

CASE STUDY REPORT TEMPLATE



Study location	<i>Vunato, Lautoka. FIJI</i>
Organization or researcher that developed the case study	<i>Pacific Recycling Foundation</i>
Dates	<i>10th July – 9th August, 2025</i>

The purpose of this research was to assess the living incomes of informal waste pickers, known as ***Collection Pillars of Recycling (CPR)***, in Fiji. The case study focused on CPR, who frequently collect recyclables from the Vunato Dumpsite, Fiji's largest dumpsite, located near Lautoka Town. Many of these individuals reside in an informal settlement consisting of multiple households, and it is situated just before the dumpsite.

The research was conducted by the Pacific Recycling Foundation (PRF) team, consisting of three female members. To initiate the study, the team first visited the CPR to explain the purpose of the research. Two weeks later, a full week was spent on-site to conduct interviews and gather data. Towards the end of the week, PRF also visited CPR home to conduct interviews directly, allowing for deeper engagement in a more familiar setting. In total, 40 CPR were surveyed using structured interviews designed to capture both qualitative and quantitative insights into their income, working conditions, and livelihood challenges.

Support for the research came from Waste Recyclers Fiji Ltd, who provided a vehicle for transportation, and Lautoka City Council, who lent essential equipment, including a shed, tables, and chairs for interview facilitation. These partners, alongside CPR, made significant contributions to the successful completion of the study.

In Fiji, CPR represents a diverse yet marginalized group of waste pickers who operate independently at the Vunato dumpsite. Almost all CPR are independent waste pickers, navigating the recycling ecosystem without formal contracts, protective infrastructure, or consistent institutional support. Their motivations are deeply tied to life circumstances, where many entered this work following the loss of a breadwinner in the family, a lack of formal education, or limited opportunities in the formal labour market. For others, waste picking is a generational livelihood: a skillset passed down through family members or community elders. CPR falls into both full-time and part-time roles. Most are full-time, collecting and sorting recyclables daily to sustain household incomes. Part-time CPR often juggle side livelihoods, operating small canteens, baking for sale, or tending to backyard farming, or they serve as caregivers at home, looking after young children, elderly parents, or persons with disability. Despite the informal nature of their work, CPR is committed, knowledgeable, and resilient, and manages social stigma, unsafe working conditions, and fluctuating market prices, with quiet tenacity and community solidarity.

CPR at the Vunato Dumpsite operate outside of formal employment structures, working independently to collect, sort, and sell recyclable materials. Their contributions to our environment remain largely invisible in policy and infrastructure planning. Among the 40 CPR interviewed, 17 women and 23 men, ages ranged from 18 to 69, indicating both generational continuity and livelihood dependence. The vast majority work between six to nine hours per day under challenging physical conditions, particularly older adults and women who often balance income generation with caregiving responsibilities. While most CPR sell directly to Waste Recyclers Fiji Limited (WRFL), occasional reliance on intermediary buyers persists, usually when transport access is disrupted or immediate cash needs compel alternative sales.

CPR at the Vunato Dumpsite primarily earn money by selling recyclables to WRFL, with limited and unreliable alternative income sources, such as informal farming, roadside sales, or casual labour. Most operate with basic tools and without access to vehicles, calibrated scales, or secure storage. Their collection is largely limited to high-demand, high-value materials such as glass, aluminium, tinsplate cans, scrap metal, copper, and PET bottles. Lower-value recyclables like HDPE rigids, flexible plastics, and paper/carton are rarely collected due to several compounding factors: low market demand, lack of buyer incentives, and the absence of infrastructure to sort or store these materials profitably. Paper and cardboard, in particular, are often contaminated by food waste, moisture, or mixed materials, making them unsuitable for resale. Most buyers refrain from accepting these materials due to persistent quality concerns, high processing costs, and limited resale potential. Like other low-demand items, they are difficult to market internationally and, in many cases, hold minimal commercial value. Even though WRFL provides a structured outlet, its pricing is influenced by world market shifts, resulting in fluctuating rates and unpredictable earnings for CPR.

