 63-years old respectively, are seated in a courtyard packed with mud, their feet reaching down into a pit where, firmly entrenched in the ground is the foundation of the wooden loom they are working on. The looms are made of wood from the *Vellavelam* (a variety of the acacia) and teak.

They are weaving a *jamakaalams* (a cotton carpet) on a loom, nearly 14 feet in breadth. The carpet is going to have the name of its future owner woven into it in Hindi. The name 'Sukhdev Manik', in Devnagri script, is written on a crumpled yellow paper that Vadivel carefully balances in front of him.

"We do not know how to read or write any language, let alone Hindi," laughs Vadivel as

without missing a beat, he moves his feet up and down, perfectly synchronised with the feet of Selvaraj. Their hands pass the weft shuttle to and fro, and every now and then, one of them reaches out to adjust the tension of the yarns, strung on the loom with impossible intricacy.

With each movement of their limbs, the name gradually appears on the orange mat. It is exactly what is written on that scrap of paper. Such is their skill passed on from generations of weavers of Periamolapalayam, in Bhavani block, Erode district in Tamil Nadu, 400 kilometres from Chennai, the state capital.

BHAVANI'S JAMAKAALAMS

Bhavani is located at the confluence of the Bhavani, Kaveri and the invisible Amirtha rivers, and its colourful striped *jamakaalams* received the Geographical Indication (GI) tag in 2005-2006. *Jamakaalams* here have been woven for



more than 200 years. But not for much longer.

Over five years ago, in 2015, there were approximately 120 weavers and 40 looms in Periamolapalayam village. Today there are roughly 60 weavers working on 25 looms. Most of the weavers are over 50 years of age.

There was a time when the *jamakaalam* was a part and parcel of Tamil households, rich or poor. They were specially ordered for weddings with the names of the bride and groom woven into them.

During festivals, they were spread out to accommodate guests. People sat on them to eat the wedding feasts served to them on banana leaves. In all marriage functions, the auspicious paraphernalia of sweets, fruits and flowers were lovingly arranged on the *jamakaalams*. They served equally well for the *paatu* classes (music classes) as they did for quick afternoon naps.

But no one sits or sleeps on the *jamakaalams* anymore, rued A Raju, a weaver in Periamolapalayam. "There was a time when more than a thousand *jamakaalams* went out in a week from our village alone. Now, we are lucky if we can send out a hundred a month," he told *Gaon Connection*.

Bhavani *jamakaalams* had a huge market in Odisha, Karnataka, Maharashtra and Andhra Pradesh. It still sends some to the Gulf countries where they are often used as prayer mats.

"We sent our *jamakaalams* to these states in trucks, by rail or even by post. But that has come down with the cheaper alternatives powerlooms offer," said Shakhthivel.

The advent of the powerlooms in early 2000, foreshadowed the decline of the handloom *jamakaalams*. The Handlooms (Reservation of Articles for Production) Act, 1985, prohibits powerlooms from producing a long list of articles exclusively reserved for handlooms. The Bhavani *jamakaalams* was one of those.

Yet, powerlooms function with impunity, and more and more handloom weavers are leaving to work in factories, or even as



domestic help and cooks, as the future of their traditional craft is getting bleaker by the day. The GST they have to pay on the yarn has made it even more difficult for them, complain the weavers.

UNFAIR COMPETITION

“We cannot compete with the powerlooms,” said Raju. Powerlooms can turn out three to four times the number of *jamakaalams* than what a weaver can in a day. “While handloom *jamakaalams* cost Rs 25 a square feet, powerlooms cost Rs 15 a square feet. And, few people can tell the difference. Why would they pay more for a handloom *jamakaalam*,” he asked.

“The *jamakaalams* still breathe, though barely,” an official from the state department of handlooms and textiles, Erode, told *Gaon Connection*. He admitted that this was perhaps the last generation of handloom weavers we were seeing in Bhavani. “The government offers many schemes, training capsules and monetary

incentives. That is the only reason the craft still lives, otherwise it would have disappeared long ago. However, this support is not enough to sustain handloom *jamakaalams* as the wages are inadequate to keep the weavers going,” he said.

According to figures provided by the department of handloom and textiles, Erode, in 2015–16 there were 3,654 handlooms and 8,231 weavers in Bhavani. In 2020–21, the numbers are 3,243 looms with 7,368 weavers still working on them. There are 323 powerlooms working in this area.

P Shakthivel of Periamolapalayam village has been weaving the *jamakaalams* since he was 14 years old. The 64-year-old weaver has acquired a reputation of being highly skilled, innovative and open to adapting new ideas to his craft. Recently, he was approached by Kumaraguru Institutions (that has several colleges under its umbrella across Western Tamil Nadu) to help revive the craft.



jamakaalams, while something with motifs, borders, etc. earns them a little more.

For generations, *jamakaalams* have been the sole source of livelihood of weavers in Bhavani. Weaving a *jamakaalam* requires all family members to work together.

Shakthivel sits at the loom alongside his sister Janaki. A little away, his *athai* (father's sister), Chellamma, sits at the *charkha* winding spindles. "Till a few years ago, I also sat at the loom," she smiled.

"The families are scattering. By the time my two-year-old daughter grows up, all this will be gone," Raju, who is also Shakthivel's nephew, observed sadly. "If there was something to attract young weavers to the looms, they would happily do it. But how can we even ask them to weave when the returns are next to nothing," the 47-year-old asked.

REINVENTING THE JAMAKAALAMS

However, there is a glimmer of hope as students from the department of fashion technology, textile technology and department of business studies of the Kumaraguru Institutions, have approached the weavers of two villages, Periamolapalayam and Aapakudal in Bhavani block, to work on a *jamakaalams* project with them.

"We will help them with processes, material procurement, design and product innovation, besides marketing," C Saravanan of Kumaraguru Institutions told

"There are a few of us left, like Selvaraj, Vadivel and myself," Shakthivel told *Gaon Connection*. "The men and women you see weaving here are perhaps the last of the weavers. It will end with us if a concerted effort is not made to save us and our craft," he said.

"Even the labourers get paid more than us," muttered A Savithri, who sat winding the weft yarn around the pirn (*taar kuchchi*) to be inserted in the shuttle that the weavers use. There was a hint of anger in her voice as she continued. "I get paid hundred and twenty six rupees a day for putting in nearly eight hours of work. I could earn more at a construction site. Here I am, a skilled weaver, but struggling to feed my family," she told *Gaon Connection*.

Weavers get paid Rs 250 to Rs 350 on an average depending on how much of the *jamakaalams* they weave in a day. They get between Rs 19 and Rs 22 per square feet for the traditional multi coloured striped



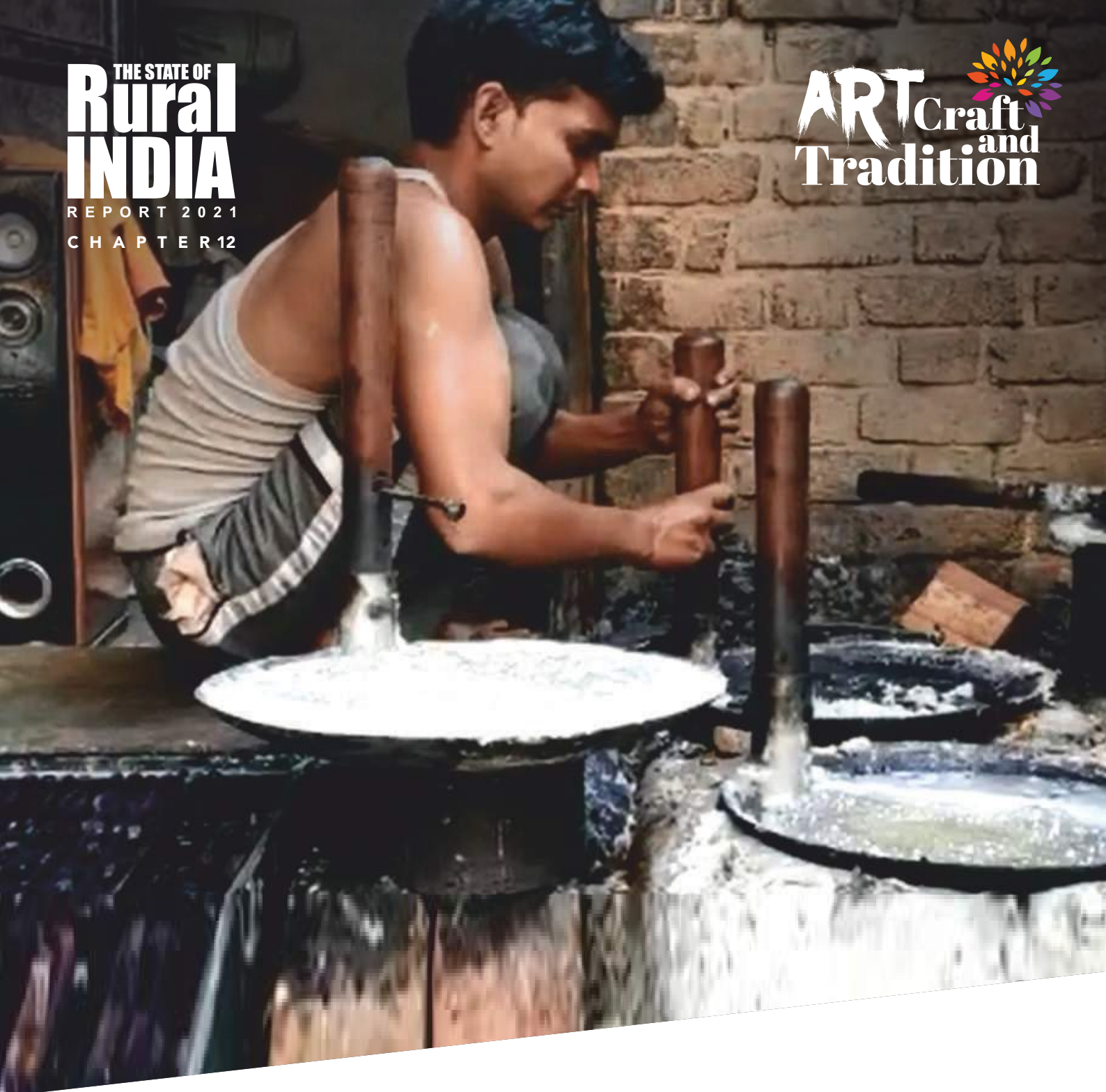
Gaon Connection. He, along with B Poongodi, assistant professor, Business Studies and also are searcher on natural fibres and handlooms, and several students, started the project.

