

CASE STUDY

National organic waste strategy



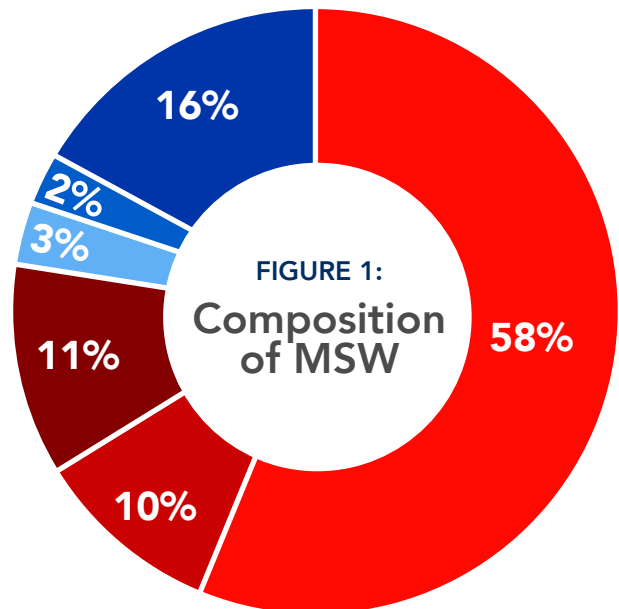
TOOL TYPE:
STRATEGIES AND GOALS



CASE: CHILE

Introduction:

As with many Latin American countries, Chile's valorization of organic waste is quite low. Less than 1% of organic waste is currently valorized — a process to recycle waste materials and convert them into valuable products like compost and energy. This low level of valorization of organics persists despite the fact that organic waste makes up 58% of municipal solid waste in the country and is the largest contributor to the sector's methane emissions.



- Organic fraction
- Paper and cardboard
- Plastic
- Glass
- Metals
- Other

Source: Ministerio del Medio Ambiente, 2020.

As of 2019

there was no type of public policy definition in Chile regarding organic waste. Those municipalities that were developing actions of some kind did so without a framework or guidelines from the central level. To close this gap, in August of that year the Ministry of the Environment (MMA), from its Circular Economy Office, began the development of the **National Organic Waste Strategy (ENRO)**.

Objetive

The objective of the ENRO is to **provide strategic guidance to all stakeholders**, both public and private, regarding the path to follow to reduce the generation of organic waste and substantially increase its use.

The MMA defined a planning horizon up to the year 2040, considering that these are changes that require time, as has been seen in the different countries where progress has been made in the matter. The ministry aspired to build a strategy that

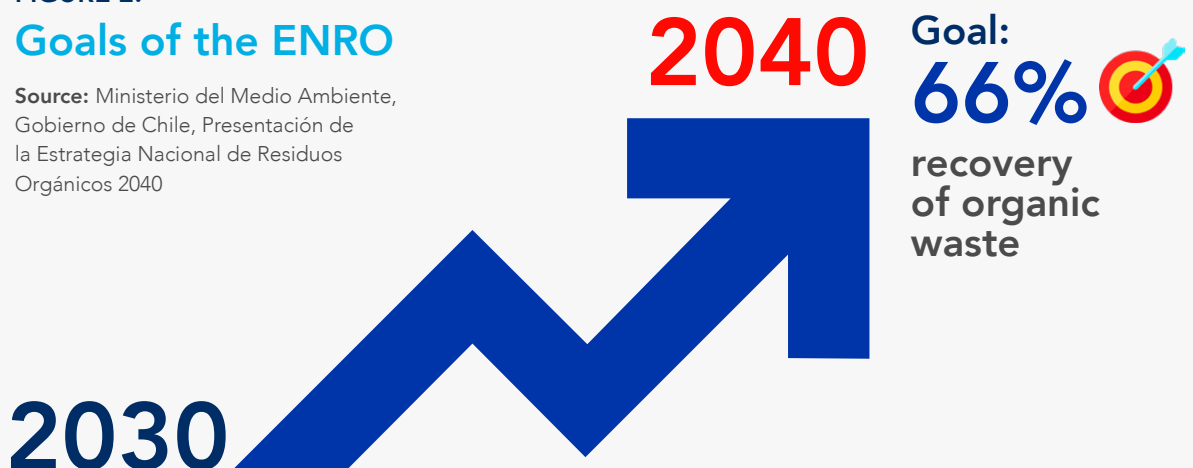
would last over time, through the different government administrations. Likewise, the MMA sought that the instrument be concrete and down-to-earth, with a clear orientation to action, and that progress towards the fulfillment of the outlined objectives could be measured over time.

