POLICY BRIEF

Sostenipra Policy Brief Collections
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Food loss in the Catalan horticultural sector

Where is the problem and how can we deal with it?

- Reducing food loss in the horticultural sector is crucial to meet policy goals and support a transition towards more sustainable agriculture and eating habits.
- We quantified food loss in the Catalan horticultural sector for the year 2020 and estimated its economic value and main contributing products.
- Annual food loss is equivalent to 19 million €, which result from avoidable unharvested products (61%), quality sorting (21%) and unavoidable losses (17%).
- Short and long-term solutions are needed to monitor, plan and invest in crops, market solutions and financial support for producers.

What's the issue?

Food loss is a critical issue in the current climate and socioeconomic crises. The **products discarded in the production phase** can reduce the quantity of food available to consumers and increase the economic costs for the producers. Additionally, crops are grown using limited natural resources such as water, land and energy, which means that part of these resources is not effectively used. In the horticultural sector, reducing food loss is essential to **meet national and international policy goals** aiming to halve food wastage by 2030**[1]**, and to **meet the increasing demand for vegetables** associated with the promotion of healthier and sustainable diets. Catalonia is an excellent example of new food loss regulations**[2]** and an extensive horticultural system under stress. For this reason, we need to measure where food loss takes place, estimate its socioeconomic impact and identify measures to minimize food loss and adapt to a changing climate.

What did we do? Quantification of food loss in Catalonia

We **quantified food loss in Catalonia for the year 2020.** To do so, we conducted interviews with representatives of producer organizations and used the data available in the literature and the databases of the Spanish Ministry of Agriculture, Fishery, Livestock and Environment. We focused on farmers employing traditional production methods (on-soil with non-value-added products) who market their produce within long value chains, representing the predominant horticultural system in Catalonia. The economic value of food loss was calculated by multiplying the quantity of food loss by its economic value in the market. To identify the sources of food loss and to make specific recommendations, we considered the **causes of its generation**:

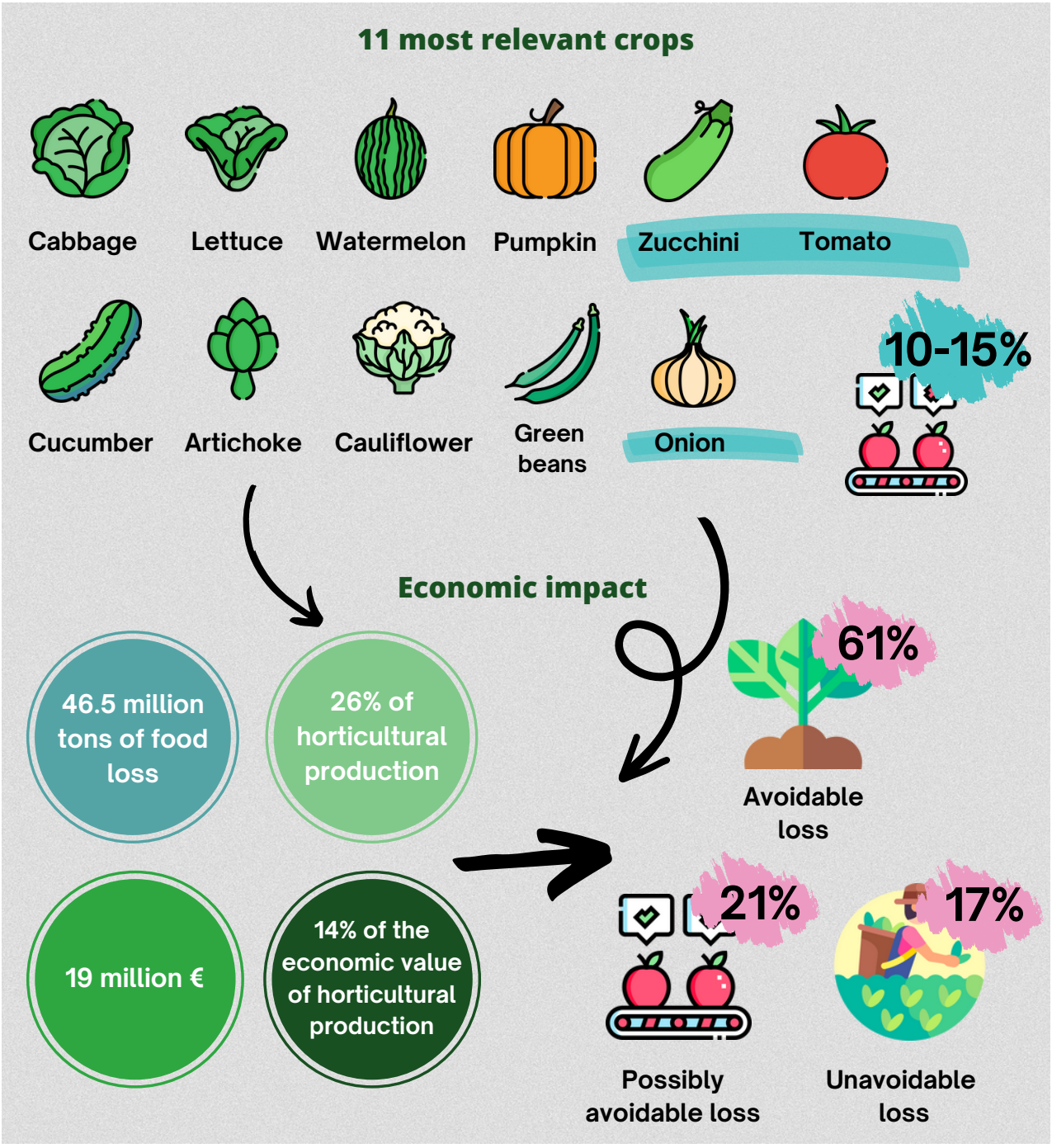
Avoidable loss
(unharvested products)

