







The Reach Alliance

The Reach Alliance is a consortium of global universities — with partners in Ghana, South Africa, Mexico, Canada, United Kingdom, Australia, and Singapore — developing the leaders we need to solve urgent local challenges of the hard to reach — those underserved for geographic, administrative, or social reasons. Working in interdisciplinary teams, Reach's globally minded students use rigorous research methods to identify innovative solutions to climate, public health, and economic challenges. The UN's Sustainable Development Goals (SDGs) provide inspiration and a guiding framework. Research is conducted in collaboration with local communities and with guidance from university faculty members, building capacity and skills among Reach's student researchers.

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Figure 1. A grassroots recycler and a student researcher sorting through a bag of recyclable materials

Executive Summary

In Chile, approximately 60,000 grassroots recyclers collect between 2 and 10 tonnes of recyclable waste per month. Despite their meaningful contributions to waste management and sustainability, a 2021 study revealed that many of these recyclers face social exclusion. Their work remains informal and hidden, which separates them from mainstream society and limits their access to formal employment opportunities, even though they play a crucial role in supporting communities and advancing sustainability through their recycling efforts.¹

This case study aligns with UN Sustainable Development Goals by looking to understand how Chilean grassroots recyclers have been empowered by the continuing efforts of the community and by the recent implementation of the Extended Producer Responsibility (Responsabilidad Extendida del Productor or

REP) law, which formally recognizes grassroots recyclers within its official wording, a global first. The Association of the National Movement of Recyclers of Chile (Asociación Movimiento Nacional de Recicladores de Chile or ANARCH) has been instrumental in helping advocate for grassroots recyclers to be recognized and protected in the labour workforce and broader society. Despite these efforts, they still face challenges in the formalization process, especially because many recyclers have been working informally for decades and face many barriers to continue their work under the new, formal, and administrative requirements.

To better understand the experience of grassroots recyclers, we conducted semi-structured interviews with recyclers across four recycling communities and with ANARCH's board of directors. This report analyzes and provides the current condition of grassroots recyclers in Chile, focusing on their role in managing waste.

^{1 &}quot;Promoting Green Jobs through the Inclusion of Informal Waste Pickers in Chile," International Labour Organization, ?; Nicolás Valenzuela-Levi, "Poor Performance in Municipal Recycling: The Case of Chile," Waste Management no. 133 (2021): 49–28.

With ANARCH's presence as a union representing grassroots recyclers in Chile, the recyclers have started to gain more recognition, improved working conditions, and support from other stakeholders such as governments and private companies.

Context: Waste and Recycling in Chile

Over 90 per cent of Chile's 18 million people live in urban areas, 41 per cent in the metropolitan region of Santiago. The Latin American and Caribbean region generates an average of just under one kilogram of waste per capita per day. Chile's daily waste per capita is 1.15 kilograms which is higher than the regional average of 0.9 kg and the global average which is 0.74 kg. As of 2017, the remaining useful life of the country's sanitary landfill was only 12 years. Almost 17 million tonnes of waste are generated in Chile annually, around 6.5 million tonnes of municipal waste and 10.5 million tonnes of industrial waste. Metropolitan Santiago contributes 43 per cent of the national waste, followed by the region of Biobío with 10 percent and Valparaíso with 7.4 per cent.2

Waste management in Chile is largely the responsibility of municipal governments, who use property taxes to handle waste-management costs, working in tandem with a circuit of informal recyclers, intermediaries, and recycling companies. According to the Chilean Ministry of Environment, informal recyclers collect most of the country's residential waste, relying on collecting, separating, and selling materials

including cardboard, glass, paper, and metal as their main source of income.

Their work has previously been described as informal because their activities were not regulated or protected by the government, and not much data were collected on their activities or waste recovered. While Chile has significantly reduced its labour informality rate since 2010, from 40 to 29 per cent of all active persons by mid-2018, it still has the greatest income inequality among OECD countries, along with high levels of unemployment and rates of poverty.³

In 2016, the Chilean Congress passed Law 20.920 — the Extended Producer Responsibility (REP) law. It seeks to reduce waste generation and promote its reuse, recycling, and other types of recovery by establishing producer responsibility with a progressive goal of recovering 45 per cent of plastic waste that circulates in the market by 2035. Specifically, the law mandates the principle of "the polluter pays," requiring companies to invest in managing and recapturing their own waste. This approach encourages activity aligned with the circular economy, which aims to minimize waste through sustainable production and consumption. It took seven years for the REP law to be implemented.

In 2021, collaborative work from nongovernment organizations (NGOs) established the first database for the "National Registry of Grassroots Recyclers" in Chile, showing the demographic, geographic, and income intersections of the different classifications of recyclers working informally. Table 1 summarizes some of its findings.

² Chilean Ministry of the Environment (Ministerio del Medio Ambiente or MMA).

^{3 &}quot;Formalization: The Case of Chile," International Labour Organization, 2019.

^{4 &}quot;Registro de recicladores de base a nivel nacional," CEMPRE Chile, Fundación El Árbol, ANARCH, and La Ciudad Posible, February 2021.

Table 1. Types of recycler in Chile, adapted from the "National Registry of Grassroots Recyclers 2021"

Types of recycler	Characteristics	Population (%)	Areas of operation	Average monthly income
Recycler with sack	Mostly elderly, homeless, or people with addictions. Micro-recycling in small areas.	40%	Densely populated, low-income areas	Half of minimum wage (USD 180)
Recycler with cart	Elderly, low-socioeconomic class, homeless, or people with addictions. Micro-recycling in small areas.	25%	Densely populated, low-income areas	Up to minimum wage (USD 380)
Pedal tricycle recycler	Family group recyclers with pedal tricycles. Work in high-income areas.	15%	High-income areas	Two times minimum wage (USD 600)
Recycler with load-bearing three-wheeler	Family group recyclers with electric vehicles. Wide work area.	10%	High-income areas	Two times minimum wage (USD 600)
Recycler with pick-up truck	Family group recyclers with motorized vehicles. Large collection capacity.	7%	Multiple communes	Three times minimum wage (USD 1,000)
Recycler with heavy-duty truck	Family group recyclers with collection place. Buy waste from smaller recyclers.	3%	Regional territory	Four times minimum wage (USD 1,500)

Grassroots Recylers and the Role of ANARCH

Historically, grassroots recycling has not been recognized as a formal profession. While informal recyclers exist in Chile, they did not play as central a role as that in other Latin American countries. The evolution of their role is evident in historical terms like *hueseros* (bone collectors) and *traperos* (ragpickers) to the current term recicladores (recyclers), reflecting changes in societal recognition.

In a pivotal event in 2007, six members of a recycler family perished in a fire caused by stored materials in their home. This spurred outcries within the recycling community and the announcement of the National Day of Waste Pickers in Chile. The growing awareness and organization of grassroots recyclers led to the formation of the National Movement of Recyclers of Chile (Movimiento Nacional de Recicladores de Chile or MNRCH). In 2009, this social movement formalized and evolved into the Association of the National Movement of Recyclers of Chile (Asociación Movimiento Nacional de Recicladores de Chile or ANARCH). ANARCH has played an instrumental role in

advocating for the recognition and protection of grassroots recyclers within the labour force and broader society. Figure 2 illustrates the timeline of significant milestones that led to the formation of ANARCH, including key events in recognizing recycler rights. Currently, ANARCH represents a network of around 5,000 grassroots recyclers out of an estimated total of 60,000 across Chile. The association is structured with 54 regional leaders and a board elected for five-year terms. ANARCH's mission is to support grassroots recyclers through political advocacy, capacity-building, financial assistance, social support, and operational initiatives.