The MMA decided that two ambitious and far-reaching targets would be used to drive action: 30% recovery by 2030 and 66% by 2040. The 2030 target is complemented by more specific targets.

FIGURE 2:

Goals of the ENRO

Source: Ministerio del Medio Ambiente, Gobierno de Chile, Presentación de la Estrategia Nacional de Residuos Orgánicos 2040



- 30% recovery of organic waste
- 500.000 households with composters and/or vermicomposters
- 5.000 educational establishments with composters and/or vermicomposters
- 5.000 neighborhoods part of the program "I love my neighborhood" doing composting and/or vermicomposting
- 50% public institutions with established source separation and recovery of organic waste
- All urban parks composting their waste (including Parquemet)
- SDG goal 12.3 Agenda 2030: **Reduce by 50% FLW**

Procees

The MMA defined as key **to carry out a widely participatory process** for the elaboration of the ENRO. This would make it possible to ensure that the instrument had the acceptance of the stakeholders and continuity over time, as well as that it was in accordance with the reality of the territories. Various instances of participation were developed, such as workshops with multiple stakeholders, especially municipal representatives, in 8 of the 16 regions of the country. In addition, a formal public consultation process took place once the draft text was ready, in which any person or organization could participate electronically. Almost 600 comments were received, and more than 800 people participated in just one of the webinars held.

A key body was the ENRO **Advisory Council**, which was made up of a total of 32 representatives of ministries and public agencies (Environment, Health, Finance, Agriculture, Housing, Regional Development and Social Development), valorization companies and providers of waste management services, civil society organizations and academic experts. This group participated in a total of five face-to-face meetings, and they worked with a methodology that sought to reach consensus on the different fundamental definitions of the ENRO. Its launch was held at the Presidential Palace of La Moneda, and the other meetings in halls of the National Congress, also symbolically highlighting the importance of the process.

The preparation of the ENRO was **accompanied by the technical advice** of ImplementaSur, which gathered international information and developed economic and regulatory analysis on different aspects covered in the strategy. There was also the support of UN Environment, which convened international experts to provide feedback on the work that was being carried out based on

the experience of other countries.

Finally, the MMA ensured that the ENRO became an **official document**. To this end, the instrument was submitted for approval by the Council of Ministers for Sustainability and subsequently had the approval of the President of the Republic. The ENRO was made official through resolution 1111 of September 27, 2021, of the Ministry of the Environment, thus being incorporated into the Chilean regulatory framework on waste management.





Concrete Goals and Executable Actions

The process described above managed to conceive a national strategy that clearly expressed the **vision** towards which Chile will seek to move in the coming years. Just as the Extended Producer Responsibility Law (REP) for packaging will mean the deployment throughout the national territory of the separate collection of this waste stream, the ENRO will aim to establish the segregated management of the organic fraction.

During the participatory process, the stakeholders reached consensus that this management would consist of a **combination of home and small scale neighborhood composting**, on the one hand, and the **collection and transport of organic waste to industrial composting or anaerobic digestion plants**, on the other. These different models were seen as complementary. While home composting corresponds to a strategy that is easy to implement, which eliminates transportation costs and promotes cultural change, separate collection and delivery to larger-scale plants would make it possible to address significant volumes of waste.

FIGURE 3:
Vision of the ENRO

Source: Ministerio del Medio Ambiente, 2021.



26% CONTAINERS AND PACKAGING

Extended Producer Responsibility Law

58% ORGANIC

National Strategy for Organic Waste

16% RESIDUAL WASTE



Recycling Plant



Composter / Vermicomposter



Composting Plant



Anaerobic Digestion Plant



Sanitary Landfill

The ENRO also set **very specific goals**. The general goal is to achieve 66% recovery of organic waste by the year 2040. Likewise, an intermediate goal is defined for the year 2030, for when the recovery of 30% of this fraction is sought. For that year, goals of actions to be carried out are

also established, such as having 500,000 households using home composting bins and 5,000 educational establishments with composting initiatives. The goal of the Sustainable Development Goal 12.3 is also incorporated, which aims to reduce food losses and waste by half by 2030.

The general goal

is to achieve 66% recovery of organic waste by the year 2040



To achieve these goals, the instrument defines a set of **concrete actions** that comprehensively address the solid waste sector. Actions are proposed to **solve the financial deficit** of the municipalities by adopting more effective collection schemes for the waste fee, and even moving towards pay-as-you-throw models. A **coordination scheme is established between different levels of government** (national, regional and municipal), where the MMA and its regional teams play a coordinating role based on a new program dedicated to the matter. The ENRO also points out the need to make **regulatory adjustments** in

terms of territorial planning, as well as the sanitary authorization and environmental assessment of organic recovery projects.

