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$11 trillion bill in food systems' hidden costs, a significant underestimation: Review series

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By **Sanjiv Das** | December 18, 2025



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The Global Alliance for Improved Nutrition (GAIN), True Price Foundation (TPF), Netherlands Food Partnership (NFP), and Access to Nutrition Initiative (ATNI) have recently released a landmark three-part Review Series on ‘True Cost Assessment Methods for Quantifying the Multi-dimensional Impacts of Food.’

Regardless of how much we spend at the supermarket’s checkout, society is paying a massive, invisible bill in food systems’ hidden costs (or externalities). FAO's State of Food and Agriculture 2024 report quantifies these impacts at over $11 trillion annually; however, our comprehensive analysis of over 200 publications reveals the critical blind spots of current True Cost Accounting (TCA) methods, likely leading to the significant underestimation of food systems' true burden on health, the environment, and society at large.

“Our Review Series surfaced the enormous, hidden price tag on our food, mostly paid in the currency of human health. Most importantly, it uncovered a major evidence gap: current TCA approaches primarily capture impacts for which data are readily available and analytical techniques are well-established, while data-scarce externalities remain largely unquantified. For example, we assess productivity losses linked to non-communicable diseases or inadequate working conditions in supply chains but fail to measure the considerable economic toll of micronutrient deficiencies and systemic violations of human rights. To transform food systems, we must strengthen and expand upon the existing data infrastructure and develop more rigorous, inclusive methods that can comprehensively capture the true burden on people and planet,” said Flaminia Ortenzi, Senior Research Associate - Global Alliance for Improved Nutrition.

The review series, funded by the Netherlands Food Partnership, finds that current approaches to assess food systems’ externalities are fragmented and inconsistent. For instance, studies rarely provide clear rationales for selecting specific methods and often use widely different valuation techniques interchangeably. This creates an illusion where estimates that are methodologically

incomparable appear equal due to expressing impacts in monetary terms. Additionally, researchers are often forced to choose between broad global models that miss contextual relevance, or small-scale localised studies that cannot be compared internationally. Furthermore, the available TCA literature predominantly focuses on negative impacts, high-income countries (HICs), and highly profitable, export-oriented commodities (like cereals and animal-source foods). Existing methodologies largely treat food systems as static snapshots, and are unable to capture the complex, dynamic reality of how food is produced and consumed in real-world contexts.

To realise TCA's full potential as an evidence-based tool to inform high-stakes policymaking, the Review Series calls for continued methodological advancement, improved transparency and reproducibility, and more geographically representative data that prioritises local context over one-size-fits-all models.

"There is growing momentum in TCA and True Pricing of food in both research and practice. The Review Series mirrors what we, at the True Price Foundation, have observed for the past 10+ years. While environmental and health costs are increasingly being quantified, social impacts such as gender equality, income gaps, and child labour require far greater attention through a rights-based lens. Strengthening policy and research will help ensure TCA approaches are not only standardised but effectively used to inform decisions and drive meaningful change across food systems." – Estefania Marti Malvido, Project & Partnerships Manager - True Price Foundation.

Key highlights from the Review Series:

Indirect costs dominate: In both the health and socioeconomic domains, indirect costs – such as lost productivity from illness, premature death, or unfair labour practices – consistently outweigh direct expenditures like medical bills.

The 'data desert' in low- and middle-income countries (LMICs): There is a significant geographic imbalance in the evidence, with most studies concentrating in HICs. This leaves LMICs – where the burden of malnutrition, climate vulnerability, and social inequities is highest – without the context-specific data and analytical insights needed to implement transformative change.

Missing threads in health and social impacts: While health externalities account for the largest

share of hidden costs, studies that economically value the burden of micronutrient malnutrition linked to poor diets are critically lacking. Moreover, socioeconomic impacts (24 publications) are consistently underrepresented in the literature compared to health and environmental dimensions (96 and 85 studies, respectively).

The ethical dilemma: The push to put a price tag on externalities raises important ethical concerns: how do we express non-negotiable, non-substitutable values like human rights and dignity in monetary terms without commodifying them?

“The reviews reiterate the need for collective action to transform food systems through inclusive TCA approaches – not solely focused on high-income countries. Achieving healthier, more sustainable, and fairer food systems implies we need to make visible the burdens carried disproportionately by vulnerable groups, alongside developing robust, stratified data infrastructure tailored to local contexts in low- and middle-income countries." – Ninja Lacey, Partnership Builder, Netherlands Food Partnership.

The Review Series’ findings lay the foundation for the partners’ ambitious new project: ‘The True Cost and True Price of Food Baskets’. This initiative aims to move beyond theory by strengthening existing TCA methods and applying them to real-world food baskets in both HICs and LMICs, providing local decision-makers with the evidence they need to foster impactful change.

Read online: https://nuffoodsspectrum.in/news/29/22976/11-trillion-bill-in-food-systems-hidden-costs-a-significant-underestimation-review-series.html

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