ATNi
NUTRITION
MARKETS
IMPACT

RETAIL ASSESSMENT

Scope and Methodology

November 2025

ABOUT ATNi

ATNi (Access to Nutrition initiative) is a global foundation headquartered in the Netherlands that actively challenges the food industry, investors, and policymakers to shape healthier food systems. Its mission is to transform markets so that, by 2030, at least half of companies' food and beverage sales are derived from healthy products. ATNi analyses and translates data into actionable insights, driving financing, partnerships and innovations for market transformation so that all people have access to nutritious and sustainable food.

ATNi is overseen by an independent board that works pro bono and is funded, among others, by the Gates Foundation and the UK Foreign, Commonwealth and Development Office. More information about ATNi's governance and operating policies is available online.

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ABBREVIATIONS

AI	Artificial Intelligence
ATNI	Access to Nutrition initiative
FAO	Food and Agriculture Organization
FDA	US Food and Drug Administration
Food-EPI	Healthy Food Environment Policy Index
FOP	Front-of-pack (Labelling)
FVNL	Fruit, Vegetable, Nut, and Legume
GAIN	Global Alliance for Improved Nutrition
GDQS	Global Diet Quality Score
HFSS	High in Saturated Fat, Sugar and Salt
HSR	Health Star Rating
INFORMAS	International Network for Food and Obesity / Non-communicable Diseases (NCDs) Research
LMIC	Low- and middle-income country
NCD	Non-communicable Disease
NGO	Non-governmental Organization
NPM	Nutrient Profile Model
OCR	Optical Character Recognition
OFF	Open Food Facts
RAG	Retrieval Augmented Generation
UNICEF	United Nations Children's Fund
UPF	Ultra-processed food
WHO	World Health Organization
WHO SEA	WHO Southeast Asian
WHO WPRO	WHO Regional Office for the Western Pacific

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1 INTRODUCTION

Food retailers play a key role in shaping food environments and influencing consumer choices worldwide. Their marketing, pricing, and product placement strategies determine which foods are most visible, affordable, and accessible to consumers—often favouring less healthy options over more nutritious ones. This imbalance contributes to unhealthy dietary patterns and the growing global burden of obesity and diet-related non-communicable diseases (NCDs).

Creating healthier and more equitable food environments requires a better understanding of how retailers operate: what commitments they make, how these are implemented, and how their actions ultimately shape consumer purchasing behaviour. However, to date, systematic and cross-country analyses of food retailer strategies and performance have been limited, particularly in low- and middle-income countries (LMICs) where the retail sector is expanding rapidly.

The ATNi Retail Assessment 2025 fills this evidence gap by mapping and analysing the strategies, policies, and performance of 18 leading food retailers across six countries with varying income levels: the US, France, South Africa, Indonesia, the Philippines, and Kenya. It aims to identify opportunities for improvement by retailers, investment priorities, and policy levers that can foster healthier retail food environments and contribute to improved public health outcomes.

Building on 13 years of ATNi's market-shaping and benchmarking work—including the Global Index, Country Indexes, and the UK 2022 Retailer Index—this assessment extends ATNi's methodology to the global retail sector. It combines corporate policy analysis with primary data analysis on retail practices, including product promotions in weekly flyers, the cost and affordability of 'retail baskets', and the healthiness of private label portfolios. These findings are contextualized within the key policies and public health objectives of each of the six countries.

The methodology for the Retail Assessment 2025 was developed in consultation with nutrition, public health, food policy, and data experts, as well as other experts active in the food systems and retail sector. An independent advisory group of international experts also reviewed the materials and provided feedback, ensuring methodological robustness, and both corporate and policy relevance.

It draws on established global frameworks and tools for assessing healthy food environments and nutrition-related retail practices, including the Food and Agriculture Organization of the United Nations (FAO)/Global Alliance for Improved Nutrition (GAIN) Global Diet Quality Project, International Network for Food and Obesity/NCDs Research, Monitoring and Action Support (INFORMAS) Private Sector and Retail modules[a], and the EAT-Lancet Healthy Reference Diet. Government-endorsed nutrient profile models were also used to guide analysis. ATNi adapted these frameworks to reflect both country-specific contexts and global perspectives on the food retail sector.

The findings from the assessment are intended to guide retailers, investors, and policymakers in aligning strategies with public health goals, strengthening accountability, and accelerating progress toward equitable access to nutritious and affordable foods.

[a] https://www.informas.org/modules/

2 OVERALL SCOPE AND APPROACH

2.1 OVERVIEW OF RESEARCH ELEMENTS

The assessment consists of four complementary research elements designed to provide a clear and evidence-based picture of how the modern grocery retail sector influences consumer access and food choices. Together, they provide both context and depth—examining the structure of retail markets and the broader food environment; analysing what retailers publicly commit to on nutrition; independently assessing their practices; and reviewing the policy conditions that enable or constrain progress. Collectively, these components form the analytical foundation of the ATNi Retail Assessment 2025.

Retail environment mapping
This element establishes the broader context by mapping the size, structure, and trends of the modern grocery retail sector in each country. It examines retailer types, market concentration, consumer reach, and shopping patterns to help interpret how retailers influence national food environments and, in turn, dietary patterns and nutrition outcomes.

Retailer strategies and performance; product healthiness and promotions
This component analyses retailers' nutrition-related commitments, governance, and disclosure practices, alongside independent assessments of their promotional activities and the healthiness of private label products. It provides insight into how well stated strategies are reflected in actual business practices.

Cost and affordability
This element assesses the cost and affordability of healthier versus less healthy products using food baskets based on the 2019 EAT-Lancet Reference Diet. By comparing these baskets against income levels and purchasing power, it identifies whether healthier diets are financially accessible to consumers and how pricing strategies may support or hinder this goal.

Policy and regulatory gaps
The final element examines the policy environment shaping food retail and nutrition. Using the established NOURISHING for healthier food environments, the analysis assesses policy areas relevant to retail, identifies gaps, and highlights opportunities to strengthen alignment between public policy and retail practice. Findings from this component inform the assessment's recommendations and priority actions for retailers, policymakers, and investors.

Each research element is described in detail in the chapters that follow in this methodology document.

2.2 RETAILER SELECTION

The Retail Assessment 2025 includes 18 retailers across six countries: the US, France, South Africa, Indonesia, the Philippines, and Kenya (i.e. order of countries is based on income group setting: high, upper-middle and LMICs). In each country, the top three retailers were selected based on overall market share, national coverage and presence across multiple regions (Table 1). For retailers operating multiple brands, the largest brand by number of store locations was selected for specific research elements of this assessment.

Table 1. Retailers included in the assessment and their market share.

Economy[b]	Country	Retailer (operating brand)	% range of sales modern grocery retail[c]
High-Income	United States	Walmart	25-27%
	United States	Kroger	6-8%
	United States	Ahold Delhaize USA (Food Lion)	2-4%
	France	E.Leclerc	16-17%
	France	Carrefour	15-17%
	France	Les Mousquetaires (Intermarché)	12-14%
Upper-middle income	South Africa	Shoprite Holdings	33-35%
	South Africa	Pick n Pay Group	15-17%
	South Africa	SPAR Group South Africa	15-17%
	Indonesia	Sumber Alfaria Trijaya (Alfamart)	38-40%
	Indonesia	Indomarco Prismatama (Indomaret)	31-33%
	Indonesia	Lion Super Indo	1-3%
LMIC	Philippines	Puregold Price Club	16-18%
	Philippines	SM Supermarket	16-18%
	Philippines	Robinsons Retail Holdings	7-9%
	Kenya	Naivas	18-20%
	Kenya	Quickmart	9-11%
	Kenya	Majid Al Futtaim (Carrefour Kenya)	8-10%

Data Source: Euromonitor International *Passport Global Market Information Database**, 2024. Data represent the percentage share of total modern grocery retail sales value, excluding small local grocers.

*Euromonitor International intelligence is used under license. Although Euromonitor aims to correct inaccuracies of which it is aware, it does not warrant that the data will be accurate, up-to-date or complete as the accuracy and completeness of the data and other content available in respect of different parts of the content will vary depending on the availability and quality of sources on which each part is based. Furthermore, Euromonitor does not warrant that the data will be fit for any particular purpose(s) for which they are used as Euromonitor does not have any knowledge of, nor control over, those purposes.

[b] World Bank Group country classification by income level: World Bank country classifications by income level for 2024-2025

[c] Modern grocery retail: Aggregation of modern grocery channels such as supermarkets, hypermarkets, convenience stores, discounters, warehouse clubs, and food/drink/tobacco specialists, including independent outlets [Euromonitor International Passport]. It is distinguished from *traditional grocery retail*, which includes small, independent shops, market stalls, and informal vendors. In this report, modern grocery retail equals total grocery sales minus those via small local retailers.

The six countries were selected according to defined criteria to ensure relevance, diversity, and impact.

The selection prioritized:

- Countries already included in ATNi's 2024 Global Index and Product Profile assessments of manufacturer brand products.
- Countries with a formal and/or expanding modern food retail sector (representing at least 10% of national food purchases).
- Representation across income groups—high-, upper-middle-, and LMIC economies (see Table 1) and regions—North America, Europe, Africa, and Asia.

Additional consideration was given to alignment with other ATNi projects and policy initiatives to strengthen synergies and maximize impact.

2.3 RESEARCH PROCESS

The research was conducted between November 2024 and November 2025, with data collection and company engagement carried out in parallel across the six countries.

Analytical frameworks for each of the four research elements were developed using ATNi's established methodologies and international best practices to ensure alignment and comparability across countries and retailers. Company engagement was a key component of the process: all retailers were invited to verify information and share additional evidence.

Findings were reviewed internally throughout the research period to ensure data accuracy and coherence across countries. In addition, a peer-review process within the research team provided an independent check on analytical rigour and impartial interpretation of evidence. Final analyses were synthesized into retailer- and country-level summaries highlighting key findings, trends, and recommendations.

This process led to the following outputs:

- Retail Global Executive Summary and Cost and Affordability Report
- Retail Country Reports and Policy Briefs
- Retailer Result Cards and Product Profile Results, visually presented on ATNi's Dashboard

These will be updated as they become available.

2.4 ADVISORY GROUP

The analytical frameworks were developed with input from an independent Advisory Group of international experts in nutrition, food policy, and retail environments (Table 2). The group provided strategic and technical feedback on the methodology and interpretation of findings. Their insights helped refine and strengthen the assessment, ensuring its scientific rigour and global relevance.

Table 2. Members of the ATNi Retail Assessment 2025 Advisory Group.

Name	**Affiliation**
Prof. Adrian Cameron	Professor at Faculty of Health, Deakin University; Director of RE-FRESH: Next Generation Healthy Food Retail Centre of Research Excellence, Australia
Prof. Christina Vogel	Professor of Food Policy at the Centre for Food Policy, City, University of London, UK
Prof. Mary Story	Professor of Global Health and Family Medicine and Community Health, Duke University, US
Prof. Jessica Fanzo	Professor of Climate, Director of the Food for Humanity Initiative, Climate School, Columbia University, US
Chris Holmes	Co-founder of Kickback Kitchens CIC, a social enterprise; Consultant for GAIN, UK
Prof. Poh Bee Koon	Professor of Nutrition at Faculty of Health Sciences, Universiti Kebangsaan, Malaysia

2.5 STRENGTHS AND LIMITATIONS

As the first assessment of its kind, the Retail Assessment 2025 applies a standardized, cross-country approach to evaluate how food retailers influence or determine nutrition, affordability, and the broader food environment in the countries they operate in. This section outlines the key methodological strengths and innovations, as well as the overarching limitations that should be considered when interpreting the findings.

2.5.1 Scope and Comparability

Strengths and Innovations

The Retail Assessment 2025 is ATNi's first multi-country assessment of retail food environments in countries with diverse income settings, expanding on previous national-level work such as the UK Retailer Index 2022. It introduces a harmonized, cross-country framework that combines an assessment of corporate commitments and strategies with more independent performance measures on product promotions, pricing, and product healthiness—marking an important methodological shift compared to ATNi's manufacturer indexes published up to 2025. By focusing on private label portfolios, over which retailers have full control regarding formulation, pricing, and marketing, the assessment offers unique insight into retailers' ambitions on nutrition and affordability. Together, these elements make this one of the first efforts globally to benchmark retailer commitments and performance across different market and income contexts.