A Centre for Weaving was set up at Aapakudal village on January 30, Martyr's Day. Shakhivel along with other master weavers will train weavers here.

"We have just completed work on a jacquard box that will make the working of the loom much easier," Pongoodi explained. "The productivity will go up, and the finish will be finer. We want to introduce natural dyes and better quality yarns into is

about 35 kms away from Bhavani. the craft," Poongodi told *Gaon Connection*.

Traditionally, the cotton yarn for the *jamakaalams* comes from Erode, Karur and Coimbatore and they are dyed at Chennimalai that Meanwhile, at the nearby Mayavar Perumal temple, preparations are afoot for the Kumbhabhishekam, a grand puja. The faithful of Periamolapalayam will offer up fruits, flowers, turmeric and coconut to the deity, all beautifully laid out on *jamakaalams* woven by one of their own. Maybe, they will pray that Mayavar Perumal will grant the *jamakaalams* a rebirth.



STORY 4

THE SWEETNESS IS MISSING FROM SUGAR TOY MAKING

The traditional craftsmen who wrought toys out of sugar for Diwali festivities are disappearing as the demand for their craft dwindles.

Mohammad Amil
Etah, Uttar Pradesh



There was a time when sugar confectionery such as *kheel* and *batashe* were synonymous with Diwali. Along with them were the toys crafted out of sugar (*khilone*).

Local *kaarigars* (artisans) would sell sugar toys shaped into minarets, lions, elephants, ducks, fishes and even the Taj Mahal.

However, with fancy sweets in glitzy packaging inundating markets, traditional sugar toy makers are finding it difficult to sell their finely crafted 'sweet' toys. Ask the sugar toy makers of Etah district in Uttar Pradesh and they will say their craft is fast disappearing.

"About five years ago, you could still find *kaarigar* of sugar toys easily. But not any more. They have all switched their profession as there is little demand for the sugar toys in the market," Mohammad Yunus Faridi,

a sugar toy artisan himself who has been in the profession for generations, told *Gaon Connection*.

"Now people are more interested in modern sweets made by the *halwai* and the craze there once used to be for our sugar toys is hardly anywhere to be seen," the artisan from Marehara in Etah district added.

Even five or six years ago, he himself used to make sugar toys from about 700 kgs of sugar, he said. "Now, it has reduced to 400 kilos. It gets difficult to even pay the labour rate to other artisans who make these toys under my supervision," said the sugar toy maker.

"The price of sugar is also rising. A kilo of sugar costs around forty rupees. Our toys are sold in the wholesale market at about fifty rupees a kilo. You can imagine how



to be incomplete without the toys that we make but is no longer the case,” Islam Abbasi, also a sugar toy maker, told *Gaon Connection*.

“*Kheel*, *bataashe* and *khilone* (puffed rice, sugar candy and sugar toys) were the traditional offerings that were used in the rituals but fancy sweets have taken their place now. People nowadays prefer expensive sweets to distribute among their friends and relatives,” he added.

According to Abbasi, 10 kgs of sugar was needed to produce nine kilogrammes of *khilone*. “The *kaarigar* we have are experts in making toys. Kids used to be excited to own these different-shaped sugar toys but not anymore. Their world has changed, it seems,” Abbasi said softly.

DISAPPEARING ARTISANS

Etah’s Marehra town is known for large-scale sugar toy production but the number of kilns that produce these sweetmeat have reduced significantly in the past 10 years.

“Earlier, about a decade ago, there were ten *bhatti* (kilns) that used to produce sugar toys. Now, there are only five such units left. They are also struggling to sustain themselves,” Mohammad Yunus, a sugar toy artisan, told *Gaon Connection*.

“Also, the outbreak of dengue has spoiled the Diwali festivities this season. In the nearby village (Sirsa Badan), villagers are left with little money for festivities as their savings have gone into medical expenses,” Yunus added.

bad the situation is,” Faridi said.

Even the price of citric acid or *saatri* has gone up from Rs 100 a kg to Rs 250. *Saatri* is used to make the toys a brighter white.

‘ADVERTISEMENTS TO BE BLAMED’

“Even today, the elderly people are fond of sugar toys but the young generation is attracted to the fancy sweets. Diwali used



STORY 5

THE WOMEN TATTOOISTS OF THE BAIGA TRIBE

Senior women of the Baiga tribe practise an elaborate ritual of tattooing young girls to protect them from the wrath of gods.

Gaon Connection



Sixty-five-year-old Shanti Bai, of the Baiga tribe in Chhattisgarh, is a resident of Ba Paani Basakola village in the Pandariya block of Raipur. She has been practising *godna* (tattooing) for the last several decades.

Godna, or the tattoo art, is unique to the culture of women belonging to the Baiga tribe found across Madhya Pradesh, Chhattisgarh and some parts of Uttar Pradesh.

Senior women in the tribe, like Shanti Bai known as *badneen*, undertake the tattooing. They have years of experience in the intricate art and are well versed in tattooing safely.

The Baiga tribal code makes it compulsory for women to be tattooed. There is a belief that if they don't the gods will punish them.

The tattooing is followed by rituals that are observed to appease the forest gods.

"I have been tattooing for many decades

now. The *godna* (tattooing) stays with the soul of the person not only in this birth but also in the next birth," the 65-year-old *badneen* told *Gaon Connection*.

"A girl is tattooed for the first time when she is six years old. More tattoos are added in the years that follow and the last tattoo is done after the woman delivers a child for the first time," she exclaimed.

The girls are tattooed outside villages, where men cannot witness it as that is considered inauspicious.

35 NEEDLES AND BLACK SESAME DYE

"The girl or woman who is to be tattooed is taken to the forest along with other women to help in the procedure. The tattoo ink is made out of ground *kala til* (black sesame)," explained Shanti Bai. "The woman lies down on a mat on the



“The tattoos also protect people from diseases as it purifies the blood and the soul. The pain cleanses the body and it helps in living a healthy life,” she explained.

Shanti Bai also said that as there were tigers in the forest, there were rituals to appease the ‘tiger god’ too so that they were safe from attacks.

“Because *badneens* ensure that the girls are safely tattooed and are protected from the wrath of gods, we are given gifts of food, grains and money,” Shanti Bai said.

With inputs from Mohit Shukla

forest floor and 35 needles are used to tattoo the skin. The procedure is very painful but very important,” she said.

“After the tattooing is done, the skin is washed with cow dung diluted in water as this protects against infection,” the *badneen* added.

THE STATE OF **Rural** **INDIA**

REPORT 2021

CHAPTER 13



AGENTS
of Change



If ever there ever was a year that needed miracles, it was the year gone by, when the times were grim and hopeless.

And, miracles there were, in the form of people who in the midst of misery shone a light of hope for the world. They embraced adversity and decided to do something to improve the lot of the people around them.

Using common sense, compassion and a deep and abiding commitment to the world they lived in, they brought about positive change around them. Change that would have far reaching consequences, that would make the world a better place to live in.

Some of these agents of change did not even know they were doing anything significant. Like Sushma Devi of Unnao, Uttar Pradesh. Married when she was only 11 years old and widowed at 26, Sushma, who had two children to bring up and no other means of livelihood, stepped out of home for the first time and took up the job of conducting funeral rites, something men traditionally do.

She did it to earn a living and nurture her children, but she did it with a sense of responsibility and decency. She said she managed with her meagre earnings and wouldn't dream of haggling with the kin of the deceased over how much they paid her.

Elsewhere, a village school decided to break stereotypes of what rural education was all about. It empowered its students





disappearing in the race of development. But, in the midst of all odds, thinking farmers such as Ram Lotan Kushwaha, in Madhya Pradesh are doing their all to ensure they do not go extinct. Not just that, they are the champions of natural and organic farming that will be the only way to save the soil from complete degradation and destruction.

Then there were those who reached out to fellow beings in a year when people could use all the compassion and help they could get. Drawing on his own painful childhood memories of his parents running from pillar to post to treat his illness, the financial distress they faced and the great pain the family as a whole suffered, Sandeep Kumar decided he would set up a telemedicine centre for medical consultation for underprivileged folk in the rural areas in his district.

with courses such as graphic design, etc., once considered the preserve of urban students, and get them ready to find jobs when they step out of school. Many girls at the school have grabbed the opportunity to be graphic designers, and are delighted that they have something more than just domestic chores to look forward to.

In a world hurtling towards environmental armageddon, ordinary farmers are doing extraordinary things. They are saving and conserving indigenous seeds and plants for posterity.

Our country is a treasure trove of rare and medicinal flora, and they are rapidly

Consultation was free and along with other right-thinking individuals and institutions, he extended valuable help to the poor who were unable to seek medical help simply because they did not have the means for it.

