ACHIEVING A PLANET-BASED DIET

A METHODOLOGY FOR FOOD SERVICE PROVIDERS TO TRACK PROGRESS TOWARD HEALTHY, SUSTAINABLE DIETS

WWF FOOD PRACTICE

WWF is one of the world's largest and most experienced independent conservation organisations, with over 30 million followers and a global network active in nearly 100 countries. Alongside work in areas like wildlife, oceans and forests, the WWF Food and Agricultural Practice works to transform the food system as, in its current form, it is the single biggest threat to nature. Our vision is a food system which provides nutritious food to all current and future generations while protecting our planet. To help achieve this goal, we work across three pillars of the food system: Sustainable Production, Healthy and Sustainable Diets, and Food Loss and Waste.

AUTHORS

Anna Collins (WWF-UK), Sarah Halevy (WWF-UK), Mariella Meyer (WWF-Switzerland), Dr Brent Loken (WWF International).

We would like to thank all those who provided valuable input and feedback on this report.

DESIGN

Lou Clements

EDITORIAL

Barney Jeffries

TABLE OF CONTENTS

INTRODUCTION

The way we produce and consume food is the single biggest threat to nature today. It is responsible for 80% of global deforestation and 70% of terrestrial biodiversity loss,[1] as well as being linked to approximately a third of global greenhouse gas emissions.[2]

Food service providers play a crucial role in shaping food environments and influencing consumer choices. Food consumed away from home represents a substantial and growing share of total food consumption globally,[3] and in some countries accounts for half of all food expenditure.[4] By promoting plant-based foods and reducing reliance on animal-based products, food service providers can significantly reduce the environmental impact of our food system.

Our methodology offers food service providers a clear framework to measure and report their procurement data on animal- and plant-based foods, supporting a transition to more sustainable and healthy diets.

WHAT IS THE PROTEIN TRANSITION?

The term protein transition refers to shifting from animal-based to plant-based protein food sources, rather than focusing on the nutrient protein itself. This shift aims to reduce the environmental impact of our diets while promoting healthier, more sustainable food choices within protein-rich food groups. Taking this approach of focusing on protein sources at the food level is aligned with most national dietary guidelines and with evidence-based dietary models such as the **Planetary Health Diet**.

METHODOLOGY

METHODOLOGY AIMS

Our methodology advocates using procurement data* for specific products and ingredients, measured in tonnes (volume). Food service providers can report on the percentages of foods purchased to track and improve their offerings – for example, by reporting the percentage of procurement (by weight) from animal and plant-based protein sources. This approach provides an effective way to understand and assess how procurement aligns with nutrition and dietary goals.

*WHY PROCUREMENT DATA AND NOT SALES DATA?

The primary aim of this methodology is to enable data collection and reporting at the **whole product** and, where possible, **ingredient level**, as this provides the greatest level of granularity for assessment.

In food service settings, ingredients and meal components are typically purchased (procured) by the food service provider, while sales data is often recorded at the level of meals, dishes or menu items rather than individual ingredients. As a result, sales data may not reliably reflect the underlying composition of foods served, making it more difficult to establish ingredient-level or food-group-level breakdowns, particularly for composite dishes.

We recognise there is variation across food service models and, in some instances, sales data may be suitable where product-level detail is widely available. For retailers, we recommend using sales data as this is generally available at product and ingredient level, and allows for direct comparison with dietary models.

Recognising variation in resources and data availability across organisations, we propose a stepwise approach that enables food service providers to get started, set targets and measure progress toward sustainable, healthy diets. While transitioning procurement of protein-rich foods toward a greater proportion from plant-based sources is essential (steps 1 and 2), the methodology also extends to a broader, whole diet perspective (step 3) supporting transition toward a healthy, sustainable, plant-rich diet across all food groups.

FOOD GROUPS

To provide a comprehensive framework for assessing dietary patterns, we have categorized foods into specific groups, based on those used in a range of national dietary guidelines and leading scientific advice. See Table 1 for an overview of each food group. A more detailed list of products in each food group can be found in this **guidance document** (tab 5). Certain products and product categories are excluded from reporting, such as alcoholic drinks, herbs and spices, tea and coffee. Refer to **tab 3** for a comprehensive list.

