More to do more

Action plan for food loss and food waste reduction by 2030 - SUMMARY

June 2018

Livsmedelsverket

Jordbruks verket

NATUR VÅRDS VERKET

Summary

Food loss and food waste is widespread both in Sweden and around the world, resulting in unnecessary environmental damage, financial loss and eventually poorer ability to provide a growing world population with food.

In February 2017 the government assigned the Swedish National Food Agency together with the Swedish Board of Agriculture and the Swedish Environmental Protection Agency to continue work to reduce Sweden's food loss and food waste between 2017 and 2019. The first stage of the assignment is to, in close collaboration with relevant players, develop an action plan for how Sweden can work with long-term measures to reduce food loss and food waste. The measures are to contribute to fulfilment of global sustainability goal 12.3 concerning food loss and food waste in the United Nations' Agenda 2030.

The input to the action plan consisted of experiences from the previous government's assignment on food loss and food waste during 2013-2015, three new surveys, other documents and publications in the field, and a process of meetings, contacts, and input from stakeholders. The agencies and the Ministry of Enterprise and Innovation held a kick-off in October 2017 with a discussion on how we will work in the long term in Sweden and an opportunity to provide input to the action plan. Use has also been made of other countries' experiences of cooperation to prevent food loss and food waste. Input has been received from players in for example primary production, processing, retail, restaurants and public catering, procurement, consumer matters, education, regional and municipal work, and research. On many issues there is a consensus between agencies, industry players and others.

Many players are already working to reduce food loss and food waste and initiatives to prevent food loss and food waste are often profitable. But more players need to become active and there are more measures where action is needed. There are several reasons behind food loss and food waste and several different measures are required in different parts of the food supply chain to attain the goal. A basis is often lacking for assessing the impact and consequences of various measures, which may result in difficulties in prioritising between different measures. The area is undergoing development, where different solutions need to be tested and experiences gathered from other countries' work.

The action plan contains 42 proposed measures and specified needs as regards investigation, research and innovation. The action plan has nine action areas:

1. Goals and measurements
2. Collaboration and dialogue
3. Knowledge increase, behavioural change and attitudes
4. Regulations and application
5. Date labelling, durability and refrigeration chain
6. Forecasting, logistics and handling
7. Contracts and procurement
8. Motivational measures
9. Investigation, research and innovation

During the course of the work, four points were identified as prerequisites for a successful effort. The points are in no particular order and all four are closely interlinked to each other:

- **A national goal and the development of monitoring methods.**

  The work on the action plan shows that a clear national goal from the government/parliament is crucial for private and public players. A national goal creates a focus on the issue and provides motivation, commitment and legitimacy to work on the issue among the players concerned. Designated players for various measurements are also crucial for further work.

- **Active collaboration between industry players in the food supply chain.**

  A greater effect from the players' contributions can be attained by forms for coordination being established. An organised binding collaboration leads to gains through being able to find common measures within parts of the chain and taking action that does not send the food loss or food waste further up or down the chain.

- **Changes in consumer behaviour.**

  Contributions from many different players together create opportunities to bring about behavioural changes among consumers, who account for the bulk of the food waste. Consumers' awareness and motivation need to increase along with other measures such as helping different consumer groups make choices that minimise food waste in different situations related to buying, handling and making use of leftover food.

- **Investigation, research and innovation.**

  Efforts that support the implementation of the action plan. More knowledge needs to be collected and developed in different issues related to food loss and food waste, not least concerning different measures' effectiveness. Knowledge of how consumer behaviour that reduces food loss and food waste is accomplished is a matter of urgency. Interaction is often needed between different areas of expertise to find solutions.

The action plan is a tool and a step forward in the work to prevent food loss and food waste, but should not be seen as a static document. A key part of the future work is a continuing dialogue between the players concerned on the action plan's priorities. As the work progresses, new needs for action will be identified as well as experiences and solutions on the basis of implemented measures' effectiveness. The work also needs to be synchronised with the EU's work on food loss and food waste. Action and measures need to be adapted in a flexible manner over the period up to 2030, when the global goal is to have been attained; a mid-term follow-up can be made in 2024. A crucial fact is that everyone who deals with food matters has a responsibility to integrate food loss and food waste issues in their work, to work in the long term, and to do as much as they can for the goal to be attained.

