

RIVER SAL ON THE BRINK: COURT STEPS IN AS SEWAGE, PLASTIC CHOKES LIFELINE OF SALCETE

Decades of neglect have turned the river into a dumping ground, endangering health and ecosystems. With residents and fishermen demanding action, the High Court's intervention offers hope—but will it be enough to revive this vital waterway? **KARSTEN MIRANDA** reports on the worsening crisis and the legal battle to save River Sal

For years, River Sal, a vital waterway in Salcete, has been under siege from unchecked sewage discharge, untreated wastewater, and plastic pollution, endangering both public health and the local ecosystem. Frustrated by years of inaction, residents of Margao, Fatorda, and surrounding areas have turned to the courts, seeking urgent intervention to address the crisis. At the same time, traditional fishermen are sounding the alarm over the devastating impact of pollution on marine life, particularly oysters and clams. In a significant development, the High Court (HC) of Bombay at Goa has stepped in, issuing strict orders to government authorities to tackle the pollution plaguing Salpem Lake and River Sal.

The sewage crisis is rooted in decades of systemic failures, poor infrastructure, and alleged negligence by authorities. The South Goa Planning and Development Authority (SGPDA), which manages wholesale and retail fish markets as well as vegetable and fruit markets, has operated without a waste treatment plant for 25 years. The lack of a proper sewage network has resulted in waste being dumped directly into nearby nullahs, which eventually flow into River Sal. Compounding the problem, the outdated and inadequate sewage system has forced vendors and businesses to release their waste into these drains as well.

Residents of Margao and Fatorda have pointed out that sewage from the KTC bus stand nullah and other connecting drains is also being funneled directly into the river. Untreated waste from the old market areas of Fatorda flows into a nullah along Colva Road, which empties into River Sal. The pollution has created an unbearable stench, particularly for residents of Madel living along Colva Road, who say their health is at risk. "We can't even open our windows in the morning. The government has done nothing to address our concerns," said a frustrated Madel resident.

Despite repeated appeals to the Margao Municipality, the Health Department, and the Goa State Pollution Control Board (GSPCB), residents claim their pleas have fallen on deaf ears. Locals allege that officials from the Sewerage Department deliberately open sewage chamber lids during the monsoon to prevent overflows, allowing raw waste to enter the river. "The unchecked flow of sewage is not only polluting the water but also destroying aquatic life and threatening Salcete's fragile ecosystem," said a resident.

Adding to the crisis is the rampant plastic pollution in River Sal. Locals report that plastic waste is found in nearly every stretch of the river, posing a severe threat to marine species. Despite periodic clean-up efforts, the problem persists, with more plastic waste washing up within weeks of removal. "Even after we clean small stretches, the plastic comes back the next week. It's a never-ending cycle," said a local volunteer involved in clean-up drives. The plastic waste not only pollutes the water but also endangers marine life, which often mistakes it for food.

Meanwhile, traditional fishermen have raised concerns about the impact of pollution on marine life, particularly oysters and clams. Despite desilting efforts, traces

STATE OF THE SAL

SEWAGE & WASTEWATER POLLUTION

- No proper sewage treatment for 25+ years by the South Goa Planning and Development Authority (SGPDA)
- Sewage from Margao and Fatorda, including from the KTC bus stand and old market areas, flows untreated into the river
- Authorities allegedly open sewage chambers during monsoons to prevent overflow, worsening river pollution



PLASTIC POLLUTION

- Plastic waste is found along nearly every stretch of the river.
- Clean-up efforts are ineffective as new plastic waste accumulates within weeks

WATER QUALITY & HEALTH RISKS

- Highly acidic water with a pH of 4, harmful to aquatic ecosystems.
- Floating debris, wastewater discharge, and heavy water hyacinth growth indicate prolonged stagnation and contamination
- High levels of faecal coliform (unfit for bathing/recreation)
- Residents report an unbearable stench and health risks due to pollution
- Sediment imbalance affecting ecological health at Mobar

GOVERNMENT & COURT ACTION

- The High Court of Bombay at Goa has ordered immediate action, directing authorities to seal polluting establishments
- A 19.77 km desilting plan is in place, with targets for completion by December 2025. National Green Tribunal (NGT) called for a rejuvenation plan - five years ago
- The Sewerage Infrastructure Development Corporation of Goa Ltd (SIDCGL) has been ordered to submit a status report on sewage system improvements
- SGPDA is constructing temporary soak pits as a stopgap measure

IMPACT ON MARINE LIFE & FISHERIES

- Oysters and clams in Assolna are showing contamination, raising concerns about food safety
- The Kondoyo shellfish disappeared in 1982 and has not returned
- Tissorio mussels have reappeared but in much smaller numbers



of contamination have been found in oysters at Assolna, sparking fears that pollutants could enter the food chain. Fishermen are now hesitant to harvest oysters, citing concerns about the deteriorating water quality. "The river is becoming uninhabitable for marine life. If this continues, we'll lose our livelihoods," said a fisherman.

