

Public-private Collaboration as a Base Strategy for the Reduction of Food Losses and Waste: Comparative Analysis of the Draft Law and Resolution that Institutes Mechanisms to Combat Hunger in Panama and the EU and US Systems

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HOW TO CITE:

Miguel Angel Esbrí, Sofía Arana Landín (2026). Public-private Collaboration as a Base Strategy for the Reduction of Food Losses and Waste: Comparative Analysis of the Draft Law and Resolution that Institutes Mechanisms to Combat Hunger in Panama and the EU and US Systems. International Journal of Special Education, 41(12s), 542-554.

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ABSTRACT:

The EU's 2015 Circular Economy Plan already declared the fight against food waste as one of its priority areas. Indeed, it is an objective, without a doubt, of undeniable importance and centrality for various climate objectives: deforestation, water footprint, CO2 footprint and, above all, for social justice. A decade later, the EU sets a binding target of reducing losses at source by 10% and food waste by 30% in the home and retail trade, restaurants, food services by 2030 through the drafting of a Directive to this effect.

In turn, different EU countries had already approved regulations on the reduction of food losses and waste in recent years, such as Law 1/2025 on the prevention of food losses and waste, which will have to be analysed in the light of the guidelines of the new Directive or the previous French and Italian laws. The United States also has a developed policy for this purpose that is more old and based on different assumptions. However, it is a common SDG, the common 12.3, so it is necessary that measures are adopted worldwide to comply with it. There are countries such as Panama, which also this past year, driven by its Food Bank, finally introduced bill 396 for the Prevention of Food Losses and Waste, already sanctioned by the Executive Branch on April 2, 2026, pending enactment, which shows significant progress in the construction of the national legal framework in this area. They have planted the first seed, but it is necessary to move forward and for this they can draw inspiration from the experiences of comparative law. The purpose of this article is to focus on this priority objective of the Circular Economy and to check the main lines on which the different regulations are based to help establish clear guidelines that can be of help in the case of Panama and other surrounding countries.

Keywords: Food Losses and Waste, Draft Law, EU and US Systems.

1. Introduction.

The reduction of food losses and waste (FLW¹) could be considered the key piece of the Circular Economy (CE), it constitutes one of the central challenges for the sustainability of contemporary food systems. Several studies estimate that a significant proportion of the food produced globally is lost or wasted throughout the food supply chain (Lipinski et al., 2013; UNEP, 2021; WRAP, 2020); it is also a priority challenge in the 2030 Agenda, to the point that, by advancing this objective, it would be possible to significantly improve up to 10 different sustainable development goals (SDGs²). Food loss and food waste is a crucial issue at a social, economic and environmental level around the world. Thus, SDG 12.3 aims to halve per capita food waste at the retail and consumer levels, and reduce losses along the supply chain by 2030³.

¹ Abbreviation corresponding to its English translation: Food Losses & Waste. It should be noted that these are two different concepts:

Food losses (FL) are understood to occur in the early stages of the chain, for example, in production, post-harvest, during the transport and storage of food, i.e. in its initial stages. FAO is responsible for monitoring it at the global level and does so through the indicator of the 2030 Agenda: 12.3.1. It measures food losses (FL) in the first phase of the production cycle, that is, in primary production, which includes planting, harvesting, storage, transport, distribution, processing and packaging, before they reach the commercial sector.

On the other hand, food waste (FW) is understood to be associated with later stages, starting with retail sales and consumption in homes, restaurants, etc. The indicator used for the FW is 12.3.2. of the 2030 Agenda, but the new United Nations Environment Programme (UNEP), which gives us an idea of the importance of reducing food waste for it. It is important to highlight the high rate of food waste in the household, since the draft EU Directive on the matter wants to reduce it by 30% because it sees here that there is a wide margin for manoeuvre. See, in this regard, Parfitt, J. Barthel, M. and Macnaughton, S. (2010), "Food waste within food supply chains: quantification and potential for change to 2050", *Phil. Trans. R. Soc. B* 365:3065–3081.: <https://royalsocietypublishing.org/doi/full/10.1098/rstb.2010.0126>.