Limitations

As ATNi's first multi-country Retail Assessment, there are no prior international benchmarks against which to assess progress. The scope was set to balance geographic diversity with available resources, providing a foundation for future expansion to additional countries and retailers. The analysis focuses on the modern grocery retail sector, examining nutrition-related policies, commitments, and strategies (Retailer Profiles) complemented by assessments of product healthiness (Product Profiles), product promotions, and a food basket pricing analysis. Other retailers in the food system—such as small local grocers, informal retail, and e-commerce—are not covered. The Retailer Profiles rely primarily on company-disclosed and self-reported nutrition specific information, which is assumed to be accurate and up-to-date, and do not cover other corporate dimensions (e.g. sustainability, tax practices, or lobbying).

2.5.2 Methodological Approach

Strengths and Innovations

The methodology builds on ATNi's established expertise in global benchmarking, combining robust analytical frameworks with transparent data triangulation. By complementing company engagement with independent data analysis—drawing from diverse sources and verified third-party datasets—it enhances both objectivity and reproducibility. The inclusion of a pilot in Kenya, testing data validation through collecting products in-store and uploading to Open Food Facts, demonstrates methodological innovation and commitment to strengthening data quality, particularly in LMIC contexts.

Limitations

Given the scope of the assessment and limited resources, on-the-ground research to directly observe retailer practices across all countries was not feasible. Fieldwork on aspects such as in-store marketing, product placement, and shelf space would have required extensive sampling across regions to ensure representativeness. As a result, the assessment relied primarily on desk-based research, combining quantitative data analysis with targeted engagement to ensure reliability and coherence across countries.

2.5.3 Data Availability and Quality

Strengths and Innovations

The assessment integrates multiple data sources, including academic publications, global data platforms, and paid databases such as Euromonitor International and Innova Market Insights, complemented by company-provided information where available. Standardized protocols for data cleaning, validation, and cross-country alignment were applied to ensure comparability and transparency across all research elements. The development of a "glossary" further enhanced methodological consistency, supporting uniform data presentation and interpretation across datasets, components, and markets.

Limitations

Data completeness and quality vary by country, retailer, and source. Differences in how key concepts—such as "modern grocery retail", "healthy/unhealthy products", "ultra-processed foods" or levels of processing—are defined across datasets may affect comparability. Despite harmonization efforts, data gaps remain, particularly in LMICs, where public data are limited or reporting is inconsistent. These variations should be considered when interpreting cross-country comparisons and aggregated findings.

2.5.4 Dynamic Market and Policy Context

Strengths and Innovations

The assessment provides a snapshot of global retail food environments during a period of significant transformation, both in terms of growing market and food basket shares filled by modern retail as well as a rapidly changing food and nutrition policy landscape with countries considering, developing and applying fiscal measures, marketing regulation and labelling standards. By combining corporate policy analysis with independent measures of affordability, marketing practices, and portfolio healthiness, it establishes a replicable framework for ongoing monitoring. The structure allows for future iterations to track progress, enabling policymakers and other stakeholders to assess how retail practices evolve over time.

Limitations

Retail and policy environments are dynamic and continue to evolve, with new fiscal, marketing, and labelling measures emerging in several countries. Changes in retail operations, ownership, and consumer behaviour will affect how the findings should be interpreted. Results therefore reflect conditions between November 2024 and November 2025 and should be interpreted as a baseline for future analysis rather than a definitive account of the sector.

3 RETAIL ENVIRONMENT MAPPING

3.1 RATIONALE: RETAIL ENVIRONMENT MAPPING

Grocery retail environments—outlets where food is purchased for immediate or later consumption—form a major component of the physical food environment and play a critical role in shaping dietary patterns.[1] The growing dominance of modern grocery retail channels has increased access to convenient, shelf-stable, and safe products but has also driven greater availability of highly processed and often unhealthy foods, contributing to rising rates of overweight, obesity, and diet-related NCDs worldwide.[2–4]

The structure and dynamics of grocery retail environments vary considerably across countries. They are influenced by factors such as economic development, regulatory frameworks, technology adoption, and urbanization, and are evolving rapidly—particularly in LMIC settings where modern trade continues to expand. Understanding this variation, along with shifts in market concentration, the growth and decline of retail formats, and changes in retailer ownership and governance, is essential to contextualize the nutrition-related performance of retailers and to interpret the findings presented in other components of the Retail Assessment 2025.

3.2 OBJECTIVE: RETAIL ENVIRONMENT MAPPING

The retail environment mapping aims to analyse the structure and dynamics of each country's grocery retail sector to understand how national context shapes retailers' nutrition-related policies and performance. This contextual understanding also enables meaningful cross-country comparison and supports interpretation of the broader Retail Assessment 2025 findings.

3.3 DATA SOURCES AND APPROACH: RETAIL ENVIRONMENT MAPPING

The retail environment mapping combines quantitative market data with literature-based insights and expert consultation to build a comprehensive picture of grocery retail environments across the six countries included in the assessment. The analysis covers four core dimensions:

- Nutrition context: malnutrition challenges and dietary patterns.
- Retail landscape: size and structure of the modern grocery retail sector.
- Retail market dynamics: major market players, including market concentration, competition, ownership, and product offerings.
- Consumer characteristics: socio-demographic profiles and shopping behaviours of supermarket shoppers.

Wherever possible, consistent and comparable data sources were used across countries. The primary quantitative source was the Euromonitor Passport Global Market Information Database, which provides annual statistics on retailer sales by product category, company, and retail channel. These data are compiled from trade associations, company financial statements, and government data.

The nutrition context was informed by the following global datasets and reports:

- FAO: The State of Food Security and Nutrition in the World (2025).
- World Health Organization (WHO) nutrition indicators.
- Gallup, Harvard Department of Global Health and Population, and GAIN: Global Diet Quality Project.[d]
- GAIN, The Columbia Climate School, Cornell University, and FAO: Food Systems Dashboard.

To complement these data sources, a literature review was conducted to describe each country's retail food environment. A framework with predefined research questions was developed to structure the search and categorize information. This framework was informed by relevant experts (Annex A) and reviewed by the Retail Assessment 2025 Advisory Group (Table 2).

Sources included government publications, peer-reviewed studies, reports from international organizations and NGOs, trade and industry analyses, press articles, and company materials. Searches were conducted primarily through online search engines and academic databases (e.g. Google Scholar), supplemented by citation tracking and targeted follow-up searches based on emerging insights. In some instances, large language models were also used to identify relevant papers. Use of these models was limited to locating relevant papers and not used for summarization or analyzing their contents. Priority was given to information published within the past five years, with older sources used only when more recent or higher-quality data were unavailable.

Finally, key informant interviews with in-country experts were conducted to validate findings and identify additional data sources (Annex A). This mixed-methods approach ensured both comparability across markets and a nuanced understanding of local retail contexts.

[d] France not included

3.4 LIMITATIONS: RETAIL ENVIRONMENT MAPPING

Several limitations specific to the environment mapping, in addition to those outlined in Chapter 2 should be acknowledged:

- **Data availability**
  Much of the analysis draws on secondary sources, which may differ in methodological approach, rigor, and transparency. The quantity and quality of studies also vary by country, occasionally requiring reliance on older studies that may not fully reflect current market conditions. These inconsistencies may reduce cross-country comparability in certain cases.
- **Limitations in informal sector estimation**
  In LMICs, where informal trade remains significant and difficult to measure, retail market coverage and data reliability are limited. Differences in how data providers capture or estimate informal sales can affect cross-country comparability. For instance, it is often unclear whether Euromonitor excludes informal (i.e. unregistered) traders or applies estimation methods, meaning the observed changes in sales volumes within traditional retail channels may partly reflect data variation rather than actual market shifts.
- **Inclusion of non-food items in 'grocery' sales estimates**
  Euromonitor classifies mixed-retail categories–such as supermarkets or hypermarkets–as "grocery," even though a proportion of their sales may come from non-food items (e.g. household goods or personal care products) that do not directly impact consumer nutrition. This may result in an overestimation of the size of the food and beverage retail market.
- **Potential analytical bias in interpretation**
  Because the mapping integrates data from multiple sources, interpretation requires analytical judgment to resolve inconsistencies or variations in definitions. Although guided by a consistent framework and internal review process, this introduces a degree of subjectivity in interpreting and synthesizing results.
- **Rapidly evolving market context**
  Retail environments—particularly in Asia and Africa—are changing rapidly. Consolidation of supermarket chains, the increase in discount formats, and the expansion of e-commerce are changing the competitive landscape. The findings therefore provide a snapshot of current market conditions, which are likely to evolve with the emergence of new business models, technologies, and consumer trends.

4 RETAILER PROFILE

4.1 RATIONALE: RETAILER PROFILE

Retailers serve as a critical interface between the food industry and consumers, playing a central role in shaping population diets. Their policies and practices influence which products are developed, promoted, priced, and made visible to shoppers. As key gatekeepers of the food environment, retailers have both an opportunity—and a responsibility—to support healthier food systems by improving the nutritional quality and affordability of the foods they sell and by helping consumers make healthier choices.

Understanding how retailers engage with nutrition through their corporate strategies, governance structures, and operational practices is therefore essential to assess the overall healthiness of grocery retail environments and identify leverage points for improvement. Within the wider *Retail Assessment 2025*, this research component complements analyses of product healthiness, promotions, and affordability by providing insight into companies' stated commitments, policies, and disclosure practices, as well as the country context. Together, these elements provide a comprehensive picture of how retailers influence nutrition outcomes across countries and where further progress or policy intervention may be needed.

4.2 OBJECTIVE: RETAILER PROFILE

The primary aim of the Retailer Profile is to qualitatively assess the extent how the selected retailers engage with nutrition, integrate it into their commercial strategies, and take actions beyond regulatory requirements to support consumers in achieving healthier diets.

This analysis helps identify leading practices and areas where improvement, enabling ATNi to provide evidence-based recommendations to retailers, investors, and policymakers to strengthen nutrition-related policies and business practices.

The findings are not intended as a performance ranking, but as an exploratory mapping of current engagement with nutrition-related topics and examples of good practices. The assessment provides an overview of sector progress across the selected countries, recognizing that the level of action and integration varies by income setting. The approach is designed to capture these contextual differences rather than penalize countries or retailers at earlier stages of engagement, while establishing a foundation for future scored assessments as retailers' practices and disclosure evolve.

4.3 RESEARCH APPROACH: RETAILER PROFILE

4.3.1 Framework Development

The Retailer Profile framework comprises 30 core and 16 supplementary indicators, organized across five thematic areas ('Categories') (Table 3).

Table 3. Overview of categories and elements included in the Retailer Profile analysis.

Category	**Principal elements assessed**[e]	**Core indicators** (n)	**Supplementary indicators** (n)
Nutrition prioritization and governance	• Identification of nutrition in the company's enterprise risk register and materiality assessment • Inclusion of nutrition strategy in its ESG/sustainability strategy and commercial growth strategies • Board oversight and executive accountability for nutrition strategy, including linkage with executive remuneration	7	3
Nutrition targets, reporting, and reformulation	• Targets and reporting on sales of "healthier" private label products • Targets and reporting on sales of fruits and vegetables • Targets and reporting on reductions in nutrients of concern in private label portfolios • Use of robust nutrition criteria to define "healthier" products	11	7
Pricing and promotions	• A strategy to ensure and/or increase the affordability of "healthier" products • Incentivizing purchases of "healthier" products via price promotions and loyalty mechanisms	4	2
Responsible marketing	• A strategy relating to the positioning of healthy and unhealthy products in prominent store locations • Responsible marketing to children	5	4
Responsible labelling	• Systems to clearly identify "healthier" or unhealthy products in-store and online • Responsible use of health and nutrition claims	3	0

[e] The indicators were adapted from ATNi's 2022 UK Retailer Index Methodology. and further informed by complementary tools such as the INFORMAS BIA-Obesity Tool for Supermarkets (2019)[5] and feedback from relevant experts (see Annex A).

