SDM Institute for Management Development (SDMIMD)
**International Case Conference (ICC) 2026**
Theme: Contemporary Context in Innovation, Inclusion, and Impact.

**ICC26117**

# Bridging Theory and Practice in Waste Management: A Sustainabilitv Case from Rural India

***P B Saranya**, Assistant Professor, GRG School of Management Studies, PSGR Krishnammal College for Women, Coimbatore. Email: pbsaranya@grgsms.ac.in and **R Sreeprabha**, Assistant Professor, GRG School of Management Studies, PSGR Krishnammal College for Women, Coimbatore. Email: sreeprabha@grgsms.ac.in, Mobile: 9447946190prepared this case solely as a basis for classroom discussion. This case is not intended to serve as an endorsement, source of primary data, or illustration of either effective or ineffective managerial decision-making. Certain names and other identifying details have been disguised to protect confidentiality*

## Background

Coimbatore, located in the foothills of the Western Ghats in southern India, is widely recognized for its moderate climate, strong industrial base, and entrepreneurial ecosystem. While the city has emerged as a major urban and economic hub, nearly 75% of Coimbatore district's population continues to reside in rural areas, which together account for approximately 70% of the district's land area and encompass 295 revenue villages. These rural regions play a critical role in sustaining the district's ecological balance, even as consumption patterns and waste generation increasingly resemble those of urban centers.

NovaCare is one such village, situated along the foothills of the Western Ghats and forming a natural boundary between the southern states of Tamil Nadu and Kerala. The village derived its name from the Indian blackberry trees that once lined its riverbanks. The Waylayer River, which flows through NovaCare and feeds the Waylayer Dam, has historically supported irrigation and agrarian livelihoods. Owing to its geographical location and natural resources, NovaCare has long been regarded as an environmentally sensitive region, where ecological degradation could have downstream consequences.

In January 2025, Jackline, a 22-year-old postgraduate student specializing in Sustainability Management at a leading business school in Coimbatore, visited Navakkarai as part of a compulsory social immersion programme. Raised in a rural village herself, Jackline shared a personal familiarity with rural life and an awareness of its everyday constraints. What began as an academic requirement soon evolved into a deeper engagement, as she became increasingly concerned about the environmental challenges facing the village.

## The Emerging Issue

During her initial visits, Jackline observed that despite Navakkarai's natural beauty and cultural heritage, the village was experiencing an escalating waste management crisis. Plastic waste was visible along internal roads, municipal bins were poorly maintained, and waste accumulation was occurring dangerously close to water bodies. Food waste and sanitary waste were frequently dumped in open pits or burned in open spaces, posing risks to public health and the local ecosystem.

What struck Jackline most was how closely these challenges resembled waste-related problems typically associated with urban centres. For her, this raised a troubling question: If rural villages were

ISBN code 978-93-83302-83-3

already experiencing urban-scale waste problems, were existing governance and infrastructure systems equipped to respond?

To better understand the situation, Jackline conducted a survey across multiple blocks in the village. The findings revealed that 75% of households did not practice waste segregation, primarily due to limited awareness of its importance and the environmental consequences of improper disposal. Among the remaining 25% of households that reported segregating waste, nearly 90% disposed of dry waste through open burning or dumping, indicating that segregation alone did not translate into environmentally safe practices.

Further interactions with residents and local authorities revealed that the issue extended beyond awareness. Structural and institutional constraints played a significant role. Navakkarai's undulating, plateau-like terrain made it difficult for sanitation workers to move pushcarts across the village. The village consisted of approximately 1,000 households spread across nine blocks, with distances between houses in several blocks averaging 300 meters, complicating door-to-door waste collection. Local authorities cited acute manpower shortages and financial limitations that restricted their ability to recruit and retain sanitation workers.

Municipal estimates suggested that Navakkarai generated 200–300 kilograms of solid waste daily, of which 50–100 kilograms consisted of non-biodegradable materials, primarily plastics. Despite its rural classification, the village's waste composition mirrored that of nearby urban areas.

Collectively, these observations highlighted a complex interplay of behavioural inertia, infrastructural inadequacy, and institutional capacity gaps, shaping the context in which any intervention would need to operate.

