

SAM PAUL A.  
ALAPPUZHA

When A.J. Joy and his family woke up on Sunday, it was raining heavily. That was normal during the monsoon months. The rain continued to batter his home for the following three days and the water level in the backwaters began to rise. That was unusual even for the sexagenarian, who has lived through several monsoons. By Thursday, Joy and his family had to leave their home at Zero Jetty as almost half of it had formed part of the vast watery expanse, like several other houses in the area.

Monsoon is part of Kerala's annual life cycle, but for Joy and thousands like him in Alappuzha, Kottayam, Pathanamthitta, Idukki and the coastal stretches across the State, there was some real surprise in store this year. Incessant rain lasted days accompanied by accumulation of water in every conceivable space, be they paddy paddies, rivers, wells, ponds or arterial roads. Farmers like him have lived with floods, but there was something starker in the experience this time, of water refusing to subside.

"There was a bund breach on Thursday and water started rushing in. The floodwaters partially submerged my house constructed on a higher platform. By evening, the rear portion of my house caved in and collapsed rendering us homeless. I have never seen my house flooded like this even though we live in a place surrounded by water and prone to floods," says Joy. Joy and his family are not the only ones who have experienced the district went through the most difficult of times this past week as heavy downpour and flooding engulfed the entire region, submerging houses, roads and paddy fields.

So what differentiates the current flood situation from previous such occurrences? According to P.A. Thomas, a seasoned farmer from Muttar, the intensity of rain has increased and become highly unpredictable. "It is not the first time that Kuttanad is facing a flood situation. Flood is a natural phenomenon occurring during a specific period of the year. It is part of our agriculture cycle and is a blessing

as the floods clean up the paddy fields and help in increasing productivity. But this time it has been different. It is only for the second time in the last 25 years that the entire Kuttanad has been ravaged by massive floods. Compared to the previous floods, one thing that stands out this time is the intensity of rainfall. Other than the seasonal rains, we are now experiencing unexpected downpours. This has increased flow of water from the eastern parts causing heavy flooding in Kuttanad," he says.

#### Climate change

Like most others, Mr. Thomas feels climate change is to blame for the present vagaries, but he also cites various other factors, including the construction boom and the lacklustre implementation of the 'Kuttanad Package' as other reasons that have aggravated the flood situation. "We need to construct more outer bunds to save our agriculture. But, at the same time, peo-



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ple should realise the fact that Kuttanad is a fragile ecosystem and should stop constructing concrete palaces. The Kuttanad package was seen as a last resort to save the livelihood of the people living in Kuttanad. Opportunity goes due to official apathy. Already the cultivation pattern has undergone drastic change with farmers giving up paddy cultivation during the second crop season due to unfavourable conditions. Soon, they might abandon Kuttanad and move to other places," Mr. Thomas, who is the secretary of Mulavanakary Padashekara Samithi, says.

The history of Kuttanad dates back to more than a century. Large parts of Vembanad Lake were reclaimed by local farmers for rice cultivation in the initial days. According to a study carried out by the Kerala Sasthra Sahithya Parish-

ad (KSSP) sometime ago, the water carrying capacity of the lake has diminished by 78%. The Vembanad Lake itself has shrunk from 36,000 ha. to 12,500 ha. owing to widespread reclamation and encroachments. After decades of human interventions, the government had come up with the Kuttanad package based on a proposal by the M.S. Swaminathan Research Foundation (MSSRF) to mitigate agrarian distress and restore the ecology of Kuttanad, a Ramsar site. However, what followed in the name of package implementation was a 'construction festival' in the form of concrete bunds.

#### Kuttanad package

Anil Kumar, director of Coastal System Research Programme at MSSRF, says the implementation of the package was totally flawed. "We had recommended ways to increase the income of farmers along with ecological strengthening. We had also proposed a mix of concrete bunds and bio-bunds using clay, mangroves and fruit trees planted with community participation. But the authorities overlooked the proposal for bio-bunds and focussed solely on concrete bunds. The recommendations for the restoration of the ecosystem and sustainable development were completely ignored. This has badly affected the wetland system."

N.C. Narayanan of IIT Bombay said better planning and proper disaster management should be introduced to tackle the situation. "It is a fact that there are variations in rainfall and the intensity of ex-beyond that, the Kuttanad ecosystem has deteriorated considerably due to human interventions. The construction spree, including that of bunds, roads and buildings, has adversely impacted the ecosystem. Unscientific practices and urbanisation of the region have affected the hydrological movements as well. Moreover, all canals and drainages are polluted and blocked, thus preventing the water flow. We should rise to the occasion as that is the only way to cope with the emerging threat. Better planning and proper disaster management is the need of the hour," Mr. Narayanan says.

## No escape from the rising waters

GEORGE JACOB  
KOTTAYAM

Sadar had closed his shop in the town and returned home a bit early last Tuesday. There was a steady downpour for the previous two days and business was affected. The water level was already on the rise, but Nattassery, where he stays, was safe from normal monsoon floods.

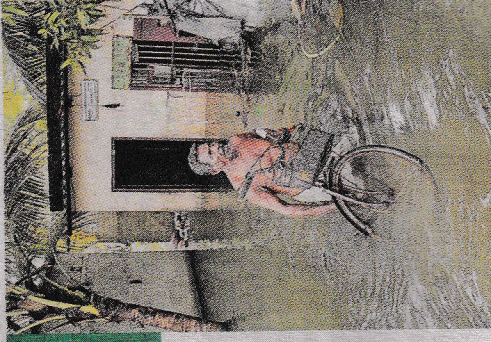
He woke up the next morning feeling rather odd. He got out of his bed to step into knee-deep water. He rushed out, and moved to a relative's house for the next three days. He returned home only after the water had receded, but he is still engaged in cleaning up the house for the umpteenth time.

The western low-lying areas of the district, which form the upper Kuttanad stretch, is not new to floods and heavy rain. However, this year it was different. Says Purnen Kurian Venkadath, director of Tropical Institute for Ecological Studies. "This season's rain reminded one of the 'Karikidakom rains' of yore. One of the reasons



could be the massive landslide near Erattupetta, the source of Meenachil river," he said.

With most of its first and second order tributaries in the highlands lost or encroached into, water had no other course but to flood the low-lying areas not only in the western boundary, but also in the middle, he pointed out. "The experience of Pala town is a classic example. Most of the tributaries have been lost and have given way to unchecked development. Naturally, the floodwaters continued to stagnate for an extended period in



### In troubled waters

- Heavy intensity of rainfall
- Farmers blame climate change and the construction boom for flooding
- Flawed implementation of Kuttanad Package

Vembanad Lake has shrunk from 36,000 ha to **12,500** ha

Water carrying capacity of Vembanad Lake has diminished by **78%**



A scene from Pala town last week.