Core indicators: represent the elements that ATNi considers the most important for companies to have in place and that could, in principle, be verified (e.g. formal targets, reporting mechanisms, campaigns or initiatives, and policies or systems in place). These indicators form the basis of the analysis, results, and recommendations.

- Supplementary indicators: capture additional information identified during the research process that either: (1) provides context for a core indicator but cannot be verified (e.g. a 'commitment to' statement); (2) reflects emerging practices (e.g. influencing A-brand suppliers or addressing 'ultra-processing' concerns); or (3) are not universally applicable (e.g. participation in voluntary industry initiatives or government programmes).

4.3.2 Framework Indicators

To balance rigour with feasibility, the framework was designed as an unscored research tool rather than a scored index. Each indicator was intentionally broad, serving as a repository for relevant information (if found)—capturing *whether* and *how* companies address nutrition-related topics, rather than assigning numerical values.

For each indicator, analysts recorded whether the retailer demonstrates relevant action using the following options:

- 'Yes'
- 'To some extent'
- 'No'—with some indicators including subcategories, e.g. "No, not included" or "No, does not have X in place"

Each analyst response was supported by references and qualitative notes detailing the evidence sources.

4.3.3 Desk-based Research

For each company, an Excel-based framework was populated through manual desk research. Analysts reviewed publicly available information published within the last three years, including annual and sustainability reports, corporate webpages, policy and strategy documents, press releases, and other official company materials. For companies with parent entities operating across multiple countries or sectors, information from both the in-country entity and parent company was considered.

Additional AI Component

As part of the Retailer Profile methodology, ATNi conducted a pilot using artificial intelligence (AI) tools, to explore whether AI could support data collection and enhance the completeness of the assessment. ATNi partnered with an AI startup providing a research-focused Retrieval Augmented Generation (RAG) platform built around Chat GPT-4. Using this platform, ATNi developed a template based on the Retailer Profile framework, which was then used for generating AI-assisted assessments of company practices.

Analysts compared their own desk research and analysis (Step 1) with the AI-generated assessments (Step 2). This comparison helped identify any missing or potentially misinterpreted information before the results were peer-reviewed. Verified additional information from the AI-output that was relevant to the assessment was incorporated following research verification. Typically, the additional information consisted of recent third-party sources on company activities.

For further details on the AI pilot, as well as governance, ethical oversight, and results, see ATNi's AI White Paper.

4.3.4 Company Engagement

All retailers were invited to participate voluntarily in the process to provide additional information and clarify assessment findings. Contact details were identified through publicly available sources or via ATNi's network of experts active in retail research. Retailers were contacted by email and offered an introductory meeting to explain the project. However, ATNi cannot confirm that all invitations were received, and in some cases, contact could not be established.

Companies that chose to engage received the preliminary findings from the desk-based research and were given the opportunity to provide clarifications, submit supplementary documentation (including non-public materials), and respond to specific questions via written correspondence or interviews. A list of participating companies can be found here [Annex B]. Companies that declined participation were assessed solely on the basis of publicly available information.

Prior to publication, companies were given the opportunity to review factual statements for accuracy and to confirm that no confidential information had been disclosed.

4.3.5 Data Validation and Analysis

Once data collection was completed, a member of the research team reviewed all assessments for internal consistency, accuracy, and comparability across companies.

Verified qualitative information was synthesized into concise 'Result Cards', prioritizing findings for the core indicators, with company-specific recommendations drafted and published on ATNi's project dashboard. Statements regarding missing evidence were carefully phrased to acknowledge that relevant policies or strategies may exist internally but were not publicly available during the research period.

Country-level summaries comparing the performance of the three retailers per country—identifying trends, strengths, and opportunities for improvement—were also drafted and published in the respective Country Reports. These include visual representation of retailers' relative progress across each of the key topics assessed, with each topic summarizing the results of one or more core indicators.

4.4 LIMITATIONS: RETAILER PROFILE

Several limitations specific to the Retailer Profile assessment, in addition to those outlined in Chapter 2, should be acknowledged:

- **Reliance on publicly available data**
  The assessment primarily draws on information disclosed by companies through publicly accessible sources, including corporate websites, annual and sustainability reports, and press releases. Consequently, findings may underestimate the extent of companies' nutrition-related policies or initiatives if these are implemented internally but not publicly reported. Differences in disclosure practices across companies and countries may also limit global comparability.
- **Dependence on self-reported information**
  The majority of indicators are based on retailer-reported information and data, as it is not feasible to independently verify practices across all topics and countries covered. It is assumed that all publicly reported and privately disclosed data is accurate.
- **Limited insights for non-engaging companies**
  For companies that did not engage with ATNi or provided limited disclosure, findings may not fully capture the scope of their nutrition-related activities.
- **Unscored and qualitative framework**
  As the Retailer Profile framework is qualitative and unscored, the assessment relies on professional judgment regarding the presence and quality of company policies and practices. Standardized indicators and internal review processes helped to promote consistency; however, some degree of subjectivity remains. Results should therefore be interpreted as indicative of company engagement with nutrition, rather than as a ranking of performance.
- **Scope limited to nutrition-related practices**
  This research element focuses exclusively on corporate policies and practices related to nutrition. It does not assess other areas of corporate impact, such as environmental sustainability, financial/tax practices, labour and income standards, or corporate lobbying practices. In the future, and depending on available resources, ATNi may incorporate these dimensions to enable a more comprehensive evaluation of retailers' contributions to public health and sustainable development.

5 PROMOTIONS

5.1 RATIONALE: PROMOTIONS

Promotional practices represent a key interface between retailer strategies and consumer purchasing behaviour. As flyers are a prominent marketing tool, this research element provides valuable insight regarding retailer practices.

Flyers, distributed in-store, online, or through letter boxes, are also referred to as 'catalogues', 'circulars', 'feature advertisements', or 'brochures', and continue to command a dominant share of countries.[6] A 2023 survey of 1,000 grocery shoppers in both the US and France found printed flyers to be their top information source, followed closely by online versions.[7] Evidence from a Dutch retailer's withdrawal of printed flyers shows that digital alternatives alone cannot fully replace their impact, as households shopped and spent less once printed flyers were removed.[8]

Beyond their continued relevance, flyers shape food retail environments by influencing consumer purchasing behaviour. Retailers use them to highlight a selection of products on promotion for a limited time, often framing discounts through strategies such as dollar-off, percentage-off, or bundling offers.[9] Systematic reviews have shown that price promotions can significantly increase total spending and category-specific purchases for both healthy and unhealthy foods, with stronger effects for less healthy options.[10] Higher-sugar foods and drinks are more frequently promoted, often with slightly deeper discounts, encouraging greater volume purchasing rather than simply reducing the cost of consumers' usual choices.[11]

In addition to highlighting price discounts, modern retailers increasingly use flyers to showcase their full product range, raise awareness of assortment, and strengthen store image.[6,9,12] In countries such as South Africa and the US, most of the featured products are promoted without any price reduction.[9] Research shows that consumers are more likely to choose a brand simply because it is advertised in a flyer, even in the absence of discounts.[13,14] This demonstrates that flyers influence purchasing behaviour not only through economic incentives but also by shaping product perceptions.

Building on the understanding that flyers influence consumer behaviour, several studies have evaluated the healthiness of foods promoted in supermarket flyers. While front covers typically display healthier items than the flyers as a whole, a recent US study found that nearly half of front-cover advertisement featured highly processed products.[15,16,17] In the Netherlands, analysis of entire flyers showed that 56.6% of promoted products were ultra-processed and 70.7% did not contribute to a healthy diet.[18] Similar findings have been reported in studies from Australia, Brazil, and Midwestern US, all showing a predominance of less healthy over healthier food promotions.[17,19,20] The only exception comes from Northern Ireland, where an analysis of online "Top Offers" using the UK Food Standards Agency's front-of-pack (FOP) labelling scheme found that a majority of promoted items were classified as high in nutrient quality.[21]

Despite this growing body of research, meaningful international comparisons remain difficult. Most studies have been conducted at the national or regional level and use varying methods to classify product healthiness. This limits comparability and makes it challenging to assess which contexts perform better. Only one cross-country analysis was identified, covering 12 countries about a decade ago.[16] Finally, most of the existing research has focused on high-income countries, where large chain retailers are well established.

Evidence from LMICs remains relatively limited, despite the rapid transformation of food retail environments in these regions over the past decade.[22-24] Recent years have seen sharp increases in the number of modern retail outlets, the share of grocery sales captured by chain retailers, and per capita sales of unhealthy foods.[22]

5.2 OBJECTIVE: PROMOTIONS

This analysis, as part of the assessment, aims to fill this knowledge gap by examining the healthiness of the full content of retailer flyers across six countries with different income levels, thereby providing a global benchmark to identify good practices and inform policy interventions to improve the food retail environment.

5.3 DATA SOURCES AND APPROACH: PROMOTIONS

5.3.1 Scope of Flyers

Flyers were collected online from all retailers included in the assessment over a continuous three-week period between June and July 2025. To avoid promotional bias, flyers covering the week preceding public holidays in each country were excluded from analysis. The three-week minimum was chosen based on evidence from previous research, showing that after analysing three weeks of flyers, patterns in layout, design, and content reached saturation, with no significant variation beyond that point.[9]

All flyers were downloaded in PDF format from the retailers' official websites. Most were available in English; French and Indonesian flyers were translated by native-speaking researchers from the team. When a website required location information, a major city where all three retailers operated was selected and, if a postcode was needed, the city centre's postcode was used. Although flyers were collected online, they are expected to align closely with in-store promotions, as previous studies reported a high level of consistency between online and in-store promotions.[9,24,25]

If a retailer did not publish PDF flyers, the list of products featured on the retailer's promotional web pages was used. When neither PDF nor web-based promotions were available, that retailer was excluded from the quantitative analysis. This was the case for Puregold in the Philippines. Consequently, data was collected from 17 out of 18 retailers in total.

When a retailer published multiple flyers for the same or overlapping time periods, general-interest flyers featuring food and beverage products were prioritized over those focused on special campaigns. Similarly, if a retailer issued separate flyers for different store formats (e.g. supermarket versus hypermarket), the supermarket version was selected. As release frequency varied across retailers (see Table 4), the total number of flyers collected per retailer differed; however, at least three weeks of flyer material were collected for each retailer.

Table 4. Retailer and flyer information

Country	Retailer Operating Brand	Flyer location	Weeks collected	Format	Mean items per flyers	Total items
France	Carrefour	Paris	4	PDF-Biweekly	241	482
France	E.Leclerc	Paris	3	PDF-Biweekly	200	400
France	Intermarché	Paris	4	PDF-Biweekly	165	330
US	Food Lion	Virginia	3	PDF-Weekly	218	655
US	Kroger	Virginia	3	PDF-Weekly	168	504
US	Walmart	Virginia	N/A	Webpage	N/A	618
Indonesia	Alfamart	Jakarta	N/A	Webpage	N/A	389
Indonesia	Indomaret	Jakarta	3	PDF-Biweekly	298	595
Indonesia	Super Indo	Jakarta	4	PDF-Weekly	201	602
South Africa	Pick n Pay	Gauteng	4	PDF-Biweekly	214	427
South Africa	Shoprite	Gauteng	4	PDF-Biweekly	228	456
South Africa	Spar	Gauteng	4	PDF-Biweekly	199	397
Philippines	Robinsons Supermarket	N/A	4	PDF-Biweekly	30	60
Philippines	SM Supermarket	N/A	N/A	Webpage	N/A	1172
Kenya	Carrefour Kenya	N/A	4	PDF-Biweekly	34	68
Kenya	Naivas	N/A	N/A	Webpage	N/A	514
Kenya	Quickmart	Nairobi	N/A	Webpage	N/A	316

N/A: not applicable

5.3.2 Data Collection

Data collection followed a hybrid approach that combined automated extraction with manual review. For flyers available in PDF format, product names were extracted using the Optical Character Recognition (OCR) feature of a generative artificial intelligence tool, ChatGPT-4o (OpenAI, San Francisco, CA, USA). Each item was treated as a separate entry unless it represented an exact duplicate; for example, different package sizes of the same product were recorded as a single item, while distinct flavours were counted separately. Products without an accompanying price were excluded from the count, such as items included only in recipe promotions.

