



Nordic Council
of Ministers

Healthy and sustainable food futures: Policy design for behaviour change



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Healthy and sustainable food futures: Policy design for behaviour change

Changes to the Nordic food systems during the last decades have led to production and consumption patterns that have an unsustainable impact on the climate, the environment, and human health^{[1],[2]}. To meet the goals of the Nordic Council of Ministers' 2030 vision and contribute to a sustainable and carbon-neutral future in line with the Paris Agreement, it is crucial to establish a healthy and sustainable food environment in the way we produce, distribute, and consume food. Such a transition requires a collaborative and interdisciplinary approach that involves stakeholders from across the food value chain, including farmers, food producers, retailers, as well as policymakers and consumers in a way that carefully considers trade-offs between different interests and objectives.

This brief outlines a range of interventions and measures that policymakers can implement within the Nordic food environment to encourage sustainable and healthy food choices. These interventions encompass strategies related to nudging and product design, as well as economic incentives such as implementing taxes and subsidies on specific food categories. By employing these policies, policymakers can effectively govern the food environment and facilitate a shift in consumption patterns towards healthier and more sustainable options.

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1. Halloran A, Wood A, Aguirre F, Persson M, Weschke M, Nodland O K (2020) Cookbook for systems change – Nordic innovation strategies for sustainable food systems. Nordic Council of Ministers, Copenhagen <https://pub.norden.org/nord2020-048/#38675>
 2. FAO (2022) Greenhouse gas emissions from agrifood systems. Global, regional and country trends, 2000-2020. FAOSTAT Analytical Brief Series No. 50. Rome, FAO <https://www.fao.org/3/cc2672en/cc2672en.pdf>



A healthy and sustainable food transition

To achieve a transition of the food environment, it is important to introduce different actions and engage various actors in the process. Based on an extensive literature review, we have identified a set of actions to facilitate this transition. Figure 1 outlines key actors and actions required to achieve a healthy and sustainable transition in the food sector. These include 1) plant-based and healthy food should be accessible, affordable, and appealing to citizens, 2) working at the municipal level by establishing guidelines and providing education, 3) embedding the transition within regional strategies and priorities, exploring national level legislation to introduce economic incentives, 4) supporting the food value chain to maintain profitable business models, and finally, 5) we have emphasized the important role of civil society as agents of change^[3].

FACT BOX

Towards a more plant-based diet: Positive health and environmental outcomes

There is substantial scientific evidence that incorporating more plant-based options in our diets will have an impact on the environment, public health, and food security. Studies have shown that consuming more plant-based foods can reduce greenhouse gas emissions, land use, and water consumption associated with animal agriculture, and alleviate pressure on natural resources^[4].

Additionally, eating more plant-based foods has been linked to a lower risk of chronic diseases such as heart disease, obesity, and type 2 diabetes^[5].

3. Motta A., Martín E, (2021) Food and social change: Culinary elites, contested technologies, food movements and embodied social change in food practices. *The sociological review*. Volume 69, Issue 3. <https://doi.org/10.1177/00380261211009468>
4. Wood, A., Gordon, L., Rös, E., Karlsson, J., Häyhä, T., Bignet, V., Rydenstam, T., Segerstad, L., Bruckner, M., (2019) Nordic food systems for improved health and sustainability. Baseline assessment to inform transformation. Stockholm Resilience centre. <https://www.stockholmresilience.org/research/research-news/2019-04-03-within-reach.html>
5. Greger, M., (2015) How not to die. Discover the Foods Scientifically Proven to Prevent and Reverse Disease. Nutritionfacts ISBN 978-1-250-06612-1.

