

SEPTEMBER 2024



CASE STUDY

CHILE



**Avoiding Food
Waste in Outdoor
Markets,
Fundación Basura's
Experience in the
Metropolitan
Region, Chile**

TABLE OF CONTENTS

SUMMARY

1

LOCAL CONTEXT

2

ABOUT
FUNDACIÓN BASURA

3

ZERO FOOD WASTE
OUTDOOR MARKETS

3

LEARNINGS

10

CHALLENGES

12

OTHER COUNTRY-
LEVEL INITIATIVES

13

REFERENCES

17

ACKNOWLEDGMENTS

17



SUMMARY

This case study presents the issues of food loss and waste in the Chilean context, raises visibility about different initiatives and organizations that address the problem, and discusses the Zero Food Waste Outdoor Markets project, implemented by the Fundación Basura in the Metropolitan Region of Santiago. These initiatives consist of campaigns to collect second-choice foods or food that will be discarded with the goal of building capacities for sustainable and collective management of organic waste on a neighborhood level, fostering ties and networks between stakeholders, reducing CO₂ and CH₄ emissions, recovering as much organic waste as possible and satisfying the needs of people living in situations of vulnerability.

A highlight among the efforts implemented between 2021 and 2024, was the intervention implemented in 16 outdoor markets that collected 17.53 tons of food for community kitchens or composting, depending on its condition, thus avoiding the equivalent of approximately 1.83 tons of methane emissions. While these projects are rare, we can prove that this type of action contributes directly to mitigating the climate crisis by reducing greenhouse gasses, in alignment with Sustainable Development Goal (SDG) #13, Climate Action. They also address SDG #2 Zero Hunger, SDG #3 Health and Wellbeing, SDG #8 Decent Jobs and Economic Growth, SDG #12 Responsible Production and Consumption, and SDG #17 Partnerships to Achieve Goals. The experience was well received and shows good potential for scalability and replicability throughout the country and in the region.

LOCAL CONTEXT

An estimated 6% of global food losses and waste (FLW) occurs in Latin America and the Caribbean, corresponding to about 127 million tons of food produced for human consumption each year.¹

* The main difference between food loss and waste is that loss occurs during pre-consumption phases:

- **During production**, harvest, storage, and distribution, losses in fresh produce can be natural, due to poor post-harvest management or for aesthetic reasons.
- **During the commercialization of prepared food**: the wasting of food that is not sold or that clients don't consume in bakeries, restaurants, and other food establishments.

* On the other hand, food waste occurs during the stages of consumption by the customer:

- **Consumption stage**: In markets, supermarkets, and other points of sale, food is wasted if it is not sold quickly, or if it changes color, ripens prematurely, or starts to rot. This is caused by consumer preference for the freshest and most aesthetically attractive produce.
- **Domestic consumption stage**: Food waste in households is due to the lack of planning in the purchase and use of foods, the lack of time to cook, to apply techniques to prolong the food's shelf life or the incomplete use of products that were acquired when they were on sale. Additionally, edible parts of food that could be consumed are often thrown away.

The value of the food lost and wasted is largely unknown.² However, an estimate of the value of

four commonly consumed products in the Chilean diet is shown here: **for rice**, there is an annual loss of 140.4 tons, mostly due to poor management which causes damage to the grain and its falling on the ground; **for lettuce**, there is an annual loss of 16,550 units per hectare which is approximately 20% of the potential harvest; **for potatoes**, there is a total loss of 2.78 tons per hectare during the phases of harvest and storage, and 13.4 kg (for every ton commercialized) is lost in open air markets because of the weather, mechanical damage, and market regulations. Finally, an average of 63.6 kg of **bread** is wasted per family every year, which represents 16.7% of the national population's average bread consumption.³

A commission was created in 2017 to strategically prevent and reduce food losses and waste through the organization and promotion of dialogue between institutions, public and private sector organizations, and civil society. It was comprised of the Food and Agriculture Organization of the United Nations (FAO), the Office of Agrarian Study and Policy (ODEPA, in Spanish) and the Institute for Agriculture and Livestock Farming Research (INIA, in Spanish), the Chilean Agency for Food Quality and Innocuousness (ACHIPIA, in Spanish), the Food Network Corporation, the Santiago de Chile University, and the organization Sustainable Value Chains. In 2020, this commission was transformed into an advisory ministerial commission called the "National Commission for the Prevention and Reduction of Food Losses and Waste" (CNPDA, in Spanish). Presently it is working to propose a roadmap to strengthen the commission's role and to advance concrete measures.