For webpage promotions, data were collected using Web Scraper (WebScraper.io, Riga, Latvia), a browser extension designed for efficient web data extraction. Retailers that prohibited web scraping in their website terms and conditions were excluded from automated extraction, and all their data were collected manually.

The outputs from both tools were thoroughly validated by a designated member of the research team, who manually corrected any inconsistencies or errors to ensure accuracy and integrity. All data were compiled and organized in a Microsoft Excel (Microsoft Corporation, Redmond, WA, USA) spreadsheet. This hybrid approach was developed and pilot-tested specifically for ATNi's Retail Assessment 2025, as no established protocols for this method were identified in the existing literature.

5.3.3 Coding

After excluding non-food products, all items across all pages of each flyer were coded into one of 29 food groups (Table 5). In consultation with nutrition experts, these food groups were adapted from the Global Diet Quality Score (GDQS), a food-based metric that incorporates a broader set of food groups than most existing dietary measures.[26] The GDQS framework was chosen from among three considered options because it best aligned with the study's objective of distinguishing between healthy and unhealthy food groups. It defines diet quality not only in terms of nutrient adequacy but also in relation to reduced risk of NCDs. In addition, the GDQS captures diverse global dietary patterns, allowing for both country-specific relevance and meaningful cross-country comparisons.

To better reflect the food products within a retail context, several adjustments were made to the original GDQS framework:

- Three new groups were added, including 'Healthy ready meals' and 'Unsweetened beverages' (in the healthy category), and 'Sauces, dips, and condiments' (in the unhealthy category).
- Three existing groups were modified, such that 'Liquid oil' was broadened to include fats (e.g. margarine, butter) and moved to "unhealthy in excessive amounts"; 'Refined grains and baked goods' was expanded to include savoury snacks (e.g. chips, salted nuts); and 'Purchased deep-fried foods' was extended to also include unhealthy ready meals (e.g. frozen fries, pizzas).

Table 5. Categorization framework of food and beverage products, with examples.

Food group category	Food group	Description	Examples
Healthy	Citrus fruits	Whole fruits in the genus Citrus	Orange, lemon, lime, grapefruit, tangerine
	Deep-orange fruits	Whole fruits (not including juice or spreads) containing ≥20 retinol equivalents/100 g	Mango, papaya, apricot, persimmon, cantaloupe, peach
	Other fruits	Whole fruits not belonging in the other fruit categories (not including coconuts)	Apple, pear, plum, blueberry, strawberry, kiwi
	Dark-green leafy vegetables	Leafy vegetables containing 120 retinol equivalents/100 g	Spinach, kale, swiss chard, pak choy
	Cruciferous vegetables	Vegetables in the family Brassicaceae	Broccoli, cauliflower, cabbage, brussels sprouts, bok choy
	Deep-orange vegetables	Non-tuberous vegetables containing ≥120 retinol equivalents/100 g	Carrot, pumpkin, squash

	Other vegetables	Vegetables not belonging in the other vegetable categories. This also includes pickled or canned vegetables with some added sugar and salt.	Cucumber, zucchini, eggplant, onion, green beans, celery, bean sprouts, tomato, mushroom, corn
	Legumes	Legumes and foods derived from legumes. Does not include bean sprouts (classified in "Other vegetables") or groundnuts (classified in "Nuts and seeds")	Beans, peas, lentils, hummus, tofu, tempeh
	Deep-orange tubers	Tuberous vegetables containing ≥120 retinol equivalents/100 g (includes variants biofortified with vitamin A)	Sweet potato
	Nuts and seeds	Nuts, seeds, and products derived from nuts and seeds, such as nut-based butters (but not oils). Also includes groundnuts. Seeds that are used as spices are included when used in their whole (not powdered) form	Almond, walnut, peanut, sunflower seeds, pumpkin seeds, sesame seeds, peanut butter, tahini, mustard seeds
	Whole grains	Whole grains and whole-grain products. Does not include products with significant amounts of added sugar (classified as "Sweets and ice cream")	Barley, oats, whole wheat bread, whole wheat pasta, brown/red/black rice
	Fish and shellfish	Fish (whether processed or unprocessed) based on phylogenetic classifications (including sharks, eels, and rays), and other seafood high in n3 fatty acids (including shellfish, jellyfish, cetaceans, and pinnipeds, but not echinoderms). Includes organs	Whole/fillet fish, canned fish, smoked fish, shellfish, prawns, fish balls, fish cakes, fish sticks
	Poultry and game meat	Unprocessed poultry and game, including a range of undomesticated animals and bush meat. Includes organs	Whole/fillet chicken, turkey, duck, quail, game meat, organs
	Low fat dairy	Reduced or naturally low-fat dairy products (≤2% milk fat) and dairy alternative. Includes flavoured milk, and milk or cream added to coffee or tea	Natural and flavoured varieties of low fat/skim milk and yoghurt, cottage cheese, quark, plant-based milk
	Eggs	All types of eggs. Does not include mayonnaise	All type of eggs
	Healthy ready meals*	Ready meals with balanced nutrient content	Salads, meals containing lean protein sources (fish, lean meat)
	Unsweetened beverages*	Ready to drink beverages without additional sugars or sweetener	unflavoured mineral or sparkling water, unsweetened RTD coffee and tea
Unhealthy in excessive amount	High fat dairy	High fat milk and dairy products (>2% milk fat). Includes flavoured milk, and milk or cream added to coffee or tea. Does not include butter or clarified butter. This category also does not include ice cream and whipped cream	Natural and flavoured varieties of full fat milk and yoghurt (>2% milk fat), feta cheese, mozzarella, cheddar, cream cheese, gouda, parmesan
	Red meat	Unprocessed red meat belonging to domesticated animals (i.e., not game), including organs. "Red" classification is not based on colour but on nutritional characteristics, and thus includes pork and lamb	Beef, goat, sheep, pork, lamb
	Oils and fats*	All types of oils and fats, regardless of fatty acid profile (this includes palm olein, liquid palm kernel oil, and liquid coconut oil).	All cooking oil, butter, margarine, coconut cream

Unhealthy	Processed meat	Processed red meat, poultry, or game, including organs, and excluding fish and seafood. Processing is defined per International Agency for Research on Cancer: "salting, curing, fermentation, smoking or other processes to enhance flavour or improve preservation."	Smoked/cured/fermented meat, sausages, meat patties, bacon, salami, ham, corned beef, hot dogs/frankfurters, spam
	Sauces, dips, and condiment*		Cooking sauces, table sauces, pasta sauces, ketchup, mayonnaise, mustard, gravy, salad dressing, salsa, chutney, olive, nori
	Refined grains, baked goods, and snacks*	Refined grains and snack products primarily made from refined grains or flours, as well as other savoury snack items. Does not include products with significant amounts of added sugar, which should instead be classified as "Sweets and ice cream"	white rice, white bread, bread with fillings, crackers, bagels, white pasta, breakfast cereals, flour, instant noodles, flavoured and salted popcorn, muesli/snack bars, salted nuts, chips, crisps, puffs
	Sweets and ice cream	Sugar-sweetened foods that are not beverages; includes sugar and other caloric sweeteners added to other foods and drinks. Whipped cream also classified in this category	Cakes, cookies, pastries, donuts, chocolate, candy, jellies, marshmallow, ice cream, popsicle, frozen yoghurt, icy poles, pudding, sorbets, sweetened condensed milk, whipped cream, chocolate spreads, jams, sweetened dried fruit, canned fruit in syrup, sweet toppings, cake mix
	Sugar-sweetened beverages	Sweetened drinks, except for fruit juice	Soft drink, diet soft drink, energy drinks, sports drinks, sweetened RTD coffee and tea, instant tea and coffee mixes, sweetened powdered drink mix, 0% alcohol drinks, malts, chocolate drink
	Juice	Unsweetened or sweetened drinks that are at least partly composed of fruit juice. This category also includes fruit smoothies made from whole fruit	Fruit drink, 100% fruit juice
	White roots and tubers	Tuberous vegetables with <120 retinol equivalents/100 g. Include flours such as potato or cassava flour	White potatoes, white yams, cassava, cocoyam, taro roots or tubers, plantains, potato flour, cassava flour
	Deep fried foods and unhealthy ready meals*	Commercially prepared fried foods and convenience meals. This group covers partially cooked products that need further preparation beyond simple heating, as well as fully cooked meals and side dishes that are ready to eat immediately or require only reheating in an oven or microwave.	Frozen chips and wedges, dumplings, spring rolls, chicken nuggets, unhealthy meal kit, pizza, burger, deli meals, fast food from retailer's restaurant
Other	Other		Alcohol, specialized nutrition, vinegar, salt, sugar and sweetener, pepper, dried herbs and spices, seasonings, meat marinade, sports drink, protein powder, coffee bean/pod, tea leaves, teabags

*Food groups that were added or modified to fit retail context

In total, 32 flyers from 17 retailers, comprising approximately 8,153 products, were coded. An automated process was used to categorize products by mapping them to food groups using keywords. Each product was assigned a 'match count', reflecting the number of food groups its keywords matched. A count of '0' indicated that no match was found (often due to missing or unrecognised keywords), a count of '1' represented a single, high-confidence match, and counts greater than 1 suggested multiple possible matches, indicating ambiguity. This was followed by manual validation of all successfully classified items. Uncategorized and ambiguous products were manually assessed by two independent reviewers. Where they agreed, the classification was retained; any disagreements were resolved through discussion with the wider research team.

5.3.4 Data Analysis

The percentage of items in each food group was calculated relative to the total number of food products within each flyer. For each retailer, the mean percentage of products in each food group across all flyers was then determined. In addition, the percentage of food products classified as healthy, unhealthy in excessive amounts, unhealthy, or other was calculated for each retailer.

5.4 LIMITATIONS: PROMOTIONS

Several limitations specific to the flyer assessment, in addition to those mentioned in Chapter 2 should be acknowledged:

- **Variation in flyer availability, format, and design**
  While most retailers included in the assessment publish promotional flyers, a small number (n=5) did not. In these cases, promotional pages from the retailers' official websites were used to approximate equivalent information. Although this approach enabled the inclusion of all but one retailer in the analysis, differences in format, number of items promoted, and promotional strategies between flyers and web pages may limit cross-retailer comparability.
- **Nutritional assessment framework and data limitations**
  Since detailed nutritional information was not available for each promoted product, Nutrient Profile Models (NPMs) could not be applied. Instead, an adapted version of the GDQS—a food-based classification system suitable for large-scale comparisons—was used. While the GDQS ensures international relevance, it does not capture variation in nutrient composition within food groups or for the degree of food processing.
- **Categorisation and degree of subjectivity**
  Although various efforts were made to verify and cross-check product classifications—including internal review rounds and expert consultations—categorisation remains, to some extent, a matter of interpretation. While the process was designed to promote consistency and transparency, a certain degree of subjectivity is inherent in any food-based classification system.

6 PRODUCT PROFILE

6.1 RATIONALE: PRODUCT PROFILE

The Product Profile is a core component of ATNi's Retail Assessment 2025, providing an objective evaluation of the nutritional quality of private label packaged food and beverage products sold by the selected retailers. This element builds on ATNi's established expertise in evaluating the healthiness of food products, drawing on the approach used in the Global Index 2024 Product Profile, which assessed the nutritional quality of the packaged food and beverage portfolios of the 30 largest global manufacturers.[27]

Focusing on the private label portfolios of the top three grocery retailers in six selected countries (18 retailers in total; see section 2.2 Retailer Selection), the Product Profile applies government-endorsed NPMs to determine the 'healthiness' of products across categories. Using standardized methodologies enables consistent, cross-country comparison and provides an evidence base for understanding how retailers contribute to shaping food environments.