ANARCH collaborates with several organizations such as the International Alliance of Waste Pickers (IAWP) as well as nongovernmental organizations such as La Ciudad Posible to extend its reach and impact. These partnerships enhance ANARCH's efforts to advocate for the needs and rights of grassroots recyclers.

ANARCH and the REP Law

The Extended Producer Responsibility (REP) law was introduced in 2016 with the goal of protecting the environment and managing

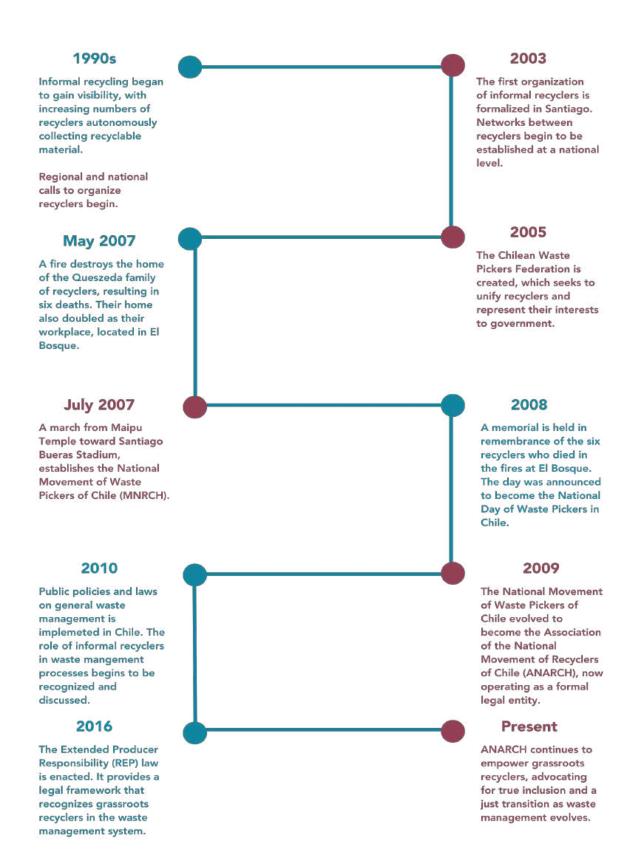


Figure 2. Timeline of events that led to the formation of ANARCH and the recognition of grassroots recyclers in the REP law

waste with formal regulation. Producers are now required to take ownership of waste from the goods they produce, and are required to meet specific weight goals of recovering that material. The introduction of this law necessitated and formalized the role of grassroots recyclers in the industry, as companies look to formalize avenues to "buy back" the waste products that recyclers collect. One recycling cooperative member mentioned how, "what the REP law did was to formalize our job, to get a contract, because we never had that before. And a fixed salary."⁵

Companies create bids and tenders to contract with recyclers (mainly via private third-party intermediaries or ANARCH) to recover the waste mandated by the new law. However, private companies have a better chance to win those contracts. Although grassroots recyclers were initially excluded during the drafting of the REP law, ANARCH sucessfully advocated for their inclusion, ensuring that management and administration of recycling sites could be entrusted to them. A member of the ANARCH board shared that, "thanks to the national leaders, we were able to be included. No law in the world includes [grassroots] recyclers." Finally, the REP law created the opportunity for recyclers to become formally included in wastemanagement processes, and encouraged broader discussions regarding the role of grassroots recyclers in Chile's social landscapes. However, they still face challenges such as being involved at only the end of the process, as they had less of a voice in being able to shape how the law was drafted at its origin. Grassroots recyclers also face difficulty around the implementation and integration of the law, given the administrative and financial burdens involved in joining a

recycling cooperative, undergoing training, and receiving certification. The REP law has been an important step in not only mandating companies to recover their goods and materials, but also in formally recognizing the role of grassroots recycling in Chile.

About this Research

The research we completed with local partners ANARCH and La Ciudad Posible addresses several of the United Nation's Sustainable Development Goals.



SDG 8 Decent Work and Economic Growth — Sustained, inclusive, and sustainable economic growth, full and productive employment for all



SDG 10 Reduced Inequalities — Reduce inequality within and among countries by promoting inclusion and equal opportunities for all.



SDG 11 Sustainable Cities and Communities — Make cities and human settlements inclusive, safe, resilient, and sustainable.



SDG 12 Responsible Consumption and Production — Promotes sustainable consumption and production patterns.

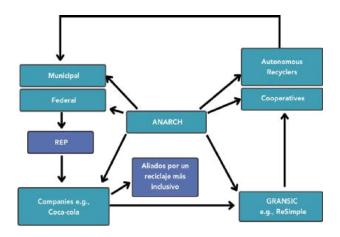
A cooperative entails a collective way of working, with shared management and benefits, and a focus on work organization. Cooperatives are autonomous associations made up of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations. Note that participant quotes have been anonymized and are based on translations provided by a local translator during fieldwork.

Table 2. Summary of key actors and initiatives involved in Chile's recycling ecosystem

Actors and Initiatives	Role in Recycling Ecosystem
ANARCH	Connected to all actors in the ecosystem
Municipal government	Responsible for implementing the REP law
Federal government	Drafted the REP law
Producers of household waste (e.g., Coca-Cola)	Mandated by the REP law to address the waste that they have produced
"Aliados por un reciclaje más inclusivo" project	An initiative financed by Coca-Cola, in line with the REP law, that acts as a source of capacity-building funding to provide skills and resources to improve the scale of grassroots recyclers' operations.
Great Collective Management System (El Gran Sistema Colectivo de Gestión — GRANSIC)	Collective management systems set up to implement the REP law for producers of household waste. They contribute to the formalization of grassroots recyclers by providing formal jobs through contracts with cooperatives and autonomous recyclers. There are currently three GRANSICs operating in Chile: ReSimple, ProREP, and GIRO.
Autonomous recyclers	Are members of ANARCH, receive support from the association, and can either join a cooperative or sign a contract directly with the municipal government.
Cooperatives	A group of recyclers receives support from ANARCH and can sign contract with GRANSIC.

The introduction of the REP law, combined with ANARCH's advocacy for grassroots recyclers, is leading to improvements in the working and economic conditions of a traditionally marginalized community. These improvements include increased wages and better advancement opportunities.

The formation of cooperatives has led to safer and more inclusive working environments, while enhancing waste-management processes. A board member of ANARCH noted, "We [grassroots recyclers] have dealt with millions of tonnes of waste, preventing them from ending up in rivers, landfills, and mitigating environmental impact." The REP law's focus on waste ownership and the formalization of grassroots recyclers aim to promote sustainable consumption and production patterns.



Note: The direction of the arrows represents the transfer of support from one stakeholder to another. The chart does not include all the stakeholders in the recycling system, but rather represents those directly involved with grassroots recyclers.

Figure 3. Overview of the relationships between stakeholders involved in the recycling system in Chile

Grassroots Recyclers as Hard to Reach

In 2024, ANARCH, in partnership with municipalities and NGOs in Chile like La Ciudad Posible, Latitud R, Araucanía Hub, and the Moisés Bertoni Foundation, launched the *Aliados por un Reciclaje Más Inclusivo* project funded by Coca Cola Chile.⁶ This initiative aims to support 1,200 grassroots recyclers across 19 cooperatives in 10 regions of Chile. The project has both social and environmental objectives. ANARCH has been advocating for the rights and recognition of grassroots recyclers, who told us, regarding the REP law, "In practice with the law of REP we are excluded, sacked from the productive process, unaware of our history, and ignoring our pre-existence."