ABOUT FUNDACIÓN BASURA

Fundación Basura is a nonprofit organization founded in 2015 to challenge the conventional notion that there is something called “garbage” because if you observe, nothing lacks usefulness in nature and all residual waste becomes part of a new virtuous cycle. Nevertheless, humanity created the concept of “garbage” to describe those elements that are no longer useful to them and that they discard without a second thought.

Fundación Basura seeks to address the climate crisis through waste to protect planetary health through three lines of action: education,

consulting services, and political influence to generate a comprehensive and transversal impact on society. Through these central points of action, the organization has promoted projects such as the Zero Food Waste Outdoor Markets, to address food waste in open-air markets, eradicating small dumping grounds through the project Chao Basurales, working on a GreenWashing bill, implementing Zero Waste Academies, publishing books and implementing in-person and online gatherings to bring together experts from the world of waste in search of solutions to build a world without garbage.

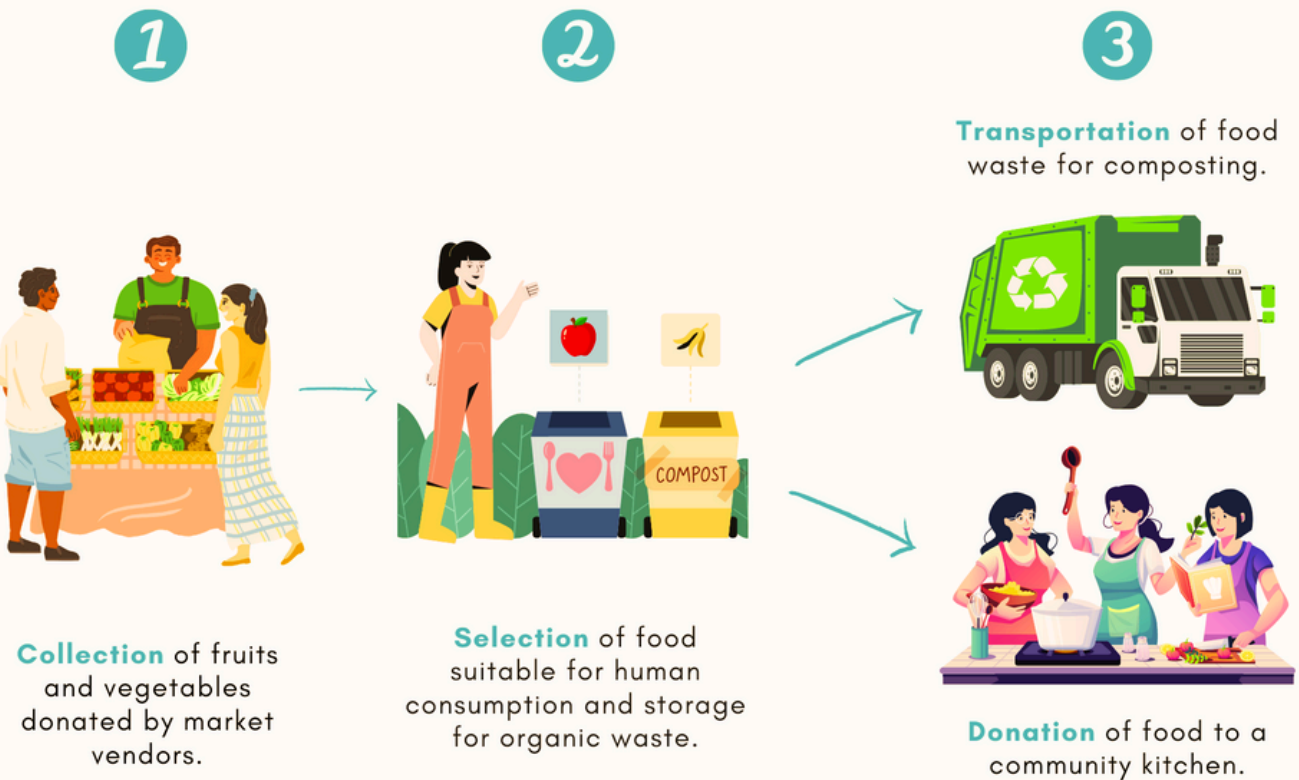
ZERO FOOD WASTE OUTDOOR MARKETS

Outdoor markets are spaces to sell fresh foods in different neighborhoods in Chile. They are weekly events that are also used as gathering spots, for civic development and for artistic expression in the territories. A 2016 study by the Service for Technical Cooperation (SERCOTEC, in Spanish) was able to identify more than one thousand outdoor markets throughout the country. Approximately 5% stated they had problems with hygiene, cleanliness, and garbage.