6.2 OBJECTIVE: PRODUCT PROFILE

The Product Profile aims to evaluate the nutritional quality and processing level of private label food and non-alcoholic beverage products ("foods and beverages") sold by major retailers in six countries representing diverse income settings. The analysis generates robust, comparable evidence to inform retailers, policymakers, investors, and other stakeholders about the overall healthiness of retail food portfolios and opportunities for improvement.

Specifically, the Product Profile aims to:

- Assess the average nutritional quality of each retailer's private label portfolio
- Determine the proportion of products classified as 'healthier'
- Evaluate the level of processing using an adapted approach to identify food that are ultra-processed and high in saturated fat, sugar and salt (HFSS)
- Compare performance of private label portfolios across retailers and countries
- Benchmark private label offerings against manufacturer brand products, drawing on ATNi's 2024 Global Index data

6.3 RESEARCH APPROACH: PRODUCT PROFILE

Nutrient profiling is the science of classifying or ranking foods according to their nutritional composition to prevent disease and promote health.[28] NPMs have been developed by academic institutions, government agencies, civil society organizations, and industry stakeholders to assess the healthiness of individual food products based on their nutritional content. These models are used for a wide range of policy and regulatory applications, including FOP labelling, product reformulation, marketing restrictions to children, and the substantiation of health and nutrition claims.[29]

While NPMs assess the nutritional quality of foods rather than diets, they are frequently employed to support broader dietary and public health initiatives. Recent efforts, such as the ATNi-led Delphi process, have sought to promote harmonization in how NPMs are applied for company reporting on food portfolio healthiness—recognizing their potential to improve transparency, drive product reformulation, and enable meaningful comparisons across food industry actors.[30]

Consistent with previous ATNi assessments, including the 2024 Global Index Product Profile, this analysis includes the Health Star Rating (HSR) and Nutri-Score systems.[27] These NPMs were selected based on their scientific robustness; government endorsement and international adoption; and capacity to generate standardized, categorical health scores across diverse food categories and markets. Their inclusion reflects insights from ATNI's expert consultations since 2013,[31] as well as the 2024 NPM alignment initiative, which identified these models as among the most suitable for reporting on the healthiness of company product portfolios.[30]

In addition to assessing nutritional quality, this analysis also considers the level of food processing, in line with ongoing debates about the health impacts of processing, as summarised in ATNi's position paper.[32] Emerging evidence supports incorporating criteria on the processing level into existing nutrient-based profile models. For this assessment, a model proposed by Popkin et al.[33] was applied to identify products that are both HFSS or contain common ultra-processed food (UPF) markers.

UPF markers such as colours, flavours, and non-nutritive sweeteners act as indicators of modification beyond a food's natural state, encompassing both natural and synthetic additives. Even when compounds like vitamin C or beta-carotene may be industrially produced, making it indistinguishable in practice from naturally occurring forms.

In the Popkin et al.[33] approach #3, selected for this assessment (as described below), colour and flavour additives as well as non-nutritive sweeteners, serve as proxies for a broader set of industrial processing practices, as their presence typically co-occurs with other ingredients such as preservatives (e.g. sodium benzoate). Current evidence does not yet support clear differentiation between individual additives based on their health impacts; therefore, the model applies a pragmatic criterion—treating the use of cosmetic additives as a marker of modification beyond what is nutritionally necessary.

This approach provides a practical means of capturing the defining features of UPFs and complements nutrient-based profiling by reflecting the degree to which a product has been altered from its original form.

6.3.1 Nutrient Profile Models

Health Star Rating (HSR)
The HSR is a FOP labelling system developed in Australia and New Zealand. Products are scored based on levels of nutrients of concern (e.g. saturated fat, sugars, sodium) and positive components (e.g. fibre, protein, and fruit, vegetable, nut, and legume [FVNL] content) at a category level, with this score then converted to a star rating from 0.5 to 5 stars. A cut-off of ≥3.5 stars is used to classify products as 'healthier'.

Nutri-Score

Nutri-Score is a European FOP labelling system that assigns products with a five-colour letter grade from A (healthiest) to E (least healthy). Although the developers discourage its use as a binary measure, both categorical (A+B or A+B+C) interpretations are commonly applied in research and corporate reporting.[34] Consistent with ATNi's Global Index 2024 Product Profile, this assessment presents results for both A+B and A+B+C classifications, alongside the full distribution, to support transparency and consistency.

HFSS+UPF (colours/flavours/non-nutritive sweeteners)

There is a need for a simple policy-ready definition of unhealthy foods and beverages that considers not only nutritional components but also the level of processing. The NOVA classification system for identifying UPFs is complex to apply consistently across large datasets. It considers 12 classes of additives as UPF markers and focuses on "identifying products that are engineered, manufactured, and marketed to promote overconsumption" and is therefore subjective in nature.[33] Emerging research suggests that integrating specific UPF markers (cosmetic additives) into traditional NPMs may provide a practical way to ensure processing levels are considered in food policies.

For this research, an approach developed by Popkin, et al.[33] was used, combining HFSS thresholds with common UPF markers—specifically colours, flavours and non-nutritive sweeteners—to flag less healthy food and beverage products. While HFSS approaches capture product with excessive amounts of nutrients of concern linked to chronic NCDs, they do not reflect how foods are processed. Conversely, the NOVA approach focuses on the degree of processing but not nutritional composition. By combining HFSS criteria with UPF markers, this approach provides a more comprehensive way to identify products that are both high in nutrients of concern and heavily modified through industrial processing—characteristics increasingly associated with negative health outcomes in a growing number of studies.

6.3.2 Classification

Products are scored per 100 g or 100 mL as sold, using the most recent available algorithms. In this assessment:

- Products scoring ≥3.5 stars under HSR are classified as "healthier"
- Products rated A–B and A–C under Nutri-Score are both presented to identify "healthier" products compared to products rated D–E
- Products that are considered HFSS under the Chilean government's HFSS criteria and/or contain colour or flavour additives and/or non-nutritive sweeteners are classified as "ultra-processed" (approach #3 in the Popkin approach)[33]

These results enable cross-country and cross-retailer comparisons of portfolio healthiness and support investor and other stakeholder evaluations of retailers' progress toward creating healthier food environments.

6.3.3 Country-specific NPMs

Additional country-specific or regional NPMs were applied to ensure results could be presented within the local contexts (see Table 6 for an overview). For the US, no government-endorsed NPM currently exists that can be applied to the dataset used for this Product Profile analysis. While certain federal and state initiatives use "high-in" criteria to identify products exceeding thresholds for nutrients of concern (saturated fat, sugar and sodium), these require data on a per-serving basis, which are not captured in this dataset, and no standardized per 100g approach is in place. In addition, the US Food and Drug Administration's (FDA) "Healthy Rule" is difficult to use as it requires detailed nutrition information, often only accessible to product manufacturers.[35] Consequently, no government-endorsed NPM was selected for the US; instead, international models (HSR, Nutri-Score and HFSS+UPF) were applied to maintain consistency and comparability across countries.

Table 6. Country-specific NPM analysis

Country	Governance-endorsed NPM
France	Nutri-Score; included in the overall analysis for all retailers
South Africa	Draft NPM
Indonesia	WHO models: WHO SEA; WPR
Philippines	WHO models: WHO SEA; WPR
Kenya	Kenya NPM[6]

WHO Nutrient Profile Models
Both the WHO Southeast Asian (SEA) and WHO Western Pacific Region (WPR) nutrient profile models were used to examine results for Indonesia and the Philippines. Developed in 2016, these models were designed to guide restrictions on the marketing of unhealthy foods to children. The SEA model consists of 25 categories and the WPR model 21 categories, each with unique nutrient-based criteria. Although both countries fall under the WPR of the WHO, both models were used in this analysis to reflect policymaker interest.

South African Nutrient Profile Model (Draft)
South Africa currently has a proposed NPM in draft form, which aims to underpin FOP labelling efforts (among other things). The draft model is heavily based on the Chilean warning label system. For this analysis, the draft South African NPM was applied to assess products in South Africa.

Kenyan Nutrient Profile Model
The Kenyan NPM was developed to support FOP labelling requirements in Kenya. The draft standard specifies the requirements for applying FOP nutrition labelling to pre-packaged food products based on their levels of total fat, saturated fat, total sugars and sodium. The model is presented in tabular format and includes 21 categories of processed foods specifying nutrient thresholds per 100 g/mL for these key components.

[6] Kenya Nutrient Profile Model (KNPM) 2025_0.pdf

Data from this analysis will be presented on ATNi's Dashboard to show:

- The overall mean score and scoring range for retailers, disaggregated by category and by country.
- The percentage of private label products analysed that meet the 'healthier' threshold as defined by the respective NPMs.

6.3.4 Fortification

Fortification of foods is a key public health strategy for addressing population-level micronutrient deficiencies. As part of the Product Profile component, ATNi reviewed fortification practices among retailers in the six selected countries to determine whether their private label products comply with national fortification standards and regulations. The analysis focused on the examining the extent to which retailers contribute to fortification efforts, focusing on wheat flour, corn meal/flour, rice, salt, and sugar.

A comprehensive policy mapping exercise was first conducted to identify national food fortification requirements in each country—including both mandatory and voluntary standards, applicable food categories, and target micronutrients. From this mapping, specific fortification regulations and standards were identified for the five food categories, as noted above: maize meal and flour, edible oils and fats, salt, wheat flour, and refined sugar.

Building on this mapping, a product-level analysis was conducted to determine whether retailers fortify according to applicable national regulations or standards for these five food categories. Due to resource limitations, general fortification guidelines that are not focused on a specific food (e.g. flour) were not considered.

The product level analysis involved a multi-stage approach:

- Step 1: The final product dataset developed for the Product Profile assessment was used to identify applicable products. This involved filtering by country and by product categories covered under voluntary regulations (including: 'flour', 'rice', 'pasta' and noodles', and 'condiments'). In some cases, additional searches were conducted to refine the scope further (e.g. for 'corn meal').
- Step 2: Additional searches were conducted on retailer websites for additional applicable products not included in the Product Profile dataset, or to supplement missing product information.
- Step 3: Where retailer online stores were unavailable, third-party websites were used to identify relevant products. Searches continued until saturation was reached i.e. when no additional relevant products could be identified.
- Step 4: All identified products were compiled into an Excel spreadsheet and categorized by country, retailer, product name, and product category.

- Step 5: For each product, the corresponding webpage was reviewed for nutritional information, available on product images or in ingredient lists. Specific terms such as 'fortified', or 'enriched', as well as for 'niacin', 'folic acid', 'riboflavin', and other relevant micronutrients. This information was then used to determine whether each product was fortified in line with the applicable fortification guidelines.

As a secondary component, mapping was conducted to identify which of the six countries had formally introduced fortification logos for companies to display on labels of fortified products:

- Step 6: For countries with fortification logos in place, visual checks of product FOP labels were conducted to determine whether the logo was displayed on pack.
- Step 7: Information on the presence (or absence) of fortification logos was recorded in the Excel spreadsheet.

This review relied on product labelling and other information available in the Innova Market Insights database; nutrient composition and fortification levels were not independently verified beyond what was provided on product labels and ingredient lists.

An important caveat is that, due to resource limitations, the review focused only on maize flour/meal, edible oils and fats, salt, wheat flour, and refined sugar products where these were either the sole ingredient (e.g. packaged flour) or clearly identifiable by product name as the primary ingredient (e.g. boil-in-a-bag rice with added vegetables). The review also considered only fortification guidelines for specific food categories and therefore did not include general fortification guidelines.

Products where these foods were included as ingredients but were not the primary focus (e.g. bread, pasta, or ready meals), were excluded. Including these additional products would have resulted in a significantly larger sample size; for example, a search of the Product Profile dataset resulted in 1,371 products containing ingredients described as 'enriched'. This represents an area that warrants further investigation, which ATNi intends to explore in future research.

6.4 DATA SOURCES AND PREPARATION: PRODUCT PROFILE

6.4.1 Retailer Private Label Portfolios

The full private label portfolio for each retailer was included in the assessment. Product composition data for these products were sourced from Innova Market Insights (covering January 2014 to January 2025). An initial product list was compiled, and data quality checks were undertaken.