Historically, the work of grassroots recyclers has been invisible with no recognition from the government, municipalities, or society. As one member of the ANARCH board told us, "We were a group of men and women who used to be invisible to society, with no voice and no face." This lack of visibility initially led to the exclusion of grassroots recyclers from the REP law. Another ANARCH board member shared how they received a call from a member of government to inform them about the bill, "We are here discussing a bill and you are not included. This has to do with recycling and you are nowhere to be seen on the draft." Consequently, ANARCH worked with municipal governments to find recyclers and give them a position, title, and recognition, acting as a bridge for the authorities to reach the grassroots recycling community. From the board member's perspective, "globally — recyclers — they have been participating in environmental discussions and the relevance of our work as waste pickers is now being noticed."

Grassroots recyclers are traditionally from lower socioeconomic backgrounds, with their primary objective for engaging in recycling being to generate funds for their livelihood. One ANARCH board member who participated in this research said, "We became environmentalists, but we were born as people with an economic and social reality." Alongside their economic reality, many grassroots recyclers also face education barriers: "When people are poor, they have less access to education." Despite its aim to help these workers, formalizing the recycling process has marginalized many traditional grassroots recyclers from low-education backgrounds, many of whom did not have the opportunity to learn how to read and write.

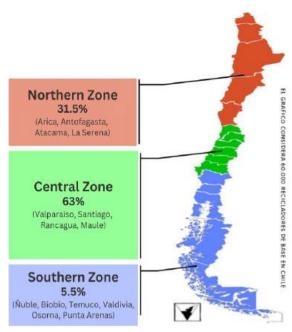


Figure 4. ANARCH currently supports recycling cooperatives and grassroots recyclers across the country

^{6 &}quot;'Aliados' the New Platform that Promotes Social Impact Projects in Chile," The Coca-Cola Company, May 2024. 🦑

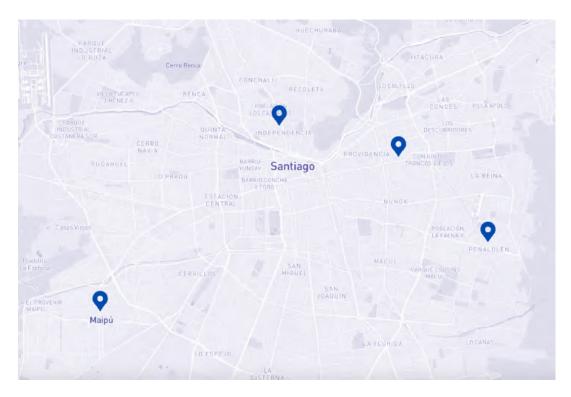


Figure 5. Map of recycling cooperatives in metropolitan Santiago that participated in the research, including Peñalolén, Maipú, Vitacura, and Independencia

This has resulted in a gap in terms of training, certification, and formality required by the system for the grassroots recyclers, introducing obstacles that prevent them from being able to continue the work they've done for years. "How can I get certified if I can't read or write?" one recycler told us.

Given the nature of the demographics of grassroots recyclers, ANARCH actively worked to support communities with lower education and socioeconomic backgrounds to participate in the formalization of their industry. Following the implementation of the REP law, all grassroots recyclers were required to pay for certification (consisting of training modules and a formal exam) to be recognized as formally working in the sector. ANARCH facilitated administrative support from companies to provide recyclers with the funding for the certification, but this has had only

very low take-up rates of approximately 10 to 15 per cent so far.

Chile's geography presents a greater challenge for grassroots recyclers, many of whom come from hard-to-reach rural communities. ANARCH highlighted that there has been a substantial difference among northern and southern Chile in terms of economic conditions and the contrast between urban and rural settings. Socioeconomic factors materially affect the distribution of recyclers across the country. A board member from ANARCH noted, "Chile is a very long country, so it's very difficult to get people together." This condition creates additional barriers to certification, further marginalizing grassroots recyclers communities.

To date, ANARCH supports 36 cooperatives nationwide. In this case study we focus on four cooperatives in different municipalities based

in Metropolitan Santiago: Peñalolén, Maipú, Vitacura, and Independencia (Figure 5).

Their Challenges

Grassroots recyclers face a broad range of issues that can be categorized into economic, sociocultural, and systemic challenges. The combination of economic challenges, social stigmas, and systemic barriers has significantly affected their ability to feel recognized by broader society for the impact and value of their work.

Economic challenges. Most grassroots recyclers rely on income they earn through collecting and selling recycled waste. Prior to the interventions of ANARCH and the REP law, grassroots recyclers would often earn less than the minimum wage — around CLP 400,000 (USD 440) per month. Many recyclers reported this income was insufficient to meet their basic needs such as food and healthcare. Similarly, the lack of a formal contract means that workers don't pay taxes and therefore cannot access public health services.

The level of compensation that people received for collecting waste was determined by private recycling intermediaries who would purchase collected material from recyclers. Because many recyclers lacked formal training in negotiation, administrative tasks, management, and computer skills, they were vulnerable to unfair prices and contracts with intermediaries. There was also a lack of price transparency, with large price variations across different areas of the country. This was particularly exacerbated in hard-to-reach areas such as historically low-income neighbourhoods or those geographically distant from cities.

Even though grassroots recyclers had low incomes, their ability to increase those incomes was also limited. The maximum amount of material a grassroots recycler collects not only depends on their equipment and physical

capacity, but also their ability to identify bottlenecks in their processes. For example, without knowledge of how to collaborate with other individual recyclers, training to improve their processes, or the capital to purchase better equipment, it is challenging for recyclers to increase the volume of material they can collect and sell. As a result, the income they receive from intermediaries would remain low. As a cooperative member shared, "To have a machine to compact the material and press it down — it helps us with the space. The recycled plastic volume [we collect] has changed. We now have much more."

In its efforts to empower recyclers, ANARCH has encountered economic challenges. Expanding its reach to support more grassroots recyclers across Chile requires more resources to enhance productivity. As a board member told us, "If in small scale we have been able to remove [approximately] 70 per cent of the waste from the streets, can you imagine what could have been done with machinery and proper equipment?" Currently, ANARCH relies on its partnerships with the municipal government and private companies to support their daily operations. However, this financial model is less effective in providing urgent funds for ANARCH and its recyclers, for example, to repair broken machinery or obtain permits. Consequently, creating a sustainable financial model while maintaining existing financial relationships is one of the association's goals to ensure inclusivity for low-socioeconomic recyclers.

Sociocultural challenges. Another challenge that grassroots recyclers face is social discrimination and prejudice by wider society. Many recyclers report having felt shame or being treated negatively by police authorities, residents, and other members of society because of stigmas associated with collecting waste material from streets or landfills. As a cooperative member said to us, "People would look at you strangely — the

Table 3. A summary of the adverse human rights conditions of two closed landfills in Chile (adapted from the document "Documentación de la situación de derechos humanos de los recicladores en Chile" [Documentation of the Human Rights Situation of Recyclers in Chile] provided by ANARCH)

Category	La Chimba	El Molle
Number of recyclers	Approx. 150 people	Approx. 310 people
Working conditions	No labour regulations; entire families of recyclers	High vulnerability; prohibited from working in landfills because of significant risks posed by large machinery and vehicles
Employment status	Left without employment after closure in 2021	No employment contracts; recyclers work without basic safety equipment
Health risks	Exposed to various health risks; no health coverage, experiencing health problems caused by long-term contact	No pretreatment process, increased risk of physical harm by entering the waste burial area
Municipal support	None, recyclers left without income	Neglected by municipalities, want to follow safety measures but lack resources. Municipalities delegate responsibility to Veolia

fact of smelling or being dirty —and they would take your trash away." Because most grassroots recyclers collect waste on the streets, they are often mistakenly assumed to be homeless, unemployed, or struggling with addiction. These stigmas contribute to the marginalization that grassroots recyclers experience, further exacerbating their economic hardships and health challenges.