Such was the year gone by. These were but a handful of hundreds of good souls who in their own sphere reached out with love and compassion and with nothing more than common sense and a overwhelming desire to do good, they wrought change. Change that will surely have a positive impact for years to come and make the world a better place to live in.



STORY 1

A VILLAGE SCHOOL IN UP BREAKS STEREOTYPES OF RURAL EDUCATION

*Bharatiya Gramin Vidyalaya, in rural Uttar Pradesh,
empowers its students with skills that level the playing
field for them in the job market.*

Shivani Gupta
Kunaura (Lucknow), Uttar Pradesh



Kushma Devi turns on her computer and gets busy with a graphic design course she has enrolled for. The 17-year-old, is a student of Bharatiya Gramin Vidyalaya, a rural school located in Kunaura *panchayat*, about 40 kilometres from the state capital Lucknow, that uses the internet and the latest technology to impart modern skills to its students.

The 17-year-old logs into Canva – a graphic designing platform – on her computer. Diwali is around the corner, and the class 12 student has a large number of posters to design. Kushma quickly searches for copyright-free pictures and downloads a free picture of a colourful butterfly feasting on yellow pollen.

“I love butterflies, because they can go anywhere they want to,” Kushma told *Gaon Connection*. And, she is raring to go too.

The Swayam Skill Centre of the school imparts training to village students in graphic

designing. Kushma wishes to become a graphic designer, a job profile no one in her village is aware of, but is in high demand in the outside market.

“We are learning how to download pictures using pixabay. Select poster, give headline, change colour and font, and create a poster on Canva,” said Kushma cheerfully.

“I enjoy making posters. I do not want to do *silai kadhai* (stitching and embroidery work),” she added. More than 15 students, many of them girls, are learning the basics of graphic designing at the school.

“When girls in villages go to school they are told you have to do *chauka bartan* (manage kitchen chores). I was also told the same. Now when I make posters, I think I can do something different,” Mohini Singh, a class 12 student, told *Gaon Connection*. “People in my village say that



we girls cannot do anything. I want to prove them wrong by learning to design posters,” she added.

Leading this initiative is SB Misra, a geologist and founder of Bharatiya Gramin Vidyalaya, who started this school in 1972.

“After conventional education till class twelve, students wander aimlessly in cities looking for jobs. We have set up a skill centre and initiated new courses so that

they learn skills such as housekeeping, camera [photography], repairing (mobile and computer), triple C [Course on Computer Concepts],” SB Misra told *Gaon Connection*.

“This is how rural students will develop confidence and compete with their urban counterparts,” he pointed out. “Rural kids lack learning opportunities. If we provide those opportunities, then they can compete with anyone. I believe if other schools also equip themselves with technology and modern methods then rural education will gallop forward,” added the octogenarian.

BREAKING STEREOTYPES

Bharatiya Gramin Vidyalaya aims to make rural students self-reliant through quality education imparted using the latest technology. To manage the activities of the school, there is a management committee which contributes to the progress of the school.

Neelesh Misra, founder of *Gaon Connection*, India’s biggest rural media platform, who is Vice President of the management committee of the school, believes that there are stereotypes about rural youth.

“There are preconceived notions about what should be taught to rural children. At a skill centre, one would think of training the rural youth in carpentry and farming-related matters, anything related to physical labour,” Neelesh Misra observed.

“Although there is no problem in that, rural youth get limited to these choices, because



we have stereotypes about them. The initiative [skill centre] would help change this," he hoped.

When India's media industry is booming and everyone needs graphic designers, why can't rural kids help in that, Neelesh Misra asked. "Our initiative can be a hope for hundreds of schools in villages. This is not a small change. It will impact generations," he said.

WHEN LIFE COMES FULL CIRCLE

Faraz Husain, a 21-year-old graphic designer, passed out of Bharatiya Gramin Vidyalaya and now works with *Gaon Connection*. He also volunteers at his alma mater and teaches students about making posters. Not just Husain, even his father studied at the same school.

"I studied here till my twelfth. And now I have got an opportunity to teach kids in my

own school," Husain smiled. "Often, children from rural areas do not have guidance or mentoring. I faced a similar situation and then went to the city and learnt graphic designing," he told *Gaon Connection*.

Husain pointed to Jitendra Kumar, another student in the computer lab, who was busy making posters and book covers on Canva. "It's been only a couple of days since he started designing posters, but he has learnt fast," said a proud Husain.

"I never thought I would work on a computer. But now I make posters on it and it gives me confidence," Jitendra told *Gaon Connection*.

'BEGAN VIRTUAL CLASSES WAY BEFORE THE WORLD DID'

Apart from the Swayam Skill Centre, Bharatiya Gramin Vidyalaya also has a virtual class centre equipped with a



“The internet has reached villages. Rural kids want to learn new things, and there are teachers in urban areas who want to teach them. We are trying to make that connection through virtual classrooms,” said Neelesh Misra. “When we began virtual classes, this was perhaps the first school worldwide to impart education to kids through these classes daily,” he added.

Volunteers from India to the United Arab Emirates teach these students English, Physics, Mathematics and also enrich the classes by sharing their own experiences.

“I like both online and physical [face-to-face] classes, but I like online classes more. These teachers share their experiences of cities and we learn from their experiences,” Mohini Singh, a class 12 student told *Gaon Connection*.

“Be it teaching graphic designing, video and sound editing, Physics or the English language, we want to make this school the first one in India to have the most number of virtual classes that will supplement face-to-face classes. I think this initiative can help address the gap in the education system between urban and rural schools,” said Neelesh Misra.

projector, a microphone, a projection screen and high speed Internet.

Charu Tandon, a volunteer based in Chandigarh, about 800 kilometres from Kunaura, was teaching kids, virtually, about ‘Equitable distribution of resources’. Much before the COVID19 pandemic forced the shutdown of educational institutes and made online learning a norm, Bharatiya Gramin Vidyalaya had started long-distance online classes in 2019.



STORY 2

SUSHMA DEVI, A WIDOW, ORGANISES FUNERALS ON THE GANGA GHAT

For 20 years, Sushma Devi from Unnao, has held her own in a traditionally male-dominated bastion of conducting funerals.

Sumit Yadav
Unnao, Uttar Pradesh



Sitting under the shade of a makeshift shelter, adjusting her white dupatta over her head, Sushma Devi gazed at the Ganges River in front of her, and said, under her breath: “*Maata Rani sab jaanti hain* (goddess Ganga knows everything).” Behind her burnt several pyres.

Sushma was only 11 years old when she was married off to 15-year-old Santosh Kumar, whose traditional occupation was performing last rites (*panda*, a priest who performs prayers for the last rites) at Balai *ghat* in Unnao. By the time she was 26 years old, and a mother of two young sons, she was widowed.

“No one from either my mother’s or my husband’s side helped me out. I had to feed my sons. Since I knew a little about performing last rites, I took it up,” said the 42-year-old, who gathered up the courage to work in a traditionally male-dominated bastion and became a woman ‘*panda*’.

“You see, I am uneducated. I had no other option,” she shrugged, as she dusted the sand off her *sari*.

Sushma lives five kilometres from the Ganga *ghat* in a village called Hadha in Unnao district, about 80 kilometres south west of the state capital Lucknow. For the last 20 years, she has been performing last rites at the *ghat*.

The *ghats* on the Ganges river have been making news for a couple of days now. Dead bodies have been found floating in the river and hundreds more are being cremated and buried on its banks. Many of them are suspected to be victims of the second wave of COVID19 across the country.

Sushma said she was busier than ever and her days were unusually long. “I wake up at five in the morning. I clean, bathe, cook for the day, and set out for the



shamshan ghat (cremation ground) at about ten,” Sushma, who lives alone in a one-room house, told *Gaon Connection*. A few years after her husband died, her younger son died too. Her older one is married and lives with his wife in Punjab.

“I made *kaddu subzi* (pumpkin vegetable) and *rotis* this morning. I ate some of it and kept the rest for my meal at night. I eat the leftovers when I go back home if I feel like it, otherwise go to bed,” she said, and added, “I don’t consume anything when I am here at the *ghat*. Nothing other than water.”

When *Gaon Connection* met her on May 16, 2021, before noon, she had already supervised one cremation. She said two other women at *Balai ghat* do the same job.

“Today I got four hundred rupees from a family. Sometimes it is no more than a hundred and fifty or two hundred,” she said. But on some busier days, she made up to Rs 1,500, she said.

“There is no fixed amount I get paid for doing my job. I know exactly what it feels like to lose a family. I am not going to haggle about money with someone who has just lost a dear one,” she said.

When *Gaon Connection* asked Sushma about why she chose to work at a cremation ground, something unusual for a woman, she smiled, “I am not the only woman. You will find many others like me, destitute, abandoned, widowed,



who are doing this work to feed their families.”

When her husband died, Sushma decided working with the dead was a better option than working as a labourer for someone else. “I am a woman. I have to think of such things. I had my sons to bring up, respectably. I couldn’t afford to have people point a finger at me,” Sushma continued.

When she first started doing this work, she was scared, Sushma recalled. “Seeing dead bodies all day long, performing their last rites... For a long time I couldn’t shake off the image of the burning bodies and the

sound of wailing relatives. So many young people, children... But *Maata Rani* gave me the strength,” she said.

“I don’t feel a thing now.” Hopelessness, helplessness and poverty taught me to be strong, she said.

“*Maata Rani* has stood by me all along. I know she is with me till I cross over too,” she concluded.

Written and edited by Pankaja Srinivasan.