Possibly avoidable loss
(quality sorting)

Unavoidable loss
(technical issues)

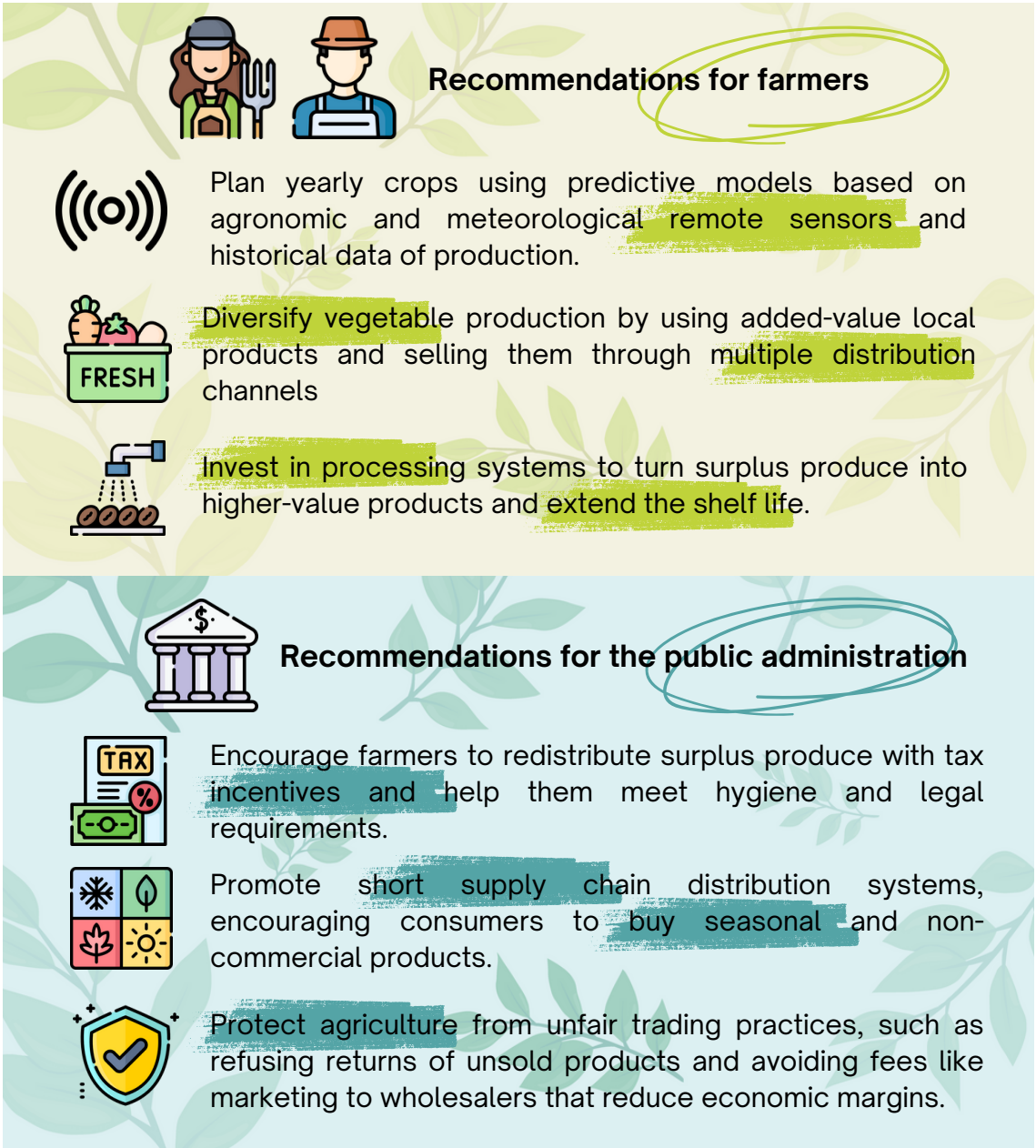
Our main results: Food loss in numbers

Among all the crops produced in Catalonia, **11 products** contribute to **80% of the vegetable production (excluding potatoes)** and are thus key in the management of food losses. These crops generated **46.5 million tons** of food losses in 2020, which are equivalent to 26% of the horticultural production. In monetary terms, the losses amount to **19 million €**, which are mainly associated with **avoidable losses (61%) that mostly come from watermelon, lettuce and cauliflower crops.** In terms of quality, **zucchini, tomato and onion are relevant because 10-15% of the marketed product is discarded**, as they get spoiled early and, when damaged, are not fit for long storage times in warehouses. **Only 17% of the lost value cannot be avoided.**



What can you do? A set of recommendations

Our study proposes short-term solutions such as selling "ugly" products locally, and stresses the need for long-term strategies addressing systemic issues. The aim is to benefit consumers and farmers, ensuring a win-win approach as well as comprehensive food loss reduction strategies.



Limitations of our study