A significant fraction of global food production is lost or wasted each year (Cattaneo et al., 2021; Gustavsson et al., 2011; FAO, 2019). This has multiple impacts that are not negligible: it contributes to greenhouse gas emissions (due to production and decomposition), wastes resources (soil⁴, water⁵, energy⁶), and coexists with persistent levels of food insecurity. In addition, this waste can be considered to feed back in the sense that they are intimately interconnected, as already pointed out by Bajželj, B., Quesada, T. E., Röö, E., and Swannell, R. P.⁷ (Bajželj et al., 2020). Thus, deforestation for agriculture (unnecessary because it leads to food losses and waste) causes a high demand for water while causing additional CO₂ emissions. What to say is that we must add to this the methane emissions from unused food that ends up as waste. In short, it is a social and environmental problem of the first order (FAO, 2019; Poore & Nemecek, 2018).

² By way of example, we list those SDGs on which the reduction of food losses and waste can have an impact, contributing decisively to the goal: SDG2, zero hunger and is a crucial component of SDG3, security and well-being, SDG5, quality education, SDG10, reduction of inequalities, SDG 12, responsible production and consumption, SDG13, climate action, SDG14, in relation to the fish component, as underwater life and SDG 15, as an ecosystem.

³ Note that, as an SDG, while no specific target is set for losses, for the subsequent stage of waste it is intended to be reduced by 50% by 2030.

⁴ The deforestation produced by this cause is considered to be close to 1.82 million hectares per year. It should be borne in mind that such deforestation contributes directly to the carbon footprint because carbon dioxide is emitted.

⁵ It should be remembered that the water footprint of food losses and waste is considered close to 250 billion cubic meters per year.

⁶ According to data from the National Oceanic and Atmospheric Administration (2025), the carbon footprint is estimated at around 3.3 billion tonnes of CO₂ per year.

⁷ Bajželj, B., Quesada, T. E., Röö, E., and Swannell, R. P., "The role of reducing food waste for resilient food systems", *Ecosystem Services*, 45, 2020. Dichos autores califican la relación entre estos factores de "sinergia".

Public policies seek to reduce the amount of this type of waste (FLW) in three main ways: prevention in the supply chain, redistribution of surpluses for social purposes, and environmentally sound treatment of organic waste, such as for recycling, composting or, ultimately, to obtain biogas (Thyberg & Tonjes, 2016; HLPE, 2014).

This article analyzes and compares public policies implemented as in the case of the United States or in the process of implementation, as is the case of the planned Directive in the European Union (EU), identifying objectives, legal and administrative instruments, achievements, gaps and practical recommendations to improve the prevention, redistribution and sustainable management of surplus food in order to draw conclusions that may be useful in the case of Panama. Thus, the article ends by proposing an action plan for Panama based essentially on public-private collaboration, especially through the adoption of public policies that encourage donations of food surpluses by private companies to Social Economy entities such as food banks or soup kitchens, that is, devoting special attention to the second of the ways mentioned in the previous paragraph.

2. Policies for reducing food losses and waste in the EU

We could describe the current situation in the European Union as a way to an ambitious regulation with binding instruments, inspired by the vision of the Circular Economy.

For some years now, the EU has aligned its policies with SDG 12.3, starting with the "Farm to Fork" strategy in May 2020, so that in recent times progress towards binding and quantifiable targets can be seen. In this way, an agreement has just been reached, within the scope of the Commission, to develop a Directive on the matter that aims to achieve, among other measures, a 10% reduction in food losses in the first phase, that of food processing and manufacturing (FL) and 30% per capita in the second phase. in food waste, in what could be considered as distribution, catering and

households (FW) by 2030 (Stenmarck et al., 2016; Caldeira et al., 2019).

It should be noted that the EU has gone from moving in the field of voluntariness to compulsory. In this way, it is no longer a question of laudable or desirable objectives, but there is an obligation for different entities to collaborate in order to achieve these objectives in what can be considered a great example of public-private collaboration in which we all win. While it is true that private entities are obliged to adopt a series of behaviors to achieve the objective of reducing food waste by 30% by 2030, it is also true that this obligation must have a counterpart on the part of public entities, such as, for example, through appropriate tax incentives.

On the one hand, extended producer responsibility is established, so that producers are forced to internalise the costs of managing possible waste and promote solutions to prevent it, as a clear example of CE, which is a burden for them, but which could become, in a way, compensated or, at least, co-financed.

On the other hand, EU funds are established to incentivise and finance innovation, infrastructure and redistribution within what would be the Agricultural Fund. At the same time, the possible use by Member States (EEMM) of fiscal tools to compensate for the new obligations of private companies is established. However, it is logically at the level of the Member States where these policies are usually collected. Thus, the example of the measures adopted by Spain in this regard is used as an example to see how, through a proactive use of taxation, this private collaboration can be encouraged in order to achieve the goals established in the directive.