STORY 3

A FARMER IN MADHYA PRADESH PRESERVES SEEDS FOR POSTERITY

Ram Lotan Kushwaha from Satna, conserves herbs and seeds of indigenous vegetables and proudly displays them in his desi museum.

Sachin Tulsia Tripathi
Satna, Madhya Pradesh



In his address to the nation on his monthly Mann Ki Baat programme, Prime Minister Narendra Modi talked about a farmer in Madhya Pradesh whose love for indigenous vegetables has led him to preserve their seeds in what he calls is his 'life's purpose'.

Ram Lotan Kushwaha, from village Atarvediya in Madhya Pradesh is on a mission to grow and conserve seeds of indigenous vegetables and medicinal herbs.

"I am in love with indigenous vegetables and herbs, they mean everything to me," Kushwaha, a 64-year-old farmer, told *Gaon Connection*.

Ram Lotan has as many as 12 different varieties of *lauki* (bottle gourd) growing on his acre of land, besides brinjal and other vegetables. He also grows more than 250 medicinal plants. And their seeds are being collected and conserved in the museum

he has set up.

Bottle gourds, in different shapes and sizes, are on display on one wall. Look around and there are other legumes of vegetables arranged neatly, in his museum of seeds. Each of his *lauki* has a name depending on its shape, he laughed, pointing out to them.

"There is an *ajgar lauki*, that resembles a python and a *tanpura lauki* shaped like the musical instrument, among others," Ram Lotan said. Some of the vegetables are consumed and others are kept aside for their seeds or to be used for medicinal purposes.

He rattled off a list of herbs and greens he cultivated. These included fennel, wild spinach, native coriander, chillies, cucumbers, and many more.



a pleased Ram Lotan said. There are things growing on his farm that have history and lore attached to them. Such as the *sui dhaaga* (needle and thread) plant.

“In the days of *rajas* and sword fight, wounds were treated with the *sui dhaaga*,” Ram Lotan said. The plant was plucked, ground along with milk into a paste and applied to the wound and the healing would begin, he added.

Ram Lotan is very proud of the white *palaash* (*Rare White Beuta Monosperma*) that he grows. It is a rare plant and he is doing all he can to propagate it. “People from far and near come here to take the sapling or just see the flower, to my farm,” he said.

NURTURING A LEGACY

Ram Lotan’s father, Kathahura Kushwaha, had great interest in ayurveda and that is what led his son Lotan into it. “I was not particularly interested in studies but was drawn to my father’s garden filled with medicinal herbs,” he recalled.

His father passed away when he was about nine years old, said Ram Lotan, but he left behind his love for plants.

Today, two out of Lotan’s three sons are as interested as he is and taking his legacy forward. “My seven-year-old granddaughter loves them too and can easily recognise the different herbs and plants. She often accompanies me when I go out foraging for them,” he said with pride.

A RARE QUEST

Ram Lotan once journeyed all the way to the foothills of the Himalayas to look for the Brahmi root. He travelled to the jungles of Amarkantak in Madhya Pradesh where the Satupura and the Vindhya mountain ranges meet, in search of rare plants.

“Sceptics said that Himalayan flora would not grow well here, but they are blooming and growing just as they do there,”



Ram Lotan said a lot of his learnings about the medicinal plants he grew came from forest dwellers. “They have great knowledge about the things growing in the jungles and I often visit them. They come to me too,” he said.

“I am in touch with the tribal communities who live in close proximity to Nature. I regularly visit them where they live in or near the forests in the districts of Balaghat, Umria, Shahdol, Nimad and Bhind,” Ram Lotan said, adding that he often visited tribal communities in Dantewada and Bastar, too. His immense knowledge about the medicinal plants have earned him the title of *Vaidya ji* or doctor.

Ram Lotan was further influenced by Padmashri winner Babulal Dahiya, farmer, environmentalist, and seed conservationist from the nearby village of Pithorabad about two kilometres from Atarvediya.

“Babulal Dahiya got me involved in researching the biodiversity in the state,” he said. In 2018, Ram Lotan’s *laukis* found a place in the calendar brought out by the biodiversity board. In 2012 the Madhya Pradesh State Biodiversity Board gave him a grant of Rs 50,000 to continue with his good work.

Ram Lotan is happy with his mission. All he wants is a little help from the government. “If I could get support to fence the land, to keep away wild animals that destroy the plants, and provide for a well, I can do a lot more to preserve, conserve and propagate these indigenous flora that is such a priceless legacy,” he said.



STORY 4

A CANCER SURVIVOR'S TELEMEDICINE CENTRE

Cancer survivor Sandeep Kumar from Uttar Pradesh's Sant Kabir Nagar runs a telemedicine centre that links medics with villagers in remote areas.

Pratyaksh Srivastava



Sandeep Kumar says the memories of the grim battle for survival both physically and financially will never leave him.

Sandeep, a 27-year-old cancer survivor, was diagnosed with Ewing's sarcoma (a type of bone cancer) at the age of 12. He remembers his father, a farmer with limited means, running from pillar to post to get him treated.

"That is why I started the DigiSwasthya telemedicine centre. I don't want any underprivileged person to suffer due to lack of medical supervision," Sandeep told *Gaon Connection*.

A resident of Kathaicha village in Uttar Pradesh's Sant Kabir Nagar district that lies about 235 kilometres from Lucknow, the state capital, Sandeep opened up his telemedicine centre in Sant Kabir Nagar's Khalilabad in 2020.

DigiSwasthya helps link up doctors with villagers in remote locations and has proved to be a life-saver, more so in the COVID

pandemic.

"So far I have helped almost 500 patients from the nearby areas. More than 70 cases of COVID19 have also approached us for medical counselling," Sandeep told *Gaon Connection*. He has completed a certificate course on professional oncological care giving at the Mumbai-based Tata Institute of Social Sciences (TISS).

Apart from general patients and corona infected persons, over 21 cancer patients have also benefited from the medical advice offered by doctors who volunteer at DigiSwasthya.

A PERSONAL JOURNEY DEFINES A PROFESSIONAL MOVE

Harking back to his childhood, Sandeep said: "Just the diagnosis of cancer took a lot of time as we went from one doctor to another, and none could correctly



life,” he said.

That experience, more than anything else, motivated him to work in the health sector and help poor villagers access healthcare

LINKING MEDICS WITH PATIENTS

Explaining the functioning of DigiSwasthya telemedicine centre, Sandeep said that he had a network of about 30 doctors and medical professionals across the country who volunteered for the initiative and spared out an hour or so a day for counselling and supervising the ailments of patients. The telemedicine service is free of cost.

“People in villages hide their health problems because of the fear of expenses they can ill afford. They swallow a pain killer and just continue to go on with their lives,” Sandeep said. “When they do come for treatment, it is often too late,” he added.

diagnose the disease.”

Finally, it was at a hospital in Gorakhpur that Sandeep was told he had cancer on his right arm. “We were told that the arm will have to be amputated and it will cost around one-and-a-half-lakh rupees. My father is a farmer and our financial condition was grim,” the 27-year-old recalled.

“Luckily we could make it to the Tata Memorial Hospital in Mumbai and after a year of chemotherapy and bone replacement, I have been living a healthy

“We maintain an electronic medical record (EMR) of the patients as most of them are careless with handling physical documents. An EMR is particularly useful when the case is referred to a hospital as it gives clarity about the patient’s history,” Sandeep explained.

For those patients requiring physical examination they are referred to hospitals that are aided by NGOs and fall under government welfare schemes such as Ayushman Bharat in order to ensure minimal financial burden on the patient, Sandeep said.



RURAL POOR ACCESS HEALTHCARE IN THE PANDEMIC

Sandeep's Kumar's altruism has brought hope to many people. Chandra Prakash Yadav, a 26-year-old resident of Gorakhpur found the tele-medicine centre a blessing as he needed help for his 48-year-old father who had contracted COVID19 during the recently concluded *gram panchayat* elections in the state.

"*Pitaji* (father) came down with a fever and cough in the second week of April. We couldn't find a proper doctor in our Chechuapar village (Sahjanwa block) and had to depend on a *jhola chhap* (rural health practitioner)," Yadav told *Gaon Connection*.

"But the treatment worsened my father's health. Luckily we got the contact details of Sandeep's health centre. He arranged a video

call with a doctor and his prescription helped my father a lot. Within two days, his condition improved," he added "*Unki jitni tareef ki jaayekam hai*," the 26-year-old said. (No amount of praise can make up for the work Sandeep does).

Timely diagnosis is everything and can sometimes make the difference between life and death, said Sandeep. "A lot of lives are lost in rural areas because there is no medical supervision whatsoever," he rued.

'GOVT APATHY HURTS, THINGS COULD BE BETTER'

But setting up the telemedicine centre was not an easy task. "We went to meet the government officials to inform them about our work, but they wouldn't meet us. No politician, nor department official has helped us in any way. If the government provides some support, we can serve way people than



what we are doing now,” he said.

“Healthcare should be available to all. But we know how people sell their cattle and property to raise funds to save the life of their loved ones. No human being deserves this fate,” he added.

DigiSwasthya has aligned itself with other charitable organisations like Maharashtra-based V Care Foundation and Medneed. These organisations provide relief material and medical supplies to be distributed amongst those who need them.

“The centre was equipped with a nurse and a paramedic till last month but we could not afford the nurse’s salary, and had to let her go,” Sandeep said.

“So far, I have spent my life savings of two-and-a-half-lakh rupees on this centre,” he added.

If you wish to support Sandeep Kumar’s DigiSwasthya telemedicine centre, you can reach him at 00-91-9628321299.