Food loss was not calculated using detailed interviews, which could introduce bias. To obtain a more accurate estimate, the number of interviewees can be increased and a more detailed approach to specific products can be applied. Variations in distribution channels (e.g., long and short), production systems (e.g., high tech vs. low tech), and product types (e.g., crops with or without added value) were not considered, although these factors can influence the amount of surplus food produced.

Sources

[1] SDG 12 HUB (2023) Target 12.3 Food loss & waste. Available at: https://sdg12hub.org/sdg-12-hub/see-progress-on-sdg-12-by-target/123-food-loss-waste
[2] Parlament de Catalunya (2020) Law 3/2020, of 11 March, on Food Loss and Wastage Prevention. DOGC 8084. Available at: https://residus.gencat.cat/web/.content/home/consultes_i_tramits/normativa/normativa_catalana_en_materia_de_residus/llei_3_2020_en.pdf

DISCLAIMER

This policy brief is based on the following article, which can be consulted for more information on the methods and results:
Tonini, P.; Muñoz Odina, P.; Orsini, F., and Gabarrell Durany, X. (2022) **Economic benefit and social impact derived by a food loss prevention strategy in the vegetable sector: A spatial and temporal analysis at the regional level.** *Frontiers in Sustainable Food Systems* 6:1043591. doi: 10.3389/fsufs.2022.1043591 (CC BY)

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