

When T. Govindarajan, 51, began growing coconut saplings alongside the groundnut crop on his 1.5 acre plot in Orathanadu, Tamil Nadu, nearly two decades ago, he thought he was making a safe bet on his future. A decade later, as the tall trees completely replaced the groundnut crop, his portion of land, though not large, began to provide a stable income that allowed him to dream of better things for his family. "I have two sons. One in class 11, and the other in class 6. Both go to a private school. Every other investment I have been able to make is thanks to this coconut plantation."

Standing under a cloudy sky that now casts a forbidding pall over the Orathanadu region near Thanjavur district, Govindarajan can only look on helplessly as his coconut farm lies flattened. It was just another casualty of Cyclone Gaja which ripped through the delta districts of the State about 10 days ago.

As farm hands work to clear away fallen leaves and tree trunks, he trades stories with other farmers whose plots adjoin his. They talk about B. Sunderraj, a farmer, who is said to have committed suicide over the loss of his coconut trees. And of the plight of N. Karunanidhi, also from their village, who was planning to sell an acre of his coconut farm in order to conduct a grand wedding for his daughter but can no longer do so. They speak with an anxiety about the future, and about the possibility of planting hybrid varieties of coconut saplings that would provide yields quicker. As they talk, they cannot help but acknowledge a grim reality – that they too are not safe from the agrarian distress that has affected paddy farmers in the region.

Blown away

In the deluge of reports about the destruction wreaked by Cyclone Gaja, there is one statistic that stands out, and is also viscerally evident – that it felled 60-80% of all coconut trees in the region. Initial estimates by the State government show that around 75 lakh coconut trees were damaged either fully or partially in the gale winds.

Initially, Gaja was forecast to affect the area around Chennai and Puducherry, but made landfall further south on Tamil Nadu's east coast, covering the districts along the State's famous East Coast Road. The districts affected most severely include Pudukkottai, Thanjavur, Tiruvarur and Nagapattinam. The last three make up what is known as Tamil Nadu's delta region, encompassing the lower reaches of the Cauvery river. Of these, Nagapattinam, the worst affected, falls on the coast line, with Gaja making a direct line inward over Tiruvarur and Thanjavur. Famous for rice farming, these areas have also begun contributing up to a quarter of India's total coconut production, with the highest yield per hectare.

In field after field of coconut trees across these districts, which have been either uprooted or stand tilting dangerously, the same story repeats itself: of marginal and small farmers affected by changes in climate and weather patterns. It has been difficult for them. When the frequent failure of the monsoons forced them to diversify their crop patterns, recurring cyclones could threaten to blow all their work away.

About 30 years ago, farmers from various towns in the region, including Pattukkottai, Thambikottai, Peravurani and Orathanadu began the switch to coconut plantations. The move was prompted by uncertainty over the release of water from the Mettur dam following the dispute between Tamil Nadu and Karnataka over the sharing of Cauvery river water. In subsequent years, as rainfall patterns became more erratic, farmers with smaller holdings also wanted an alternative. Says V. Narayanaswamy, a schoolteacher who also started growing coconuts on his two acre plot some years ago, "For many of us, apart from the water issue, paddy farming was just too labour intensive. Regardless of how much we made on the paddy, we could still end up with a loss after paying for the labour." Farmers in the region also took a collective decision: first to grow trees such as jackfruit and coconut along with the regular crop, and then to move into coconut farming wholesale.

The State's granary

This region, famous for its fertile soil, has always been known as the rice bowl of Tamil Nadu. But the character of its landscape is changing as fields of green paddy now share space with an expanding number of groves and orchards. To go with the burgeoning coconut plantations, farmers in towns like Vedaranyam, Katipulam, Chembodai and Pushpavanam in Nagapattinam district were also expanding farms with fruit trees such as mango, cashew nut and tamarind. However, it was coconut that made the most economic sense. Unlike paddy crop, which provides a yield every six months and is water intensive, coconut trees, which are a perennial crop, provided fruit every two months. "A raw coconut would fetch anything between ₹12 and ₹18," explains Narayanaswamy, with the husk being sold at ₹1 a piece and the shell also being sold separately. Though the soil in this region is a bit saline and despite being away from the coastal region, the coconuts thrived. "Even for a farmer with about 1.5-2 acres of land, the trees would provide upward of 3,000 coconuts every two



Knocked out: "In the deluge of reports about the destruction wreaked by Cyclone Gaja, there is one statistic that stands out – that it felled 60-80% of all coconut trees in the region." Picture shows a ravaged coconut farm at a village in Tiruvarur district. • SHAJU JOHN

Destruction in the delta

As Tamil Nadu struggles to restore normalcy in the districts affected by Cyclone Gaja, **Jayant Sriram** and **B. Kolappan** report on the devastation visited upon the region's coconut cultivators, and how farming in this predominantly agrarian belt could be made more disaster-proof



are Ockhi, which struck in Kanyakumari in June last year, Vardah, which hit Chennai in late 2016, and now Gaja. This is quite apart from the fact that the Tamil Nadu coast has always been one of the most cyclone-prone regions in the country. Back in 1968, in the Tamil blockbuster, "Thillana Mohanambal", the heroine's mother mentions the place name Nagapattinam. In response, Nagesh, the comedian, quips: "Is a cyclone coming?"

Waiting for relief

Despite the region being cyclone-prone, the State government has hardly taken note of the fact that most houses in the villages of Nagapattinam, Thanjavur and Tiruvarur are thatched roof structures. Landless labourers make up about 31% of the population of these districts, and are the worst hit in times of both drought and cyclones. This is one of the few regions in Tamil Nadu which has remained predominantly agrarian. It has not seen the expansion of industry or the trend of land being sold for real estate. Those old enough to remember the cyclone of 1952 recall similar destruction, but not much seems to have changed since then.