THE STATE OF
**Rural
INDIA**

REPORT 2021

CHAPTER 14

FOOD 
**Festival
and
Culture**



Festivals, shorn of the ugly trappings of communalism and casteism, are actually occasions of camaraderie, love, well being and thanksgiving. Festivals and pujas are the times where we take a break from our chaotic lives to look around, savour nature and send up gratitude to our Gods, whoever they may be, for their bounty and blessings.

In every corner of our country, there are rituals that commemorate the advent of spring, summers, monsoons, winters and the sowing of fields and the harvesting and during these festivals, the soil, the sun, the water and the flora are worshipped and celebrated.

And, a lot of that worship is centred around food that is once again made of seasonal and locally grown produce. How wise were our elders to mark the changing seasons with celebrations and ensure we respected our natural resources.

As the world rediscovers the wisdom of nurturing Nature, of eating local and seasonal and respecting our natural resources, in our country, the traditions of doing all of that still continues. While many of us may have forgotten the lessons, the festivals sometimes act as reminders to us to be grateful and to be mindful of what we still have left.

Gaon Connection collected stories of traditional foods, rituals and celebrations from several parts of the country. Here are six of our selected stories.





STORY 1

DEEPAVALI AND LEHYAM LOVE

The concoction of herbs and spices, the lehyam, takes care of the indiscriminate and unwise eating of Deepavali.

Pankaja Srinivasan
Coimbatore, Tamil Nadu



Along with the Deepavali goodies, my daughter-in-law came bearing a shiny steel container filled to the brim with a glistening, garnet-coloured, concoction that immediately set off a wave of nostalgia.

In Tamil Nadu it is called Deepavali *lehyam* or *marundhu* (medicine), and the women in Tamil households invariably make it or at least used to make it along with the *laddus*, *murukkus*, mixture and mysore pak. My daughter-in-law's grandmother, 70-year-old Lalitha Arunachalam, made it at home in Bengaluru and sent it along with so much love for me and my husband.

It sent me right back to the Deepavali of yore when we awoke in a fever of excitement at three in the morning, had an oil-bath, and wore the brand new clothes laid out neatly at the family altar the night before.

Each piece of new clothing had a tiny smear of *manjal* (turmeric) applied discreetly out of sight, on the border, on the inside of the collar where it would not be seen; this was a must

as the turmeric was said to ward off the evil eye also known as infections.

A piping hot bath, new clothes and an unbearable wait later, we would be handed a sparkler each, that would be lit from the lamp at the altar by a responsible adult which we then waved around after being safely escorted out of the kitchen, away from inflammables. The grown ups would have the honour of firing the first loud cracker of the day, perhaps to wake up our gods.

Then came the Deepavali *lehyam* (*lehyam* recipe at the end of this article). Kids would line up and a spoonful of the *lehyam* would be scooped out of the steel *dabba* (container) it was stored in, shaped into small marble-sized balls, and plopped into the little outstretched palms.

We would swallow it or bite into it depending on how fond we were of the *lehyam* and then rush off to greet our friends and cousins and extract every bit of



fun we could from that oh-so-special day.

PREVENTION IS BETTER THAN CURE

The wonderful thing about the Deepavali lehyam was that it was eaten first thing in the morning. Everyone knows they will overeat sweets, snacks and delicacies on Diwali. So the *lehyam* was the valiant soldier that kept guard in our tummies, daring any infection to enter. The ingredients in it were all natural and healing.

These ingredients were guaranteed to withstand the onslaught of sweets, mounds of *murukkus* and mixture we would stuff our faces with. Also, thinking back, I feel the ingredients in the *lehyam* also acted as a protection against the creeping chill in the air as Diwali usually heralds the winter months.

How wonderfully wise our elders were! They knew better than to try and prevent overeating, that would be so unfair more so since the smells of the frying goodies pervaded our homes a full week or even a fortnight before. Everyone would have exercised utmost restraint until the morning of Deepavali after which there were no rules!

So, rather than asking us to eat less, which would have been a silly thing to do, the wise women in the family would strike a bargain – “Eat the *lehyam*, and you can eat all you want the rest of the day,” they would declare. How could one resist that offer!

DEEPAVALI LEHYAM

Not that the *lehyam* was an unpleasant thing to eat. It looks like chyawanprash and has a distinctive tang, pungent and sweet all at the same time.

Some of the ingredients I remember that went into it were coriander seeds, black pepper, ginger, cloves, carom seeds (*omam* in Tamil and *ajwain* in Hindi), cumin seeds, jaggery, arisi and *kandha thippili* the bark and the dried fruit of the piper longum plant, chitharathai or lesser galangal, and of course, the omnipresent ghee and then some honey.



I have a vivid recollection of the tiny twig-like *thippili* sitting pretty amongst a host of others in a small shop in the Coonoor market, years ago, that smelt divine with unfamiliar fragrances. I don't know how many of those ingredients are lost to us forever. They were once an indispensable presence on the kitchen shelves at home to prevent colds, indigestion, fevers, soothe various kinds of pains, nourish the pregnant and the lactating mothers, strengthen bones, enrich the blood, and so on.

So many of our traditional everyday foods were medicinal. I actually have no real recollection of a medicine cabinet or a medicine box growing up.

Coming back to the *lehyam*, I requested Lalita Mami to share her recipe which she did generously. Not just that, she also patiently explained how each ingredient in it had a role to play. The turmeric was a healing agent, she pointed out.

The *chitharathai* and the *thippili* were cold and cough slayers, the pepper and ginger as we all know took care of that pesky cough, the *gale mein khich khich* (throat irritation), and the *athimathuram* (liquorice) took care of wheezing from inhaling all that smoke from fireworks. In its entirety, the *lehyam* fortified our digestion.

Lalita Mami told me that nowadays ready made powders were available that one just had to mix together to make the *lehyam*, but to my mind that would lose so much of the enchantment associated with Diwali.

Maybe next year, I shall try and make it myself. I feel I have a responsibility to keep the good and meaningful traditions alive, traditions that stem from sound sense. Like the Deepavali *lehyam*, that is drawn from natural foods, is sustainable, seasonal and local, tastes delicious and fortifies our planet along with our digestion.



LALITHA MAMI'S RECIPE

Mami said she rarely measured ingredients and used her eyes and hands to tell her the right amount, but she kindly worked out the approximate measurements for me. She also added that the recipes differed almost home to home. People added raisins, dates and so on, and that was the cook's prerogative to improvise as she or he went along.

INGREDIENTS

Ginger 100 grams: To be peeled and soaked for at least an hour. Separately, soak overnight and grind together:

Coriander: 2 tsps

Black whole pepper: 2 tsps

Cumin/Jeera: 2 tsps

Ajwain: 2 tsps

Cloves: 4

Cardamom: 2

MAKE A SYRUP WITH:

Jaggery: 250 gms

Water: Just enough to dissolve the jaggery and bring it to a boil

TO BE ADDED LATER

Athimathuram powder: 2 tsps

Chitharathai power: 2 tsps

Dried ginger powder: 1 tsps

Turmeric powder: 1 tsp

FINAL TOUCHES

Gingelly oil: 2 tsps

Ghee: 2 tsps

Honey: 2 tsps

PROCEDURE

- Grind the ginger into a smooth, buttery paste.
- Grind the coriander, pepper, cumin, ajwain, cloves, cardamom along with half a glass of water till smooth.
- Prepare a syrup with the jaggery and enough water to help it dissolve.

Put the smooth and buttery ginger paste into a hot pan. Add the coriander, pepper cumin....paste to it too. Cook for a while stirring continuously. It will thicken at which point add the powders to it and cook till the mixture thickens further and becomes viscous. Turn off the heat and add the ghee, gingelly oil and honey to it, give it a brisk mix and allow to cool before storing it. The *lehyam* lasts for a long time.





STORY 2

WINTER FOOD IN UTTARAKHAND IS FULL OF BEANS

Locally grown vegetables, fruits and herbs provide sustenance, nutrition and warmth in the cold months to the mountain people of Uttarakhand.

Megha Prakash
Dehradun, Uttarakhand



The Garhwali *thali* that *Desi Chulha* serves up is popular, going by the line of people waiting to enter the restaurant that is located on the way from Dehradun, the capital of Uttarakhand, to Mussoorie.

A handwritten board outside lists the specials of the day, that include *kafuli* and *gahat* or horse gram soup. *Kafuli* is a thick gravy preparation made from green leafy vegetables like spinach, fenugreek leaves, and nettle grass.

Kumaon and Garhwal, the two administrative divisions of the Himalayan state of Uttarakhand, have their own distinct culture and food, and both rely on the rich haul of tubers, lentils, pulses, beans, green leafy vegetables, citrus fruits, and spices, available to them, that make their food simple, rustic, yet hearty.

In fact, most of the ingredients used in Uttarakhand, like the beans, are a rich source of high protein and dietary fibre. And many of the winter dishes include one or

the other of nearly 220 varieties of beans cultivated in the state. Almost every mountain village and valley has its favourite variety and recipe using the beans.

Bhat or soybean for example is loaded with iron. Green leafy vegetables such as spinach and amaranth are again rich in essential vitamins and minerals. The often used nettle grass is known for its anti-inflammatory properties.

Herbed and flavoured salts are another must during meals in the cold months. Besides adding flavour to the food, the salts are taken to induce thirst so that people remember to drink water. Otherwise, because it is so cold, people would forget to drink enough water.

Even the more widely known rajma (red kidney beans) comes in many varieties, with each one bringing a different flavour to the recipe. Rajma from Chakrata, Harsil, Uttarkashi and Munsiyari respectively, taste different.