**Intervention Strategy**

Recognizing that the waste management problem required immediate attention but acknowledging the limitations of municipal capacity, Jackline chose to initiate a community-led, behaviour-focused intervention. She believed that improving awareness and encouraging household-level segregation could serve as a foundation for longer-term solutions.

Jackline began by designing an awareness campaign aimed at educating households on the importance of segregating biodegradable and non-biodegradable waste at the source, as well as the environmental and health risks associated with inappropriate disposal methods. To pilot the intervention, she selected Block 6, which was more densely populated than other blocks and located along the banks of the Waylayer River, close to the Waylayer Dam. The ecological sensitivity of the area provided a compelling context for communicating the urgency of change.

To maximize participation, Jackline scheduled the campaign on a Sunday, as most residents worked on their farmland during weekdays. On 26 January, she engaged with residents from approximately 62 households, explaining waste segregation practices and demonstrating appropriate disposal methods. To reinforce behavioral change, she distributed sacks to each household and requested that non-biodegradable waste be stored separately, assuring residents that dry waste would be collected once a week.

Aware of her limited resources, Jackline approached a local non-governmental organization, Namma NovaCare, a community-based NGO formed by village residents with the objective of restoring water bodies, forest cover, and establishing sustainable waste management systems. The NGO agreed to support her initiative by mobilising volunteers.

ISBN code 978-93-83302-83-3

On 2 February, with the assistance of NGO volunteers, Jackline initiated a dry waste collection drive among the 62 households that had participated in the awareness campaign. The following Sunday, she extended the campaign to an additional 60 households within Block 6. From the third Sunday of February, regular dry waste collection commenced for 112 households. While volunteer support was critical, Jackline soon encountered a recurring challenge: ensuring consistent volunteer availability on a weekly basis.

Encouraged by early signs of behavioural change, Jackline attempted to replicate the model in Blocks 7 and 8. However, the larger geographical spread of these blocks and the lack of adequate infrastructure intensified logistical difficulties. In response, she adapted the intervention by shifting from weekly to fortnightly waste collection. Despite the reduced frequency, Jackline observed that households continued to segregate dry waste and hand it over to volunteers, suggesting a gradual shift in norms and practices.

**Engaging the Next Generation**

During her visits, Jackline noticed that children demonstrated greater enthusiasm for the initiative than adults. Viewing this as an opportunity to influence long-term behaviour, she engaged with the local panchayat school, where most village children were enrolled. Through interactive games and activities, she communicated the importance of waste segregation and environmentally responsible disposal.

Jackline installed waste bins within the school premises and encouraged students to collect non-biodegradable waste. Within four days, the children collected approximately 18 kilograms of dry waste. She urged them to continue depositing dry waste in the bins and coordinated volunteers to collect it once every 15 days.

**An Emerging Fragility**

Despite visible progress and growing participation, the sustainability of the intervention remained uncertain. In May, Jackline's academic commitments required her to prioritise coursework, preventing her from making regular visits to the village. During this period, waste collection became irregular.

When Jackline returned to Navakkarai after two months for a follow-up visit, she observed that several households had stopped segregating dry waste, citing the absence of regular collection. While awareness levels remained higher than before, the behavioural changes she had helped initiate appeared fragile in the absence of consistent support and institutional backing.

**The Dilemma**

Her experience demonstrated that incremental, community-led interventions could generate awareness and short-term behavioural change, even under severe resource constraints. However, these gains proved vulnerable when volunteer availability declined and when her personal involvement was reduced.

At the same time, pursuing a systemic, infrastructure-driven waste management solution—involving municipal coordination, formal collection systems, and policy alignment—offered the potential for scale and continuity but required navigating bureaucratic processes, securing funding, and managing significantly higher implementation risks.

Should Jackline continue to refine and strengthen community-led behaviour change initiatives, accepting their limited scale but relative feasibility?

ISBN code 978-93-83302-83-3

Or should she shift her focus toward advocating for institutional and infrastructural solutions, despite the uncertainty and complexity involved?

ISBN code 978-93-83302-83-3