The “Zero Food Waste Outdoor Markets” project is an initiative that applies the zero waste hierarchy to minimize waste, optimize the use of resources, and promote reutilization and recycling. The collection campaigns directly address food waste by recovering and donating the foods that are not sold and that vendors give voluntarily. This prevents fruits and vegetables in good condition and fit for human consumption from turning into waste, thus ending their life cycle. In parallel, there is a strategy of composting the food that cannot be recovered, transforming it into a valuable resource: high quality compost that can be used to improve soil quality.

Flow

The event is being held with the participation of the community of market vendors, municipal representatives, monitors, and the coordinating team.



* Figure 1. Project Flow Scheme | Fundacion Basura

The **goal** of the project is to address the climate crisis by preventing food waste and fostering the recovery of organic waste through composting through volunteer and socio-environmental education activities. Its specific objectives include the following:

- Develop sustainable and collective waste management capacities on a neighborhood level.
- Change common perceptions and understanding of imperfect food.
- Promote the creation of links and networks among stakeholders.
- Reduce carbon dioxide (CO₂) and methane (CH₄) emissions and recover most organic waste.
- Satisfy the needs of people living in situations of vulnerability.

On an international level, this initiative addresses Sustainable Development Goals (SDG) #2 Zero Hunger, SDG#3 Health and Wellbeing, SDG#8 Decent Work and Economic Growth, SDG#12 Responsible Production and Consumption, SDG#13 Climate Action and SDG#17 Partnerships for the Goals. This relationship can be seen in the project's contribution to food security, thanks to food recovery and donation, the support of nutrition and wellbeing that are derived from diverting organic waste from landfills, the reduction of greenhouse gas emissions, the support of local employment, the incorporation of new practices of production and consumption to prevent FLW and the implementation of collaborations across different institutions.

On a national level, the initiative is in line with and contributes to the goals of national public policies such as the Ministry of the Environment's National Strategy for Organic Waste (ENRO in Spanish), which strives to give value to 66% of the municipality's organic waste by 2040. At the same time, the initiative provides an opportunity for different municipalities to create and comply with regional and municipal-scale climate change plans which should include mitigation and adaptation actions, in the framework of the Climate Change Law (21.455). There are also opportunities to strengthen the implementation of the project through other instruments such as the Quiero mi Barrio (I Love My Neighborhood) Program and Nationally Determined Contributions (NDC) which are in line with the 2030 Agenda.



METHODOLOGY

The methodology for the "Zero Food Waste Outdoor Markets" intervention is based on the collaboration among participants and their articulation with territorial organisms and organizations. It combines food recovery in outdoor markets, their subsequent donation to community kitchens, and the composting of those unfit for consumption.

The relevant actions that have been implemented include prior coordination with the association of market vendors, dissemination of information on a territorial level using informational posters that are given to each vendor promoting the voluntary participation of market vendors –approximately 65% donate food and 70% donate their organic waste–, and raising social and environmental awareness to explain the broader context of these initiatives using dialogue and feedback that creates significant learning for those involved. This information is provided in person to all of the fruit and vegetable stands and is also shared through the WhatsApp channels of trade associations and local organizations such as the neighborhood committees.

VOLUNTARY PARTICIPATION OF MARKET VENDORS

65%

donate food

70%

donate organic waste

AVOIDED EMISSIONS CALCULATION

The results of each campaign are measured through CO₂ and CH₄ emissions reduction indicators, the weight of recovered waste, the amount of food donated to community kitchens, the community's perception, and the increased understanding of sustainable organic waste management. The latter will be understood using surveys with the market vendor association, neighbors, and market-goers, before and after the collection campaigns.

The total weight of the food recovered for consumption or composting will be used to calculate avoided emissions. The total weight will also be used to calculate bioequivalence.

The following method of calculation was developed with GAIA's support. Information from the GIZ book (Table on page 31 of the book Planning Guide for Biogas Projects) is used to estimate the production of biogas from food losses (such as old bread, food that has gone bad, market waste, and average solid urban organic waste). These calculations are based on the average rate of production of biogas of 268m³ per ton of fresh material and biogas with an average methane content of 57.3%. This information is used to convert the m³ of biogas into tons of methane. The natural gas density used (without compression) at 15°C and 1 atmosphere is 0,737 kg/m³, and it is divided by 1000 to get its value in tons.

