



**NIBIO**  
NORSK INSTITUTT FOR  
BIOØKONOMI

## NOTAT

### Forfattere:

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Dato: 23.03.2023

## Høringsuttalelse til Helsedirektoratet vedrørende nye nordiske ernæringsanbefalinger (NNR) - kommentarer til «paper 5».

I regi av NNR 2022 er det utarbeidet en vitenskapelig rapport, benevnt som paper 5: Background paper: Integrating sustainability into food based dietary guidelines - how far are we in investigating environmental sustainability of the Nordic diets.

NIBIO har avgitt høringsuttalelse til nevnte rapport, oversendt Helsedirektoratet den 23. mars (lastet opp [her](#)). Høringsuttalelsen er skrevet på engelsk, og gjengitt i sin helhet i dette notatet.

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### **Høringsuttalelse på paper 5, (NNR 2022) fra NIBIO**

Authors at NIBIO: Per Stålnacke, Arne Bardalen and Audun Korsæth

This paper is written by six members of the NNR2022 Committee, and one external scientist from Finland. If the standard of this work is reflecting how the final NNR-report will be produced, it is reason to worry. Here, a strange and clearly unsuited literature review is used as a basis for a completely unsupported statement with potential high consequences: “*..environmental impacts generally decline as the amounts of animal products in the diet are reduced..*” (P 17, Discussion). Environmental impact and sustainability appear to be understood as GHG-emissions only, a topic where the authors have not been able to find one single Norwegian study addressing GHG and food production. The overall impression is that the paper has a very weak scientific orientation, as specified in more details below.



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1. It is unclear how the current paper fits in among the four other background papers especially the paper '*Challenges and opportunities when incorporating sustainability into food-based dietary guidelines in the Nordics*'. At first glance, the two papers seem to overlap (see also NIBIO's comments on the aforementioned paper). For clarity, this should be explained in both papers.
2. Overall, the manuscript is less scientific and appears to be more like a grey-literature report. This is mainly due to the lack of novelty, poor methodology, poor outline and lack of clarity. The paper hardly provides any new insight, knowledge or ideas on environmental sustainability of the Nordic diets.
3. Organisation of paper. The paper appears unstructured and apparently written in a haphazardly manner without a logical flow and framework. It mixes 'arm-waving' statements with detailed/fragmented argumentation in basis in selected papers.
4. The lack of focus is visible throughout the entire paper. For example, the authors before the discussion, suddenly expand the scope of the study by including an entire section on how to integrate more dimensions than health and nutrition, and environmental sustainability with basis in one single study (Mazac et al.; 2021). Another example is on pages 14-17 where the authors cite four approaches from a study by Perignon and Darmon (2022) which ends with a confusing text on which approach fits into the existing NNR 2012 and national FBDGs.
5. The title is misleading "Integrating sustainability into Food Based Dietary Guidelines – how far are we in investigating environmental sustainability of the Nordic diets". A) Only part of the environmental pillar (with is overwhelmingly focused on GHGE) B. The words 'Intergrating sustainability' is misleading since social/cultural, and economic sustainability is missing.
6. Abstract. A) The abstract ends with statements regarding the social and cultural pillars of sustainability although the paper does not include these. B) We cannot really find the suggested methods as referred to in the abstract: "Finally, we suggest methods for developing the national sustainable FBDGs in the Nordic and Baltic countries"
7. The overall aim of the paper is poorly formulated, far too general and rather unscientific: «The overall aim of this paper is to provide knowledge to be used by the NNR2022 Committee for suggesting sustainable Food Based Dietary Guidelines (FBGDs) within the Nordics and Baltics».
8. The first, specific objective suffer from the same limitations (as 7): «The paper gives an overview of the work done in the Nordics on environmental impact of foods and dietary patterns and on the development of FBDGs in the view of sustainability.»