Grassroots recycling is physically demanding and dangerous work. Both working in landfills or on the streets, recyclers have experienced physical assault, verbal abuse, and in some instances, death. Female-identifying recyclers were particularly vulnerable, facing a higher risk of sexual violence and mortality. Many recyclers also previously worked primarily at night, which further heightened the danger they experienced. A woman from the ANARCH board shared how, "Women and children faced danger on the streets while men turned to drugs and alcohol, all amidst widespread social discrimination and violence." "[Recyclers'] children also often faced bullying at school because their parents worked with trash."

In 2022, there were 3,735 active waste disposal sites in Chile, and 70 to 80 per cent of street recyclers used their homes to separate and sort the materials they collected. A study on the human rights situation of recyclers in Chile highlighted the lack of labour security for recyclers as the country transitioned away from the use of landfills (see Table 3).⁷

Although working in landfills has now become illegal, the harsh conditions that recyclers once endured has pervading effects on the psychological and sociocultural challenges they experience today. In a discussion on working conditions, an ANARCH board member shared that working in landfills was "the worst work

for a human being ... It violates all social and human rights, and the right to dignity. Handling trash among dead dogs, birds, rats ... was not a way to make a living." Present-day working conditions also still pose significant challenges. Without shelter or appropriate clothing, recyclers face harsh environments when collecting and sorting waste on the streets, particularly in low temperatures or rainy climates. This not only increases their risk of injury and health issues but also affects the amount of material they can collect and sell.

Systemic challenges. Grassroots recycling is inherently informal and involves workers from low socioeconomic demographics. This makes it difficult for autonomous recyclers, cooperatives, and ANARCH to overcome systemic barriers to legitimacy. For individual recyclers, formalization involves three main components — joining a recycling cooperative, undergoing training, and receiving certification. Yet barriers exist in each component. First, many recyclers are hesitant to engage in the process of formalization in the first place. One recycler shared, "There is fear ... Formalizing means you are now obliged to abide by the law. And not every cooperative [and recycler] is able to do that. If [they] go bankrupt, [they] have a debt with the state." Some recyclers, known as "micro-recyclers," also struggle with drug addictions or homelessness — or they are elderly and don't earn enough pension. Although they are reported to generate tonnes of recycling that are unaccounted for, micro-recyclers have the highest rate of unwillingness to formalize their work. Even if a recycler is willing to engage in formalization, there is a fee involved with undergoing training and receiving a certification, which many are unable to afford.

To compound issues of access, training is delivered primarily as an online module or in

^{7 &}quot;Documentación de la situación de derechos humanos de los recicladores en Chile," ANARCH.

an in-person workshop. Many grassroots recyclers don't have computer skills or the ability to read and write, which act as a barrier in formalization processes. Recyclers who are not certified can face opposition from police forces and local governments, who can refuse their entry into certain neighbourhoods to continue their work.

For recycling cooperatives, members' reluctance to engage in formalization hinders their ability to expand operational capacity. As one cooperative member noted, "It's hard to find recyclers willing to work here ... It's difficult to work in an organized manner in which you have to wait for your wage."

For ANARCH, the challenges of organizing recyclers into cooperatives are compounded by the attitudes and backgrounds of the individuals involved. Communication between cooperatives, recyclers, and ANARCH rely heavily on informal messaging platforms like WhatsApp, which can affect overall efficiency and inclusivity. As one stakeholder shared, "We don't have a database with emails so we cannot send emails. It's a communication carried out directly through regional directors."

The lack of resources to create a database also makes it difficult to collect data on recyclers and their varying needs. Additionally, ANARCH can face challenges when engaging with municipal governments to advocate for cooperatives. For instance, the association helped a cooperative to request funding from a municipal government to repair a broken machine, but long delays in receiving the funds hindered the cooperative's ability to generate income. These limitations in data and communication are especially challenging for reaching recyclers in remote areas, given Chile's geography.

Interventions: Advocacy, Operations, and Commercial and Economic Support

ANARCH plays a crucial role as an intermediary between the recyclers and other stakeholders in the waste-management process. Through several key interventions, ANARCH has supported grassroots recyclers in their efforts toward social inclusion, recognition, improved working conditions, and hope for a better future. The interventions can be categorized into four areas: advocacy for legislation and government regulation, operational support, leadership and personal development, and commercial and economic support (see Figure 6).

Advocacy Support

Thanks to ANARCH's involvement in drafting the REP legislation, grassroots recyclers have gained social recognition for their hard work and dedication. The community has felt the impact of the REP law in acknowledging grassroots recyclers. As one recycler shared, "recently, there have been laws and a new governmental mentality that recognizes that we have to take care of the environment, protect our environment, and take the issue of waste seriously."

ANARCH empowers grassroots recyclers through continuous political advocacy and support, representing them at all levels of government — local, state, national, and international. This advocacy was crucial in securing their inclusion in Chile's REP law, which has increased visibility for the essential role that grassroots recyclers play in waste management. Reflecting on the effort required to be part of the REP law conversations, an ANARCH board member said, "We didn't knock on the door. We kicked the door open to really be able to be there in the forefront."

Additionally, ANARCH serves as an intermediary between grassroots recyclers and municipal

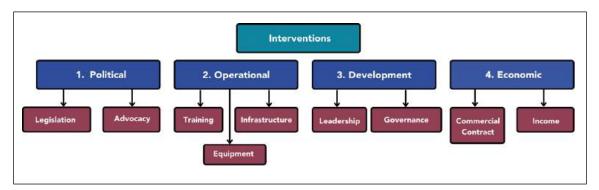


Figure 6. Overview of ANARCH interventions to support grassroots recyclers in Chile, including political, operational, developmental and economic empowerment

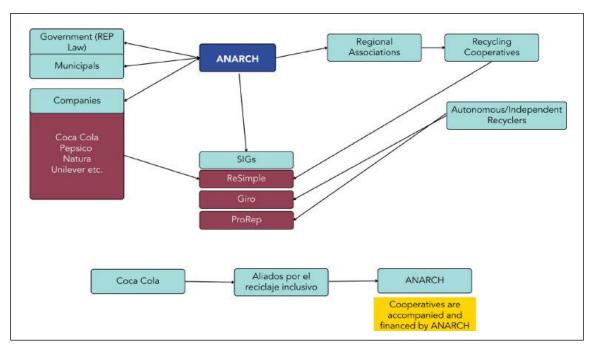


Figure 7. ANARCH's relationship with key stakeholders

governments. In this role, it uses its political relationships to integrate grassroots recyclers into municipal operations through three key approaches (see Figure 7).

First, it advocates for the visibility and recognition of cooperatives within municipalities. This foundational relationship is crucial because it provides cooperatives with essential freedom and mobility in their respective areas. An ANARCH board member said "The interventions in ANARCH have led to significant economic

empowerment for cooperatives, as evidenced by increased wages, improved working conditions, and enhanced social recognition and visibility."

Second, the association works to ensure that cooperatives are included in municipal wastemanagement operations. While grassroots recyclers are vital in the recycling process — collecting and sorting materials at the community level — they are not the sole participants. Municipal governments often have their own recycling programs and may employ non-

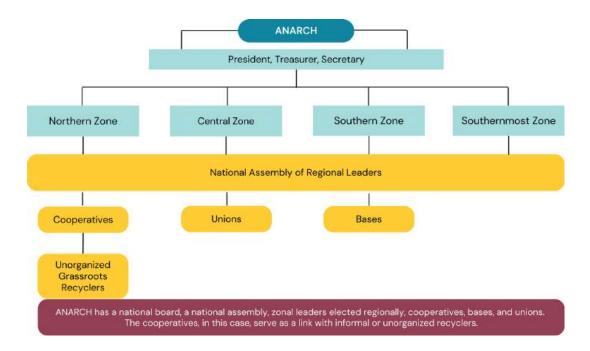


Figure 8. Overview of ANARCH's organizational structure

ANARCH recyclers to manage specific areas. This can create barriers to entry, especially when municipally employed recyclers are assigned jurisdiction over certain areas. As an ANARCH board member explained, "The municipalities tell us there is a company that already has 40 per cent of the city, and then we have to fight for another 40 per cent or 10 per cent or 20 per cent."