FOOD GROUP	EXPLANATION	EXAMPLES
 **FOOD GROUP 1** Protein sources Plant-based	Foods that belong to the protein category. *This category should be reported in subgroups*	**PLANT-BASED:** • Nuts and seeds • Legumes (beans, lentils, chickpeas, etc.) • Minimally processed protein sources (tofu, tempeh, seitan, etc.) • Meat, egg and seafood alternatives
 Animal-based		**ANIMAL-BASED:** • Red meats (beef, pork, lamb, etc.) • Poultry (chicken, turkey, etc.) • Processed meats (sausages, burgers, nuggets, etc.) • Seafood (fish, shellfish, etc.) • Eggs
 **FOOD GROUP 2** Dairy (and dairy alternatives)	All dairy products and their plant-based alternatives.	• Milk and milk alternatives (soy milk etc.) • Cheese and cheese alternatives • Yogurt and yogurt alternatives • Cream and plant-based cream substitutes
 **FOOD GROUP 3** Fats and oils	Added fats and oils that are consumed/used in cooking, as ingredients or as spreads.	• Olive oil, coconut oil, avocado oil, seed oils • Margarine • Butter, ghee and lard
 **FOOD GROUP 4** Fruits and vegetables	Fruits and vegetables in multiple forms including fresh, frozen, dried and canned.	• Fresh fruits (apples, bananas, berries, etc.) • Fresh vegetables (leafy greens, root vegetables, etc.) • Frozen fruits and vegetables • Dried fruits and vegetables
 **FOOD GROUP 5** Grains/cereals	Foods based on grains, that are rich in carbohydrates and serve as staple foods.	• Grains (rice, wheat, oats, barley, etc.) • Pasta, bread and other grain-based products • Pseudocereal (buckwheat, quinoa, amaranth)
 **FOOD GROUP 6** Tubers and other starchy foods	Foods made primarily from starchy vegetables and tubers.	• Tubers (potatoes, sweet potatoes, yams etc.)
 **FOOD GROUP 7** Snacks high in added fats, salt and sugar	Foods that are not captured by the core food groups and which should be eaten less often and in small quantities.	• Confectionery (sweets, chocolates, etc.) • Savoury snack foods (crisps, pretzels, etc.) • Baked goods (cakes, cookies, pastries etc.)

Table 1. Explanation of food groups

STEPWISE APPROACH

MEASURING PROTEIN TRANSITION

STEP 1

Evaluating the balance between animal-based and plant-based protein procurement.

Objective

To assess the current procurement of animal-based and plant-based whole products and establish an initial measure for composite products.

Step 1A: Categorize whole products (food groups 1 and 2)

Categorize all whole products (own brand and branded) from food groups 1 and 2 into the following food groups and sub-groups:

- Protein sources, plant-based: legumes, nuts, seeds, meat alternatives
- Protein sources, animal-based: red meat, poultry, seafood, eggs
- Dairy products*
- Dairy alternatives

WHOLE PRODUCTS VS COMPOSITE PRODUCTS

Whole products are food items predominantly from one food group, such as chicken breast, sausages, yoghurt, lentils, bread, oil or almonds.

Composite products are foods composed of multiple main ingredients from more than one food group. Typical examples include chicken curry meals, ham sandwiches or salads with added proteins or grains, where the individual components remain clearly identifiable rather than fully blended.

For reporting purposes, composite products and whole products must be measured and reported separately, along with their share of overall volume.

* Cheese should be reported in dairy equivalents due to its higher environmental impact. A conversion factor of 1:10 is applied for hard and soft cheese (e.g. 1kg of cheese is reported as 10kg dairy equivalent).

OWN BRAND AND BRANDED PRODUCTS

Own brand refers to products and ingredients purchased by the food service provider, that are prepared and/or sold under the food service provider's name or brands. This includes brands or labels not explicitly featuring the food service provider's name but owned or exclusively distributed by them.

Branded refers to products manufactured and sold under a distinct brand name owned by a company or entity separate from the food service provider.

Step 1B: Report baseline protein split

- Provide the percentage breakdown of procurement volume (by weight) for plant-based and animal-based products across food groups 1 and 2.
- Additionally, report the percentages for the detailed subgroups (see Table 2 for example).

For further guidance on reporting or communications, see tab 6 of the **guidance document**.

FOOD GROUP	SUB-GROUP	CATEGORY	PROCUREMENT (%)
FOOD GROUP 1: PROTEIN	Pulses & legumes	Plant	X%
	Nuts & seeds	Plant	X%
	Meat alternatives and minimally processed plant protein	Plant	X%
	Total plant-based protein in food group 1		XX%
	Red meat	Animal	X%
	Poultry	Animal	X%
	Seafood	Animal	X%
	Eggs	Animal	X%
	Total animal-based protein in food group 1		XX%
	TOTAL OF FOOD GROUP 1		100%
FOOD GROUP 2: DAIRY (AND DAIRY ALTERNATIVES)	Dairy products	Animal	X%
	Dairy alternatives	Plant	X%
	TOTAL OF FOOD GROUP 2		100%

Table 2. Illustration of an assessment of animal-based vs plant-based procurement percentages for food groups 1 and 2

Step 1C: Product-level approach for composite products

A composite product-level approach is designed for food service providers who do not have access to detailed ingredient-level data. In this approach, the total weight of a composite product (own brand or branded) is counted, rather than the individual ingredients from different food groups. As a result, composite products are reported separately from whole products.

Classify all composite products into the following categories, based on their total product weight:

- Meat-based –products containing any meat
- Seafood-based – products containing any fish or seafood
- Vegetarian – may contain eggs and/or dairy, but no meat or seafood
- Vegan – contains no meat, seafood, eggs or dairy.

EXAMPLE

A 400g vegan lasagna is assigned to the “Vegan” category, while the whole weight of a 600g chicken curry with rice is placed in the “Meat-based” category (even though the meat itself weighs less than this). Composite products containing both meat and seafood should be assigned to the “Meat-based” category. Further examples and information can be found in this **guidance document** (tabs 1 and 2).