The proposal to amend EU Directive 2008/98/EC, published in the OJEU as EU Directive 2025/1892, enters into force on 16 October 2025 and, in summary, is based on the following premises:

Firstly, the targets set to reduce losses by 10% (FL) and food waste by 30% (FW) by 2030 are, for the first time in this area, fully binding targets. Member States are therefore legally obliged to

achieve those objectives through their own rules transposing the Directive or directly implementing it.

It should be remembered that since 2022 the quantification of food waste has been mandatory in order to adopt measures and quantify the results in order to meet, among others, SDG 12.3 of the 2030 Agenda. However, this SDG did not establish the percentage of reduction to be achieved with respect to food losses, its reduction was sufficient, nor did it oblige to achieve the objectives. On the other hand, with regard to waste, the aforementioned SDG established a reduction of 50% and, however, the proposal for a Directive reduces it to a minimum of 30%. However, this is no longer a mere objective, but a genuine legal obligation that will be duly controlled.

The existence of indicators to measure progress or, as the case may be, lack of progress is crucial. Thus, at the global level, thanks to FAO indicators 12.3.1 and UNEP 12.3.2, it has been found that "the world is moving in the wrong direction".

Thanks to the data provided by the indicators and the experiences of the most cutting-edge regulations, it is possible to see where we failed in order to adopt the necessary measures to change course.

With regard to the definition of "food", which is key to moving forward, it was already established in Article 2 of Regulation (EC) 178/2002 of the European Parliament and of the Council when it equates the word food with a foodstuff, defining

them as "any substance or product intended to be ingested by human beings or with a reasonable probability of being ingested by human beings, whether they have been completely or partially transformed or not⁸." We advance since this definition does not coincide with the definition contained in Article 4 of Bill 396 of Panama, where it also includes the term beverages; but it excludes tobacco, cosmetics and products used for medicines. We are moving forward as we consider that part of this exclusion is superfluous because they are not products for human intake.

Second: as the targets are binding, it is necessary not only to adopt the relevant regulations, but also to establish the indicators and their monitoring by the European Commission, which will formally review progress at the end of 2027 and, if necessary, may propose more ambitious targets for after 2030.

However, it should be remembered that we are not starting from scratch, since Delegated Decision 2019/1597 EC⁹ established that, as of 2022, States were obliged to report on food waste in relation to the base year 2020. In other words, the obligation to quantify such waste in the EU already existed, despite little progress in previous years¹⁰.

Third, the directive will follow the EU's "waste hierarchy", which prioritises prevention, followed by reuse, recycling and other forms of recovery, before resorting to disposal, in line with the Lansink ladder applied to food (Papargyropoulou et al., 2014). In a sense, it can be said that the EU's policy is not inspired by the fight against hunger as can be the case with

⁸ Cf. Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures relating to food safety, published in OJ No. 31, of 1 February 2002.

⁹ Commission Delegated Decision (EU) 2019/1597 of 3 May 2019 complements Directive 2008/98/EC of the European Parliament and of the Council as regards a common and uniform methodology and minimum quality requirements for the measurement of such waste.

¹⁰ At the global level, according to data provided by FAO, IFAD, WHO, WFP and UNICEF (2022) Food Security and Nutrition in the World, <https://www.fao.org/3/cc0640es/cc0640es.pdf>, around 670 million people will continue to suffer from hunger in 2030, which will represent 8% of the world's population, a figure equal to that of 2015, when the 2030 Agenda was launched and on which progress must be made. That is why, although the binding objective of the next proposal for an EU Directive is reduced, at least by being binding, it will represent an advance with respect to these global data in the case of the EU.

the FAO or Panama, but precisely by the avoidance of this type of food waste or waste, that is, it can be considered, to date, that it is properly an environmental policy of CE. Moreover, we can see how, until now, the regulation was contained in Directive (EU) 2018/851 of the European Parliament and of the Council, of 30 May 2018, amending the Waste Directive. Therefore, the focus of the strategy is that of waste avoidance.

Fourth: a very important aspect is that, following a public-private collaboration scheme, the donation of unsold food, but suitable for human consumption, is promoted as one of the main measures to combat waste. In this respect, EU policy is aligned with that of the US and even Panama, as the best way to distribute surpluses. However, in the pyramid of best practices, there is still not producing them, as in the Lansink ladder (R0, refuse).