Although the REP law does not guarantee grassroots recyclers a portion, ANARCH's role in political advocacy ensures that they remain included in the waste management system. This situation can create challenges in maintaining effective recycling practices and collaboration within the community, as municipal governments can prefer to engage solely with autonomous recyclers outside of cooperatives. It's important for municipalities and grassroots recyclers to work together to establish clear guidelines and ensure that all parties involved in recycling can contribute effectively without unnecessary overlap or conflict. For example, ANARCH has ensured the inclusion of cooperatives by suggesting

ways in which grassroots recyclers can work collaboratively with the municipal government to collect material. As a recycler explained, "Our trucks, together with the city trucks, go around these drop-off spots and bring the bags to us. And we take care of it [the waste]."

Finally, ANARCH's primary objective is to secure support from municipal governments for grassroots recyclers. This support can take various forms, such as providing city trucks to help cooperatives collect larger quantities of waste, or funding education campaigns to encourage more residents to drop off recyclable materials. Additionally, municipal governments may provide funding for physical infrastructure or protective equipment for cooperatives.

Leadership and Professional Development

ANARCH has been instrumental in structuring and supporting cooperatives. Each recycling cooperative includes a set of leaders and a group of grassroots recyclers (see Figure 6). Formal

leadership roles within each cooperative include positions such as president, secretary, and treasurer. These roles come with opportunities for managerial-level certification and administrative responsibilities. In the cooperatives we visited, and across ANARCH nationally, women hold the majority of these leadership roles, providing them with empowerment opportunities that have historically been less accessible.

While leadership roles can vary by location, their primary responsibilities include representing the cooperative to ANARCH and managing daily operations. For many cooperative leaders, this is their first leadership experience. To aid their professional development, the association offers leadership training and development opportunities, helping to empower regional leaders. As an ANARCH board member stated, "Building leaders, forming leaders who are capable of leading in regions and cities where they live, is fundamental." They also mentioned that the goal is to have regional leaders managing their own regions independently.

Operational Support

Training and certification. To deliver training and certification, ANARCH collaborates with municipalities and private entities to provide a standardized certification program for recyclers. This program aims to equip recyclers with the necessary skills to operate effective recycling activities in their area. Recyclers also receive training to operate machinery as well as managerial training to help recycling operations run effectively. One of the cooperatives said, "Thanks to ANARCH, we've been able to certify most [recyclers]. In Chile, there are more than

60,000 grassroots recyclers and [around] 2,500 are certified, including us."⁸ This certification will legitimize the work of grassroots recyclers and help them to get a better income and better working conditions. Yet, given few certifications to date, grassroots recyclers found challenges in accessing contracts and working in a formal setting. Through intervention from ANARCH, there are still considerable opportunities to increase grassroots recyclers' access to working with formal contracts.

Infrastructure. Engaging in formalization requires administrative structures that grassroots recyclers often lack the resources or capacity to manage. ANARCH has intervened by providing crucial administrative support, particularly in tasks related to regulation, compliance, and certification. For example, during the COVID-19 pandemic, ANARCH helped cooperatives by securing permits that allowed them to continue waste collection legally. It also manages the certification process for its members, encouraging more grassroots recyclers to participate in training sessions and receive certification, thereby making formalization more accessible.

Part of developing infrastructure involves gathering data on communities that were previously "invisible" to government and society. Three years ago, ANARCH was a key contributor to the creation of Chile's first National Registry of Recyclers. This registry aimed to determine the official number of grassroots recyclers in the country and their distribution across different regions, and gather demographic information.

Table 4, adapted from the National Registry of Grassroots Recyclers report, shows the distribution of grassroots recyclers by sex and

⁸ Gobierno de Chile, Central Unitaria de Trabajadores Chile, Confederacion de La Produccion y Del Comercio, "Register of Certified Persons," October 2024.

Table 4. The distribution of grassroots recyclers by sex and region. The first consolidated database of grassroots recyclers at the national level (adapted from the "National Registry of Grassroots Recyclers 2021")

Distribution of Sex by Region	Women	Men	Total
Región de Antofagasta	56	120	176
Región de Arica y Parinacota	27	50	77
Región de Atacama	25	34	59
Región de Aysen *	1	7	8
Región de Coquimbo	46	84	130
Región de La Araucanía	119	114	233
Región de Los Lagos	64	86	150
Región de Los Ríos	16	25	41
Región de Magallanes **	2	0	2
Región de O'Higgins	61	129	190
Región de Tarapacá	27	61	88
Región de Valparaíso	103	410	513
Región del Biobío	159	114	273
Región del Maule	45	104	149
Región del Ñuble	22	41	63
Región Metropolitana	381	640	1,021
Total	1,154	2,019	3,173

^{*}The Aysén region was not considered in this consultation, however, some contacts arrived within the ministry's databases. In addition to that, when opening the pre-registration form publicly, people from that region entered, which is why it was decided to survey them.

^{**}The Magallanes region was not considered in this consultation, however, when opening the pre-registration form publicly, people from that region entered so it was decided to survey them.

region.⁹ Although the recyclers we met through the cooperatives perceived a higher number of female recyclers compared to males, the data reveal a different picture: there are almost twice as many male grassroots recyclers as females across the country.

Beyond administrative support, ANARCH also helps grassroots recyclers gain access to physical infrastructure. By leveraging relationships with municipalities and businesses, it provides cooperatives with essential facilities like warehouses and sorting equipment. This support enables cooperatives to collect, store, and sell more material, thereby increasing their profits. Enhancing infrastructure with machinery and protective clothing is a priority, since it crucially affects the safety and efficiency of recyclers' work.

Support from government entities and waste-producing companies, such as Coca-Cola, has had a tangible impact on grassroots recyclers. For example, a cooperative member remarked, "Now we have a warehouse. We used to work on bare ground, but now we have a proper floor," illustrating how improved facilities enhance both safety and well-being. Organizations like La Ciudad Posible provide material and utility support, such as conveyor belts for waste sorting. Most cooperatives receive equipment and machinery at no cost and are trained to use them effectively.

Commercial and Economic Support

Another goal of ANARCH is to ensure adequate and stable income for grassroots recyclers. Currently, this involves negotiating with buyers and municipalities to pay all recyclers above the minimum wage. Recycling cooperatives

collect waste via either household collection or from drop-off locations. In some recycling cooperatives, recyclers are provided a formal contract upon joining with a Collective Management System (GRANSIC). This contract includes a consistent wage, paid biweekly, at or above the minimum wage. At times, leave benefits and potential promotion pathways are also included. The lack of social recognition of their profession has meant that, prior to the REP law, grassroots recyclers were not formally employed in the system and thus not eligible for healthcare benefits. But now that many recyclers have been organized into cooperatives, they have increased access to health benefits. Access to healthcare is a potential benefit to signing a contract with a cooperative.