Despite their critical role in diverting recyclables and contributing to Fiji's circular economy, CPR face multiple constraints that limit both earnings and long-term livelihood stability. Buyer restrictions and informal monopolies, often controlled by middlemen, constrain the CPR ability to negotiate fair prices for recyclables. Inconsistent access to buyers, coupled with volatile material prices, results in earnings that fluctuate from week to week, leaving workers without a reliable financial safety net. Many CPR also operate under unsafe conditions, including exposure to toxic substances, sharp objects, and

unprotected sorting environments. These occupational hazards reduce productivity and increase the risk of injury, further straining income potential.

This power imbalance is especially evident among CPR that sell to intermediary buyers, where limited options translate into rigid pricing structures and opaque terms. In such cases, CPR often receive below-market prices despite high-quality or large-volume collections. Pricing is dictated unilaterally, with minimal scope for negotiation, and CPR absorb operational risks while intermediaries profit from resale margins. However, this dynamic is not universal. A growing number of CPR now sell directly to Waste Recyclers Fiji Limited (WRFL), where base pricing is more transparent and buyer relationships are generally more equitable. That said, WRFL's pricing remains partially influenced by downstream market conditions and export buyer preferences, meaning CPR earnings may still fluctuate based on external shifts.

While CPR face systemic constraints in income generation, many report a modest degree of economic stability that allows them to meet daily household needs. Several members have emphasized they live in decent housing, are not consistently worried about food availability, and benefit from free public healthcare for basic treatments. However, this stability is fragile. Most CPR households reside in informal settlements that are densely packed and poorly serviced, conditions that increase the risk of disease transmission, particularly during the rainy season or in the wake of environmental disruptions. Unexpected expenses, such as the purchase of medications, private consultations, or emergency services (especially in cases of gender-based violence or prolonged illness), can destabilize household budgets. These shocks are amplified by limited transport, underdeveloped infrastructure, and exposure to climatic events. In this context, CPR work remains more than a livelihood; it is a daily negotiation with vulnerability, resilience, and survival, where workers must constantly navigate uncertainty despite their essential environmental contributions.

CPR primarily earn through the daily collection and sale of high-demand recyclables such as aluminium cans and scrap. Their income is shaped by volume, material quality, and access to fair market channels. However, earnings remain low due to several structural and market-based constraints. Price volatility and limited bargaining power, especially when selling to a middleman, undermine income stability. While some CPR sell directly to Waste Recyclers Fiji Limited (WRFL), where pricing is more consistent, many others face unpredictable rates, opaque deductions, and limited negotiating leverage.

Additionally, unsafe working conditions, including exposure to hazardous waste, sharp objects, and toxic substances without protective gear, diminish productivity and increase health-related expenses. CPR also absorb hidden costs linked to gender-based violence, caregiving responsibilities, and unreliable transport, particularly when municipal trucks refuse to carry recyclables down from the dumpsite. These logistical constraints increase out-of-pocket costs and reduce daily earnings.

Despite these challenges, CPR continue to demonstrate exceptional resilience and resourcefulness. Many engage in informal savings networks, contribute to community obligations, and maintain consistent work routines across unpredictable conditions. Their efforts are grounded not just in survival, but in dignity and determination.

Opportunities for improvement include formalizing buyer relationships to reduce price manipulation; distributing terrain-adapted carts to ease transport burdens; and embedding CPR into municipal contracts and planning bodies. While Pacific Recycling Foundation can partner with other organizations to empower CPR through sustained, community-responsive interventions. This includes gender equity training, ongoing financial literacy programs, and psychosocial support tailored to CPR realities. By providing continuous learning and leadership opportunities, PRF can help CPR transition from marginalized waste workers to recognized sustainability stewards, driving inclusive development from the ground up. These steps would not only improve income stability but also affirm CPR as essential contributors to Fiji's circular economy.

B - Living Income Estimate

To determine the income required for CPR to lead a dignified life in Fiji, the Pacific Recycling Foundation adopted a household-level cost model grounded in local realities, community testimonies, and verified market data. The resulting monthly living income threshold for a CPR household is FJD 2,700, while the required living wage per full-time equivalent worker (FTWE) is FJD 1,318. This estimation reflects both essential consumption needs and the financial resilience needed to withstand shocks and uphold community obligations.

The first component, healthy diets, is based on a representative breakdown of staple food costs, derived from multiple studies. CPR household typically rely on a combination of purchased and bartered items such as rice, root crops, vegetables, and tinned foods. The cost of maintaining a balanced and culturally appropriate diet is estimated at FJD 531 per month. This includes regular market pricing in urban areas and assumes limited access to backyard gardening or subsistence sources.