SUMMATION OF TONS OF CH₄ AND THE NUMBER OF INTERVENTIONS

Municipality	Number of interventions	Organic waste recovered (Tons)	CH ₄ eq (Tons)
Providencia	3	4.48	0.468
Macul	1	0.79	0.083
Puente Alto	1	0.98	0.102
Maipú	2	4.13	0.432
Santiago	2	1.22	0.127
Quinta Normal	3	3.10	0.324
Cerro Navia	4	2.83	0.296
Total	16	1.53	1.83

* Table 1. Neighborhoods with interventions and total results. January 2021 - April 2024 | Fundación Basura

During the 16 interventions implemented through April of this year, an average of 1.1 tons of food were recovered per intervention, or 17.53 tons of recovered food and managed organic waste in total. Data from the weight recorded during each intervention shows that 70% of the food recovered was unfit for human consumption, comprising organic waste, and the remaining 30% was in conditions to be donated and consumed.

This result equals 10.69 metric tons of CO₂ equivalents whose release into the environment was prevented from 2021 to 2024. This translates into 27.7 trees absorbing carbon for a year, equivalent to the impact of consuming 24.6 barrels of oil or burning 5.4 tons of carbon, according to data obtained from the Recyclink platform.

The ecoequivalences or bioequivalences are based on a life cycle analysis, that starts from the point of product generation until its final destination. It is done with different conversion factors that are differentiated by each type of waste product and its treatment, based on data from companies that valorize waste and by the US EPA, according to information on Recyclink.

ECONOMIC MODEL

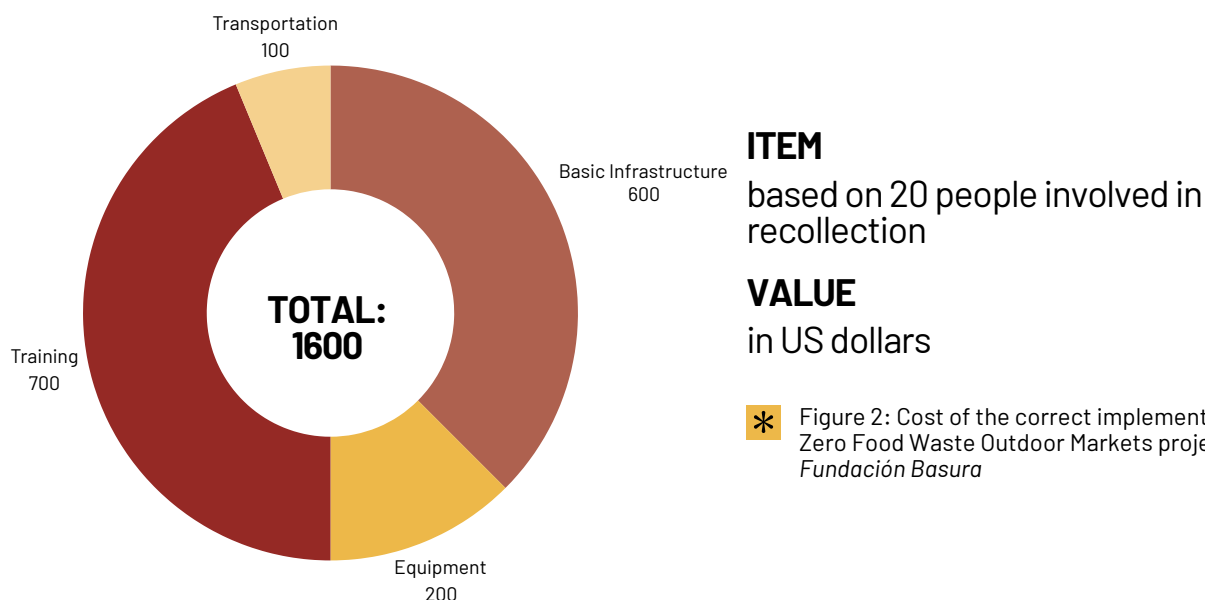
Sustaining this work requires a constant search for public and private financing opportunities, principally by applying to corporate social responsibility programs and to aid funds available for sustainable initiatives. There has been a parallel effort to build an economic model that ensures long-term continuity.

Associates Municipalities Market-vendors Community kitchens Neighborhood committees	Key activities Selection and contact in municipalities Choice of markets and community kitchens for intervention Invitation to participate Evaluation Dissemination of the call to participate Recovery of second-choice foods Raising visibility about FLW with market vendors Donation Organic waste management Impact report Follow up Dissemination of results	Value proposal Preventive focus (donation and education) Collaborative, multi-actor, and interdisciplinary work Learning experience Flexible methodology	Relationships with client Email In-person meetings Phone calls	Clients Municipalities Business, (Corporate sustainability volunteers CSV) mostly from the Metropolitan Region.
	Key resources Sellers Coordination, on a territorial and project level Instructors Audiovisual record Infrastructure (stands, cars, etc) Tools (sacks, gloves, rakes, knives, scales, cutting boards, etc.)		Channels Web, media, social media, emails, events, conferences, word of mouth, newsletters.	
Expenses Transportation (donation, equipment, waste management, etc) Professional fees for team Food Website domain Audiovisual record (photos, videos, interviews, etc.) Self-standing banner			Income Invitation to tender Applying for funds Contact and hiring by email Donations	

The project can be developed by civil society organizations, the private sector, and the public sector, that is to say, led by NGOs, municipalities, or other local business ventures.

