Sustainable Nordic food systems

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How *sustainable* are Nordic food systems?
EAT-Lancet
Healthy Diets
2500 kcal/day

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Macronutrient intake grams per day (possible range)</th>
<th>Caloric intake kcal per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole grains</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rice, wheat, corn and other</td>
<td>232</td>
<td>811</td>
</tr>
<tr>
<td>Tubers or starchy vegetables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potatoes and cassava</td>
<td>50 (0–100)</td>
<td>39</td>
</tr>
<tr>
<td>Vegetables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All vegetables</td>
<td>300 (200–600)</td>
<td>78</td>
</tr>
<tr>
<td>Fruits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All fruits</td>
<td>200 (100–300)</td>
<td>126</td>
</tr>
<tr>
<td>Dairy foods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whole milk or equivalents</td>
<td>250 (0–500)</td>
<td>153</td>
</tr>
<tr>
<td>Protein sources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beef, lamb and pork</td>
<td>14 (0–28)</td>
<td>30</td>
</tr>
<tr>
<td>Chicken and other poultry</td>
<td>29 (0–58)</td>
<td>62</td>
</tr>
<tr>
<td>Eggs</td>
<td>13 (0–25)</td>
<td>19</td>
</tr>
<tr>
<td>Fish</td>
<td>28 (0–100)</td>
<td>40</td>
</tr>
<tr>
<td>Legumes</td>
<td>75 (0–100)</td>
<td>284</td>
</tr>
<tr>
<td>Nuts</td>
<td>50 (0–75)</td>
<td>291</td>
</tr>
<tr>
<td>Added fats</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unsaturated oils</td>
<td>40 (20–80)</td>
<td>354</td>
</tr>
<tr>
<td>Saturated oils</td>
<td>11.8 (0–11.8)</td>
<td>96</td>
</tr>
<tr>
<td>Added sugars</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All sugars</td>
<td>31 (0–31)</td>
<td>120</td>
</tr>
</tbody>
</table>

The Nordic diet (gap)

Wood et al., 2019. Nordic food systems for improved health and sustainability
Add at least one portion (100g) each day

A ten fold increase of nuts/legumes is needed to reach the EAT-Lancet diet

Swap refined grains for whole grains

Swap about 4.5-9 portions each week for plant based proteins

Reduce several teaspoons of added sugar
### NNR 2012 dietary shifts

<table>
<thead>
<tr>
<th>Increase</th>
<th>Exchange</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetables, Pulses</td>
<td>Refined cereals → Wholegrain cereals</td>
<td>Processed meat, Red meat</td>
</tr>
<tr>
<td>Fruits and berries</td>
<td>Butter → Vegetable oils</td>
<td>Beverages and foods with added sugar</td>
</tr>
<tr>
<td></td>
<td>Butter based spreads → Vegetable oil based fat spreads</td>
<td></td>
</tr>
<tr>
<td>Fish and seafood</td>
<td>High-fat dairy → Low-fat dairy</td>
<td>Salt</td>
</tr>
<tr>
<td>Nuts and seeds</td>
<td></td>
<td>Alcohol</td>
</tr>
</tbody>
</table>
Poor diets are…

**Fourth** leading risk factor for poor health in Denmark, Finland, Iceland, Norway

**Third** leading risk factor in Sweden
Food and people
Diets and health

Global Burden of Disease collaboration, Viz Hub 2019
Climate impact of Nordic food consumption

Climate impact of the Nordic diets in comparison with the translated EAT-Lancet environmental target and the average of that of low and high income countries.

Wood et al., 2019. Nordic food systems for improved health and sustainability
Environmental impact of Nordic food consumption

Double the sustainable cropland

Within sustainable blue water use, but…
Environmental impacts of Swedish consumption

Moberg et al., 2020, Sustainability
Environmental impacts of Swedish consumption

Animal products account for...

67%

60%

77%

Moberg et al., 2020, Sustainability
Environmental impacts of Swedish consumption

Vegetable oil, tropical fruits, nuts, coffee, cocoa, rice

Sweets, snacks, drinks as group

Moberg et al., 2020, Sustainability
"…Diets that are healthier than current diets are generally lower in environmental impacts, and diets that are lower in environmental impacts are generally healthier."

Springmann 2019, Environmental Nutrition, Can diets be both healthy and sustainable?
Food and people
Diets and health

Global Burden of Disease collaboration, Viz Hub 2019
Food and planet
Outsourced impact

The Nordic footprint is felt around the world.
Cederberg C, et al. 2019. Beyond the borders - burdens of Swedish food consumption due to agrochemicals, greenhouse gases and land-use change.
Overconsumption

Health impacts

47% of Nordic adults overweight or obese

One in seven Nordic children were overweight or obese in 2014
"...The total impact of obesity may be extra emissions of ~700 megatons per year of CO₂eq, which is about 1.6% of worldwide GHG emissions."
Food waste

Over **3.5 million tons** of food is wasted across the Nordics every year.
Pathway to healthy and sustainable food systems

Wood et al., 2019. Nordic food systems for improved health and sustainability. Figure by Jerker Lokrantz of Azote.
Good food in schools
Cities moving ahead

Public procurement goal of 90% organic in Copenhagen.

Halved or more emissions from public kitchens in Gothenburg.
Businesses, start ups, chefs moving ahead

MAD Academy
Fall 2020 Programs

Arla.com
oatfinder.oatly.com
Toogoodtogo.org

Coop introduces sustainability declarations on all foods

Coop.se
Uppdrag om insatser för hållbar och hälsosam livsmedelskonsumtion

Diarienummer: S2021/03523

Publicerad 20 april 2021

Regeringen ger Folkhälsomyndigheten och Livsmedelsverket i uppdrag att ta fram förslag till nationella mål med indikatorer för att ge en tydlig inriktning för arbetet med hållbar och hälsosam livsmedelskonsumtion i Sverige. Arbetet ska utgå från Sveriges folkhälsopolitiska mål om att skapa samhälleliga förutsättningar för en god och jämlik hälsa i hela befolkningen och sluta de påverkbara hälsoklyftorna under en generation.
Eight opportunities for Nordic collaboration on food system challenges

1. Define sustainable diets in the Nordic context
2. Accelerate a social movement towards sustainable food
3. Develop a tool to assess the sustainability trade-offs of production
4. Bolster the agricultural and food sector workforce
5. Ensure thriving countrysides and urban-rural connections
6. Build an equitable and just food system transformation
7. Address the out-sourced impacts of Nordic food systems
8. Rethink a competitive export market for Nordic food
- School meals
- Procurement
- Marketing
- Business strategy
- Individual eating patterns

Nordic Nutrition Recommendations 2012
Integrating nutrition and physical activity

Available at: https://norden.diva-portal.org/smash/get/diva2:704251/FULLTEXT01.pdf