Chemi are colourful and small-sized local beans that are soft and tasty. They grow throughout the hill state. Some local varieties range from white to a startling cobalt blue or orange in colour. “The seeds of these varieties are not commercially available but are passed down from generations,” Govind Prasad Kukreti, former *gram pradhan* of Chuna Mehedda, Pauri Garhwal, told *Gaon Connection*.

The beans are harvested in early September, their seeds collected and sundried before they are consumed. The white ones are called *rayans* which are used to make *khichdi*, added Kukreti.

Chemi that is a rich source of protein and vitamin A, is also used by the local people in performing *navgrah* pooja and can be eaten during fasts, added Kusum Bhatt, a resident of village Jakhogi near Dhanoulti in Tehri Garhwal.

Gahat or horse gram is also a firm favourite and used to make stuffed paratha, soups, *phaanu* or *phana* (a creamy lentil preparation).

WINTER FOODS OF NOMADIC PEOPLE

The upper reaches of Uttarakhand get snowbound in winters and the nomadic shepherds who make their homes in the pastoral lands, they call *bugyal*, start winding their way down to the lower regions. Their cuisine is very distinct. For example, the Bhotiya tribe, that resides in the Niti and Mana valleys uses *farani* or *jambu* to flavour lentils and soups. *Farani* is

The soybean, locally called *bhat*, both black and white varieties, is also immensely popular. In Kumaon for instance, the black soybean is made into a flavour some dish called *churkaani*, while the *bhatwani* is eaten in Garhwal.

“People sit together around the *angeethi* or wood fire stove and roast the black soybean on a griddle or a *tawa*,” Sarita Devi, from Chuna Mehedda village in Pauri Garhwal told *Gaon Connection*. “Just like families in the plains munch on peanuts, we *pahadis* eat roasted *bhat*,” she added.



an alpine herb, which belongs to the onion family. It only grows between 2,500 metres (m) to 3,000 m altitude in the central Himalayas.

During the harsh winter months, people in the hills cook with a lot of sun dried vegetables (prepared in the summer months) and even meat. For example, *meetha karela*, a sweeter cousin of the bitter gourd, which grows in abundance during the monsoons, is sun dried, and before cooking it is soaked in boiling water and then used.

In many parts of the state, *mungri* or corn is harvested, sun dried and later milled into flour for making *chapatis* or pancakes.

CITRUS COMFORT

A well-beloved winter delicacy of the Kumaon region is the *sana hua nimbu*. It is

a citrusy mix made from an indigenous variety of lemon. In Garhwal it is known as *khatai*.

The Kumaoni lemon or *Citrus pseudolimon* is a large-sized lemon much like its better known relative, *galgal*. The famous poetess and writer, Gaura Pant (Shivani) who belonged to Kumaon, in one of her narratives describes young girls sitting out in the bright sun, relishing the *sana*. Kumaoni lemons are abundant in the winters when the *sana* is prepared.

“Making and eating *sana* was a community affair,” recalled Sanjay Pant, who has his roots in Almora but now lives in Delhi. It is something people still sit out in the warm winter sun and relish, he added.

To make the *sana*, a special wooden bowl was used to toss the peeled Kumaoni lemon with the marinade made up of curd,



jaggery or sometimes honey, along with roasted hemp seeds ground together with ginger, Himalayan pink salt and coriander leaves, explained Pant.

Many people now add banana, pomegranate seeds and apple to the *sana* mix these days, added Bahadur Singh Bisht, who works with the agriculture department in Almora.

In Pauri, instead of curd, a dash of mustard oil is added to the marinade, said Vimala Rawat, a homemaker in Dehradun. In parts of Tehri and Uttarkashi, grapefruit and 'malta' or blood oranges, a native to Uttarakhand is also used, all rich sources of Vitamin C.

WARMING TUBERS

Tubers abound in the hills of Uttarakhand. In winters, *gaithi* or air potato is widely consumed, for warmth. Unlike other tuber varieties, *gaithi* is a climber belonging to the yam family *Dioscoreacea* and is native to Africa, Asia, and Northern Australia.

"In Haldwani in the Kumaon region, almost every household grows the *gaithi*," Ishwari

Singh Bisht, a retired plant scientist from Bhowali-based National Bureau of Plant Genetic Resources, told *Gaon Connection*. The tubers are boiled, peeled and tempered with *jakhiya*, a spice commonly used here along with coriander, turmeric and red chillies.

Another popular tuber is *kachaloo*. "The best *kachaloo* grows in Dwara Samoli in Maldevta. They are buttery soft and do not cause any throat irritation that other tubers sometimes do," Pankaj Dawar, a wholesale vegetable dealer in Dehradun's Niranjanpur mandi told *Gaon Connection*.

Tairu, *kuchai* and *pindaloo* belonging to the colocasia family. *Kuchai* is usually only used in pickles, according to Sobat Singh, owner of atiny tea stall in Rautu Ki Baeli, a village located on the way to Tehri.

The stems of *pindaloo* are made into *naal badi* or nuggets with lentils, usually, black gram or urad. The leaves are smeared with a batter of gram flour and spices, wrapped and steamed, and made into *patyud* or *patode*.





STORY 3

THE SIGHTS, SMELLS AND TASTE OF CHHATH

*Be it Houston or Hazaribagh, the sights, smells and taste of
Chhath Puja celebrations have a comforting sameness.*

Shillpi A Singh



Festivities fill the air when Chhath is celebrated in Bihar, Jharkhand and parts of Uttar Pradesh. The preparations for the four-day long festival dedicated to Surya Dev (Sun god) and Chhathi Maiyya start soon after Diwali in the month of Kartik. It is widely celebrated in Bihar, Jharkhand and Uttar Pradesh.

The prayers begin on the fourth day after Diwali and conclude with *arghya* to the rising Sun on the seventh day.

As it is with any Indian festival, Chhath too comes with its complement of special foods. The dishes are *sattvik* (without onion, garlic and spices), and each day of the Chhath festival has a different menu.

Apart from having ritualistic significance, these food items also have several health benefits.

DAY 1: NAHAY KHAAY

The first day of Chhath Puja falls on the fourth day after Diwali and is called *nahay-khaay* (bathe and eat). The devotee stake a dip in a river if there is one near them, or sprinkle Gangajal.

Folk singer Sharda Sinha, who has sung several Chhath songs, told *Gaon Connection* that she remembers walking long distances in her in-laws' village in Patna district, Bihar to fetch the holy water in brass pots from the Ganges, along with others who were fasting.

After the bath, devotees prepare *kaddu-bhaat* (bottle gourd with rice), and have it after offering it to the deity.

"In Mithilanchal, it is called *arwa-arwain* because only *arwa* rice is used. The meal



DAY 2: KHARNA

The second day of Chhath is known as Kharna or Lohanda, when devotees break their fast after sunset. They cook *kheer-roti* (rice pudding made with jaggery and *chapatis* smeared with *ghee*) or *poori* on a clay stove and offer it to the deity on a banana leaf, along with bananas.

“The *vрати* has to eat the prasad in silence, after which the prasad is distributed to others in the household and in the neighbourhood. It is the only meal to be had that day,” explained Sinha.

The one who fasts stays awake through the festivities and has to sleep on the ground. “I remember collecting *pual* (dried, yellowed stalks from crops) from the fields for my mother. It gave warmth during the winter night so that she could rest for a while, and prepare for the arduous day that lay ahead,” recalled Amrendra Sharma, an actor from Pashchim Champaran in Bihar.

holds significance for a *vрати* or *parvatin* or worshipper. It is a preparatory step before embarking on a fasting journey of 36 hours,” said Sinha. According to her, such a meal cools the stomach, tempers the taste buds, and purifies the digestive system.

People also cook *chana dal* (split chickpea lentils), while in some households *moong dal* (yellow lentils) is prepared. Often, bottle gourd is prepared along with split chickpea lentils.

After eating on *nahay-kahaye*, sometime around noon, the *vрати* starts the *nirjala* or the waterless fast.

“Where *pual* isn’t available, a blanket is put on the floor as wool is considered pure,” Kamakhya Narayan Singh, the Guwahati-born film maker from Mumbai, told *Gaon Connection*. Singh now uses a stove instead of a clay *chulha* to cook Kharna *prasad* in Mumbai. He has been observing the Chhath fast for the past five years now.

DAY 3: SANDHYA ARGHYA

The third day of Chhath Puja is spent preparing *khasar* (small balls made from rice flour and jaggery) and *thekua* (made from jaggery and wheat flour).



“The wheat flour used for *thekua* is coarse. We have places in Mumbai where the machine is thoroughly cleaned, before the wheat is ground for Chhath,” said Singh.

Meanwhile, folk singer Sinha narrated how the *vрати* stayed awake at night singing songs and making the *prasad*. Once the *prasad* is prepared, the *daala* is readied for the evening *arghya*. Chhath *daala* is the offering of seasonal fruits and vegetables to the deity. “These include turmeric, ginger, sweet potato, radish, yam; gram and pea, water chestnut, sugarcane, *gagra nimbu* (lemon), coconut with husk and water, banana, custard apple, and dry fruits,” Ravi S Sahani, Patna-based photographer, told *Gaon Connection*.

Some people offer *arghya* in a brass soop, while others use a bamboo soop; both are considered pure. “People also buy a clay elephant that comes with a big *diya* (earthen lamp) fixed atop it for Chhath

Puja. The red/pink *aarta patra* made from the akwan plants is a must. Local artisans make them,” he added.