In the immediate aftermath of Gaja, officials admit that the extent of damage has been beyond their comprehension. This despite their having taken active measures to establish emergency control centres in six coastal districts. Gagandeep Singh Bedi, an official in charge of rehabilitation in Thanjavur district, says the damage to property and infrastructure is 10 times more than what was caused by Cyclone Thane, which had hit the eastern coast along Puducherry and Cuddalore in 2011. At that time, Thane had become a reference point for disaster management officials, who had to contend with the loss of tree cover and destruction of numerous electrical posts and transmitters. If

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N. RANGARAJAN, Pudukkottai MLA and farmer

the overall damage to property in the delta districts is significantly worse, a big element of this is the destruction of virtually every thatched roof structure in these villages.

Two weeks after Gaja hit, people are still camped out in temporary shelters, all along the main roads in Nagapattinam, Tiruvarur and Thanjavur, waiting for relief materials to be handed out. These camps, each comprising 20 to 30 people, display signs that announce their having been affected by Cyclone Gaja and in need of assistance.

Many of them use the relief rations to cook food for people in the village. They are able to manage just one meal a day. The damage caused to the power supply means that there is no drinking water in many of these villages.

In several villages, for example, Rayanallur Katakam near Tiruvarur, most residents have had to sleep in some of the concrete structures that have escaped damage. In most of the houses, the roofs have either collapsed or the floors are too damp with heavy rains continuing in the area. In almost every camp, villagers say that relief workers travel along the main roads, refusing to move inside the villages and judge the extent of damage to the smaller houses.

In its report to the Centre detailing the damage caused by Gaja, the Tamil Nadu government has estimated the number of people rendered homeless to be 3.7 lakh, and houses destroyed at 3.4 lakh. The State has submitted a memorandum to the Centre seeking about ₹15,000 crore for restoration, rehabilitation and mitigation, and another ₹1,431 crore for immediate re-

lief work. These funds are imperative in order to re-establish a basic framework of normalcy – getting people back to their homes and restoring the supply of drinking water and electricity.

Across the cyclone-affected areas, perhaps the only sight as common as fallen coconut trees are damaged electrical transformers. According to figures available with the State government, the cyclone has damaged 201 power substations, upended 886 transformers, and snapped 53,21,506 electricity connections.

The Central government has sanctioned ₹200 crore to overhaul power networks in the region. Nearly 25,000 workers of the Tamil Nadu Generation and Distribution Corporation (TANGEDCO) are on the job. Trucks with teams of electrical workers are a common sight now across districts in the delta region. They are often accompanied by large truckloads of concrete pillars (to reconnect the wires) that have come in from neighbouring Karnataka, Andhra Pradesh and Telangana.

Cyclone Gaja has so far claimed over 40 lives, but the toll could have been much worse had it not been for the early evacuation of 2.5 lakh people. Given the extent of damage to property, it is clear that the State needs to come up with a more comprehensive disaster preparedness plan. This should start, first of all, with the rebuilding of houses to make them more weather-resistant. A step in this direction was taken when Tamil Nadu Chief Minister Edappadi K. Palaniswami announced on November 29 his government's decision to build one lakh concrete houses for those who had lost their huts in the cyclone. This is a start, but much more needs to be done.

He also announced that relief materials such as rice, oil and clothing would reach those who would have been affected within the next five days. So far, howev-

er, the distribution of relief materials has been sporadic at best, with some in the camps claiming that they get daily rations of rice, while others in the interior areas saying that they have to wait for hours just to receive even a couple of biscuit packets.

Question of compensation

There is also the larger question of damage to farm property and how the region will move forward. While paddy crop remains a huge risk, given the erratic monsoons, they can nonetheless be sown again the next year if affected by unseasonal weather. Coconut saplings, on the other hand, will need about seven or eight years to take full root and start providing a harvest. Most farmers in the region are still unclear about the level of compensation that the State government will offer for their crop.

The coconut producers union in Thanjavur says that it has asked the Coconut Development Board to raise the issue with the Union Agriculture Ministry and seek compensation to the fullest possible. The union says that the damage to coconut trees as estimated by the State government is about ₹3,000 crore. While farmers want between relief of ₹20,000 to ₹25,000 per coconut tree, petitions are being filed in district courts that seek an amount of up to ₹50,000 per tree. In neighbouring Nagapattinam, mango farmers, who claim that each tree used to yield a tonne of mangos in a year, are likely to demand more.

Going forward, crop insurance is likely to be a key factor in encouraging farmers to rebuild all that they have lost. Unfortunately, there is very little awareness about this except among paddy farmers who are more accustomed to the process of filing for insurance.

According to the Pudukkottai MLA, N. Rangarajan, who is also a farmer, the issue is being studied. "There are loan schemes for coconut crops from the Coconut Development Board and under the Pradhan Mantri Fasal Bima Yojana (crop insurance scheme), which has a coconut palm insurance scheme." Both offer very low amounts as compensation, he says and farmers in the region are looking at alternatives.

Rangarajan adds that he plans to encourage farmers to go in for cashewnut crop instead of coconut as they have low-lying branches and less likely to be affected by strong winds. "For the regions near the coast, however, there is no choice but to opt for coconut again despite the risk of another cyclone," he says, "as the soil type is best suited for coconut farming."

Institutes such as the Tamil Nadu Agricultural University, which had initially advised and helped many of the farmers to switch to coconut farming, can also play a role in offering help and advice, he adds.



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