- **Led by social organizations:** NGOs play a fundamental role in creating alliances between sectors, requesting financial support from private companies, and coordinating diverse actors such as market vendor associations, neighborhood committees, civil servants from municipal and regional governments, community kitchens, and volunteer entities for recovering the waste generated by outdoor markets.
- **Led by the public sector:** Municipalities or regional governments have budgets that could be used to implement waste recovery actions during outdoor markets. These funds can be used to pay instructors and community recyclers to manage the waste that is generated, in coordination with the association of market vendors. Additionally, some municipalities have composting plants to process their organic waste. For those that lack this infrastructure, this could be an opportunity to develop a project to install it, so they can treat the waste together with garden waste, grass, and tree cuttings. Some municipalities that have relatively “small” volumes of waste to process, provide waste management facilities adding a small center to educate people about composting. Examples of this include EcoParque in Peñalolén which manages 10 tons of waste per month and offers the agroecological education center, and Ecoparque in El Monte, in the Metropolitan Region.
- **Led by local business ventures:** The project can be implemented by community businesses, such as “Las Mingueras” in the Quinta Normal municipality, which coordinates with women volunteers to recollect and select food, and then create products such as jams and canned food for commercialization.

COSTS



* Figure 2: Cost of the correct implementation of the Zero Food Waste Outdoor Markets project | Fundación Basura

The total estimated cost of a waste collection and management project for 20 people includes several key components. First, it requires a single investment of US\$600 to cover basic infrastructure costs, which include the purchase of a tarp, tables, chairs, pull carts, hats, and gloves. Additionally, materials and equipment are required to separate and process waste, such as knives, cutting boards, kitchen cloths, detergent, water, gloves, masks, and bags. Only US\$200 is needed to acquire this equipment which is reused during all interventions. Training and raising participants awareness is another essential component that costs US\$700. Finally, transportation to and from each activity will cost approximately US\$100. The total cost for these activities is US\$1600.



RECOMMENDATIONS BY SECTOR

Transversal coordination is needed across the public and private sectors and with consumers to reduce the rate of food losses and waste by modifying practices, behaviors, and attitudes towards food. The following steps should be considered:

* Public Sector

- Establish regulatory frameworks with clear goals to reduce food losses, incentive schemes, financing, and penalties, ensuring that all involved actors, from producers to consumers, commit to achieving them.
- Contribute to the development and improvement of infrastructure for storage, refrigeration, transport, and food recovery.
- Establish agreements with composting operations, form alliances with other municipalities that have composting plants, or install municipal plants.

* Private Sector

- Use technologies such as digital twins and sensors to monitor the freshness and shelf life of foods, quickly identifying those nearing expiration and taking preventive measures so that they don't become waste.
- Contribute to implementing initiatives for prevention and food recovery through corporate social responsibility programs.

* Civil Society

- Develop awareness-raising and education campaigns that provide detailed information about planning purchases, adequate storage, new recipes, and ideas to conserve foods and the health benefits of these practices.
- Promote domestic composting to convert organic waste into fertilizer and how to use it to plant medicinal herbs, ornamental plants, or vegetable gardens, thus reducing the amount of waste that goes into landfills while also offering a valuable source of nutrients for the soil and promoting food sovereignty.

LEARNINGS

Identify and understand the problem.

Implementation of initiatives should begin with an exhaustive analysis of the supply chain, to identify the critical points of food losses and waste on a local community level.

Develop and implement pilot projects in specific areas to evaluate the effectiveness of the initiatives before bringing them to scale.

This makes it possible to test and adjust strategies in a controlled setting, identifying challenges and opportunities for improvement. Once validated, the pilot projects can be brought to scale and adapted to other regions, while ensuring that the best practices and lessons learned are applied efficiently and effectively to the broader context.

Establish clear performance indicators that should be specific, measurable, achievable, relevant, and time-bound (SMART). This makes it possible to objectively evaluate progress in reducing food waste and improving organic waste management.