STEP 2

Ingredient-level breakdown for composite products

Objective

To enhance data granularity for own-brand composite products where ingredient-level data is available.

Ingredient-level data is the gold standard approach, and it should be the ultimate aim for data systems to support this. Food service providers with access to detailed ingredient data are encouraged to apply an ingredient-level approach:

- Break down the composite products (own brand) to identify the weight of each ingredient from food groups 1 and 2 (and optionally also food groups 3-6)
- Assign the ingredients to the appropriate food group and sub-groups.

EXAMPLE

In a vegan lasagna, the 70g vegan minced meat substitute would go in food group 1 (meat alternatives), and the 20g vegan cheese alternative in food group 2 (dairy alternatives).

This approach can also be completed for branded products where comprehensive ingredient data is available.

MEASURING HEALTHY, SUSTAINABLE DIETS

STEP 3

Broader diet perspective

Objective

To enable food service providers to measure and promote a healthy and sustainable diet beyond the protein transition.

In addition to tracking the protein transition, food service providers can categorize their entire procurement volume (tonnes) into appropriate food groups (e.g. fruit and vegetables, grains, fats) to measure the balance of products procured across the full range of food groups. They can then compare this against the proportions recommended for a healthy and sustainable diet, such as the Planetary Health Diet. This broader assessment can be introduced at any stage of the protein transition.

MEAT AND DAIRY ALTERNATIVES

Meat and dairy alternatives can play a supporting role in reducing consumption of meat and dairy products with high environmental impacts, while also adding variety to diets. Some meat alternatives contain high levels of fat, sugar or salt or may lack important micronutrients. Improving the nutritional quality of these products through reformulation is therefore important to support healthy and sustainable diets. Minimally processed plant-based protein foods – such as tofu, tempeh, seitan and legumes – provide valuable nutrients and can be effective substitutes for meat. Milk alternatives generally have a lower environmental impact than dairy milk but should be fortified with key nutrients in order to provide a suitable nutritional profile.

GOAL SETTING

Food service providers are encouraged to set clear targets to rebalance procurement toward plant-based foods.

For food group 1, a suggested long-term target is a 60:40 split in favour of plant-based protein foods by 2050, aligning with the Planetary Health Diet. The table below illustrates an example of the optimal balance of the wider food groups, according to the Planetary Health Diet. Food group 7 has been excluded, as the need to reduce foods high in fat, sugar and salt is well recognised, and should be aligned with national guidance.

The Planetary Health Diet's recommended plant- to animal-based food split for the whole diet is 74%:26%.

FOOD GROUP	% OF PROCUREMENT	PLANT : ANIMAL RATIO
1 Protein rich foods	16%	60:40
2 Dairy (and alternatives)	19%	
3 Fats and oils	4%	
4 Fruits and vegetables	39%	
5 Grains and cereals	18%	
6 Tubers or starchy vegetables	4%	
TOTAL	100%	74:26

Table 3: Optimal food group split to guide transition toward more healthy and sustainable diets, as referenced by the **Planetary Health Diet**.

While the Planetary Health Diet represents the ultimate target for 2050, there are various national-level approaches that can help food service providers move toward this goal. For instance, food service providers can use tools like the **planet-based diets calculator** to understand country-specific consumption patterns to help initiate a stepwise approach. They can also adopt methodologies that offer tailored recommendations for specific national contexts, such as the **UK Livewell Diet**. As a minimum requirement, procurement could initially be aligned with national dietary guidelines – though it is important to recognise that these may not be sufficiently ambitious or incorporate comprehensive environmental criteria.

REFERENCES

1. WWF. 2020. Living Planet Report 2020. [online] WWF-UK. Available from: **wwfin.awsassets.panda.org/downloads/lpr_2020_full_report.pdf** [Accessed 4 Feb 26]

2. Intergovernmental Panel on Climate Change. 2022. *Climate Change 2022: Mitigation of Climate Change*. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Available from: **www.ipcc.ch/report/ar6/wg3** [Accessed 4 Feb 26]

3. Landais E, Miotto-Plessis M, Bene C, Maitre d'Hotel E, Truong MT, Somé JW, Verger EO. 2022. Consumption of food away from home in low- and middle-income countries: a systematic scoping review. *Nutritional Review* 81(6): 727–54. Available from: **https://academic.oup.com/nutritionreviews/article/81/6/727/6762056** [Accessed 11 Feb 26]

4. Zeballos E, Rivera-Cintron D, Sinclair W. 2024. U.S. consumers increased spending on food away from home in 2023, driving overall food spending growth. *Amber Waves*, U.S. Department of Agriculture, Economic Research Service. Available from: **www.ers.usda.gov/amber-waves/2024/october/u-s-consumers-increased-spending-on-food-away-from-home-in-2023-driving-overall-food-spending-growth/** [Accessed 11 Feb 26]

Working to sustain the natural world for people and wildlife

together possible™

panda.org/food