HEALTHY & SUSTAINABLE FOOD TRANSITION

ACTORS & ACTIONS

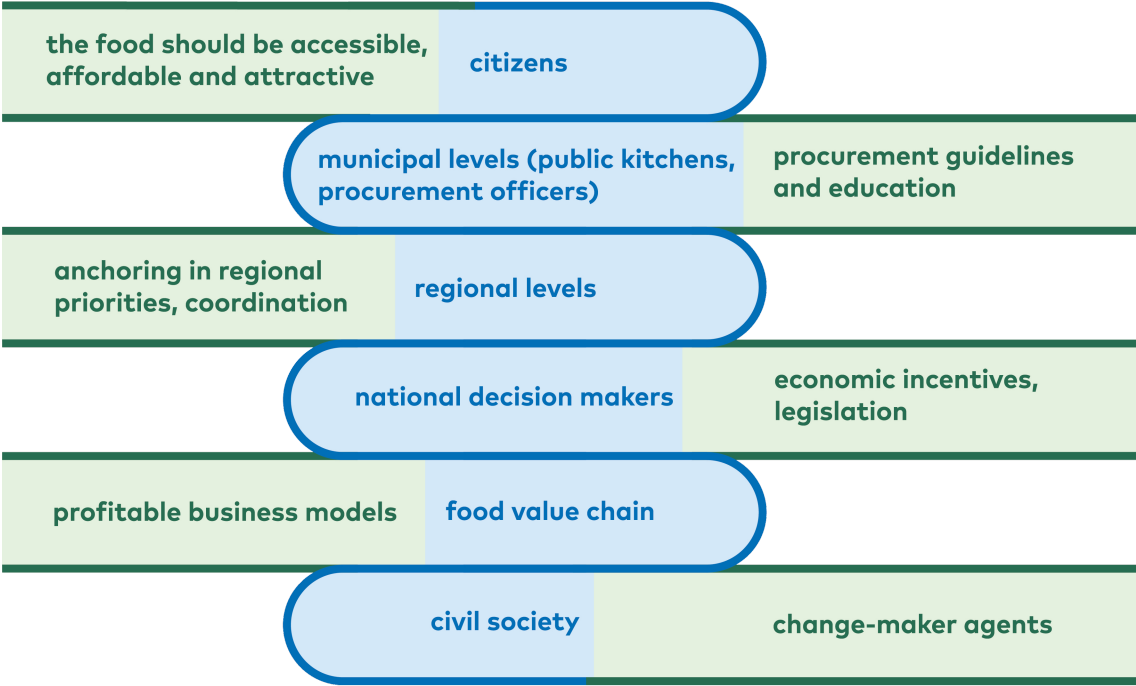


Figure 1: Actors & Actions needed for a food transformation



Incentives and measures to facilitate behaviour change

Encouraging Nordic citizens to adopt healthier and more sustainable dietary habits requires a coordinated effort to shift long-established behaviours. Based on an extensive review of scientific literature of the topic, we have identified how multiple factors can influence people's food choices, including supply and availability, marketing, social norms, education, income, and social status. Any measures and incentives introduced to promote behaviour change should consider these factors to be effective^[6].

Product choice architecture. Making plant-based and healthy options more accessible is documented to make a difference. Product placement, portion arrangement and presentation are important to make citizens choose healthy and sustainable foods. Nudging interventions can achieve higher effectiveness through public-private collaboration, and nudging has gained widespread acceptance due to its low implementation costs^[7].

Labelling helps consumers make informed decisions about the food they buy and eat. Labels can provide information about the nutritional, environmental, climate, and social aspects of production. However, there is mixed evidence on the effectiveness of labelling, and excessive use of labels can cause confusion. To maximize the impact of labelling, it should be considered in conjunction with other interventions. Studies indicate that information about health and environmental benefits alone may not be sufficient to change behavior, even when consumers perceive the information^[8].

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6. Livsmedelsverket 2022 Styrmedel för en hälsosam livsmedelskonsumtion En kartläggande litteraturgenomgång.
 7. Bucher, T., Collins, C., Rollo, M. E., McCaffrey, T. A., De Vlieger, N., Van Der Bend, D., Truby, H., & Perez-Cueto, F. J. A. (2016). Nudging consumers towards healthier choices: A systematic review of positional influences on food choice [Review]. *British Journal of Nutrition*, 115(12), 2252-2263. <https://doi.org/10.1017/S0007114516001653>
 8. [1] Spaargaren, G., van Koppen, C. S. A., Janssen, A. M., Hendriksen, A., & Kolfschoten, C. J. (2013). Consumer Responses to the Carbon Labelling of Food: A Real Life Experiment in a Canteen Practice. *Sociologia Ruralis*, 53(4), 432-453. <https://doi.org/10.1111/soru.12009>



Balancing economic incentives and regulations

According to research, consumers tend to respond better to positive incentives, such as subsidies, than negative incentives like taxes, when it comes to promoting sustainable food choice^[9]. Therefore, combining economic incentives with other policy instruments can increase the acceptance of measures aimed at promoting healthier and more sustainable diets.

Taxes: Many countries have implemented taxes on alcohol, tobacco, sugar, and saturated fat. Studies indicate that taxes can effectively decrease the consumption of taxed foods. However, the magnitude of the reduction in consumption may depend on the level of the tax, and a significant tax rate may be necessary to achieve substantial changes in behavior.

Subsidies: Subsidies for locally grown produce, plant-based protein sources, or sustainable agricultural practices can encourage producers to adopt these practices and make such products more affordable for consumers^[10].