To ensure completeness of the private label dataset, retailers and their brands were identified using multiple data sources—including Euromonitor International, Grand View Research, and Innova Market Insights—complemented by online reviews of retailer websites. Innova's internal quality team cross-checked ATNi's retailer list and added any missing private-label brands.

The presence of private label products and the accuracy of the Innova data were confirmed via online checks, expect in Kenya, where an in-country consultant conducted in-store visits using Open Food Facts to verify the data. Despite these extensive efforts, some retailers had only a small number of private label products captured—reflecting either limited private label portfolios or missing nutrition information for those products.

Products identified as duplicates were removed. For example, identical products sold in different pack sizes were considered duplicates, and only the product with the smaller pack weight was included for analysis. Products that do not require a nutrition label such as salt are also excluded.

Fresh fruits and vegetables were excluded from the analysis. While some retailers package fresh produce items, resulting in barcoded products included in the original dataset, these were removed. The rationale is that most retailers are assumed to sell fresh produce, and its inclusion would therefore not meaningfully differentiate performance. Moreover, since these products would receive high healthiness scores (e.g. HSR rating of 5), their inclusion could distort overall results. Excluding fresh produce ensures that the analysis remains focused on processed and packaged foods, which can can be reformulated and compared across retailers and countries in line with the objectives of the overall Retail Assessment. In addition, the results can help inform which products should—or should not—be promoted or given prominent placement within retail environments.

Finally, products with insufficient data to be analysed using the respective NPMs are removed. Quality checks were conducted on macronutrient values and products identified as having outlier values were excluded before performing the analysis.

Retailers were invited to verify the data used for this assessment and were offered two options regarding engagement in the research process:

- Option A: Review the dataset (provided by ATNi) to flag delisted products and correct or add nutritional values for any missing data.
- Option B: Decline review, in which case Innova data were used directly.

6.4.2 Open Food Facts Pilot (Kenya)

Rationale

To address data availability challenges identified during the Product Profile assessment, ATNi conducted a pilot in Kenya using the Open Food Facts platform to test the feasibility and representativeness of in-store food product data collection, supplementing and partially substituting Innova's dataset on private label products. Open Food Facts is a free, open-access database of food products maintained by volunteers and widely used in nutrition and environmental research.

Using an openly accessible platform aligns with ATNi's commitment to improving food data transparency, particularly in LMICs. This pilot complements ATNi's broader efforts to make data a public good, building on previous work to share de-identified datasets—such as company scores and product-level healthiness data—via GitHub. Unlike these aggregated datasets, the pilot aimed to share product-level data with full transparency.

Approach

A structured data collection process was established to assess the representativeness of the Innova Market Insights dataset for private label products from the three Kenyan retailers included in the Product Profile assessment. Where gaps were identified, additional product information was collected, and data quality was verified.

The detailed steps are outlined below:

- **Representativeness**: Private label products from three major Kenyan retailers— Carrefour (304), Naivas (56), and Quickmart (17)—were identified in the Innova Market Insights database. A Kenya-based ATNi consultant visited five selected stores in Nairobi to validate product availability and identify missing items from the original dataset.
- **Data collection**: Missing products were checked in Open Food Facts, and new ones were scanned directly into the app, capturing product name, brand, ingredients, and nutrition information.
- **Data quality control:** Open Food Facts entries were reviewed for completeness and accuracy, cross-checked against packaging photos, and 10% were randomly spot-checked. Nutritional data from product packaging was used as the definitive reference where discrepancies occurred.

Final Dataset

To promote transparency and facilitate reproducibility, ATNi is committed to regularly sharing datasets generated throughout this project. The final dataset will be publicly accessible via ATNi's dedicated GitHub repository, allowing others to review, and build upon the findings. In addition, all products added to the Open Food Facts database are freely available to the wider community through both the mobile app and online platform.

Limitations

One limitation encountered when using the Open Food Facts database is that factual data submitted by retailers cannot be directly edited within the application. Consequently, ATNi exported the Open Food Facts dataset and performed amendments and quality control offline. Furthermore, it was observed that automatic conversions between kilocalories and kilojoules sometimes resulted in inconsistencies when compared to values provided by retailers on product packaging. To ensure consistency, the nutritional data presented on product packaging was used as the definitive reference.

6.4.3 Exclusion Criteria

The Product Profile assessment covers the majority of general private label food products; however, certain categories are excluded as they do not meet the eligibility criteria of the selected NPMs. The following products were excluded from analyses:

- Unprocessed meat, poultry and fish (on the basis that such foods are not generally required to carry a nutrient declaration).
- Plain tea and coffee (on the basis that these make an inherently low nutritional contribution and are thereby not required to display a nutrient declaration).
- Some (not all) condiments such as herbs, salt, pepper, vinegars and spices (those that do not have nutrition information).
- Fresh/perishable fruit and vegetables (on the basis that such foods are not generally required to carry a nutrient declaration).
- Infant formulas, medical nutrition supplements, baby food and baby beverages (excluded because these products are not consumed by the general population and the selected models are not appropriate for their evaluation).
- Note that specific categories were excluded depending on the specific rules under each NPM (each NPM has different inclusion and exclusion criteria).

6.4.4 Data Processing and Proxy Values

Where nutrient information is incomplete, estimated values were used in certain cases. For example, some countries do not require the levels of saturated fat or sugar to be reported on product labels. Similarly, both the HSR and Nutri-Score NPMs require the proportion of FVNL in a product, which is not always disclosed. In such cases, estimates were derived using several approaches, as outlined below:

- Some values could be estimated from other nutritional components. For example, if total fat values were zero, saturated fat was also assumed to be zero.
- In some cases, category-level assumptions could be made. For example, all dairy products missing fibre values were assigned a fibre value of zero.
- The proportion of FVNL was assumed to be zero (e.g. for dairy products).
- Products missing multiple critical nutrient values were excluded from the analysis.

6.4.5 Categorization

Each product was categorized in two ways to enable analysis across different NPMs and ensure consistency with previous ATNi Product Profile assessments:

- Euromonitor categories: Products were mapped to Euromonitor's food and beverage taxonomy to align with earlier ATNi Product Profile analyses and allow comparison across countries and companies.
- NPM categories: Products were then assigned to the specific categories required for each NPM to ensure that the correct nutrient thresholds and scoring rules from the model's algorithm were applied.

6.4.6 Analytical Outputs

The Product Profile analysis quantifies the nutritional quality and processing level of retailers' private label products. Results are presented by retailer, category, and country to allow comparison across countries and support transparent reporting of portfolio healthiness.

The analysis includes results on:

- Mean HSR by retailer and category
- Percentage of products rated HSR ≥ 3.5 by retailer and category
- Nutri-Score distribution (A–E) by retailer and category
- Percentage of products rated A–B and A–C by Nutri-Score, by retailer and category
- Distribution of products by NPM thresholds
- Share of HFSS+UPF products
- Cross-country comparisons

Results are presented in the Retail Country Reports, available on ATNi's interactive dashboard, and shared with relevant stakeholders—including retailers, policymakers, and investors—to strengthen accountability and promote healthier food environments.

6.5 LIMITATIONS: PRODUCT PROFILE

The results of this Product Profile analysis should be interpreted in light of several limitations in addition those listed in Chapter 2:

- **Data availability and completeness**
  The analysis relies on product composition data from Innova Market Insights, supplemented by limited verification from retailers (n=2). Nutrient information may be incomplete, particularly for components such as saturated fat, sugar, fibre, and FVNL content, requiring the use of proxy values or category-level assumptions. While standardized rules were applied across all countries to minimize bias, this may have led to some under- or over-estimation of nutrient scores.
- **Scope of products included**
  The assessment focuses exclusively on private label packaged foods and beverages sold by 18 leading retailers across six countries. It does not capture manufacturer brands, fresh produce, or foods prepared in-store. Consequently, the findings reflect the healthiness of retailers' private label portfolios rather than the full range of products available to consumers.
- **Representativeness and verification**
  Not all retailers participated in data verification—only two retailers engaged in the process. For those that did not, Innova data were used directly. While quality control procedures were applied, the completeness and accuracy of data may vary between retailers and countries. In Kenya, additional quality checks were conducted through in-store visits by an in-country consultant using Open Food Facts to collect data on all available private label products. The Innova dataset was subsequently reviewed and verified by ATNi's data team for accuracy and completeness.
- **Cross-country comparability**
  Although consistent methods were applied, variation in labelling regulations, nutrient disclosure requirements, and market structures across countries may limit comparability in some cases.
- **Variation and evolving evidence in nutrient profiling approaches**
  Each NPM has its own assumptions and category definitions. Differences in model design (e.g. HSR vs. Nutri-Score) mean that results are not directly interchangeable. The adapted HFSS+UPF approach also reflects evolving evidence based on level of processing and health, which may be refined as scientific consensus advances.
- **Sales-weighted results**
  Sales-weighted analyses could not be applied because Euromonitor does not provide disaggregated sales data specifically for grocery food retail. Only aggregated retail sales values—combining food and non-food items—were available. Consequently, category-level weighting could not be performed as in ATNi's Global Index Product Profile assessment of large brand manufacturers. Reported results therefore represent unweighted averages, which may not fully capture the influence of high-volume product categories.

7 COST AND AFFORDABILITY

The pricing analysis aims to assess the affordability of healthier versus less healthy diets within modern food retail environments. Recognizing that affordability is a key barrier to healthy eating, this component builds on global evidence, including the 2025 *State of Food Security and Nutrition in the World* report, which found that 2.6 billion people could not afford a healthy diet in 2024.[36] While the global figure has declined since 2019, affordability has worsened in Africa and many LMICs.

Using a food basket approach informed by the 2019 *EAT-Lancet reference diet*,[37] representative "healthier" and "less healthy" retail baskets were constructed for all retailers with mean-year pricing data available, covering nine retailers included in this assessment. Retail prices were sourced from Euromonitor International's VIA Platform, using mean 2024 prices to estimate the cost of the two baskets for each retailer.

Although the updated 2025 *EAT-Lancet Reference Diet*[38] was released as this analysis was being finalized, the baskets are based on the 2019 version. As the updates involve only minor revisions to recommended intakes, no substantive changes to the results are expected. The analysis will be updated in early 2026 to align with the 2025 *EAT-Lancet Reference Diet* and to include two additional retailers, for which data are currently being collected by Euromonitor International at ATNi's request a time-intensive process undertaken specifically to support this assessment.

The analysis provides a comparative picture across retailers and countries, highlighting (financial) affordability gaps, both within and between countries. It complements the other research elements focusing on retailers' nutrition-related policies and practices, providing an independent, data-driven measure of the economic accessibility of healthier foods. A detailed description of the methodology, data sources, analytical framework, results, and recommendations is available in the ATNi Retail Assessment 2025 Pricing Analysis.

8 POLICY

8.1 RATIONALE: POLICY

There is an emerging global consensus on the policy actions most effective in addressing malnutrition in all its forms.[36] Obesogenic environments—defined as the combination of various factors that influence both food consumption and physical activity—promote positive energy balance and obesity, increasing the risk of NCDs such as cardiovascular diseases and Type 2 diabetes. These include both specific environments such as schools, food retailers, homes that can promote the increased consumption of energy-dense, nutrient-poor foods, as well as factors that limit physical activity, such as limited public spaces or unsafe places for recreation.[39]

At the same time, undernutrition remains a serious global challenge, with many countries continuing to experience high levels of childhood stunting, wasting, and micronutrient deficiencies, which may occur along with other forms of malnutrition. However, the underlying drivers are the same: policies which create a food system where healthier foods are less affordable, less accessible, and less convenient, combined with constant exposure to marketing for unhealthy foods.[40]

8.2 RESEARCH FRAMEWORK: POLICY

Several conceptual frameworks provide a comprehensive overview of interventions that can effectively support healthier food environments. A healthier food environment enables consumers to make nutritious choices and reduces the risk of NCDs and micronutrient deficiencies. These frameworks consider the role of the food environment in shaping dietary practices and health outcomes. Among the most widely used are the Healthy Food Environment Policy Index (Food-EPI), developed by INFORMAS, and the NOURISHING framework, developed by the World Cancer Research Fund. Both have been empirically tested by countries to identify policy priorities, and are often used to identify a range of policy interventions, including those relevant for the retail sector.[41–43]

When comparing the two frameworks, there is a high degree of overlap (see Table 7). The NOURISHING framework was selected as the basis for the retail policy landscape assessment because, like ATNi's Indexes, it suggests aspirational best practices for countries rather than focusing only on those currently in place globally, which is the basis used by the Food-EPI framework.[44] Another advantage is that it enables policy frameworks to be compared, which is useful for this assessment, which includes six countries.[44]

Table 7: Comparison of policies included in the NOURISHING and Food-EPI frameworks.