Establish goals, aligned with the Sustainable Development Goals, environmental justice principles¹ and planetary boundaries. This contributes to the promotion of permanent policies with the goal of institutionalizing practices to ensure their continuity, regardless of changes in administrations or governments.

Conduct periodic evaluations to ensure that

goals are met. This makes it possible to identify areas for improvement and make the adjustments necessary to optimize current strategies and actions. The evaluation should include the participation of all stakeholders to ensure that adjustments are comprehensive and are implemented effectively.

Regularly publish reports about progress and

results. Maintaining transparency and accountability with all stakeholders provides a solid foundation for future actions and adjustments. The dissemination of these results strengthens confidence and support for the initiatives implemented, by showing the positive impact and the improvements achieved. This information will also help understand the extent of GHG mitigation achieved through these projects.





Maintain campaigns to raise awareness about and give visibility to success stories, to ensure the continued commitment of all stakeholders.

These should be designed to educate and motivate the community, the public and private sector, and civil society organizations to continue actively participating in the reduction of food waste and the improvement of organic waste management. Continuous awareness raising and the dissemination of success stories and the positive impacts they generate will ensure that actions and behaviors are sustainable in the long term, thus promoting a culture of responsibility and sustainability throughout society.

Generate learning experiences. Using the opportunities (spaces and times) generated by the initiative to implement workshops and training for the local community on new recipes and food preservation techniques has proven to be an effective method to motivate and adopt new habits. Additionally, the participation of volunteers and instructors in the collection process is also a transforming experience since they demonstrate the negative impacts of FLW along with the opportunities generated by addressing it.

Leverage community interest to increase knowledge about FLW. The surveys administered in different collection campaigns highlight that both neighbors and people who use outdoor markets, as well as market vendors, are interested in learning about more strategies to prevent FLW and participate in related projects. This interest could be leveraged by creating new learning experiences, implementing new pilot projects in other places, or including other actors as volunteers. Eventually, high school student centers can also organize actions to share information and support the outdoor markets in their districts, which strengthens students' territorial ties.

CHALLENGES

The model's capacity to adapt to the expanse and size variables of outdoor markets. Their locations, which days and hours they function, which season of the year it is and the weather are among the local conditions that drive the search for continuous innovations and improvements in to develop efficient campaigns. Expansion doesn't just allow for a greater positive impact but also contributes to creating a national standard for the management of food waste.

Change perceptions about food. Reducing waste requires constant investment in cultural transformation, through educational efforts and by providing clear evidence of the benefits of including actions throughout the food chain.

Include the agriculture, livestock, and forestry sectors in the supply flow chain and the development of policies to reduce FLW. Understanding the economic efficiency and environmental demands of the livestock farming sector, incorporating sustainability and associativity has become a key piece for food security and sovereignty in the rural sector.

Increase the valorization of organic waste as a resource. It is fundamental to recognize and strengthen the work of community recyclers, improve recovery infrastructure and promote the development of technological initiatives such as biogas plants and production of black soldier fly larvae as waste treatment systems that offer sustainability and opportunities to the economic model.

Sustainability and adequate funding in the medium and long term. Access to public and private funding, the creation of economic incentives, and the institutionalization of programs that strengthen stakeholder participation in reducing food waste and improving waste management are essential.

Coordination between territorial actors and creating strategic alliances to apply the model of food collection, recovery, and later use is fundamental. Collaboration with the market vendor association, technical and logistical support from municipal departments and community kitchens, volunteer participation in waste collection, waste management by community recyclers, and participative financing by the private sector, all foster a learning experience that generates environmental, social, and economic benefits for local communities. The collaboration between different stakeholders is key for long-term food waste prevention and food recovery initiatives.



OTHER COUNTRY-LEVEL INITIATIVES



Zero Food Waste Markets Project Launch in Cerro Navia Municipality with Fundación Basura and Fundación Gastronomía Social.

There are a variety of initiatives developed by public, private, and civil society organizations that are underway mostly in the Metropolitan Region of Santiago along with other regions of the county, that exemplify strategies to avoid and reduce food waste in different stages of the food chain:

Food Banks: non-profit organizations dedicated to “recover the excess food produced by different sectors of society, to donate it to people most in need, avoiding its waste and ensuring that the products can be used and consumed without any risk.”⁵