The pollution has turned the river water acidic over the years, with floating debris and waste harming aquatic ecosystems. An earlier study found the river water to be highly acidic, with a pH level of 4, but no significant action was taken. Another study by the National Institute of Oceanography (NIO) detected high levels of microplastics in shellfish from the river, further highlighting the severity of the crisis.

Despite dredging operations, locals say the pollution remains unchecked. While dredging has deepened the navigation channel, it has also destroyed several shellfish nesting beds. The Kondoyo shellfish, which vanished from the river in 1982, has not returned, and tissorio mussels, though reappearing this year, are found in much smaller quantities.

In July 2023, Water Resources Minister Subhash Shirodkar presented a phased action plan to rejuvenate River Sal. The

plan included desilting and restoring the riverbed along a 19.77 km stretch in Phase 1 to improve hydraulics and enhance the waterway's carrying capacity. Phase 2 involved installing storage structures with automated gates and floating aerators to improve water quality by increasing dissolved oxygen levels. Phases 3 and 4, which include additional measures, are yet to be detailed. Despite these ambitious plans, the minister warned that without collective action from stakeholders, including local MLAs, government departments, and the public, the situation would worsen. He set a target of December 2025 for significant improvements, emphasizing the importance of completing the underground sewerage network to curb the discharge of untreated waste.

In a landmark move, the High Court has now directed the Deputy Collector of South Goa and Salcete Mamlatdar to enforce the GSPCB's directives and ensure that polluting establishments are sealed immediately. The Margao Municipal Council (MMC) has also been instructed to implement its closure orders, which had previously been ignored. The court's intervention follows a report submitted by Amicus Curiae Neha Shirodkar, appointed in response to a Public Interest Litigation

(PIL) filed by Navelim resident Professor Antonio Alvares. The report, based on a detailed survey of Margao's water bodies and drainage channels, highlights rampant sewage discharge into stormwater nullahs and watercourses leading to Salpem Lake.

Photographic evidence attached to the report shows that many businesses continue to release waste into public water systems despite prior notices and penalties. The HC emphasized that the respondents must act on the findings and submit an action-taken report before the next hearing. The Amicus Curiae urged the court to direct authorities to conduct surprise inspections to prevent further violations. Additionally, the SGPDA was called upon to make immediate temporary arrangements for proper sewage disposal at its retail market. The HC noted that if SGPDA fails to comply within ten days, operations at the market should be suspended until effective measures are put in place.

A visit by the Amicus Curiae and the petitioner recently revealed that pollution remains a severe issue across several locations. For instance, at Khareband, water channels carried brackish and contaminated water, with multiple pipes from

nearby residential and commercial buildings discharging directly into the system. The SGPDA market was found to be another critical hotspot, with waste from the facility flowing unchecked into a stormwater drain along the Margao-Fatorda road. Similarly, conditions at the Margao Wholesale Fish Market were described as unhygienic, with waste dumped at the edge of an adjoining water channel, emitting a strong stench.

They also documented the heavy growth of water hyacinth in the drains and visible floating debris, indicating prolonged stagnation of contaminated water. The presence of plastic waste in nearly every stormwater channel further illustrated the extent of mismanagement. Additionally, a culvert near Kudchadkar Hospital was found to divert wastewater in two directions—one leading to the Sewage Treatment Plant (STP) and the other emptying into agricultural fields, raising concerns about the contamination of farmland.

During inspections, it was found that some businesses that had provided undertakings of no sewage discharge were continuing their operations without any visible changes to their waste management systems. The Amicus Curiae highlighted the need for continuous monitoring and enforcement to ensure compliance, urging the MMC and GSPCB to carry out follow-up inspections at these establishments. The court agreed that consistent oversight is essential to prevent further environmental damage and instructed authorities to submit periodic reports on their enforcement actions.

In response to the growing crisis, the HC has directed the Sewerage Infrastructure Development Corporation of Goa Ltd (SIDCGL) to submit a status report within four weeks on the progress of laying a dedicated sewage line to connect the SGPDA retail fish market to the underground network. The agency recently issued a tender for the project, which includes the construction of a pumping station and manholes, among other infrastructure improvements. Meanwhile, the SGPDA has informed the court that it is constructing temporary soak pits at the market, expected to be completed within 15 days.

Residents and fishermen alike are demanding immediate action to address the crises of sewage discharge, untreated wastewater, and plastic pollution. "River Sal is dying a slow death," said concerned citizen Elijah Rodrigues. "We need urgent intervention to protect our river, our health, and our livelihoods."

As the legal battle unfolds and the cries for action grow louder, the fate of River Sal hangs in the balance, with its ecosystems and communities bearing the brunt of decades of neglect. The High Court's intervention offers a glimmer of hope, but the real test lies in the implementation of these measures and the collective commitment of all stakeholders to restore the river to its former glory.

It remains to be seen what the government will say on this issue during the upcoming Legislative Assembly session, given that legislators have raised questions about what authorities have done so far regarding River Sal.