The beautifully decorated soops with the sweets, water, milk and earthen lamps, are taken to a water body, where the *vрати* in new clothes stands knee-deep in water and offers them to the setting Sun. “Those who stay in the city like me and can’t go to a water body to offer *arghya*, do it on their terrace,” explained filmmaker Singh.

DAY 4: USHA ARGHYA

The last day of Chhath Puja starts soon after midnight when the *vрати* prepares the *parna* (meal to break the fast), and then readies the soop afresh. At dawn, the *vрати* makes the offering to the Sun god and this marks the culmination of the festival.

People break their fast with *sharbat* (juice), sprouted grains, cucumber, and *prasad*.



“All these have a cooling effect on the stomach that has not received food for 36 hours at a stretch. These foods are light for a *vрати* to digest,” Sinha said.

This is followed by a full course meal that includes rice, dal, green veggies, including *bachka*, *tarua* and *tilkor*. “We also prepare fritters. And serve them with curd and chutney. The food is meant to tickle a *vрати*’s taste buds,” the folk singer added.

Singh breaks his fast with *thekua*, jaggery and warm water. He said he always looked forward to the feast that followed. It includes *kadhi-badi* (a traditional blend of a spiced and creamy yoghurt curry along with crispy chickpea flour fritters), *kohda* (pumpkin), *ole* (Elephant Foot or yam) and *aloo-gobhi* (potato-cauliflower) with a generous helping of rice.

In some homes the *vрати* breaks the fast with ginger and warm water. A predominantly vegetarian meal is cooked, but along with it is also served fish curry and rice that is considered a good omen like it is in actor Sharma’s home.

“It is mandatory to have fish and rice by the *vрати* that day,” he said.

This last feast sees the conclusion of the Chhath celebrations, till the following year.

Jai Chhathi Maiya!

CHHATH RECIPES

THEKUA

INGREDIENTS:

Jaggery 500 g

Coarse wheat flour 1 kg

Fennel seeds

Water

Heat a little water in a pan, add jaggery to it so that it dissolves. To check the consistency of the mixture, dip your index finger and using your thumb, stretch that drop to see if it makes threads or not. The proportion of jaggery and flour is 1:2. The jaggery shouldn’t make threads.

Add fennel seeds and jaggery syrup to the dough, and knead it hard. Ghee (clarified butter) doesn’t have to be added to flour if it is for the deity, but otherwise, feel free to add ghee to make the *thekuas* crispy. Make small balls of the dough, flatten them on the *thekua* mould, and press. The imprint gives it a dash of festive flavour. Deep fry it in ghee (for puja) or refined oil (otherwise) in a *kadhai* till deep brown. Keep the fried ones on a paper napkin or cloth napkin for the oil to drain, and it is ready to serve.



KOHDABI SABJI

INGREDIENTS:

Pumpkin (500 g)

Panch phorna, which is an aromatic blend of five whole seeds – **jeera** (cumin), **methi** (fenugreek), **kalonji** (nigella sativa), **saunf** (fennel) and **rai** (mustard)

Ghee 2-3 tbsp

Red chillies (dried): 2-3

Salt a pinch

Jaggery or sugar (not more than 20g)

Cut the pumpkin lengthwise without peeling off its skin, and then into small square pieces. Heat ghee in a *kadhai*, add *panch phoran*, chillies, and once it splutters, add the neatly diced vegetable, mix well. Add turmeric, salt and cover it with a lid and let it simmer on low heat. When pumpkin becomes soft, add jaggery, and mix well. It will leave some water, you could increase the flame to dry that moisture. Once the pumpkin changes texture and colour, it is ready to eat.





FOOD 
**Festival
and
Culture**

STORY 4

IN PRAISE OF BONBIBI, THE PROTECTOR OF THE SUNDARBANS

*For those who depend on the Sundarbans for their livelihood,
Bonbibi, they believe keeps them safe from predators.*

Rafiqul Islam Montu
Koyra, Khulna, Bangladesh



The air is cool, and smoke rises from the stove in Krishna Rani Mandal's well-stocked, crowded tea shop in Charamukha village, on the banks of the Kopotaksh river. The shop is decorated gaily and the mood is festive. The biggest and most popular Bonbibi Mela in Dakshin Bedkashi Union of Koyra Upazila in Bangladesh, is underway.

In the Sundarbans delta, divided between India and Bangladesh, Bonbibi is the Goddess of the Sundarbans, the world's largest mangrove forest. Every year, on January 15, she is feted and worshipped in coastal Bangladesh. The villagers pray to her for safety in the forests and a good income.

While Krishna pours out hot tea from the kettle, a short distance away is Satish Chandra Moira selling sweets in his shop. The toy shops are crowded too. There's food, toys, pottery and more, besides competitions and cultural events.

The *mela* draws thousands of people and is centred around the worship of Bonbibi.

"Bonbibi is worshipped in these parts by everyone, irrespective of religion and caste," Shasodhar Chandra Sana, the 50-year-old priest of the Bonbibi temple at Charamukha village, told *Gaon Connection*. The priest narrates the story of Bonbibi to the devotees gathered there.

Twenty five kilometres from Koyra Upazila, 45-year-old Karuna Rani Sana pays obeisance to the deity at the Bonbibi temple in Matiabhangra, a remote village near the Sundarbans in Khulna district of Bangladesh, about 220 kilometres from national capital Dhaka.

"There is no one to protect the Sundarbans. Who will save us when we are attacked by tigers and crocodiles? Bonbibi is our hope," Karuna told *Gaon Connection*. "She is the one who can save the Sundarbans from



danger. So, I pray to her. The first Magh of Bangabda [January 15 as per the English calendar] is very important for us," she adds.

Karuna lives in Matiabhangra in Dakshin Bedkashi union of Koyra *Upazila*, where the river Shakbaria flows past the village. The Sundarbans is just across the river and most of the people in this area depend on it for their livelihood.

Some catch crabs, some fish, and others go to the forest to collect honey. And,

whenever they enter the forest it is not without fear of the lurking tigers and crocodiles. But, they believe Bonbibi protects them.

HOW DID BONBIBI WORSHIP COME ABOUT?

According to the Bonbibi Panchali (loosely translated as narrative or story), the Bonbibi temple has the idols of Bonbibi's brother Shah Jangli, Gazi Aulia, son Dukhi, his two uncles Dhan and Mann and, Dakshin Roy the evil one, represented by the tiger.

There are many origin stories, and here's one of them. Many years ago, an underprivileged mother from a village near the Sundarbans took her baby son Dukhi to the forest to collect honey from two businessmen Dhan and Mann.

The mother told the child that he had "another mother like me in the Sundarbans. If you are in any danger, you will call that mother". One night, Dakshin Roy appeared in a dream to Dhan and Mann and told them to sacrifice Dukhi if they wanted to become rich. Remembering his mother's words, Dukhi called out for help from his 'other mother', Bonbibi and was saved by her. He was safely transported back to his mother on the back of a crocodile. And, Bonbibi earned the status of a goddess.

BONBIBI MELA

Bonbibi *mela* is held at various locations. In Charamukha village, the fair is organised in the open field on the banks of the river Kopotaksh, where also stands the Bonbibi temple.



Thousands of people gather at the fair ground adjacent to the Sundarbans in South Bedkashi Union. The road is eroded, some repair work is on, but nothing dampens people's enthusiasm. For, once the front gate is crossed, everyone has eyes only for the divine Madhumajhi Bonbibi Mandir, which has been seeing people turn up for about 140 years now.

Rafiqul Islam Khokon, director of Rupantar, a not-profit working in the Sundarbans, said history and faith are intertwined in the Bonbibi Puja. Poet Shamsur Rahman, chairperson of Dakshin Bedkashi Union, said many people take vows at the Bonbibi temple, and fulfil them when their wishes are granted.

Usually, what they wish for is just survival. They pray to Bonbibi to protect them as they go into the Sundarban forests to gather honey or firewood for a livelihood. They know that the forests are as perilous as they are giving.





STORY 5

PONGAL O PONGAL: ADD SWEETNESS TO YOUR LIFE

Households across Tamil Nadu cook sakkarai pongal as a thanks giving to the farmers who put food on our plates.

Pankaja Srinivasan
Coimbatore, Tamil Nadu



In homes across Tamil Nadu and in the other south Indian states as well, kitchens are stocked with yellow moong dal, rice, quantities of jaggery and *ghee* (clarified butter) – basic staples that every farmer household will have in its kitchen too.

These are used to cook the *sakkurai pongal*, a nutritious, hearty offering to give thanks and celebrate a successful harvest.

On January 14, in many households, a big pot, preferably in earthenware, is decorated with vermillion and turmeric. Around the neck of the vessel is tied raw turmeric rhizome with leaves intact – an important component of the *Pongal* ritual, as with its antibacterial properties, turmeric signifies a disease-free, healthy year ahead.

A few pieces of sugarcane is tagged on to the sides along with a couple of bananas

and the rice, dal and jaggery are kept in readiness. There are dry fruits fried in ghee waiting to be used, cardamom is powdered, and saffron taken out of its precious container, if one is feeling expansive.

Making *sakkurai pongal* has been a part and parcel of my life for as long as I can remember it. Along the way, I took shortcuts, discarded rituals of tying sugarcane and raw turmeric around the vessel, or decorating it... till I came back to Tamil Nadu, put down roots in Coimbatore where friends still have strong rural ties, and where I learnt so much more about farmers, farming, harvests and cattle.