All ANARCH cooperatives can benefit from a commercial agreement that the association negotiated with ReSimple. The GRANSIC, an intermediary between cooperatives, municipalities, and companies, purchases collected recycled material and operates with the largest market share. In the commercial agreement, ANARCH negotiated a pricing model that allows its recyclers to be paid equally and fairly. In the model, there is a fixed floor price and a variable price. The floor price is a minimum price that must be paid to recycling cooperatives regardless of the type of material being sold. The variable prices are additional revenues paid based on the volume, quality, and demand for material collected and sold to ReSimple. This commercial agreement provides solutions to two key challenges facing grassroots recyclers: (1) being subject to unfair negotiations by intermediaries as a result of a lack of education, and (2) being subject to considerably low market prices that are not enough to make a living from.

^{9 &}quot;Registro de recicladores de base a nivel nacional," CEMPRE Chile, Fundación El Árbol, ANARCH, and La Ciudad Posible, February 2021.

Table 5. Material price distribution sample

Product	Price per kilogram in Area A (in Chilean pesos)	Price per kilogram in Area B (in Chilean pesos)
Carton/cardboard	60,000	30,000
Paper	110,000	100,000
Mixed	50,000	35,000
Magazine	45,000	20,000
Aluminum lids	600,000	300,000
Scrap metal / junk	100,000	60,000
Glass	10,000	5,000
PET	300,000	150,000

Note: Adapted from the document "Documentación de la situación de derechos humanos de los recicladores en Chile" [Documentation of the Human Rights Situation of Recyclers in Chile], data provided by ANARCH

This is particularly exacerbated for cooperatives in regional areas, where the market value for PET plastic or other materials can be as low as half that seen in metropolitan cooperatives. Before the commercial agreement, there were significant price disparities between metropolitan Santiago and more remote regions, as Table 5 indicates.

However, autonomous grassroots recyclers who are not members of a cooperative have a different income model. Rather than receiving a monthly salary through a contract with ReSimple or the municipalities, they instead gain their income exclusively through sales of collected material. However, thanks to ANARCH's agreements with GRANSICs, autonomous recyclers also have security over always having an intermediary to sell the material to. ProREP and GIRO are the remaining two of three GRANSICs and are intermediaries with pretreatment plants. In this agreement, both GRANSICs buy material-collection services from autonomous recyclers. Thus, even though recyclers who are not

members of a cooperative have considerably less negotiation power and wage security than those who belong to a cooperative, ANARCH ensures that they are still not left out of the commercial process.

Outcomes from ANARCH

ANARCH is an example of a community-based workers' union that represents the interests of its members to other stakeholders (industries and governments). Like other workers' unions, they currently provide a voice to 36 cooperatives across Chile, from the northern region of Arica and Parinacota to the southern region of Punta Arenas, and are looking to expand their reach. Beyond representation, ANARCH has been crucial in the organization of grassroots recyclers into cooperatives, ensuring that they have the negotiating power in conversations with other stakeholders.

ANARCH's members have gained the ability to negotiate from a position of strength with other stakeholders such as recycling companies and municipal governments, whereas previously they may not have had the opportunity or capability to do so. This applies to both types of members: autonomous recyclers or cooperatives.

Economic Empowerment

One of the key outcomes that ANARCH accomplished through their work in formalizing grassroots recyclers is economic empowerment. With the creation of a cooperative, recyclers are guaranteed job security through steady monthly income and the benefits that come with it, that they otherwise would not have realized. In certain cooperatives, they also have clear working periods, which allows them to do other activities rather than working on the streets at all hours of the day. Some are completing their education or doing other work activities, such as tailoring and selling clothes in a flea market.

This situation contrasts with their previous situation of being unrecognized by the government. Being able to rely on a monthly salary, one recycler described its impact, particularly as the national minimum wage increased across Chile in mid-2024. "When we had contracts and informal agreements, we would earn 300,000 pesos. And now we get 450,000, and we were offered 100,000 more this month, and we are waiting for it. So the total would be 550,000 [pesos]. So that's good." The contract is a stipulation for cooperatives that follow the model of monthly salaries. Another noted that, while the income made from directly selling recycled materials may be higher than monthly wages, the infrastructure, economic stability, and

job security that they gain from being part of a cooperative trumps that. A cooperative member told us, "Even though recyclers who work in the streets, they might make more money daily, but they do not have a place such as this one where they can take a shower, have their meals, work contract, health care, which is part of the contract."

Social Recognition

Through ANARCH's advocacy and the inclusion of recyclers in the REP law, grassroots recyclers' recognition has fostered respect and social acknowledgement. A key element in shifting attitudes toward recycling and grassroots recyclers has been the introduction of municipal and national recycling campaigns. These campaigns, which have only recently been launched, actively engage residents in their communities by encouraging them to drop off recyclable materials at designated points.

A recycler shared her positive experiences with residents, noting, "They [residents] like to come to the drop-off points because they see recyclers separating stuff and people value that and are interested in that." This shift is a meaningful change in recycling processes, placing the onus on citizens to sort their waste before bringing recyclable items to the drop-off point. Once at the drop-off point, there is an additional sorting process where materials are further divided into different materials and submaterials.

A recycler from one cooperative noted that their municipality uses social media to educate residents about recycling (see Figure 9).¹⁰ As a result, many residents arrive at the drop-off points already informed about what items can

¹⁰ Vitacura Sustentable, Instagram. 🥜



Note: The image on the left gives examples of which materials should be sorted into the yellow trash bags provided by the municipality, and the image on the right provides examples of items that are accepted by the municipality recycling services.

Figure 9. An example of promotional material from the municipal government of Vitacura to improve recycling education through social media

be recycled. This increased awareness has led to greater respect for recyclers as workers. Interactions with recyclers at these drop-off points also provide residents with further opportunities to learn about waste management and recycling. A recycler explained, "There's minimum sorting taking place [at the drop-off point]. It's more the role of teaching the citizens how to do it, telling them what they can recycle or not. Here, the individuals or the citizens are much more accountable, and they have much more autonomy in doing that [recycling]."

Although efforts to gain social recognition for grassroots recyclers continue, outcomes vary among recyclers and cooperatives. For instance, in a cooperative that collects and sorts waste from residential buildings, a recycler highlighted ongoing challenges: "So the idea is always to

wash them [Tetra Pak] and press them before they come [to the sorting site]. But people don't usually do that, so we have to do that. It would be ideal if people sent their material already cleaned up to avoid the smells and everything."

Recyclers frequently encounter nonrecyclable materials in the waste collected, which can range from harmless items to more unsanitary items like diapers and dead animals. It is clear that increasing the visibility and effectiveness of recycling efforts requires collaborative work among municipal governments, recyclers, and the community to improve knowledge and awareness about recycling and waste management.

Individual Empowerment

Beyond social recognition, grassroots recyclers have also gained greater personal empowerment through ANARCH's support. Some noted that they began recycling as a means of survival and purely for economic reasons. Historically, this has been the case for many grassroots recyclers. However, as the country has begun to learn more about recycling, so have the recyclers come to see the importance of their work. A recycler shared their enthusiasm with us: "I know everything about recycling and I love it. I love what I do. I love my work. It's something that is actually very important and crucial for future generations. I feel important and I see the importance in what I do. Very important."

Their passion for recycling goes beyond economic factors into environmental factors, empowering the recyclers to feel a greater sense of pride and fulfilment. They also are keen to share their knowledge about recycling with their community. One recycler shared how they go to local schools to teach recycling to children: "It was a very nice occasion to have small children asking me so many questions and really being interested in recycling ... My idea is really to get them and teach them when they are young. When I go to collect [recyclable] material in schools, I tell the teachers and headmasters and we offer them talks about the importance of recycling."