9. The second specific objective, «.. we suggest methods for developing the national sustainable FBDGs in the Nordic and Baltic countries» is not obtained. We cannot really see that any methods are suggested in the paper.
10. We miss a thorough explanation on how the literature review was performed. In the method-chapter, there is only briefly referred to some kind of ‘snow-ball’ methodology and “mathematical programming”. We question if the selected search words, Diet sustain\* “country”, gave the necessary precision and accuracy, and miss a discussion on the rationale for the choice. The authors comment on the scarcity of Norwegian studies, but do not appear to use this information to reconsider the approach. We also miss a clear description on the criteria for the exclusion of ‘out of scope’ papers in the literature review. Having said that, the whole point with performing a systematic review is kind of disrupted already in the Disclaimer: “However, we may have not managed to find all the studies that would be relevant to be included in this paper. Therefore, we invite for input through this public consultation.” Considering this invitation, the authors appear to aim for a rather remarkable hybrid approach for their literature review, when trying to combine a systematic review with inputs from the public.
11. In the ‘Methods’ sections the authors write ‘During the consultation period, the manuscript was also sent to additional experts for further input.» Who these are not presented and how their comments have influenced the paper is not mentioned.
12. The section ‘Current diets in the Nordic countries’ seems to be based only on 5 papers and almost solely focused on food-production groups and not on diets and consumer consumption. This section is regarded as crucial for the further reading.
13. Apparently, the study only include GHGE (green-house gass emissions) as the only parameter for environmental impacts. This is a major draw-back of the study. Moreover, quite early on the authors on page 6 comes with a firm conclusion 'Our review of Nordic studies (Table 1) shows that switching from the current Nordic diets to the current national FBDGs or to the diet meeting nutrient recommendations would reduce GHGE by 84%.". Again, the paper show-case that the environmental dimension is solely directed towards GHGE. In addition, the further reference to Table 1 is scientifically weak.
14. In the first background paper in the same series, it was concluded with that LCA is a less conclusive methodology. Therefore, it is surprising that the present paper rely so much on LCA-studies
15. Again, as in earlier background paper in this series, the authors use ‘meat’ as their main ‘target’ parameter all considered with negative health and environmental impacts. The complex food-intake is almost totally ignored and the multi-collinearity between excess meat intake and other intakes (nicotine, alcohol, fat and other ‘discretionary foods’), life-

style and socio-economical status is poorly addressed although a well amount of studies exist on this.

16. The overall conclusion based on the literature review is weak and 'arm-waving'. "The studies suggest that animal-based foods are the largest contributors to dietary greenhouse gas emissions (GHGE) and land use. Modelling, optimization, and intervention studies confirm the potential to reduce environmental metrics, like GHGE, by shifting towards a plant-based diet."
17. The four overall conclusions are either trivial, unclear, not connected to the aim of paper or cannot be concluded from the literature review and its analysis:

- *“Current Nordic research calls for dietary patterns and FBDGs high in plant-based foods and low in animal-based foods for the benefit of people and environment”*

Again, a too broad and less precise statement and biased since environmental issues in paper is almost purely on GHGE. Benefits of people is not precise enough.

- *“The shift from animal- to plant-based diet needs to be larger than the previous FBDGs recommend.*

Such a conclusion can hardly be drawn from the literature review and its analysis given the non-existing methodological framework and consequent analyses. Moreover, it is not clear how this conclusion is connected to the aim of paper namely environmental sustainability.

- *Nutritional adequacy is crucial when integrating environmental sustainability into FBDGs. Therefore: o Food group specific considerations are essential to simultaneously reduce the environmental impacts and achieve nutritional adequacy. o In addition to FBDGs, other actions, such as supplementation and/or fortification strategies should be considered for setting the preconditions for effective and large enough dietary shift.*

Unclear what the authors really want to say here. What ‘specific considerations’ is meant? What ‘supplementation and/or fortification strategies’ is meant? These issues are hardly addressed in the paper.

- *Along with environmental sustainability, social, cultural, and economic dimensions are essential to understanding the societal and behavioural implications of national FBDGs and proposed dietary shifts.”*

Not supported by any analysis in the paper since social, cultural, and economic dimensions are not covered in the paper.