NIHR Health Protection Research Unit on Environmental Change and Health

WORKSHOP REPORT: INTEGRATING ENVIRONMENTAL SUSTAINABILITY WITHIN NATIONAL FOOD-BASED DIETARY GUIDELINES

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Key Messages

1. Food-based dietary guidelines are pivotal tools to address not only health and environmental concerns but also have economic and social dimensions, including affordability, accessibility, and cultural acceptability.
2. While locality is often considered an accessible starting point for sustainability conversations, it is not always the best indicator of environmental benefit. Emphasis should instead be placed on broader strategies such as environmentally and socially responsible sourcing and procurement practices.
3. Recommendations that are too prescriptive often face resistance from both consumers and stakeholders. Shifting towards flexible, culturally relevant, and less rigid messaging fosters broader acceptance.
4. A future guidance document would be most helpful if it is audience-centric, using case studies, accessible language, positive messaging, and including data resources. This would help support effective policymaking and real-world adoption.

BACKGROUND

Dietary patterns heavily impact natural resources, greenhouse gas emissions, and biodiversity loss. (Fanzo et al., 2021; Willett et al., 2019) By aligning dietary recommendations with environmental sustainability principles, countries can promote diets that minimise ecological footprints while balancing health. Therefore, national food-based dietary guidelines (FBDGs) that integrate environmental sustainability are increasingly being developed by countries as a strategy to help tackle the dual challenges of nourishing growing populations while mitigating environmental degradation. (Dooren et al., 2024; Gonzalez Fischer & Garnett, 2016; James-Martin et al., 2022) This integration generally encourages reduced meat consumption, increased plant-based foods, and decreased food waste, therefore reducing the carbon footprint of diets and conserving land, water, and energy resources. However, the approach to integration taken by countries varies. We have identified two main approaches: 1) optimisation modelling of environmental metrics (e.g. greenhouse gas emissions) alongside nutritional requirements and acceptability constraints (Brink et al., 2019; Lassen et al., 2020), and 2) reviewing environmental impact indicators and including evidence from this as an additional layer of information when updating communication tools e.g. infographics and consumer messaging.

By investigating the conceptualisation, processes and considerations taken by countries who have developed, or are in the process of developing, FBDGs that integrate environmental sustainability, we hope to offer useful insights for future development/updates of/to guidelines that integrate this aspect.

WORKSHOP AIMS

An online workshop was held on the 20th October 2023 with the aim of bringing together stakeholders involved in the development of FBDGs to work through common challenges, share insights, and collectively produce best practice recommendations for integrating environmental sustainability within FBDGs. This built on preliminary findings from ongoing research that included a review of guidelines and background documents, as well as supplementary stakeholder interviews.

The main objectives of the workshop were to:

1. Gain further insights by reflecting on the following:
    a. The process of integrating sustainability into FBDGs
    b. Trade-offs in decision making e.g., striking the balance between health and environmental sustainability
    c. Key barriers and challenges to integration

2. Define the most useful format of a guidance document to support countries with an interest in developing or updating FBDGs that integrate environmental sustainability

The workshop included 22 professional stakeholders from a variety of countries, academic institutions, national government agencies, an intergovernmental organisation, and an international health body. This report summarises the main points of the workshop and reflects on the implications for future work. It is structured around the objectives listed above.

RESULTS AND DISCUSSION

OBJECTIVE 1: INTEGRATING SUSTAINABILITY INTO FOOD-BASED DIETARY GUIDELINES

LOCAL AND SEASONAL FOOD SOURCING

The workshop highlighted diverse views on the emphasis placed on local and seasonal food procurement in sustainability messaging. While promoting local production is politically and economically favourable, participants noted it is not always a more environmentally sustainable choice and evidence is lacking in this area.

- **Economic vs. Environmental Considerations:** Local sourcing can support regional economies and farming communities but does not necessarily minimise environmental impact. For example, geographical factors such as resource use efficiency and transportation emissions vary widely.
- **Challenging the 'Local Myth':** Local and seasonal approaches are often used as a starting point because they are familiar to consumers and policymakers. However, focusing on procurement methods and broader sustainability metrics may yield more impactful results.

PLANT-BASED ALTERNATIVES

The shift towards more plant-based diets, and particularly the more novel plant-based alternatives (such as plant-based drinks and meat alternatives), was a key topic with discussions focusing on both opportunities and challenges:

- **Health and Safety Concerns:** Participants raised the need for careful evaluation of plant-based products, such as nutrient adequacy and variation in nutritional content, and toxicological risks, particularly for vulnerable populations such as children. For instance, the UK is currently assessing plant-based drinks and their nutritional implications.
- **Nutritional Standards:** A standardised approach to evaluating the nutrient content of plant-based products is needed to ensure consistency and health benefits.

PRESCRIPTIVE MESSAGING CHALLENGES

Prescriptive dietary recommendations often encounter resistance, both from consumers and political stakeholders:

- **Shifting the Tone:** Overly prescriptive guidelines can alienate consumers. Workshop participants suggested reframing recommendations with flexible language, such as "reducing" or "choosing more/less," rather than specifying exact portion sizes. Denmark's approach to red meat reduction successfully adopted this strategy, leading to positive consumer engagement.
- **Cultural and Political Sensitivity:** Meat, dairy and fish consumption is deeply embedded in cultural and economic contexts. Some workshop participants reported polarisation and industry pushback when advocating for meat reduction. However, early and inclusive stakeholder engagement helped mitigate opposition in some cases.