Regulations and requirements: Governments could regulate the availability of unhealthy food products and those with high environmental impact. Concrete examples include reducing the accessibility of unhealthy food products (smaller packaging size) and regulating marketing (how and where certain food products are displayed in shops). Regulating marketing is particularly effective in steering behaviour change among children.

9. Lindahl, Therese (2023) What determines acceptability of taxes and subsidies for more sustainable food consumption – role of design and presentation? Presentation at Nordic Food Environment Workshop 29th of March 2023 in Stockholm. The Beijer Institute of Ecological Economics, Royal Swedish Academy of Sciences.

10. Critchley, J., & Unwin, N. (2010). The Role of Public Policy. In *The Evidence Base for Diabetes Care: Second Edition* (pp. 471-488). <https://doi.org/10.1002/9780470682807.ch28>

Increasing sustainability requirements in the retail sector has a significant potential to influence consumer behavior. By addressing issues such as reducing carbon emissions in the food supply chain, and creating more equitable pricing structures, commercial actors can promote sustainable food consumption while remaining profitable. Regulating commercial practices could play an important role in driving health and equity^[11]. In general, public acceptance of measures aimed at businesses rather than consumers is high.^[12]

Public procurement: The public sector can play a significant role in promoting sustainable food consumption and influencing the market through demonstrating the public sector's commitment to sustainability. For instance, the sustainability in public kitchens could be promoted by introducing environmental or health requirements^[13].

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11. Gilmore et al., 2023. Commercial Determinants of Health 1 Defining and conceptualising the commercial determinants of health.
 12. Rööös, E., Larsson, J., Resare Sahlin, K., Jonell, M., Lindahl, T., André,E., Säll, S., Haring, N., Persson, M. (2021) Policy Options for Sustainable Food Consumption – Review and Recommendations for Sweden Mistra Sustainable Consumption report 1:10
 13. Swensson LFJ, Hunter D, Schneider S, Tartanac F. Introduction. In: Public food procurement for sustainable food systems and healthy diets. Rome: FAO, Alliance of Bioversity International and CIAT-Porto Alegre: Editora da UFRGS, 2021.

STEPS TO FOSTER CHANGE:

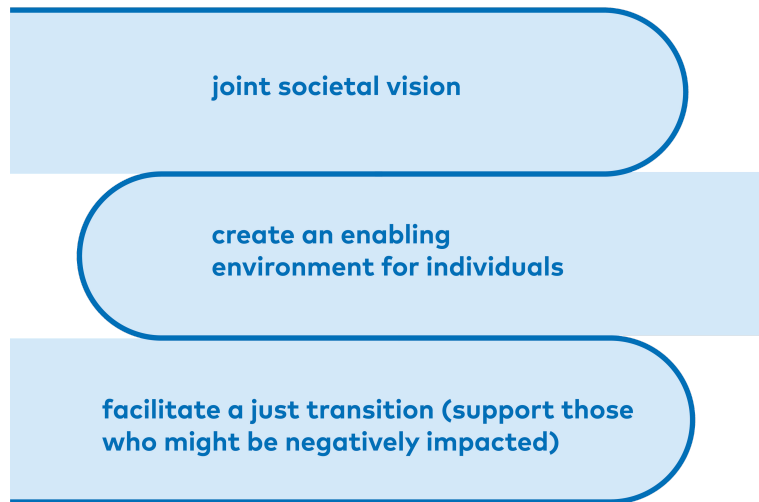


Figure 2: Three steps to foster societal change

Steps to foster change

We recommend three critical steps to promote acceptance of healthy and sustainable food consumption (see figure 2).

1. Establish a shared vision for healthy and sustainable food consumption, led by the public sector with an inclusive approach that involves all relevant actors in the food chain, including consumers.
2. Creating an enabling environment for individuals, including policy incentives and measures to promote behaviour change. This can include economic incentives, marketing, national regulations, and other measures to encourage healthy and sustainable food choices.
3. Ensuring a just transition, whereby individuals or sectors that may be adversely affected by a shift towards a more plant-based society are supported. For instance, this could involve transforming intensive animal farming to a different scale with a new business model that incorporates alternative sources of plant proteins.

About the Nordic food environments and behaviour change project

This brief set the stage for the upcoming full report about the Nordic food environments and behaviour change, scheduled for release in fall 2023.

The brief is produced within the Nordic Council of Ministers' project Healthy and Sustainable Food Systems as part of the Nordic Sustainable Lifestyles programme. Nordic Food and Environments and Behaviour Change is a sub-project run by Nordregio. The project is an essential component of the healthy and sustainable food systems initiative.

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