- Red de Alimentos (Food Network): A private nonprofit organization that created the first Chilean food bank in 2010, which is part of the Global Food Banking Network. Nevertheless, their work is not limited exclusively to food. The information available highlights their goal to connect companies with people facing conditions of vulnerability, and recovery also includes diapers and hygiene products that are apt for use and consumption.
- Mercado y Fundación Banco de Alimentos Lo Valledor (Lo Valledor Food Bank Market and Foundation): The largest wholesale market in the Metropolitan region launched this foundation in 2016. Its objective is to give away food as donations and create alliances with third parties –such as with the Universidad Bernardo O’Higgins and the Universidad del Desarrollo to involve students in these operations–, which enables them to support organizations to improve their functioning. In addition to offering fresh foods such as fruits and vegetables, they also receive donations of products such as cereals, yogurts, diapers, and cleaning products.
- Banco de alimentos Cerro Navia (Cerro Navia Food Bank): This food bank was established in 2019 as part of an initiative of the municipal government of Cerro Navia. In collaboration with the municipality’s environmental leadership, they implemented a plan called “zero waste”, that uses techniques of

composting or vermicomposting to manage the fruits and vegetables that cannot be given out due to their deterioration. The resulting compost and humus are used for the community garden and/or educational spaces. The food bank is also associated with a historic organization in the municipality called Ollas Comunes (community kitchens) and it created a food distribution mechanism called “microbanks”. Through the microbanks, local leaders distribute food to their close neighbors, so that the food reaches people who do not come to the municipal offices. The main difference between these two modalities is how the food is given: the community kitchens focus on providing cooked food and the microbanks give food that can be prepared at home or consumed directly (for example, fruit).

- Banco de Alimentos Biobío Solidario (Bio Bio Solidarity Food Bank): The Corporation BioBio Solidario was established in 2014 and became the first food bank in southern Chile. Its goal is to recover the agro-food industry surplus that is suitable for consumption but will not be commercialized. Each year an estimated 31 thousand beneficiaries receive the food given to the social organizations that participate in the corporation, in addition to the communities that are mostly made up of people living in situations of social vulnerability.

Universities with research initiatives, that develop projects and create theoretical and practical content:

- Universidad de Santiago (USACH): The Department of Agricultural Management (DAM) of the USACH, centers its research on seeking the best options to distribute healthy food from producers to final consumers, as well as the valorization of these foods and the reduction of losses and waste, to generate more income and wellbeing for the population.

This effort began with professor and researcher Luis Sáez Tonacca, who observed that in the agricultural production sector, it was common to harvest much less than the amount planted. Producers justified this discrepancy affirming that “there are no losses” because the value of the unsold produce was included in the final price to consumers. This situation led to questions and led to relevant research. In 2014, the FAO invited them to present their work in an activity with participants from Latin America and the Caribbean. The Department of Agrarian Management of the USACH currently plays an active role, involving and training its students, implementing courses such as Local Markets, Short Circuits, and Food Systems, in addition to supporting other initiatives through experiences of food recovery.

- Universidad de Bernardo O’Higgins: Through the Department of Nutrition and Diet, it has developed projects that seek to generate knowledge and research about specific preparations (prototypes) elaborated with foods that are often discarded, such as the leaves and stems of beets, broccoli, and celery among others. They have created recipe books that include valuable nutrition information, and they have also developed studies about the effects on the elderly of consuming these prototypes. These studies include comparing biochemical exams, antioxidant vitamins, and anthropometric parameters between adults who consume these prototypes and those who do not. Since 2020, the university has included new courses to deepen this perspective, such as “Food Industry Innovation”, “Food Innovation Venture Projects” and “Professional Practice in Administration and the Food Industry” in the curriculum map for Bachelor’s Degrees.



Mingueras rescuing food.

Foundations and nonprofit corporations:

- Fundación Gastronomía social (Social Gastronomy Foundation): Has developed collaborative systems to promote the common good, social inclusion, and food security. In this context, they created the Minga program, designed to provide training on food recovery, and sharing knowledge about cooking techniques, for example, conservation, to strengthen entrepreneurship and development among women over age 50. The “Mingueras” use the cooking techniques learned with the foods collected, making canned food, pickled food, marmalades, and jellies, among others. To date, the Minga program is implemented in three places: two in La Pintana and one in Cerro Navia. The Cerro Navia program was implemented in a collaboration between the municipal food bank and the Fundación Basura. They currently develop actions to disseminate, create, and support campaigns, training, and employment programs, associated with the social gastronomy sector focused on youth.