Another recycler recounted the opportunities to teach local residents about recycling when they drop off their recycled materials at the drop-off points. "To change their mindset that it is not about throwing it [garbage] away. This is not garbage. This will have a second life and that's the important thing about this job: raising awareness." Grassroots recyclers demonstrate their ability to make an impact beyond their immediate work by educating the public and raising awareness about recycling and sustainability practices. This involvement opens

up opportunities for them to educate citizens at various levels — children in and out of schools, as well as adults — further integrating grassroots recyclers into society.

Improved Everyday Working Conditions

Through ANARCH's advocacy and representation of grassroots recyclers in the business and political spheres, cooperatives have gained access to land, drop-off points, baling press machines, and safety equipment provided by municipal governments and other stakeholders. The provision of land and infrastructure (dropoff points) allows cooperatives to sort waste in a fixed facility, which has resulted in better traceability of PET plastics recycled, among other recyclable materials. One cooperative shared that they were provided an office and computer, which allow them to input data about the amount of materials they recycle every day. This has resulted in better data collection processes and enhanced traceability of materials recycled, especially PET volume, which were previously not well documented.

Data and information by grassroots recyclers supports ANARCH in their further advocacy in negotiations with municipalities, private companies, and other key stakeholders. A recycler within a cooperative acknowledged the role of municipal governments and ANARCH: "The municipal government has helped us because they have a lot of drop-off points. Since we were not so known before, anything we needed from the municipal government, ANARCH would come and help us and really stand up for us and defend us."

Having a fixed facility has also ensured that the recyclers have better working conditions than they would on the streets. This includes safety from extreme weather conditions, sexual assaults, and violence. In Chile, about 30 per cent of







Figure 10. (Above) Two grassroots recyclers sorting PET waste at Serviclaje Cooperative; (left) a drop-off recycling centre for neighbourhood residents to self-sort and dispose of their recyclable waste; (right) a baling press machine used to crush PET waste into bales for ease of recollection (photos by the student research team)

grassroots recyclers are women (Table 4). One of the recyclers shared that, because recycling tends to generate relatively lower income, men and heads of families often seek more lucrative jobs, such as driving or construction work. This may explain the higher number of female recyclers in some cooperatives. While there are no specific programs targeting women, they have benefited from the various programs that ANARCH has implemented. The dangers associated with

collecting materials on the streets have been minimized through ANARCH's advocacy for better working conditions.

The formalization of grassroots recyclers into cooperatives allows them to function as a business, while maintaining their independence and essence of being grassroots recyclers. "And today we are managing these recycling stations called *Puntos Limpios* [clean points]

where recyclers can have their own management resources, where they can perform their work, and where they don't need to follow private companies' guidelines." ANARCH also offers leadership and managerial opportunities to their members. At the time of the report, the ANARCH Board has 12 leaders, 9 of whom are women. The association's structure is designed to be inclusive and geographically diverse, with a widespread and flat hierarchy that connects cooperatives across different regions. Discussions with cooperatives highlight the opportunities for women to assume leadership roles within their cooperative. As one participant noted, "Women here have power — most leaders are women."

Lessons Learned

ANARCH's experiences offer valuable insights for other community-organized groups of informal workers in different contexts. The successful collaboration between governmental, nongovernmental, and private sectors demonstrated by ANARCH's work with grassroots recyclers across Chile highlights the potential outcomes of such partnerships.

Successful implementation of nation-wide laws requires clear communication across all levels of government.

One of the key challenges ANARCH faced was the lack of communication and alignment between different levels of government, specifically the national government, which established the REP law, and municipal governments, which implemented it. Municipal governments are directly affected by the law, but they are also directly responsible for implementing it. The ANARCH board shared how their initial step was to develop a shared

understanding among the municipalities about the REP law and how it affected grassroots recyclers. Consistent messaging and understanding of the new law and its impacts are beginning to lead to consistent approaches toward implementation by municipal governments. The inclusion of relevant stakeholders is key to ensuring that the voices of all stakeholders are represented in the law.

ANARCH was able to participate in the writing of the bill and advocate for the inclusion of grassroots recyclers, where otherwise they had been excluded. This then led to the formal recognition of grassroots recyclers as a profession and an inherent part of the wastemanagement ecosystem, allowing them to be included in conversations around recycling and have negotiating power with other stakeholders. Importantly, their formal inclusion into the wastemanagement ecosystem has allowed them to sustain their livelihoods by continuing the work that they have been doing for decades but now with minimized challenges.

Enacting successful and sustainable change requires key stakeholders to build a strong foundation of trust and partnerships with the communities they serve.

Existing systemic issues, such as low literacy rates and high poverty rates, need to be addressed simultaneously. A multisector approach is required to successfully tackle a change in cultural mindset, particularly for environmental issues, which have only recently become prioritized in the political agenda at the national level. The education of society about waste-management practices, and the role that grassroots recyclers play, need to go hand-in-hand with changes in the law. While the REP law targets waste producers, the root cause of the problem also

has to be addressed: consumer behaviour. The introduction of waste management and recycling practices in schools is a good step forward. There are also opportunities for local education programs, particularly for out-of-school children and adults. Recycling cooperatives already engage in informal educational activities, and these programs could be expanded to take place in different locations, including the drop-off points, local community centres, or residential buildings.

Effective interventions consider, and are responsive to the social, political, and cultural factors they operate in.

Ultimately, any major legislation or initiatives require authentic and meaningful community participation in decision making to understand the unique and nuanced needs and characteristics of that constituency. This ensures that interventions are not only relevant, but also likely to be adopted by the community. A common theme that appeared in discussions with grassroots recyclers was the sudden need for certification in the eyes of the government in order to legally work. The exorbitant cost of certification, differing across different regions, along with the requirement of literacy, does not take into account the socioeconomic background that grassroots recyclers come from. Most grassroots recyclers are from a low socioeconomic background with low levels of literacy and many had left the school system after primary school level. This lack of engagement with formal systems may provide insight into the low levels of certification with examinations and courses, even when ANARCH can provide pathways for external funding. Because grassroots recycling has a long history across different generations, different models of cooperatives have appeared throughout the years. Different models of cooperatives require different strategies and

methods of support. There's no "one-size fits all" approach to interventions for different business models. Having different organizational models allow for better-quality support.

Limitations

This study has limitations around directly engaging with a broader range of stakeholders in the recycling process. Because of the time limitations for field data collection and geographical challenges, we were limited to visiting cooperatives located in metropolitan Santiago. The four sites we visited included a wide breadth of socioeconomic realities, so expanding the geographical scope of the research to regional areas would have been advantageous. We spoke with various stakeholders in the waste-management system, including members of the ANARCH leadership, staff from La Ciudad Posible, recyclers in cooperatives, and some members of the municipal government, but there were a few other stakeholders who were missing from our conversations, including autonomous recyclers, collective management systems (e.g., ReSimple), and producers of household waste (e.g., Coca-Cola). Apart from the progress made by recyclers, cooperatives, and ANARCH to record their work progress on PET recycling, we were unable to fully validate the quantitative data provided from ANARCH, given the informality of grassroots recycling.

Remaining Questions

The importance of ANARCH's work has left us with questions around empowering grassroots recyclers to be explored in future research. Main themes that are prevalent include funding, governance, and the future of the association's work. Given its current project-based funding model, how can ANARCH support its long-term sustainability and growth? How can they ensure that as the formalization continues

and more private companies enter the sector, traditional grassroots recyclers are able to remain competitive in the ecosystem?

Research Team



Lilik Andriyani is pursuing a master's degree in environment studies at the University of Melbourne, specializing in sustainable cities and regions. She was involved in a student community-service program for community participatory mapping and disaster-resilience education in Mentawai Island when pursuing her undergraduate degree in regional development at Universitas Gadjah Mada, Indonesia. Lilik has five years of working experience in government policy and program monitoring and evaluation, notably in the housing and settlement infrastructure sectors in Indonesia. She is interested in the connection between policy and social and environmental challenges to promote sustainable development.