Finally, actions aimed at **generating citizen commitment** are highlighted, through an environmental education program, but also through the establishment of source separation obligations. It is interesting that for citizen involvement it is also proposed to adjust the collection calendars, so that the residual waste truck passes less frequently as recyclables and organic waste separate collection is implemented.

FIGURE 4:

Incentives to citizens

Source: Ministerio del Medio Ambiente, Gobierno de Chile, Presentación de la Estrategia Nacional de Residuos Orgánicos 2040



Source separation is mandatory as infrastructure becomes available



National Environmental Education Program in Circular Economy and Solid Waste Management



Economic Incentives: "Polluter Pays"



Waste collection schedule



The ENRO also includes a **follow-up scheme** to monitor the progress towards the fulfillment of the goals through the information systems already available to the MMA, as well as new measurements to be carried out.



Results

The implementation of the ENRO is currently under development, but some concrete progress can already be highlighted. On the one hand, the creation of the “Circular Municipalities” program in the MMA, which focuses on ensuring the execution of the ENRO actions linked to the municipalities, and the reorientation of the “Recycling Fund” administered by the MMA towards initiatives of organic waste.

Likewise, it is an achievement that the new administration of **President Gabriel Boric has fully followed up on the implementation of the ENRO**. Indeed, in November 2022, Chile adjusted its NDC, deepening its methane mitigation commitments, a context in which the MMA indicated that the ENRO commitments should be “swiftly” incorporated. On the other hand, President Boric has announced that “as part of an organic waste strategy to reduce methane emissions, we are working on an organic waste bill that prohibits organic waste in landfills”. This is probably the most important result of this process since it would go from a guiding instrument such as the ENRO to obligations established by law.

Lessons learned

The ENRO delivers a series of relevant lessons for countries seeking to systematically and strategically address organic waste. First, the fact that the MMA determined that **the process of its elaboration was as important as the result to be achieved** has helped its effective implementation. In the region it is common to see public policy instruments that do not include substantive mechanisms for consulting the actors that must generate the necessary changes for their implementation and that later end up filed away, without getting to effective changes. This type of strategic instrument only gains strength to the extent that these actors feel it is theirs, and it is important to recognize that this often takes time (around two years in the case of the ENRO). In particular, it is the actors from outside the government who will remain in their posts once there is a transition and who will be able to ensure its continuity.



In 2022,

Chile adjusted its NDC, deepening its methane mitigation commitments



Secondly, given the preponderance of the organic fraction, an improvement in its management will normally depend, as in the case of Chile, on the ability to solve problems in the solid waste sector as a whole. However, the transformation towards circularity of organic waste can be an **opportunity to carry out the pending structural reforms** that often do not have enough political traction to prosper.

Lastly, the choice of the time horizon for the ENRO is interesting. The two decades until 2040 are **long enough to make it credible** that an ambitious goal such as the one established could be achieved in a sector where transformations are slow, given everything that is required to make the happen (creation of recovery plants, adjustments in municipal collection schemes, cultural change in families that must carry out source separation, etc.). Nevertheless, 2040 is not such a distant time as to seem irrelevant, and furthermore, ENRO establishes closer goals by the year 2030, which also gives a **signal of greater urgency** regarding the actions to be implemented.



References

- Ministerio del Medio Ambiente de Chile (2020). Presentación en webinar de la consulta pública de la Estrategia Nacional de Residuos Orgánicos.
- Ministerio del Medio Ambiente de Chile (2021). Estrategia Nacional de Residuos Orgánicos. Disponible en: <https://economiecircular.mma.gob.cl/residuos-organicos/>
- Ministerio del Medio Ambiente de Chile (2022). Fortalecimiento de la Contribución Determinada a Nivel Nacional (NDC), Chile, Noviembre 2022. Disponible en: <https://cambioclimatico.mma.gob.cl/wp-content/uploads/2023/01/Chile-Fortalecimiento-NDC-nov22.pdf>
- País Circular (2022). Presidente Boric anuncia primera Conferencia Internacional de Ministros para reducir las emisiones de metano en la agricultura. Disponible en: <https://www.paiscircular.cl/transicion-energetica/presidente-boric-anuncia-primer-conferencia-internacional-de-ministros-para-reducir-las-emisiones-de-metano-en-la-agricultura/>