For housing, CPR were assumed to reside in structurally sound shelters within informal settlements or peri-urban zones with access to electricity, running water, and sanitation. Rent and utility benchmarks were drawn from Numbeo's Fiji dataset (Numbeo, 2025), resulting in a combined estimate of FJD 1,245 per month. This amount reflects both basic living standards and cyclone-resilient infrastructure requirements, especially for low-lying communities.

Healthcare expenses were estimated at FJD 300 per household, encompassing out-of-pocket costs for medications, transport, and occasional private consultations. Importantly, this figure also accounts for the economic impact of gender-based violence (GBV), including trauma recovery and mental health support, aligned with national data indicating GBV costs Fiji over FJD 290 million annually (Fiji Women's Crisis Centre, 2023; Fiji Times, 2024).

Education costs are lower than expected due to government subsidies, with tuition and core educational services largely covered. However, families still face monthly expenses for school supplies, uniforms, transport, and extracurriculars. For a household with two children, the monthly cost is FJD 91, based on national budget allocations and CPR household surveys (UNESCO, 2022).

Enabling decent work requires investment in protective gear and daily transport. CPR often faces hazardous conditions, requiring gloves, boots, aprons, and uniforms that must be replaced regularly. Additionally, some CPR travel long distances to dumpsites, often at their own expense. The estimated monthly cost for this is FJD 122 per household (Ministry of Infrastructure and Transport, 2023).

Finally, to ensure economic stability and respect community obligations, CPR household must retain meaningful savings. This includes not just personal savings, but contributions toward village home maintenance, religious fundraising, extended family support, and informal debt repayments. The combined requirement for savings and social obligations totals FJD 412 per month, reinforcing the need for structured support mechanisms beyond immediate consumption.

Together, these categories produce a total estimated monthly household living income of FJD 2,700. For an individual CPR working full-time, the corresponding living wage is FJD 1,318. However, current earnings from the sale of collected materials average just FJD 1,216.12 per month per FTWE, revealing a monthly shortfall of FJD 101.88. This gap signals the need for structural income protections, diversified income sources, and stronger market recognition for CPR service work.

C – Comparable incomes or minimum wage

To estimate comparable incomes for CPR in Fiji, PRF utilized a combination of nationally recognized wage indicators and sector-specific earnings benchmarks. These included Fiji’s current minimum wage rate of FJD 5.00 per hour, which translates to approximately FJD 866 per month for full-time employment. In addition, PRF examined monthly earnings from sectors that share characteristics with CPR work, namely, low formalization, physically intensive labour, and exposure to precarious employment conditions. Formal waste workers employed by municipal councils, for example, earn an average of FJD 1,300 per month, according to the 2023 CPR Mapping Study. Similarly, data from the MDF Agricultural Labour Study (2024) and AverageSalarySurvey Fiji (2025) indicate average monthly earnings of FJD 945 and FJD 1,350 for agricultural labourers and construction workers, respectively.

These benchmarks were carefully selected based on the nature of CPR work and its alignment with informal, labour-intensive sectors. The approach prioritized roles with similar physical demands and social vulnerabilities, allowing for a realistic framing of income expectations in the absence of formal employment protections. Several assumptions were made to standardize comparisons: workers across all sectors were treated as full-time equivalents (FTWE), based on a 40-hour workweek and 4.33 working weeks per month; all figures reflect gross monthly earnings without accounting for deductions or benefits; and CPR workers were assumed to face comparable urban cost-of-living. This structured analysis situates CPR workers' average earnings of FJD 1,216.12 per month above the national minimum wage but still below the average for comparable sectors, highlighting the government's urgency of formal integration, policy recognition, and the establishment of inclusive wage frameworks.

Key learnings and recommendations learnt

The CPR case study underscores that while CPR generate modest income from selling high-demand recyclables such as aluminium and scrap, their livelihoods are shaped by multifaceted risk. CPR operate in physically hazardous spaces without protective infrastructure, making injuries, respiratory illness, and chronic health issues common. These conditions demand frequent, out-of-pocket medical attention, quickly depleting financial buffers and undermining long-term stability. Non-communicable diseases (NCDs) such as diabetes, heart disease, and respiratory conditions also pose a major threat to CPR household. With NCDs responsible for approximately 80% of all deaths in Fiji, their impact is especially severe for low-income communities that lack consistent access to preventive care and treatment options (FijiGlobalNews, 2024; WHO, 2023).