One enduring childhood memory is of my grandmother serving this luscious dessert in a silver bowl, dark brown and glistening, with fat cashew nuts fried to a golden



A week before the festival, the elders in the family start looking up the auspicious time to 'keep' the *pongal*. At the appointed hour (as dictated by the *panchangam* or the Hindu almanac) water in which rice has been washed is poured into the pots with a little raw milk and placed on a wood-fire. The momentum and anticipation builds up as the water and milk mixture starts bubbling and frothing and begins to rise up. Then, with a hiss, the mixture flows right out of the pot and cheers of *Pongal O Pongal* go up loudly.

The overflowing pot represents a plentiful and bountiful harvest. Half the water is then decanted and three fistful of the just-harvested rice are added to each pot. More rice is added along the way with the dal and allowed to cook well followed by jaggery and ghee. The powdered cardamom, the cashew and raisins that have been fried in ghee are put in, the mixture thickens, is taken off the fire, it is topped with a generous helping of ghee and the beautiful, shiny dark brown *sakkarai pongal* is distributed on banana leaves to the gathering of villagers who eat it with heartfelt gratitude for the good harvest.

brown on top. I can still remember the heady aroma of ghee, cardamom and jaggery filling every corner of my grandmom's home.

In the villages, sometimes, there are usually three decorated clay pots or *vengala paanai* (bronze vessels usually handed down generations) that are positioned facing the east. One will hold an offering to the sun god who is making his northward journey, ending the cold winter days and ushering in warmth; the second one is to propitiate lord Ganesha believed to remove all obstacles, and the third pot is offered to the village deity.

In urban homes, the same *sakkarai pongal* is made and savoured. It is a time to remember the farmers with gratitude for putting food on their plates.

It is also a time to celebrate indigenous grains and produce and bring back the smells and tastes of a time that was slower, more meaningful and joyous, and which at every turn acknowledged the pivotal role farmers played in our survival.



SAKKARAI PONGAL RECIPE

I now make the *sakkurai pongal* in a pressure cooker (despicable me!). And here's how.

INGREDIENTS:

Rice: One cup (preferably a non-fragrant rice)

Broken yellow **moong dal:** half cup

Jaggery: One cup (this is debatable, as some like it much sweeter so they lay on the jaggery)

Green cardamom: A couple powdered

Cashew nuts and raisins: The more, the merrier, fried in ghee.

Ghee: three fourths cup (you are welcome to add more)

A few strands of **saffron** dissolved in milk (optional)

Milk: Half cup

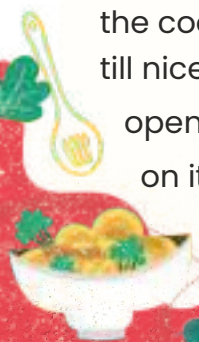
PROCEDURE:

- Wash the rice and moong dal well. Put it in the cooker with four cups of water and cook till nicely done. You could also cook it in an open vessel/pot and keep a careful eye on it.

- Meanwhile, fry the dry fruits in ghee and keep aside, along with the powdered cardamom
- Dissolve the jaggery in a little water, and sieve to eliminate any grit
- When the rice/dal mixture is cooked well, add the jaggery solution to it, mix well and allow to simmer for a while. Ensure the raw taste of the jaggery goes.
- As the mixture begins to boil and plop, add the dry fruits, the saffron and the cardamom. Turn off the heat, add milk and mix well.
- Portion the *sakkurai pongal* into squares of banana leaves, or your prettiest dessert bowls, drizzle more ghee on top and it is ready to eat.

Just so one remembers, the sweet also comes with the salty experiences in life, many families also make the *ven pongal* or the savoury version. Barring the jaggery, cardamom and the saffron, everything else remains the same as the *sweet pongal*.

The savoury pongalis served usually with seasonal vegetables such as red pumpkin, broad beans and greens.





VEN PONGAL RECIPE

INGREDIENTS:

Rice: One cup (preferably a non-fragrant rice)

Broken yellow moong dal: half cup

Whole Black pepper: five or six

Cumin seeds: half teaspoon

Cashew nuts: A couple of tablespoons or more

Ghee: A cupful at least

Salt to taste

PROCEDURE:

- Boil the rice and dal together with enough water to cook them well but not too mushy. Add salt to taste
- In a pan melt the ghee and once it is hot enough add the pepper roughly pounded along with the cumin
- Add the cashews and fry till they are a golden brown
- Pour the ghee with all its fragrant contents on to the rice and dal mixture, mix well and it is ready to eat.





STORY 6

WHEN A BANYAN WEDS A WELL, GODS SMILE

In the ritualistic wedding of a water resource with a tree, lies a significant environmental message.

Shillpi A Singh



Then there are those grooms and brides who gaze eternally at each other, without ever speaking... or moving. This is what happens when wells wed banyan trees in the villages of Bihar and Jharkhand.

Kuan vivah, is a custom where a well, freshly dug, goes through a ritualistic wedding ceremony. “The ‘wedding’ is meant to purify the water and make it potable. This custom is part of our *lokachar*, and has been handed down to us from one generation to another,” Ashok Kumar Pandey, a priest from Deoghar, Jharkhand, told *Gaon Connection*. “Using the water from a *kunwara kuan* [unmarried well] doesn’t augur well. We need water from a ‘married’ well to keep the deity happy,” Kumar explained.

One such grand *kuan vivah* took place in Vikas Nagar, Patna district. First the

wedding date was decided in consultation with a local priest, just like it is done before people get married. Each household in Vikas Nagar contributed Rs 500 for the event.

“A sum of fifty five thousand rupees was collected from local residents, while the remaining amount of about a lakh rupees came from donations by affluent villagers,” Pankaj Kumar, a resident of Vikas Nagar, told *Gaon Connection*.

Sharmila Kumari, another resident of Vikas Nagar described the wedding celebrations. According to her people from five villages took part. The function began with an *akhand path* (continuous chanting of hymns). There was even a *haldi* ceremony. The wedding procession had about 100 people in attendance, 50 from the bride *kuan*’s side and 50 from the groom’s, the



banyan tree.

“The *baraat* (procession) started from Anugrah Narayan Singh College, Barh, and reached Vikas Nagar late in the evening, and the banyan groom was finally married to his well. Taking on the role of parents were some village elders. The residents enjoyed a lavish spread, and a DJ regaled guests and hosts,” Kumari told *Gaon Connection*.

FOND MEMORIES OF A WEDDING

Mumbai-based Sonali Kumar’s eyes twinkle as she recalls how she and her siblings

proudly hosted one such wedding in their new home in an old-fashioned neighbourhood in Dhanbad (present-day Jharkhand state), in the late eighties.

“The wedding of our well and banyan tree was solemnised during the house warming of our new home. We could move in only after that ritual was complete. I remember nagging my grandmother with endless questions. I wanted to know if the well was the bride or groom; who was the ‘bride marrying’ and would she be sent away after the wedding,” Sonali laughed.

Eklavya Prasad, managing trustee of Megh Pyne Abhiyan, a non-profit that works on issues of water distress in East India, said: “The intent behind organising a well’s wedding is to rejoice at the water source’s existence, accept the responsibility of protecting its purpose, ensure intergenerational transfer of collective responsibility, and the continuity of the water source.”

Ekanand Pandey, another priest from Dhanbad, said the wedding was to appease the water God Varuna and other deities and seek blessings for a new beginning. “The banyan tree represents the Trimūrti – the three lords of cosmic creation, preservation and destruction, Brahma, Vishnu and Shiva,” he added.

COLLECTIVE RESPONSIBILITY

The village well or pond is a highly revered space. “The sustained use of common pool sources such as water bodies – pond (*pokhar*) and dug well (*kuan*) – was ensured through collective operation and



before a boy's wedding in rural Meerut in Uttar Pradesh.

Ghaziabad-based sexagenarian Rajeshwari Singhre members the Kuan Poojan organised on the 11th day of the birth of both her sons. "Invitations were sent out to all in our ancestral village of Behlolpur in Mawana Tehsil, and there was a lot of fanfare. In Kuan Jhotai that precedes a wedding, the groom's mother goes to a well saying, 'I will jump inside if you don't bring a bride home,' and her son has to persuade her to return. It is a fun ritual among the rural populace." Both these happen to the accompaniment of traditional folk songs sung by womenfolk.

shared maintenance protocols and practices. And, they were primarily controlled by religious, cultural and even ecological value systems," Prasad explained.

The element of celebration and festivity has proved a game-changer when it comes to ensuring maintenance of water sources. Prasad's organisation had introduced the practice of celebrating water through the Jal Mahotsav in Bihar, way back in 2007.

Agra-based mythologist Pratul Vishera said the reason for all these functions was that water is a vital natural resource no one can live without. "By worshipping water before any good deed, a person invokes the water deity and seeks its blessings. There is no running a household without water," Vishera added.

The water festival was organised in partnership with local organisations in a few *panchayats* of Supaul (Gramyasheel), Saharsa (Kosi Seva Sadan), Khagaria (Samta), Madhubani (Ghoghardiha Prakhanda Swarajya Vikas Sangh) and Pashchim Champaran (with SAVERA and Water Action) as a precursor to dialogue and interaction around water at the *panchayat* level. "The celebrations were of immense help in facilitating the dialogue," added Prasad.

Vishera added that in some cases, a person who is considered Manglik is also married off to a well. "Some places in Rajasthan follow this custom," he said.

IT'S CUSTOMARY

While *Kuan Vivaah* is a must for a housewarming, *Kuan* or *Koop Poojan* is celebrated when a male child is born in north India, and *Kuan Jhotai* is done

Prasad, however, rued that the spirit of these customs were getting lost in the race for modernity. "The increasing disconnect between the users and local water sources has started to erode. The fear is that both will cease to exist soon. There is a definite need to preserve the past in the present for a healthy future," he said.



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