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Introduction

Despite agriculture contributing over 30% to Ethiopia’s GDP and employing nearly 70% of its workforce.

Multi-dimensional undernutrition remains a critical public health and economic challenge.

Nutrition-Sensitive Agriculture (NSA) aims to address the root causes of malnutrition by leveraging agricultural development to enhance food availability, access, and utilization.

→To systematically map evidence, evaluate multi-pathway impacts on nutrition outcomes, and assess policy alignment of Nutrition-Sensitive Agriculture (NSA) research in Ethiopia (2000–2025).

Methods

Following PRISMA 2020 guidelines and the Agriculture–Nutrition Pathway Framework, a systematic review was conducted across PubMed, Scopus, EMBASE, and Web of Science.

Parameter	Systematic Review Details
Search Scope	Peer-reviewed NSA studies in Ethiopia published between 2000 and 2025.
Screening	971 total records identified →661 unique records
Results	screened →62 studies included in synthesis.
Sub-set	14 experimental and quasi-experimental
Analysis	intervention studies evaluated for causal impacts.
Categorization	Studies mapped across 4 pathways: Food Production, Income, Women’s Empowerment, and Enabling Environment.

Conclusions

Nutrition-Sensitive Agriculture in Ethiopia is most effective when multi-pathway strategies are used.

Stand-alone agricultural production is insufficient to combat child undernutrition unless paired with behavior change communication, women’s empowerment, and enabling health/WASH environments.

Recommendations

- Expand researches into pastoral, lowland, and emerging regions with strong study design
- Target men in nutrition education to leverage household impact
- Scale up integrated poultry + SBCC complementary feeding models.
- Align academic research directly with national flagship goals.

Results

- An evaluation of the 62 included studies reveals significant trends and systematic imbalances in geographic coverage, research design, and focus areas
 - High Concentration (79%) of researches: Amhara, Oromia, Tigray, Sidama and Central Ethiopia, but no in Afar, Benishangul-Gumuz, Gambela, Harari, Pastoral Lowlands
- Most studies are cross-Sectional [66%], intervention [23%] and longitudinal Cohorts [11%]
- Pathway coverage: 11.3% all, 92% food production and 30% income or women empowerment
- Commodity Focus: Livestock and poultry (45.2%). Biofortified crops and home gardening (22.5%).
- Target Populations: Children under 5 years (55%), households (22.6%) and WRS (11%). Adolescent mothers (2%)



Figure 1: linkages of NSA researches with policies in Ethiopia

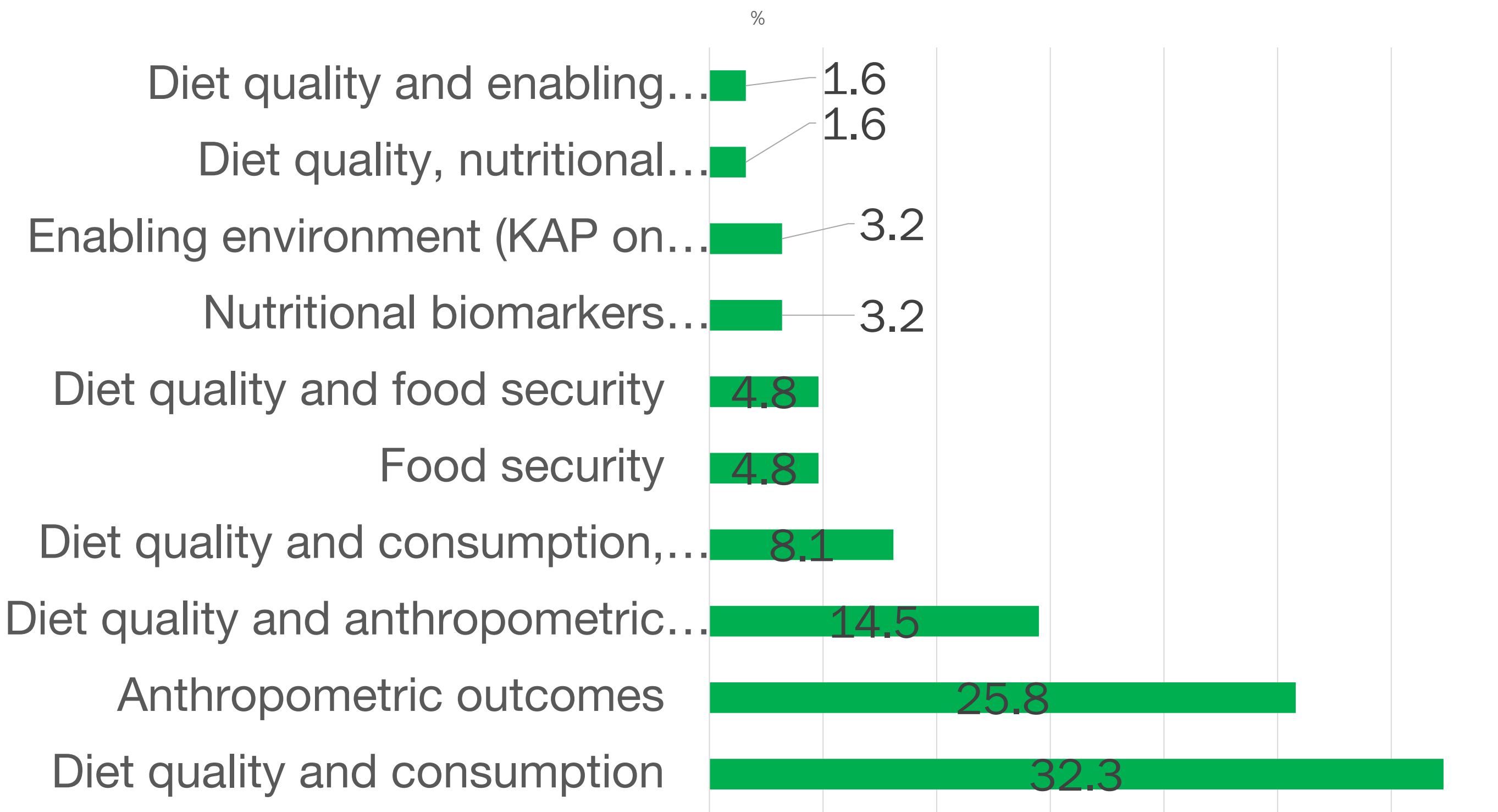


Figure 2: NSA researches in Ethiopia based on the food and nutrition outcomes

Intervention studies	Major findings
Poultry + SBCC	Increased in egg intake, HAZ, WHZ, anemia and earlier attainment of motor milestones.
Multisectoral SBCC	Combining interpersonal communication, community mobilization, and extensions yield dose-response improvements in MDD and HAZ
Crop Diversification & Biofortification	QPM and OFSP reduced nutrient inadequacies. Vegetable production and home gardening alone shown non-significant impacts on stunting
Intra-Household Dynamics & Gender	Men’s nutrition knowledge improved family DD than women's knowledge alone. Empowering women improved ASF consumption and reduces stunting risks.

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