Proposed measures

Below follows a list of 42 proposed measures broken down into measures where the *main* ownership to drive the work can be taken by the Swedish National Food Agency, the Swedish Board of Agriculture and the Swedish Environmental Protection Agency, along with other players. Many of the food loss and food waste issues, however, need to be solved in *interaction* between different players. For the measures to be able to be implemented, resources need to be allocated both by the government and by trade and industry. All the measures need to be begun as soon as possible. The proposals are not arranged in any particular order. They are numbered according to the order in which they appear in the chapters of the action plan.

Measures driven by the Swedish National Food Agency, the Swedish Board of Agriculture, and the Swedish Environmental Protection Agency

The authorities do a great deal to facilitate the work that other players need to do to reduce food loss and food waste. Most of the measures in the following have been begun or can to some extent be initiated within the government's assignment for 2017-2019 to reduce food loss and food waste. Several of the measures, however, require additional funding to allow a more substantial effort to be made. Many measures require continuity in activities over time, such as information initiatives directed at consumers in order to bring about changes in consumer behaviour. For Sweden to be able to contribute to the global food loss and food waste goal in Agenda 2030 being achieved, the authorities also need to work with the following measures in a long-term perspective beyond 2019:

1. The Swedish Environmental Protection Agency, the Swedish Board of Agriculture, and the Swedish National Food Agency continue to work to develop a proposal for a national milestone target in the environmental objective system for reduced food loss/ waste by 2030 based on goal 12.3 of Agenda 2030. The underpinning documentation for the milestone target proposal should include an impact analysis, base year, boundaries, follow-up method and division of responsibility for follow-ups.

2. The players concerned agree on how measurements and national monitoring of food loss and food waste in the food supply chain can be designed on the basis of objectives and principles for smart environmental information.

4. The Swedish National Food Agency, the Swedish Board of Agriculture and the Swedish Environmental Protection Agency continue to carry on a dialogue with the players on the development of the work on Sweden's food loss and food waste.

5. The Swedish National Food Agency, the Swedish Board of Agriculture and the Swedish Environmental Protection Agency continue to carry on a dialogue with the players on the opportunities offered by digitisation in the food supply chain, who is responsible for what and how we can deliver benefit to the target groups in an efficient manner.

10. The Swedish National Food Agency, the Swedish Board of Agriculture and the Swedish Environmental Protection Agency continue to drive the question of less food loss and food waste and develop a factual basis in different issues and information for consumers.

11. A recurring common information initiative directed at consumers is launched.

12. An increase is enabled in knowledge of how food waste can be reduced in public meals, for example through knowledge support, analysis of food waste, dialogues and forums.

13. Advisors are given further training in how primary products are handled to minimise food loss and food waste.

23. Companies at which part of their production cannot be sold in the Swedish market should be given help to open new export markets.

24. Private standards' possibilities to contribute to reduced food loss and food waste are investigated and discussed.

25. Work with regulations, international trading standards for fruit and vegetables and trading chains' private specifications that affect food loss and food waste.

26. Investigate opportunities for food that is not used for human consumption to be used for animal feed.

34. Online information with recommendations on handling of fresh fruit and vegetables.

38. To reduce the food loss and food waste, principles for fair trading practices are discussed and made generally known to primary producers, food companies, wholesalers and retail players and form the foundation of business between farmers, growers' associations, wholesalers and retail chains.

41. Time-limited financial support is offered to municipal catering facilities and canteens/restaurants to prevent food loss and food waste , for example by purchasing new equipment, initiatives to increase competence or the introduction of new procedures. *The measure requires special funding.*

Proposed measures that are driven by other players or with shared responsibility

Of the proposed measures below, the proposal to formalise collaboration between industry players is particularly urgent since this will make it easier to implement many other proposed measures. With the coordinating organisation(s) in place by 2019, the prerequisites then exist for an active and effective industry collaboration between 2020 and 2030.