Fifth: continuing in the field of public-private collaboration, economic operators with a significant role in the food chain (from producers to retailers and restaurants) are required to facilitate the donation of surpluses, preferably to non-profit Social Economy entities, such as food banks or soup kitchens. This is a critical, simple, obvious, but very effective solution, as it can redirect safe surplus food from landfills to those who need it most. We believe that this behaviour must be compensated for by the adoption of appropriate tax measures to encourage them, as is the case in many jurisdictions, such as Spain. On the other hand, we are moving forward since in the case of Panama, to which we will refer later, bill 396 and Article 10 establish tax incentives for those who install food waste management plants. In addition, Article 17 of the Panamanian bill provides for a tax deduction equivalent to 100% of the value of products or services related to food collection for the Food Bank. However,

there is a certain lack of specificity regarding the calculation of this value.

Sixth: in an essential education and awareness work, the aim is to clarify and inform about the correct labelling of dates on food products. Thus, among other measures, it seeks to clarify the differences between foods labelled with an expiry date and those with a best-before date to reduce consumer confusion and prevent edible products from being discarded.

2.1. Cases of measures taken by EU Member States: France, Italy and Spain

It should be remembered that France and Italy had already approved regulations that follow these premises and that Spain has recently done so with Law 1/2025 on the prevention of food losses and waste, with a comprehensive approach that affects the entire production, distribution and consumption chain.

En el supuesto de Francia, Law n. o 2020-105 de 10 de febrero de 2020, relativa to the fight against waste and the circular economy, desarrollada por el Decree n. o 2020-1651 of 22 December 2020 on the national "anti-food waste" label in application of Article L. 541-6-1-1 of the Environmental Code and the Decree of 28 de February 2023 implementing Article D. 541-216 of the Environmental Code and approving the The national "anti-food waste" label for the distribution sector, supone un elenco de normativas pioneras, que pueden resultar inspiradoras para otros países, especialmente por su medida estrella (con estrella) de cara a mejorar la marca frente a los consumidores¹¹.

The implementation of an idea that can be considered as simple as it is effective in the matter, with a system of labels with stars for those private entities that have committed themselves against food waste can be a very effective way to make these entities visible to their consumers. Thus, according to French regulations¹², to be

¹¹ Cf. the page of the French Ministry of Agriculture on which important informative and pedagogical work is carried out: <https://agriculture.gouv.fr/gaspillage-alimentaire-0>

¹² Se trata del art. 33 of Law No. 2020-105 of 20 February 2020 on the fight against waste and a circular economy.

worthy of a star you must be committed against food waste. In the case of having two stars, it is understood that you have to have a behavior that is especially committed to it. Finally,

establishments that achieve three stars are considered exemplary establishments in terms of their practices in this area.



Thus, conscientious consumers will tend to reward those establishments with a higher number of stars, and they will also contribute, as civil society, to encouraging these good practices against food waste. In a sense, the idea is reminiscent of what has been done for years in New York restaurants with respect to their sanitary practices that can be seen at the door of their establishments, but they are measures as clear as these or the classification of the energy efficiency of appliances, which are immediately assimilated by the population.

On the other hand, the Italian Ley Gadda (Law no. 166 «Provisions concerning the donation and distribution of food and pharmaceutical products for the purposes of social solidarity and for the limitation of waste), of 19 August 2016 también resulta pionera con sus buenas prácticas de lucha contra el despilfarro alimentario en el país, especialmente porque simplifica las donaciones de alimentos.

In Spain, Law 7/2022, on Waste and Contaminated Soil for a Circular Economy is the first to contemplate fiscal measures to reduce food waste. In the case of this Law, the option of encouraging food donations to non-profit Social and Solidarity Economy entities is promoted. This same year, the draft Law on the prevention of food losses and waste began to take shape, which, after encountering certain political difficulties, crystallised in Law 1/2025. Equally important in this area is the Law on Patronage for deductions from donations.

Basically, Law 7/2022 can be said to introduce, among other measures, in its DF3, the possibility for tax ordinances to include up to 95% deduction of the full quota in cases of donations of surplus food to non-profit Social Economy entities, as a requested exemption from the garbage tax or public property benefit.