"Joining the Reach Alliance program has been an enlightening journey. It allowed me to learn from the ground up and bring what I've learned to global communities as valuable lessons for future interventions. Research on the formalization of grassroots recyclers in Chile highlighted a crucial insight: while an effective waste management system is highly desirable, it's essential to acknowledge and include every actor involved to ensure no one is left behind."



Kaavya Jha is a master of public policy and management student at the University of Melbourne, with her thesis examining the political barriers to oil and gas fiscal policy reform. She currently works as an APAC policy analyst (energy) at Tesla, and has previously held roles as a research assistant supporting the creation of Australia's first National Climate Risk Assessment (NCRA) and at the Investor Group on Climate Change. Kaavya is a passionate advocate for the global just energy transition, and has been a youth delegate to the United Nations Environmental Assembly in Kenya, and at the ASEAN-Australia Young Leaders Forum. Kaavya volunteers as the secretary of Earthcare St Kilda, a conservation-focused NGO that protects an urban penguin colony in Melbourne.

"Being part of the Reach Alliance program was a highly rewarding experience that expanded my understanding of community-level sustainability initiatives through the work of the grassroots recyclers in Chile. The experience of engaging in field research taught me about the transformative impact of localized efforts in advancing the Sustainable Development Goals, and the intertwined nature of economic empowerment, sustainability initiatives, and the power of community."



Tully Mahr is a proud Aboriginal woman and STEM advocate, currently working on her master's degree in mechanical engineering, specializing in aerospace at the University of Melbourne. With a BSc from the Australian National University, Tully is passionate about the integration of science and engineering concepts to inform a unique and holistic approach to STEM and sustainability research and development. Similarly, she is interested in using her cultural background to integrate traditional Indigenous knowledge into modern research practises. Tully is an advocate for the representation of marginalized communities within STEM, and aims to encourage and mentor the next generation of leaders, scientists, and engineers.

"The Reach Alliance program provided a unique opportunity to explore the impact of community-based research, as well as the important and often unrecognized work contributing to advancing the UN's Sustainable Development Goals. Being able to develop research in partnership with the local grassroots recycling community highlighted for me the importance of storytelling as a way to connect and share our experiences, such that people and communities are heard and empowered."



Kailin Tan is an economics student at the University of Melbourne pursuing a bachelor of commerce degree. She previously led a student pro-bono consultancy for nonprofits, providing advisory services to a wide range of charities and think tanks. Kailin has also had experience providing analysis and advisory services to companies, philanthropies, and government agencies. For example, at CSIRO (Australia's National Science Agency) she undertook research on quantifying Australia's carbon-sequestration potential. Kailin is passionate about pathways to economic development and empowerment, particularly for marginalized communities.

"The Reach Alliance program was a highly meaningful experience that increased my understanding of international development and sustainability. The opportunity to conduct community-based research, facilitate knowledge sharing with a diversity of actors, and contribute to advancing the UN's Sustainable Development Goals is a unique one. It challenged me to expand my interdisciplinary thinking and storytelling ability, while also highlighting the importance of placing lived experience at the centre of economic and sustainability initiatives."



Iga Bagus Jaya Wardhana is an enthusiastic professional with expertise in entrepreneurship, corporate social responsibility (CSR), and strategic project management. He is currently a master of entrepreneurship candidate at the University of Melbourne. Bagus has been working on social development programs with the Indonesian government for more than six years. Recognized with international social development program awards such as the Energy Globe Award and CSR World Leader Award, he is passionate about creating sustainable solutions for social and environmental challenges, and eager to learn and explore more opportunities for sustainability and innovation.

"Being part of the Reach Alliance has been an incredible opportunity to bridge the gap between theory and practice. I've had the privilege of applying my sustainability knowledge to a real-world challenge, and collaborating with brilliant minds from diverse academic backgrounds. This experience has not only deepened my understanding of sustainability but also ignited a passion for driving positive change. By working together, we've empowered recyclers in Chile, contributing to the realization of the SDGs and making a tangible impact."



Yi Yi Yeap is pursuing a master's degree in public policy and management and a language diploma in Spanish at the University of Melbourne. She completed her undergraduate studies at New York University Abu Dhabi, specializing in film and social research. Her six years of experience working in the education sector fuelled her passion for increasing accessibility to education for hard-to-reach communities. Yi Yi currently volunteers as a grants manager for a nonprofit organization that provides free tutoring and mentorship to students from disadvantaged backgrounds in Victoria.

"Participating in the Reach Alliance program was a life-changing experience that deepened my understanding of conducting ethical research. While delivering high-quality research was crucial, it was equally important to respect the lived experiences of grassroots recyclers and amplify their voices. This project taught me the importance of co-creating knowledge, ensuring that our findings didn't just serve academic purposes but also benefited the local community that we worked with."



Maria Rodrigues is director of Kindred, an international nonprofit organization that builds social and emotional well-being using a community development approach. Maria's experience as a researcher, educator, and development practitioner spans over fifteen years working at the intersection of mental health, social justice, and cross-cultural peacebuilding. Community mental health, especially addressing intergenerational trauma, has increasingly become the focus of her work. Maria has completed field research in a variety of contexts, notably with Aboriginal communities in remote Australia, as well as postconflict settings in Kenya, Uganda, and Mozambique. Her enthusiasm for working with students has led her to teach at universities across Australia, most recently at James Cook University as part of their MA Program in Conflict Management and Resolution. Maria's research and consultancy work has contributed to toolkits, policy, and strategic documents for StrongMinds Uganda, the National Indigenous Australians Agency, the World Psychiatric Association, Relationships Australia, and Amnesty International.

"Supporting students on their research journey has been an energizing and eye-opening experience. My goal as a mentor was to show students what is possible when you truly collaborate with community partners to engage local people as active participants and put their priorities front and centre throughout the research process. Working with the students in this way deepened my own understanding of how productive research partnerships can be built."



Kirsty McKellar is a project specialist at Kindred, an international nonprofit organization that builds social and emotional well-being using a community development approach. Kirsty has been engaged in research projects since 2021, after concluding her master of development studies degree at the University of Melbourne in 2020. She has supported research in remote First Nations communities in Australia, as well as abroad, for example, in India. She has worked at the University of Melbourne as a teaching assistant for the Master of Development Studies Program and as the coordinator for multiple University of Melbourne projects, where her role has included facilitating workshops for Unimelb students, coordinating the study visit for a delegation of Indigenous Naga researchers, and travelling to India to coordinate the Faculty of Arts, student-led initiative "Leading Together." She is the coordinator of the Reach Alliance in 2024, and also fulfilled this role in 2023.

"Teaching students community-based research principles and seeing how these come alive during fieldwork has been inspiring and motivating. These student researchers should be proud of this case study and the way it was conducted. By pursuing a collaborative research design that valued local people as knowledge holders, the students have produced a study that is useful to our community partner and boosts voices from hard-to-reach populations. Being part of the Reach Alliance as a research mentor strengthens my commitment to practising research that achieves outcomes for marginalized people and communities, with emphasis on building mutual trust and respect."





The Kindred Group's Reach Alliance 2023 initiative supported student-led research projects in India and Guatemala. Team India explored scalable solutions for addressing mental health disorders through a local nonprofit, while Team Guatemala focused on empowering education leaders to improve education quality in rural communities. The research was presented at the Reach Alliance Symposium in Mexico, which brought together global thinkers to discuss sustainable development goals and social inequality. The projects were conducted in partnership with organizations Atmiyata and ConnectEd. https://kindred.com.co/reach-alliance-2023/



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