The risks extend beyond physical harm. Many CPR are survivors of gender-based violence (GBV), which carries direct economic consequences, missed workdays, increased medical needs, and constrained access to other opportunities all contribute to a cycle of vulnerability that restricts upward mobility. In some households, family members also struggle with addiction to alcohol or drugs, often as a coping mechanism for the stress and precarity of CPR work. These challenges compound caregiving responsibilities, especially for women, and further disrupt income generation.

Work is frequently interrupted by illness, caregiving duties, and unregulated market interactions that limit price control. CPR also carry meaningful social responsibilities, including support for churches, fulfilment of cultural obligations, and contributions to extended families in their home villages. This communal ethic strengthens identity and motivation, but adds pressure to already limited resources.

Despite these constraints, CPR demonstrate strong financial discipline and social cohesion. Daily collection activity is consistent, and informal savings mechanisms reflect resilience and adaptability. Many CPR household report no formal debts and maintain creditworthiness within their communities, often participating in rotating savings schemes or informal lending networks. These practices reflect a commitment to financial integrity and mutual support, even in the absence of formal protections.

Taken together, the study reveals that income and wellbeing are influenced not just by access to recyclables or individual effort, but by environmental conditions, gendered vulnerabilities, and systemic exclusion from formal protections. Moving forward, definitions of decent work must expand to centre dignity, structural safety, and holistic support, recognizing CPR as economic actors, caregivers, and community leaders whose wellbeing demands sustained, inclusive investment.

Improving income stability and job quality for CPR require a multi-dimensional approach. Financial literacy training, covering savings, retirement planning, budgeting, and debt management, is essential to help CPR build long-term resilience. These sessions should be paired with education on legal rights, occupational safety, and health and wellness, delivered in formats that are trauma-sensitive and accessible.

Access to durable, locally repairable tools, such as weather-resistant carts, gloves, and sorters, would immediately reduce injury risks and improve daily efficiency. Additional support could include micro-insurance schemes, flexible credit access, and CPR-led cooperative pricing models to reduce market volatility and strengthen bargaining power.

There are several local practices and informal systems that could be strengthened or formalized. PRF has already laid the groundwork through its close engagement with CPR communities, including the upcoming CPR Alliance Meeting, which will convene stakeholders around health, legal awareness, and financial empowerment. The distribution of ID cards in partnership with municipal councils offers a foundation for formal recognition and service access. Additionally, PRF's Mapping Exercise and Dignity Facilities provide scalable models for data visibility and safe working environments.

Small but meaningful pilots could include the distribution of terrain-adapted carts to address transport challenges, especially since CPR are often denied rides on municipal trucks due to safety concerns. A CPR mentorship program could pair experienced members with new entrants to share pricing knowledge, safety practices, and emotional support. Municipal councils could also trial CPR inclusion in disaster clean-up contracts, offering formal income during climate-related disruptions. A recognition campaign, building on PRF's work, could be further expanded to schools and civic platforms to reduce stigma and elevate CPR visibility.

Importantly, CPR workers must be formally recognized by the government as essential contributors to Fiji's circular economy. While Waste Recyclers Fiji Limited (WRFL) provides a relatively fairer pricing structure, it remains a price taker in global markets. CPR earnings are therefore vulnerable to international price fluctuations. Government intervention is needed to stabilize income through targeted subsidies, price protection mechanisms, and eligibility for formal entitlements such as paid leave. These measures would not only safeguard CPR livelihoods but affirm their status as some of Fiji's most vulnerable yet indispensable environmental workers.

Actions for local governments

Local governments play a pivotal role in recognizing and supporting the contributions of waste pickers. Globally, inclusive policies offer valuable frameworks for replication. For instance, India's Solid Waste Management Rules (2016) mandate the integration of waste pickers into municipal planning and operations, formally recognizing them as essential service providers (UNESCAP, 2023). South Africa's Waste Picker Integration Guidelines promote legal recognition, fair compensation, and access to social protections, setting benchmarks for dignity and equity in waste work (SA Cities, 2023). These approaches demonstrate that informal waste pickers can be institutionalized through coordinated policy design and municipal commitment.