Likewise, in VAT, DA. 3 of Law 7/2022 adds the following: "For the purposes of the provisions of rule 3 above, it shall be presumed that a total impairment has occurred when the transactions referred to in this section Three relate to assets acquired by non-profit entities defined in accordance with the provisions of Article 2 of Law 49/2002, of 23 December, on the tax regime for non-profit organisations and tax incentives for patronage, provided that they are used for the purposes of general interest that they carry out in accordance with the provisions of Article 3, paragraph 1 of said Law". In other words, total deterioration is presumed, that is, a zero taxable base on donations of products, including food, to this type of entity.

However, the legislator adds a zero tax rate, in the second section of said Third Final Provision when in article 91.4 of the VAT Law, it establishes that a rate 0 will be applied to the supplies of goods made as donations to non-profit entities provided that they are used by them for purposes of general interest.

As we have already pointed out on another occasion¹³, this reiteration of the zero tax base and zero rate is not only repetitive, but can even be negative due to its effects on Personal Income Tax or Corporate Income Tax, since the tax base is taken into account, logically, in order to determine the deduction for donations and can be considered zero.

This is not the case in the case where the donations have been made by individuals without the consideration of entrepreneurs or professionals, since, as VAT is not declared, it is understood that the taxable base of the donation should coincide with the market value. In this case, your deductions for patronage are safe.

3. United States: Non-Binding National Goals, Public-Private Partnerships, and Hierarchy of Priorities

If any country has a long tradition in the fight against food waste, it is the United States (**Buzby & Hyman, 2012; ReFED, 2023**). Its Act dates from 1995 and contains a provision in the area of limitation of liability to be considered by other jurisdictions. The Bill Emerson Good Samaritan Food Donation Act exempts food donors from liability for bona fide nonprofits¹⁴ (**Garrone, Melacini & Perego, 2014**).

This provision exempts from possible civil or criminal liabilities arising from the nature, age, packaging or condition of the food, apparently in good condition, when it is donated in good faith to a non-profit organisation for final distribution to people in need at zero cost or at a reduced price of Good Samaritan. This is a provision that we believe to be crucial, since in the case of food donations to non-profit entities made in good faith, there could be a liability in other jurisdictions that is causing the absence of donations or a restriction on them to avoid this possible hypothetical liability.

The Bill Emerson Good Samaritan Food Donation Act also exempts from civil or criminal liability arising from the nature, time, packaging or condition of food apparently fit for consumption that the non-profit entity would have received as a donation in good faith for final distribution to needy individuals at zero cost or at a reduced price of the Good Samaritan. Thus, by eliminating both the responsibility of the potential donor acting in good faith and the non-profit entity that distributes the food, the system becomes clearly more agile.

On the other hand, in 2015 the US set a national target of halving food loss and waste by 2030, thus aligning with SDG 12.3.

Public-private collaboration is also the basis in this jurisdiction, in which the USDA-EPA alliance should be highlighted. Since then, the country has promoted several action plans, such as the U.S. Food Loss and Waste 2030 Champions program (voluntary commitments by companies/organizations to reduce their operations by 50%) and technical resources (EPA food recovery hierarchy). This hierarchy is very similar to that of the EU: prioritising prevention, followed by the option of incentivising donations to people in need, organic recycling, such as for composting and biogas and, as a last option, disposal in landfills/incineration, which is what should be avoided at all costs, that ends up being waste.

4. Possible lessons for Panama, which is in the process of consolidating a regulatory framework in this area

In recent years, Panama has intensified the construction of a legal framework aimed at the transition to a circular economy model, consistent with the 2030 Agenda and comparative regulatory trends. The circular economy is not only an environmental policy: it is already a legal category that reorganizes public and private duties and responsibilities around the

¹³ Cf. Arana-Landín, S., "The fiscal measures adopted in Spain for the reduction of food losses and waste: a systematic analysis", *Quincena Fiscal*, n.8, 2024.

¹⁴ Ley 42 U.S. Code § 1791 — Bill Emerson Good Samaritan Food Donation Act.

prevention, repair and regeneration of production cycles. This framework is projected on competences of constitutional, administrative, environmental, tax, public procurement and consumer law. The contemporary debate no longer opposes economic growth and environmental protection: rather, it demands that growth be subordinated to ecological limits, with regulatory instruments that internalize costs, mitigate information asymmetries, and generate incentives for innovation¹⁵. In this context, in Panama, Law 502 of 2025 on Circular Economy and Bill 396 of 2025 on the prevention of food losses and waste (PPDA) are the most relevant regulatory axes of the last legislative biennium.