SYSTEMIC BARRIERS AND BROADER CONSIDERATIONS

Several systemic factors influence the effectiveness and adoption of sustainable FBDGs:

- **Economic Constraints:** The affordability of sustainable foods, such as fruits and vegetables or plant-based alternatives, remains a barrier for those on lower incomes.
- **Data Gaps:** Participants noted limitations in available environmental data, particularly at granular spatial levels, which complicates guideline development. The UK's Food Data Transparency Partnership was highlighted as a promising initiative to address some of these challenges.
- **Cultural and Social Factors:** Dietary guidelines must account for social acceptability, cooking skills, and food culture to ensure adherence. For example, legumes (e.g. beans and pulses) are more likely to be chosen if consumers are equipped with knowledge of preparation techniques.

RECOMMENDATIONS FOR OVERCOMING BARRIERS

1. **Government Support:** Government support will be required to facilitate the integration of environmental sustainability into FBDGs, including adequate resource allocation to monitor and evaluate updated guidelines for impact. It should also include consideration of incentives to address concerns over the affordability of food.
2. **Stakeholder Engagement:** Early and inclusive consultation with industry, non-governmental organisations and other stakeholders is essential to anticipate and manage resistance.
3. **Data and Tools:** Developing accessible data repositories and tools for environmental impact analysis can strengthen the evidence base for guideline recommendations. Additionally, establishing standardised frameworks with agreement on the environmental outcomes that should be considered as well as on how to undertake risk assessments that weigh up both environmental and health outcomes would be helpful.

OBJECTIVE 2: DESIGNING AN EFFECTIVE GUIDANCE DOCUMENT

The workshop provided a platform for stakeholders to help define the structure and content of a guidance document to support sustainable FBDG development.

DESIRED FEATURES

1. **Case Studies and Examples:**
    - Include diverse case studies highlighting successes and failures and examples of impact.
    - Provide examples of effective stakeholder engagement and consumer messaging, tailored to different political and cultural contexts.
    - Showcase how sustainability metrics could be incorporated and measured.

2. **Audience-Centric Content:**
    - Create a document accessible to policymakers, public health stakeholders, academics but also non-specialist readers.
    - Avoid overly technical language while ensuring the content remains scientifically accurate, actionable and informative.
3. **Data Resources:**
    - Embed links to data sources and analytical tools within the guidance document.
    - Provide a repository of environmental and nutritional data to support decision-making.
4. **Sustainability Integration:**
    - Highlight when and how sustainability considerations should be introduced during guideline development.
    - Address economic and social factors, such as affordability and accessibility, which govern real-world adherence.
5. **Positive Messaging:**
    - Focus on enriching diets (e.g., adding diversity) rather than solely emphasising reductions or restrictions.
    - Tailor recommendations to cultural contexts to enhance acceptance.

ADDITIONAL INSIGHTS

- A staged approach to guideline development and implementation was recommended, including steps for stakeholder engagement and consumer acceptance. Additionally, guidance that maps out the processes, for example to guide users on what data they are looking for, risk assessment and management etc.
- The document should strike a balance between being broad enough to apply across contexts and specific enough to offer actionable guidance.

WORKSHOP REFLECTIONS

The workshop served as a collaborative platform to validate preliminary findings and gather stakeholder insights (see workshop aims above). While it did not fundamentally alter the scope of the ongoing analysis, it provided valuable perspectives on the barriers and challenges, areas lacking evidence and the structure and content of the proposed guidance document, which will be developed in due course.

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ANNEX

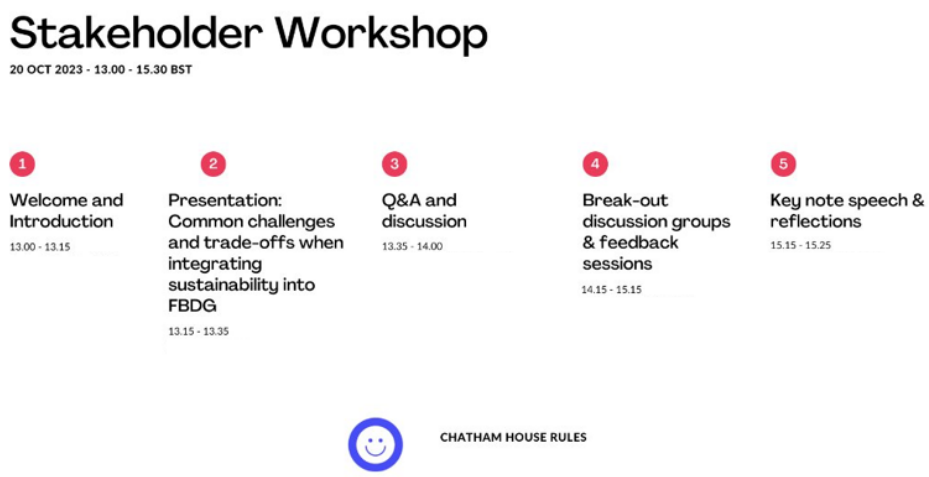

Figure 1: Agenda of stakeholder workshop meeting held on 20th October 2023