To further integrate waste pickers into municipal waste systems, verified ID schemes, such as those issued through PRF and municipal collaboration, should be digitized and linked to practical resources like training programs, financial support, and fair pricing mechanisms (Plastics for Change, 2024). Building on this foundation, governments could introduce monthly stipends and provide PPEs as service incentives, recognizing the role of CPR workers play in landfill diversion and material recovery. Protective gear such as gloves, boots, and masks is essential to reduce injury risk and improve occupational safety, especially given the hazardous conditions CPR face daily.

Councils can also work with CPR leaders to establish small-scale sorting and recovery hubs, improving material flow and pricing transparency (MDPI, 2021). CPR representation in waste governance bodies remains critical to ensure their lived experience informs how systems are designed and decisions are

made (SA Cities, 2023). Additionally, CPR workers should not be charged for entrance to dumpsites under any municipal council, as such fees penalize informal recyclers and restrict access to their primary livelihood source.

Taken together, these actions build a pathway for inclusive, accountable, and durable integration of CPR workers into formal municipal structures, ensuring their work is recognized, supported, and made safer through policy-backed protections.

Actions for local private sector actors

Local buyers, FMCGs (Fast-Moving Consumer Goods), recycling companies, and waste management firms have a critical role to play in improving CPR workers' incomes and working conditions. First, they can establish guaranteed purchase agreements for high-value recyclables like scrap and aluminium, offering CPR predictable pricing and reducing income volatility. FMCGs' commitment to circularity can go further by embedding CPR into their Extended Producer Responsibility (EPR) frameworks, ensuring that post-consumer waste recovery includes ethical sourcing and traceable labour contributions. Recycling firms can also co-invest in community-based sorting hubs, providing infrastructure, safety gear (including gloves, boots, and masks), and weight-based incentives to reward quality and consistency. Importantly, they can improve access to verified buyers to minimize the financial loss that CPR often incur when selling through intermediaries.

To enable these interventions, government support is essential. Recycling companies like WRFL remain vulnerable to global market shifts, which directly affect the prices offered to CPR. Government subsidies, such as those outlined in Fiji's Recycling Business Investment Incentive Regulations (FRCS, 2021) can help stabilize operations, offset export-related costs, and ensure that recycling firms can maintain consistent purchase rates even during downturns. These subsidies would not only protect CPR earnings but also strengthen the broader recycling ecosystem.

Recycling companies also have the opportunity to offer part-time employment during peak periods, such as post-cyclone cleanups or festive seasons, where waste volumes surge. This would not only provide CPR with formal income during periods of high demand but also signal a shift toward more structured inclusion. Practices like mobile weighing and payment systems at dumpsites can reduce transaction losses and improve pricing transparency. In turn, CPR would face fewer barriers when accessing fair markets and spend less on transport and negotiation time.

Inclusive practices worth scaling include the Fair-Trade Recycling model pioneered by Plastics for Change, which offers minimum guaranteed prices, digital onboarding, and access to health and education services for waste pickers. This model has proven replicable across diverse geographies and aligns with ESG and supply chain transparency goals. Similarly, cooperative enterprise models, as seen in Brazil and India, enable waste pickers to transition from informal labourers to recognized producers, with access to micro-manufacturing tools and market linkages (MDPI, 2021).

In Fiji, private sector actors can build on PRF's existing partnerships by sponsoring tool upgrades, co-hosting empowering training modules, and supporting recognition campaigns. They can also help address market distortions by co-developing CPR-led cooperative pricing models and digitized buyer

access. The Fair Circularity Initiative (FCI) offers an additional pathway for intervention by convening businesses around the protection of human rights within informal waste systems. FCI can support CPR integration into circular value chains, advocate for fair pricing mechanisms, and promote access to social protections and safe working conditions.

Municipal councils also stand to benefit from deeper CPR integration. CPR reduce landfill overflow, divert recyclable materials, and extend the lifespan of waste infrastructure. By formally engaging CPR through service contracts or incentive schemes, councils could reduce operational costs and unlock new revenue streams, such as reduced gate fees at landfills or performance-based subsidies tied to diversion rates. This would not only improve CPR livelihoods but also strengthen municipal waste systems and environmental outcomes.

By shifting to long-term, inclusive partnerships, these organisations can help transform CPR work from survival-based labour into dignified, sustainable livelihoods, especially in a context where CPR are among the most vulnerable workers and often left without income protections or price stability mechanisms.