Thus, we can affirm that Panama is making progress in reducing food losses and waste, taking its first steps at the legislative level. Thus, during the last year, projects and proposals have been presented in the National Assembly with the aim of creating a comprehensive regulatory framework, based on public-private collaboration. In this way, it is intended to offer the appropriate legal framework for safe food donations, providing due legal protection to donors and promoters, standardizing health requirements and reducing administrative barriers to redistribution.

4.1. Constitutional foundations and guiding principles

The Panamanian constitutional order recognizes positive duties of the State in environmental matters, as well as limits to the exercise of rights when the environmental public interest is compromised: specifically, Chapter 7 of Title III, Articles 118 to 121 refers to the Ecological Regime. The doctrine places these mandates in the articles that impose obligations of conservation, rational use of resources and protection of the natural heritage. The principle

of sustainable development is today based on the notion of circular economy: prevention rather than correction; design for reuse; and prolong the life cycle of products and materials. Added to this is the shared and differentiated responsibility between producers, distributors, consumers and public administrations¹⁶.

These legal categories have an impact on three levels: (i) the design of public policies (plans, programs, verifiable goals); (ii) the production of norms (laws, technical regulations, public procurement standards); and (iii) judicial review, including the examination of the constitutionality and legality of administrative acts and contracts entered into by the State. The circular turn, on the other hand, reinforces the principle of prevention (avoiding the generation of damage) and correction at the source (acting at the source of the waste), while consolidating traceability as a governance criterion.

4.2. Panamanian Circular Economy Law 502 of 2025: structure, competencies and instruments

Law 502 of 2025 "Which dictates rules for the implementation of the circular economy as a national strategy" establishes the general framework of the circular economy in Panama. Articles 2 and 3 list principles and purposes, such as sustainability, prevention, extended producer responsibility (EPR), eco-innovation, green public procurement and the best interests of nature¹⁷. Article 10 mandates the development of a National Strategic Plan for the Circular Economy (PENECE), creating the National Council for the Circular Economy under the coordination of the Ministry of the Environment, with four-year reviews, waste reduction goals and the provision of economic and fiscal incentives¹⁸. Article 12 introduces sustainable public procurement, granting objective advantage to

¹⁵ See, for all, European Commission (2020). From farm to table. COM(2020) 381 final; and FAO & UNEP (2023), Indicators 12.3.1 and 12.3.2 for SDG 12.3 monitoring.

¹⁶ On the principle of prevention and the evolution towards circularity, cf. Directive 2008/98/EC (waste

framework) and its development in the EU; for Panama, environmental doctrine on positive duties of the State.

¹⁷ Law 502 of 2025, art. 2 and 3 (Panama).

¹⁸ Law 502 of 2025, art. 10 (Panama).

bidders who demonstrate environmental performance and circularity in their processes¹⁹.

From the legal point of view, **the** law operates as a 'framework law': it sets principles, defines objectives and distributes powers, subject to regulatory development. This requires, as Article 13 advances, a regulation that clarifies: (a) indicators and measurement methodologies (carbon footprint, life cycle analysis, landfill diversion rates); (b) reporting and auditing obligations for obliged entities; (c) sanctioning regime graduated by severity, recidivism and illicit benefit; and (d) inter-institutional coordination mechanisms (Environment, Health, Sanitation, Trade and Industries, Economy and Finance).

A key point is the EPR, Extended Producer Responsibility: it transfers to the producer the obligation to organize and finance the management of the end of life of the product, introducing deposit, return and return (DRS) systems, collection and recycling goals, and eco-design schemes. Comparative experience confirms that without a CSR, circularity is reduced to exhortations. In Panama, its implementation should be coordinated with existing regimes (single-use plastics, packaging, electrical and electronic equipment), avoiding overlaps and taking advantage of economies of scale. In this sense, the following regulations in Panama: Law 1 of January 19, 2018, which adopts measures to promote the use of reusable bags in commercial establishments; Law 187 of December 2, 2020, which regulates the reduction and progressive replacement of single-use plastics; and Law 223 of June 8, 2021, which establishes environmental tax incentives.

4.3. Law 396 of 2026 (PPDA): prevention, redistribution and use

Bill 396 of 2025, sanctioned in April 2026, on the prevention of food losses and waste, PPDA applies the principles of Law 502 to the food sector. It defines 'losses' and 'waste' along the supply chain; it promotes management hierarchies (prevention, donation,

transformation for animal consumption, composting and bioenergy); and establishes planning, traceability and reporting obligations for large generators (supermarkets, hotels, restaurants, institutional canteens, industries). Article 7 establishes the obligation to design cost-effective reduction measures and promotes reuse, composting and bioenergy²⁰.