3. Players in the food supply chain follow-up their work on food loss and food waste through regular monitoring of food loss and food waste.

6. A formalised collaboration between the industry players enables the entire food supply chain to work together to reduce food loss and food waste.

7. Continued dialogue between industry players who produce and handle primary products to identify measures, find incentives for reduced food loss and side-flows and develop forms of collaboration and knowledge sharing.

8. National authorities, county administrative boards, the Swedish Association of Local Authorities and Regions, and the Swedish Waste Management and Recycling Association carry on a dialogue with groups/forums regionally and locally to emphasise food loss matters and build up knowledge. The county administrative boards and regions include food loss and food waste in projects linked to the food strategy and in regional growth efforts.

9. Common industry rules regarding price promotions that drive food loss and food waste and phasing out of products.

14. The food loss and food waste issue is kept alive in the public debate.

15. Players in the food industry, restaurants, the retail trade, and industry organisations work actively with consumer information about food loss and food waste and how consumers themselves can influence their own share of the food waste. Efforts are also made to make it easier for the consumer to act food loss and food waste -smart at the moment of purchase.

16. Municipalities actively disseminate information to citizens on how they as consumers can act to reduce their food waste.

17. Prerequisites for food served in schools, hospitals and nursing homes to be eaten up are improved through a pleasant and quiet dining environment. This is made possible by adequate time and resources being allocated for meals.

18. Using school meals in the teaching is made possible by scheduling school lunches. This makes it easier to integrate food loss and food waste issues in the teaching.

19. The Swedish National Agency for Education is assigned by the government to include a statement about the importance of school meals in the national curriculum for compulsory schools, pre-school classes and after-school recreation centres. The statement makes clear the importance of school meals to support students' knowledge development in school subjects that connect to a sustainable lifestyle, sustainable development and sustainable consumption, including reduced food loss and food waste.

20. Industry associations and professional organisations provide support to their members regarding measures to reduce food loss and food waste and good practices.

21. Education of restaurant personnel includes education in food's environmental impact and how food loss and food waste can be reduced.

22. Increase acceptance and outlets for class II products (fruit and vegetables).

27. The control authorities for the food supply chain utilise the food legislation's flexibility and increase knowledge of how regulations are interpreted in order to contribute to reduced food loss and food waste.

28. Industry guidelines motivate companies to contribute to reduced food loss and food waste.

29. Guidance/support for municipalities to work to prevent food loss and food waste

30. "Use by" labelling is used only in the case of highly perishable products that may pose an immediate danger to human health after a short period of time.

31. Aspects of minimising food loss and food waste are taken into account when date-labelling.

32. Purchasers in public procurement, restaurants and retail set relevant requirements concerning remaining durability when the product is received by the purchaser.

33. Refrigerated products are labelled with an optimum storage temperature. The optimum temperature is maintained throughout the refrigeration chain.

35. The food industries collaborate to optimise the logistics chains so that food loss and food waste in connection with storage, preservation and transportation can be minimised.

36. Streamline the flow of food through the food supply chain.

37. Better technical equipment can reduce damage to products both at harvest time and during transportation from the field to storage, preservation and packaging.

39. In schools, hospitals and nursing homes, proposals are developed for setting requirements and ways of working in the procurement process that can minimise the amount of food loss and food waste and provide support and competence development in these areas.