NOURISHING Framework	**Healthy Food Environment Policy Index (Food-EPI)**
N: Nutrition label standards and regulations on the use of claims and implied claims on food	Food composition Food labelling
O: Offer healthy food and set standards in public institutions and other specific settings	
U: Use economic tools to address food affordability and purchase incentives	Food promotion Food prices
R: Restrict food advertising and other forms of commercial promotion	Food promotion
I: Improve nutritional quality of the whole food supply	
S: Set incentives and rules to create a healthy retail and food service environment	Food retail
H: Harness food supply chain and actions across sectors	Food trade and investment
I: Inform people about food and nutrition through public awareness	
N: Nutrition advice and counselling in health care settings	
G: Give nutrition education and skills	
	Also includes infrastructure support: • Leadership • Governance • Monitoring and intelligence • Funding and resources • Platforms for Interaction • Workforce development • Health-in-all policies

Adopted from: Vlad et al 2023 [45]

8.3 RESEARCH APPROACH: POLICY

The Retail Policy Landscape is based on a modified version of the NOURISHING framework, recognizing that not all policy domains are relevant to the retail environment (e.g. public procurement standards, nutrition education in healthcare settings) or require adaptation to increase applicability to retail-specific settings (e.g. in the framework described in Table 7; S: set incentives and rules to create healthy retail environments, "food service environments" are out of scope for this assessment and thus not included).

While the NOURISHING framework considers the policies which influence the healthiness of the food environment broadly, there are several specific considerations for retail settings. Research on retail environments often considers two elements: (a) the community food environment, which relates to the spatial distribution of stores and how communities interact with various retail outlets throughout their days; and (b) the consumer food environment where food companies (including retailers) use the 4Ps of marketing to influence purchasing decisions: product, promotion, placement and price.[46]

For the ATNi Retail Assessment 2025, the community food environment is less important as the focus is primarily on retailer's own practices. As the assessment only considers the three main retailers per country, it is also not possible to say something about the geographical distribution or physical access to other retail environments. Bringing together data from both the NOURISHING aspirational standards and ATNi's own methodology specifically for the retail assessment, a proposed framework was developed to guide the policy analysis across the six countries included in this assessment.

In addition to the policies discussed in Table 8, the retail policy assessment also considered factors related to both the broader market conditions (e.g. overall market share of formal retailers and share of the market dominated by specific retailers) and their implications for consumers.

It should be also noted that food environment policies may be developed and implemented at various levels (e.g. municipal regulations on billboard advertising) or state or sub-national level (in the US in particular, states have various regulations and programmes which affect the affordability of healthier food options). However, for this assessment, the focus is primarily on national-level policies and the national policy-making bodies.

Table 8: Adopted framework for the *ATNi Retail Assessment 2025*.

NOURISHING Framework	**Underlying sub-questions:**
N: Nutrition label standards and regulations on the use of claims and implied claims on food	1. Are mandatory policies for nutrient declarations on processed and packaged foods? (BOP labels) a. Are standards in line with CODEX guidelines? b. Number of nutrients included beyond CODEX guidelines c. Are there interpretive standards? d. What references should be used (per 100g/per serving)? e. Is there a mechanism in place to support monitoring of the use of these standards? Is it funded? 2. Is there a policy for front of package interpretive labels? a. Are there interpretive standards? b. Is it mandatory or voluntary? c. Is the system positive or negative? d. How many factors (energy/nutrients are included?) e. Is there a mechanism in place to monitor, and a mechanism for enforcement? 3. Are there mandatory policies for the use of nutrition and health claims implied on foods?
U: Use economic tools to address food affordability and purchase incentives	1. Are there taxes which increase the price of less healthy foods (e.g. those high in fat, salt and sugar)? a. What type of tax? (specific exercise tax, ad valorem tax, sales tax aimed at consumers, other) b. Is a NPM used to define what products are subject to the tax/ levy? c. Are there unjust exemptions (e.g. Netherlands exemption of dairy containing beverages from the SSB tax) d. Is the tax >20% on producers? e. Is there any analysis on the effectiveness of the tax in this context? 2. Are there any income-related subsidies to increase the availability of healthier foods? a. Are the subsidies based on nutrition standards? b. How is the income-related subsidy distributed? c. Which population groups are eligible for the subsidies? d. Are there targeted subsidies to increase the affordability of nutritious foods? What are these subsidies? e. Are the subsidies based on nutrition standards? f. How are the subsidies distributed? g. Which population groups are eligible for the subsidies?
R: Restrict food advertising and other forms of commercial promotion	1. Is there any government policy to restrict marketing of unhealthy foods and non-alcoholic beverages to children under the age of 18? a. Is it mandatory (e.g. through both legislation and regulation), through standards or through guidelines? 2. Does the policy include all channels and techniques, and cover all children up to 18 (WHO criteria)? a. If not, what is the age limit included? b. Does it specifically include marketing "to which adolescents are exposed?" 3. Does the government policy use a government endorsed/ internationally recognized NPM to determine the healthiness of foods that are eligible to be advertised? 4. Are there specific policies guiding point of sale marketing and in-store promotions, product placement and branding, targeting children?
I: Improve nutritional quality of the whole food supply	1. Are there government policies guiding reformulation based on specific nutrition standards? a. Are there mandatory limits or reduction targets? b. Which nutrients are covered by these targets? c. Which food categories are included in these regulations/ limits? d. Are the targets based on population level intake recommendations?

S: Set incentives and rules to create a healthy retail and food service environment	1. Are there specific policy incentives to increase the availability of healthier foods in stores? a. Is this policy legislated, or set forth in standards and guidelines (voluntary versus mandatory?)
H: Harness food supply chain and actions across sectors	1. Are there specific policy measures in place to support retailers to increase healthy food and decrease unhealthy food in the supply chain?
I: Inform people about food and nutrition through public awareness	1. Does the country have food based dietary guidelines? a. Is there a government-led mass media campaign to share guidelines and recommendations? b. Does it include social marketing?

Adopted from: NOURISHING aspirational standards table[47]

8.4 LIMITATIONS: POLICY

There are several limitations specific to the policy analysis, in addition those listed in Chapter 2:

- **National level policies**
  As mentioned above, the analysis was limited to national-level policies, although in some contexts, important policies influencing the food environment are implemented at city or sub-national level (e.g. sugar sweetened beverage taxes in the US). Because policies at lower administrative levels were not included, policies that influence consumer access to modern food retail (e.g. policies to incentivize the opening of stores in poorer or underserved neighbourhoods) may have also been missed.
- **Complexity of fiscal measures**
  Fiscal measures aimed at improving affordability—such as subsidies and taxation policies—are highly complex, politically sensitive, and challenging. Due to the complex nature of these policies and the various factors that influence the final price paid by consumers, these policies are not explored in depth.
- **Broader food system influences**
  Linked to the point above, food systems are complex, and policies that support increased production or target other actors along the value chain may affect the nutritional quality, availability and affordability of foods for consumers. However, this was beyond the scope of this research to examine all relevant policies influencing all food system actors.
- **Limited policy focus on retailers**
  While not a limitation per se, it should be noted that there relatively few government policies that speak directly to retailers. Many of the policies included in the conceptual framework focus on improving access to healthier foods, but are also related to actions that need to be taken by food manufacturers, instead of, or alongside, retailers themselves.
- **Exclusion of policies under development**
  Finally, this review does not include an extensive assessment of policies currently under development (e.g. those in draft form or under debate).

GLOSSARY

A-brand: Well-known, premium-quality national (or international) brands with strong consumer recognition and trust.
Adult: A person aged 18 years or more, unless otherwise specified.
Anemia in women aged 15 to 49 years: The percentage of women aged 15–49 years with a haemoglobin concentration of less than 120 g/L for non-pregnant and lactating women, and less than 110 g/L for pregnant women, adjusted for altitude and smoking [FAO].
Compound annual growth rate (CAGR): The average annual rate of growth in value over a defined multi-year period.
Convenience store: Grocery retail outlets selling a wide range of groceries and typically characterized by extended opening hours, a selling area under 400 square metres, and a range of foodservice products such as take-away or made-to-order hot foods [Euromonitor International, Passport].
Dietary diversity: The variety of different foods or food groups consumed over a given reference period. It is an important component of diet quality, as greater diversity is associated with a higher likelihood of adequate nutrient intake and a lower risk of deficiency [FAO].
Discounters: Retail outlets typically with a selling space of between 400 and 2,500 square metres. Retailers' primary focus is on selling private label products within a limited range of food/beverages/tobacco and other groceries at budget prices. Discounters may also sell a selection of non-groceries, frequently as short-term special offers. Discounters can be classified as hard discounters and soft discounters. As well as private label and budget brands, stores commonly carry leading brands at discounted prices. Discounters exclude mass merchandisers and warehouse clubs [Euromonitor International, Passport].
E-commerce: Retail e-commerce is the sale of consumer goods to the general public via the internet, wherein consumers purchase goods online through a web platform or app via their mobile phones, tablets and laptops/ computers. Purchases are either delivered or collected from a store (i.e. "click-and-collect") [Euromonitor International, Passport].
Food environment: Encompasses all the places we access food, the types of food available and their nutritional quality, the price and affordability of different foods and diets, and the way food is marketed to us, including through advertisements, promotions and information on food packages.
Food/drink/tobacco specialists: Retail outlets specialising in the sale of mainly one category of food, drinks stores and tobacconists. Includes bakers (bread and flour confectionery), butchers (meat and meat products), fishmongers (fish and seafood), greengrocers (fruit and vegetables), drinks stores (alcoholic and non-alcoholic drinks), tobacconists (tobacco products and smokers' accessories), cheesemongers, chocolatiers and other single food categories. Alcoholic drinks stores are retail outlets with a primary focus on selling beer/wine/spirits/other alcoholic beverages [Euromonitor International, Passport].
Formal grocery retail: Modern and traditional grocery retailers that are registered and pay taxes, and are therefore captured in Euromonitor International Passport market size (monetary value) estimates.

Grocery retail: Modern and traditional retailers selling one or more of the following, as the primary focus, from retail outlets, kiosks or market stalls: food, beverages, and/or tobacco. This is the aggregation of convenience retailers, supermarkets, hypermarkets, discounters, warehouse clubs, food/drink/tobacco specialists, and small local grocers. [Euromonitor International, Passport].

Herfindahl-Hirschman Index (HHI) score: A measure of market concentration calculated by squaring the market share of each firm and summing the results. The index increases as the number of firms decreases or as size disparities grow. Scores below 1,000 indicate a competitive market, 1,000–1,800 a moderately concentrated market, and above 1,800 a highly concentrated market.

High-income country (HIC): A country with a gross national income (GNI) per capita, calculated using the World Bank Atlas Method, of USD 13,845 or more (FY2024), according to the World Bank income classification.

Hypermarket: Like supermarkets but larger, with over 2,500 square metres selling space. Hypermarkets also sell a range of non-grocery merchandise. Hypermarkets are frequently located on out-of-town sites or as the anchor store in a shopping centre. In the US, often referred to as 'supercentres.' Excludes cash and carry, warehouse clubs and mass merchandisers [Euromonitor International, Passport].

Informal grocery retail: Traditional vendors—typically small local grocers (see definition)—that are unregistered and do not pay taxes and are therefore not captured in Euromonitor International Passport market size estimates.

Lower-middle income country (LMIC): A country with a GNI per capita between USD 1,136 and 4,465 (FY2024), as defined by the World Bank income classification.