The project incorporates incentives for responsible donation (for example, tax benefits or recognition in public procurement), and promotes agreements between companies and food banks, with sanitary safeguards. From the point of view of administrative sanctioning law, it is appropriate to specify by regulation types of offenders, sanctioning scales and graduation criteria (volume, recidivism, intentionality, impact on public health). Likewise, collaborative compliance mechanisms (improvement plans, performance agreements) and restorative alternatives (recovery and redistribution programs) must be foreseen before resorting to pecuniary sanctions.

An effective PPDA policy requires digital inventory and surplus monitoring systems, uniform metrics, and a reporting scheme that allows for SDG 12.3 monitoring. This national database, coordinated with the health authority, would facilitate audits, regulatory impact assessment, and evidence-based decision-making.

4.4. Regulatory articulation: Law 502 + PPDA and other related laws

The coherence of the system requires articulating the PENECE, National Strategic Plan for the Circular Economy (Law 502) with the sectoral plans for food safety and health, the national waste policy and public procurement instruments. Law 187 of 2020 (single-use plastics) and Law 37 of 2014 (food banks) are precedents that must be harmonized with the new mandates. The PPDA should act as a *lex specialis* in the food field, while Law 502 continues as a *lex generalis*. The forwarding technique can avoid

¹⁹ Law 502 of 2025, art. 12 (Panama); Directive 2014/24/EU (public procurement).

²⁰ Bill 396 of 2025, art. 7 (National Assembly of Panama).

redundancies, referring to the general principles and definitions of Law 502 where appropriate.

In terms of government procurement, the preference for suppliers with circular performance (Law 502, art. 12) should be integrated into the standard specifications and evaluation matrices, with verifiable criteria (certifications, indicators, donation history, recovery rates). The Office of the Comptroller General and the General Directorate of Public Procurement have a decisive role in the creation of test standards and methodological guides.

4.5. Comparative law: useful lessons for Panama

A legal system learns when it compares. In the European Union, Directive 2014/24/EU enables environmental criteria in the award of contracts, and waste regulations pivot towards prevention and CSR²¹.

Spain, with Law 7/2022, of 8 April, on waste and contaminated soil for a circular economy, established a comprehensive framework that, among other aspects, promotes food donation and provides local incentives on waste rates, while reinforcing reporting obligations for large generators²². For its part, in the United States, the Good Samaritan Food Donation Act (1996) limits the civil and criminal liability of donors who act in good faith, reducing the 'regulatory fear' that inhibits donation²³ (Garrone, Melacini & Perego, 2014).

In Latin America, Chile consolidated the REP with Law 20.920 (2016), also known as the REP Law, which requires collection and recovery goals for priority products²⁴. Argentina includes the provision of exemption from liability in the style of the American one in 2018 through the reform of article 9 of the 2004 Food Donation Law. It is called DONAL, a special regime for the donation of food in good condition, established in Law 25,989 of 2004. Article 9 is introduced through

Law 27,454, published in the Official Gazette of Argentina on 29-10-2018. It reads as follows: "The good faith of the donor and donee is presumed. From the moment the donated thing is delivered to the donee, under the conditions required by Article 2, the donor is released from all liability and shall not be civilly or criminally liable for the damage caused by the donated thing or for the risk thereof, unless it is proven that the donor is guilty of fraud or fault attributable to it. for actions or omissions prior to the delivery of the thing".

For its part, Colombia incorporated circular economy goals into the National Development Plan 2022–2026 and guidelines for sustainable public procurement. Also bordering Panama, Costa Rica moved forward with its National Circular Economy Strategy 2021–2030, integrating innovation, financing and business training. These experiences converge on three lessons: (i) regulatory clarity and gradualness; (ii) well-designed and measurable incentives; and (iii) transparency and traceability supported by open data.

4.6. Governance, taxation and incentives

Implementation requires multi-level governance: inter-ministerial coordination; participation of municipalities (competent in waste management); and dialogue with the private sector and civil society. On the fiscal front, incentives should be aligned with environmental objectives (e.g., deductions conditional on recovery goals, accelerated depreciation of recovery technologies, and tariff exemptions for composting and biodigestion equipment).