40. Competence development measures are taken in procurement to prevent food loss and food waste.

42. Support the implementation of the action plan's proposed measures through action in investigation, research and innovation:

Data, regulatory frameworks and chain-wide case studies

a) new and supplementary mapping of food loss, food waste and side-flows in primary production and retail

b) estimate of the proportion of food loss in the food industry at national level based on real-world measurements at processing companies of various kinds

c) estimate of the proportion of food waste in private households and institutional and commercial kitchens at national level based on real-world measurements, including studies that:

- identify and calculate factors between food and packaging, napkins and non-edible parts (e.g. bones, tea bags) in sorted waste

- verify and update conversion factors between, for example, similar kinds of products for increased precision in follow-ups and prioritisations

d) mapping of regulatory frameworks and guidelines that are not directly related to food but that may have an indirect impact on food loss/food waste/productions losses in the various sections of and the entire food supply chain

e) surveys of food loss and food waste in case studies covering entire supply chains with the Swedish market as their destination and entire food supply chains, i.e.

also including real-world measurements as well as both domestic and foreign data for specific products

Products and market

f) innovative product development, processing and market development that lead to parts of the foods/ingredients that are not used today being returned to human consumption, such as

- by-products from slaughter, e.g. blood and trimmed-off parts

- parts of fruits and vegetables that are not used

Technology and logistics

g) technological and logistical development in the food supply chain, concerning for example

- forecasts and planning in interaction between players and parts of the chain

- gentle handling during harvesting and storage

- rapid cooling and promotion of optimum and constant temperatures in primary production

- handling, process lines and temperature control in the processing of raw produce

h) studies of the impact of transportation on product quality and food loss and food waste, including downstream, such as

- case studies with real-world measurements for different types of products

- causes that drive losses and waste, and solutions to the problems identified

i) development of packaging solutions that contribute to reduced food loss and food waste in the food supply chain as a whole, including primary, secondary and tertiary packaging, such as development in

- sizes, emptyability and resealability

- better stackability and transporatation characteristics

- system perspectives from primary production to end consumer

j) mapping of existing preservation methods and food preparation methods that contribute to reduced food loss and food waste, by, for example, prolonging durability and storage capability in various parts of the food supply chain, including households, and innovations for the development of new such methods

Causes and opportunities in primary production

k) mapping/analysis of the correlation between the quality of seeds, plant material, etc. and their influence on food loss and other losses later in the chain and what measures might be taken to improve/ensure seed quality, for example

- the problems with the quality of seed potato

l) mapping and analysis and development of solutions that support adaptation of primary production to a changing climate, to reduce losses in primary production and downstream

Causes and opportunities at the manufacturing stage

m) investment support is established for reduced food loss in the food industry that provides incentives and accelerates systematic improvement efforts at companies

n) investigation/research in the area of how causes of food loss at small-scale food producers differ from those at large-scale producers

o) research and innovation in product and market development that support small-scale producers' ability to reduce food loss by taking care of those parts of a product that would otherwise be taken out of the food supply chain

p) mapping and analysis and development of solutions that support adaptation of processing to a changing climate

Business and logistics systems and temperature reduction at the retail level

q) mapping of business and logistics systems that drive food loss and food waste, including systems for handling bread and returns

r) studies and research on price promotions' pros and cons and their significance for food waste in shops and consequential impact upstream and downstream

s) compilation of existing data on energy consumption, food waste and profitability at lower refrigeration temperatures in shops that provide a basis to encourage shops to reduce refrigeration temperatures

Consumer behaviour

t) research on mechanisms behind different kinds of consumer behaviour to increase knowledge about how people's decision-making processes are best translated into powerful policy measures, including for example

- behaviours linked to preferences for cosmetic qualities of various goods, the consumer's handling of fruit and vegetables in shops or that the last product on the shelf is very difficult to sell

- identification of what types of communication activities, "nudges" and "choice editing" work under what conditions

u) transformation of the above knowledge into innovations that reduce consumer-related food loss and food waste in the food supply chain, including for example

- development of practical tools ("nudges" and "choice editing") to moderate behaviours based on the knowledge developed above

- what kinds of messages have the greatest impact on different target groups and how different types of information can be conveyed to the different players in the food supply chain in the most effective way possible

- development of tools or packages of measures that include measures to make the change persist longer in order to eventually become normal behaviour


Livsmedelsverket


Jordbruks
verket


NATUR
VÅRDS
VERKET