Minimally processed foods: Unprocessed foods altered in ways that do not add or introduce any substance, but that may involve subtracting parts of the food. The main aim of these processes is to extend the life of unprocessed foods, enabling their storage for longer use, or to make them edible, and, often, to make their preparation easier or more diverse [FAO].

Minimum dietary diversity: A measure of diet quality based on the number of different food groups consumed within a specific reference period, typically one day. For children aged 6–23 months, minimum dietary diversity is achieved when foods from at least five of eight defined food groups are consumed the previous day. For women aged 15–49 years, it is achieved when foods from at least five of ten defined food groups are consumed the previous day. Meeting the minimum threshold indicates a higher likelihood of sufficient intake of essential nutrients such as vitamins and minerals [FAO].

Modern grocery retail: Aggregation of modern grocery channels such as supermarkets, hypermarkets, convenience stores, discounters, warehouse clubs, and food/drink/tobacco specialists, including independent outlets [Euromonitor International, Passport]. It is distinguished from *traditional grocery retail*, which includes small, independent shops, market stalls, and informal vendors. In this report, modern grocery retail equals total grocery sales minus those via small local retailers.

National brand: A manufacturer-owned brand that is sold nationwide (and often internationally), across many different retailers.

Obesity: A condition in which body weight is above the normal range for height due to excessive accumulation of fat. It typically results from consuming more energy than is expended. In adults, overweight is defined as a body mass index (BMI) of 25 kg/m² or more, and obesity as a BMI of 30 kg/m² or more. In children under five years of age, overweight is defined as weight-for-height greater than two standard deviations (SD) above the WHO Child Growth Standards median, and obesity as greater than three SD above the median.

Operating brand: The retail brand name under which a retailer operates its physical or online stores. A single parent company may own and manage multiple operating brands. For example, Food Lion is an operating brand of Ahold Delhaize USA, and Intermarché is an operating brand of Les Mousquetaires. Sometimes referred to as 'grocery brands', 'trading brands', and 'retail banners'.

Private label: A product or brand made by a third-party but sold exclusively under a retailer's own proprietary brand label, with the retailer controlling all aspects. Sometimes referred to as 'own brand'.

Purchasing power parity (PPP): Rates of currency conversion that equalize the purchasing power of different currencies by accounting for differences in price levels between countries. The basket of goods and services priced represents a sample of those included in final consumption expenditure, actual consumption, gross fixed capital formation, and total goods and services [FAO].

Retail food environment: A subtype of the food environment relating to the physical and economic settings where people purchase food and beverages, such as supermarkets, convenience stores, restaurants, and vending machines. It includes the availability, affordability, quality, and marketing of food products within these outlets, which can influence consumer choices and population health.

Retail grocery market concentration: A metric used to assess the level of competition within the grocery market, indicating the degree to which a small number of firms dominate total sales or market share. As market concentration increases, competition generally decreases, potentially giving firms greater pricing power and supply chain control.

Small local grocers: Small local grocers are mostly independent retail outlets (with a selling space of under 400 square metres), kiosks, market stalls or street vendors, owned by families and/or run on an individual basis, and with a primary focus on selling food/beverages/tobacco and other groceries. Mainly family owned and often referred to as 'mom-and-pop' shops. Retail sales from farmers markets, farms, vineyards, or similar producers are also included in small local grocers [Euromonitor International, Passport]. Euromonitor estimates primarily comprise those that are formally registered and pay tax. Combined with 'informal' retailers, these comprise the 'traditional' grocery retail market.

Staple foods: Foods eaten regularly and, in such quantities, as to form the dominant part of the diet and supply a major share of total dietary energy. Common staple foods include cereals (e.g. rice, maize, wheat, rye, barley, oats, millet, sorghum), roots and tubers (e.g. potatoes, cassava, yams), and legumes (e.g. beans, lentils, soybeans) [FAO].

Street stalls / kiosks: small, sometimes mobile, foodservice providers characterized by a limited product offering and by low prices. Includes street stalls, street hawkers and foodservice kiosks where food is prepared in some way and served through a hatch or over a display counter [Euromonitor International, Passport].

Supermarket: Retail outlets selling groceries like non-perishable products (e.g. rice, pasta and sauces), fruit and vegetables, beverages and household products. Usually have a selling space of between 400 and 2,500 square metres. Excludes discounters, convenience stores and small independent grocery stores [Euromonitor International, Passport].

Traditional grocery retail: Grocery channels that are typically individually or family owned, including both formally registered small local retailers and informal (i.e. unregistered, non-tax-paying) vendors, selling predominantly groceries. In the broader US literature, "traditional" formats may refer to supermarkets, with other formats (e.g. supercentres, warehouse clubs, discounters) considered "non-traditional," although that usage is not applied in this report.

Ultra-processed food (UPF): The term is used with some variation across reports and studies, but it is most commonly defined according to the NOVA classification. UPFs are foods made mostly from industrial ingredients and additives, with minimal or no unprocessed food content. These additives, which are introduced during manufacturing to enhance taste, texture, and shelf life, result in products such as sweet and savoury snacks, instant noodles, confectionery, meat substitutes, and soft drinks [Food Systems Dashboard].

Undernourishment: A condition in which an individual's habitual food consumption provides insufficient dietary energy to maintain a normal, active, and healthy life. For the purposes of this report, hunger is defined as being synonymous with chronic undernourishment. The prevalence of undernourishment is used as a measure of hunger [FAO].

Upper-middle income country (UMIC): A country with a GNI per capita between USD 4,466 and 13,845 (FY2024), as defined by the World Bank income classification.

Warehouse clubs: Chained outlets selling a wide variety of grocery and non-grocery products. Customers pay an annual membership fee to shop. Warehouse clubs typically exceed 2,500 square metres (often over 4,000 m²), operate with a no-frills format, and aim to drive high-volume sales through low prices. They usually provide minimal in-store assistance and are located out of town [Euromonitor International, Passport].

ANNEX A: OVERVIEW OF EXPERTS CONSULTED

Expertise	Name	Organization	Month of Consultation
Global	Prof. Adrian Cameron*	Deakin University, INFORMAS	2025
	Dr. Tailane Scapin	Deakin University, RE-FRESH & INFORMAS	February 2025
	Prof. Gary Sacks	Deakin University, INFORMAS	February 2025
	Rachel Crossley**	BNP Paribas Asset Management	February 2025
	Dr. Christina Vogel*,**	University of London	2025
	Charlotte Linnebank	Questionmark	February 2025
	Dr. Catherine Mah	University of Toronto	January 2025
	Prof. Bee Koon Poh*	Mahidol University	April 2025
	Prof. Jessica Fanzo*,**	Colombia University	2025
	Chris Holmes*	Kickback Kitchens, GAIN	2025
	Agnes Erzse	UNICEF Eastern and Southern Africa	April 2025
	Dr. Alison Feeley	UNICEF East Asia Pacific	June 2025, July 2025
USA	Dr. Mary Story*,**	Duke University	2025
	Julie Greene	Guiding Stars	January 2025
	Dr. Sara John	Centre for Science in the Public Interest (CSPI)	April 2025, September 2025
	Christina Lin	Centre for Science in the Public Interest (CSPI)	April 2025, September 2025
	Emily Callahan	Tufts University, Food is Medicine Institute	June 2025
France	Beniot Granier	Réseau Action Climat	May 2025, September 2025
	Dr. Chantal Julia	Université Sorbonne Paris Nord, CRESS-EREN	May 2025
	Rémy Gerin	Grande Chaire Consumation, ESSEC Business School	June 2025
	Marion Caillard	Grande Chaire Consumation, ESSEC Business School	June 2025
South Africa	Dr. Jane Battersby	University of Cape Town	April 2025
	Dr. Tamryn Frank	University of the Western Cape	April 2025
	Gilbert Tshitaudzi	UNICEF South Africa	April 2025
Indonesia	Adila Fahmida Saptari	UNICEF Indonesia, *formerly SEAOFE Research Group*	April 2025
	Avita Usfar	TNP2K Indonesia, *formerly SEAOFE Research Group*	April 2025
	Nadhila Beladina	Universitas Gadjah Mada (UGM), *formerly SEAOFE Research Group*	April 2025
	Ester Novalia Tambunan	Reconstra, *formerly SEAOFE Research Group*	April 2025
	Dr. David Colozza	UNICEF Indonesia	June 2025, October 2025
	Gibthi Idha Suryani	UNICEF Indonesia	June 2025, October 2025
	Dr. Mamadou Ndiyae	UNICEF Indonesia	June 2025
	Nida Adzilah Auliani	Centre for Indonesia's Strategic Development Initiatives (CISDI)	May 2025
	Muhammad Zulfiqar Firdaus	Centre for Indonesia's Strategic Development Initiatives (CISDI)	May 2025
	Salsabil Rifqi Qatrunnada	Centre for Indonesia's Strategic Development Initiatives (CISDI)	May 2025

Philippines	Dr. Elaine Borazon	National Sun Yat-Sen University	April 2025

	Dr. Mary Castro	Nutrition Centre Philippines	May 2025
	Cherry Marag	Nutrition Centre Philippines	May 2025
	Mikhail Milan	ImagineLaw	June 2025
	Jeline Corpuz	ImagineLaw	June 2025
	Kim Louise Areño	ImagineLaw	June 2025
	Alice Nkoroi	UNICEF Philippines	July 2025, September 2025
	Carleneth Fernandez San Valentin	UNICEF Philippines	July 2025, September 2025
	Nonoy (Ernesto) Casiple	UNICEF Philippines	July 2025, September 2025
Kenya	Dr. Juliana Kiio	Kenyatta University	April 2025
	Dr. Gershim Asiki	African Population and Health Research Centre (APHRC)	May 2025
	Jane Mangwana	African Population and Health Research Centre (APHRC)	October 2025

* Member of the *ATNi Retail Assessment 2025* Advisory Group (Table 2).

** Member of ATNI's Expert Group

ANNEX B: OVERVIEW OF RETAILERS ENGAGED IN THE RESEARCH PROCESS

An overview of the engagement of all retailers included in the *Retail Assessment 2025*. Level of engagement was defined as:

- Engaged: Provided feedback or input on the company findings from the Retailer Profile and/or Product Profile dataset.
- Partially Engaged: Participated in an introductory call, and the findings from the Retailer and Product Profiles dataset were shared, but no further response was received.
- Declined to Engage: Informed us that they did not wish to participate and expressed appreciation for the invitation.
- Did Not Engage: No response was received following outreach efforts.

Table B.1. Overview of retailer engagement in ATNi's *Retail Assessment 2025*.

Country	Retailer	Contact established?*	Level of engagement	Provided input on Retailer profile findings?	Provided input on Product Profile dataset?
US	Walmart	Yes	Partially engaged	No	No
US	Kroger	Yes	Declined	No	No
US	Ahold Delhaize USA (Food Lion)	Yes	Engaged	Yes	Yes
France	Carrefour	Yes	Engaged	Yes	No
France	Les Mousquetaires (Intermarché)	Yes	Did not engage	No	No
France	E.Leclerc	No	Did not engage	No	No
South Africa	Shoprite Holdings	Yes	Partially engaged	No	No
South Africa	Pick n Pay Group	Yes	Engaged	Yes	Yes
South Africa	SPAR Group South Africa	Yes	Did not engage	No	No
Indonesia	Sumber Alfaria Trijaya (Alfamart)	Yes	Did not engage	No	No
Indonesia	Indomarco Prismatama (Indomaret)	No	Did not engage	No	No
Indonesia	Lion Super Indo	Yes	Engaged	Yes	No
Philippines	Puregold Price Club	No	Did not engage	No	No
Philippines	Robinsons Retail Holdings	Yes	Partially engaged	No	No
Philippines	SM Supermarket	No	Did not engage	No	No
Kenya	Majid Al Futtaim (Carrefour Kenya)	Yes	Did not engage	No	No
Kenya	Naivas	Yes	Did not engage	No	No
Kenya	Quickmart	Yes	Did not engage	No	No

*Contact established meaning: an invitation to engage has been sent to a valid email address or through ATNi's network via a direct connection with the retailer.

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