Green public procurement is a transformative lever: the State can demand PPDA plans from food service concessionaires, establish minimum donation goals, and evaluate offers that incorporate solutions for the energy use of organic waste. To this end, technical evaluation guides and implementation clauses with objective

²¹ Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014.

²² Law 7/2022, of 8 April, on waste and contaminated soil for a circular economy (Spain).

²³ Good Samaritan Food Donation Act, Public Law 104–210 (EE. UU., 1996).

²⁴ Law 20.920 (Chile, 2016), where, as in the EU, there is extended producer responsibility.

indicators (e.g., percentage of food rescued, tons composted, energy generated) are required. As we have seen, in the EU the Member States are obliged to use indicators and quantify, improve and achieve objectives that can serve as a basis.

5. Conclusions

The fight against food loss and waste requires combined approaches: clear goals, legal frameworks that facilitate safe donation, investments in infrastructure and rigorous measurement, but it can be approached from different priorities (Cattaneo et al., 2021; Papargyropoulou et al., 2014). It is an SDG, 12.3 that has a very important impact on up to 10 SDGs.

The 2030 Agenda approaches the goal in two ways: on the one hand, as a social justice, the fight against hunger in terms of losses, in fact, its indicator is monitored by the FAO; on the other hand, as an environmental problem in terms of food waste (Mourad, 2016) in fact, its control and indicators correspond to UNEP.

The European Union aims for binding measures and standardisation, public-private collaboration with the possibility for its Member States to establish tax frameworks that encourage it; The United States combines national goals with great private prominence and a measure that we believe it is necessary to export: the limitation of liability in cases of donations of food in apparent good condition and made in good faith (known as the "good Samaritan" clause). As in the EU, there is agreement on the need to provide adequate tax incentives to donors; Panama, for its part, is taking important steps towards a comprehensive law, but it requires accelerating implementation, resources, and technical capacity by learning from the most successful measures in those places

where the measures already exist²⁵ (Garrone, Melacini & Perego, 2014).

On the other hand, technology can make a decisive contribution to making surpluses immediately available to civil society in need. Thus, as recommended by the World Food Policy Center, the creation of networks and platforms can be encouraged in order to connect possible food surpluses of companies with social organizations and food banks.

Also in the United States, educational and awareness campaigns are important to avoid stockpiling, proper storage and good management of these products.

Finally, as in some EU countries, there are different tax incentives to encourage food donations.

Both the EU and US systems have their advantages: we welcome the fact that reducing food waste in the EU is a binding target for the Member States, whereas this does not yet exist in the US. However, we understand that the provision of the American Good Samaritan should become part of the regulations of other countries, since many donations are not made in order to avoid hypothetical liabilities derived from these foods.

Panama is at a point of regulatory maturity that allows it to move from declarations of principle to effective implementation. The convergence between Law 502 of 2025 (general framework) and the PPDA (sectoral lex specialis) creates the conditions for robust circular governance. The key will be to regulate clearly, use public procurement as leverage, align tax incentives with verifiable targets and strengthen traceability through data. International comparison offers

²⁵ Argentina includes the provision of exemption from liability in the style of the American one in 2018 through the reform of article 9 of the 2004 Food Donation Law. It is called DONAL, a special regime for the donation of food in good condition, established in Law 25,989 of 2004.

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proven routes; judicial control shall guarantee proportionality; and public participation will legitimize the transition to a fairer, more efficient and competitive model of production and consumption.

In Panama, a recent legislative impulse can be observed, aligned with different regional initiatives, largely thanks to the strong interest shown by civil society and, especially, by its food banks. However, we consider that one of the most important barriers to donation is precisely the lack of a perceived exemption from liability on the part of donors (in the style of the American Good Samaritan) that we believe should be exported as has happened with Argentina. At the same time, there are still no tax incentives to compensate for these donations (in the style of the measures in Spanish VAT or IS or the garbage tax). We believe that Panama should

use robust tax incentives to encourage food donations and reduce food losses with measures such as those in Spain. In this way, donors can take advantage of their responsibility in this regard and consider themselves appropriately rewarded, while at the same time benefiting from measures such as those of the French Loi du gaspillage to improve the perception of their brands among consumers.

We understand that, in the absence of other quantifiable legal objectives, Panama could align itself with the one established by SDG 12.3 of the 2030 Agenda, using FAO and UNEP markers to advance in the reduction of food losses and waste or even those used in the EU framework. Having targets and indicators could promote not only food donations, but also the reduction of food waste, which is a real problem.

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