- Fundación Jilaya: The organization from the city of Antofagasta recovers food through the creation of a mini healthy food bank. In the medium term, they seek to create opportunities to give value to the multi-cultural gastronomic patrimony by using discarded foods.
- Corporación para el Desarrollo del Mercado Alimentario (CODEMA) (Corporation for Food Market Development): Their mission is to benefit the flow of and the population’s access to healthy food by strengthening the traditional food channels created by farming and fishing – which includes farmers, artisan fishers, market vendors and cooperative members. This facilitates opportunities to bring actors together and to disseminate relevant information. Presently, they run micro-banks on a national level and implement food collection campaigns at outdoor markets. This project is financed by the Ministry of Social Development and Family.
- Fundación Retroalimenta (Feedback Foundation): Their goal is to sensitize and raise awareness about the problem of food waste on a global scale. Using “Disco Sopa” they seek to drive community participation in the recovery of foods discarded due to their aesthetics or ripeness, despite being in good conditions for consumption, at outdoor markets or restaurants. What makes these activities special is that after recovery, people participate in cooking the recovered foods and eating them for free in an event of celebration and vindication.



Cooperatives: Associations that seek to improve the living conditions of their members through the principle of mutual aid:

- Las Reales: Organization in the city of Arica that is dedicated to recovering tomatoes that are discarded for not complying with different market standards, and using them to make salsa. The commercialization of the product supports small and medium-sized farmers and generates job opportunities for women in the community.

Mobile apps, SMEs, and private sector businesses:

- GoodMeal: A free, downloadable mobile app for buying lower-price prepared meals. It connects consumers with local vendors (who have signed up with the app) who produce a daily surplus of unsold food. It also has a blog where they publish recipes and advice on household issues.
- Cheaf: Mobile app developed in Mexico City that collaborates with two Chilean supermarkets, Jumbo and Santa Isabel, to sell foods, that have not yet been sold, at lower prices.
- Maifud "Mercado de lo imperfecto" ("The Imperfect Market"): This initiative began in 2016 as a platform to share food surplus for free. With time, the platform began to use retail and online platforms to offer "imperfect" food, which had been rejected by traditional businesses. Presently, it also supports local producers and distributors by paying a just price for these foods that used to be discarded. They also offer these foods to their clients at more economical prices than other food-selling platforms.

- Cáscara Foods: A Chilean company that uses investigation and technology to make the most of the hidden nutritional potential of wasted foods to develop products that contribute to nutritious food for people. Their focus centers on "upcycling" since they rescue foods such as stems, leaves, vegetable or fruit skins, and pulp, which are high-nutrition raw materials, that they process and sell as food supplements for human consumption.



REFERENCES

1. Food and Agriculture Organization of the United Nations (2016). Food Losses and Waste in Latin America and the Caribbean. Newsletter #3.
2. Oficina de Estudios y Políticas Agrarias (2022). Informe final del proceso de elaboración de la hoja de ruta de PDA. (Final report from the process of developing the FLW roadmap.)
3. Food and Agriculture Organization of the United Nations (2015). Food Losses and Waste in Latin America and the Caribbean. Newsletter #2.
4. GAIA. (2024), Environmental Justice Principles for Fast Action on Waste and Methane.
5. Eguillor, P. (2021). Los Bancos de Alimentos y su rol para reducir el desperdicio de alimentos. Oficina de Estudios y Políticas Agrarias (Chile). Oficina de Estudios y Políticas Agrarias ODEPA <https://bibliotecadigital.ciren.cl/handle/20.500.13082/33035>

ACKNOWLEDGEMENTS

GAIA is grateful to all the communities featured in the publication for agreeing to be interviewed and featured, and for sharing their photos for use in the publication.

This report has been made possible in part through funding support from the Global Methane Hub (GMH). The views expressed in this publication do not necessarily reflect that of the GMH and its funders. This report or its parts may be reproduced for non-commercial purposes provided the source is fully acknowledged. Reproduction for sale or commercial purposes is prohibited without written permission of the copyright holder.

Photos courtesy of Fundacion Basura.

THE EDITORIAL TEAM

AUTHORS

Macarena Guajardo, Karina Arteaga, Melanie Campos, Camila Faundez, Tamara Ortega, Camila Rivero

REVIEWERS

Cecilia Allen, Sonia G. Astudillo, Mariela Pino, Mariel Vilella

DESIGNERS

Agnes Mampusti with Sonia G. Astudillo



**Avoiding Food Waste in Outdoor Markets,
Fundación Basura's Experience in the Metropolitan Region, Chile**

©September 2024 Global Alliance for Incinerator Alternatives
1958 University Avenue, Berkeley, CA, USA

GAIA is a network of grassroots groups as well as national and regional alliances representing more than 1000 organizations from 92 countries. With our work we aim to catalyze a global shift towards environmental justice by strengthening grassroots social movements that advance solutions to waste and pollution. We envision a just, Zero Waste world built on respect for ecological limits and community rights, where people are free from the burden of toxic pollution, and resources are sustainably conserved, not burned or dumped.
www.no-burn.org