

Analysing pathways and potential of agri-food value chains to deliver nutrition impacts

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INTRODUCTION

Agri-food value chains (VCs) are strategic levers for transforming food systems, because they shape supply of, demand for, and nutritional quality of foods. Yet nutrition is rarely an explicit objective in conventional VC analyses. This study examines the extent to which VCs already contribute to nutrition outcomes.

Drawing on 44 VC reports from EU/Agrinatura’s Value Chain Analysis for Development (VCA4D) project which span 28 countries and a wide range of commodities, we identify how nutrition gains are being achieved and where further action is needed.

Table 1. Overview of VCA4D reports

VC group	VC	Countries
Cash crop	Cocoa	Cameroon, Colombia, Ecuador, Nicaragua, São Tomé
	Coffee	Angola, Ecuador, Honduras, Tanzania
	Cotton	Cameroon
	Palm Oil	Sierra Leone
	Vanilla	Papua New Guinea
Dairy & Meat	Beef	Eswatini, Zimbabwe
	Cheese	Colombia
	Egg	Zambia
	Milk	Burundi
Fish	Aquaculture	Cambodia, Zambia
	Coastal Fisheries	Tanzania
	Fisheries	Comoros, Gambia (The), Mali
	Freshwater Aquaculture	Georgia
Fruit & Vegetables	Banana	Burundi, Dominican Republic
	Green Beans	Kenya
	Mango	Burkina Faso
	Mango & Lime	Guinea-Bissau
	Mango & Pineapple	Dominican Republic
Pulses & nuts	Pineapple	Benin, Togo
	Cashew	Côte D'Ivoire, Mali, Sierra Leone
	Cowpea	Niger
	Groundnuts	Ghana, Niger
Roots & grains	Cassava	Cote D'Ivoire
	Maize	Nigeria, Zambia
	Rice	Mali
	Sorghum	Ghana

METHODOLOGY

A four-step approach was used: (i) a pilot study, (ii) a literature review, (iii) quantitative analysis and (iv) a qualitative narrative synthesis of the 44 VCA4D reports.

The report’s nutrition-related contributions were examined through three main pathways: supply chains, food environment, and consumer behaviour, and two mediating factors: women’s empowerment and social capital. Thirteen criteria were scored (no action, limited action, clear action, no data) to create a comparative picture of each VC’s nutrition sensitivity.

FINDINGS

The results confirm the intricate links between agriculture and nutrition highlight the value of a systems lens. Findings from the VCA4D reports align with the literature. Positive highlights are:

- All chains such as fisheries, livestock, cash crops, roots-cereals, fruit-veg, pulses-nuts, **generate income, diversify livelihoods and create jobs.**
- **Concrete nutrition-supportive actions** are already visible, notably efforts to make foods more culturally acceptable or better packaged and to enrich their nutrient content.
- **Fruit & vegetable, Pulses & nuts, and Roots & grains** chains score marginally higher on nutrition sensitivity.
- **Export oriented-chains display stronger nutrition strategies**, and countries tend to have lower national stunting rates.
- VCs in low-stunting countries feature **women’s empowerment** initiatives, whereas those in high-stunting settings show none.

Nonetheless, important gaps remain:

- **Nutrient losses** during processing and storage, food safety risks, and post-harvest waste are insufficiently addressed.
- **Limited access to resources** such as inputs, credits, land rights, transport infrastructure and technical services especially for smallholders.
- Cash-crop, dairy & meat and Fish chains register only modest nutrition scores.
- **Climate and environmental vulnerabilities** threaten sustainability. Overfishing, animal diseases, droughts, deforestation, and pollution undermine productivity and livelihoods.
- Finally, few VC studies incorporate **food-environment or consumer-behaviour** dimensions, limiting nutrition-focused interventions.

CONCLUSIONS

1. **Design value chains deliberately for nutrition** within a holistic food-systems framework.
2. **Explicitly integrate nutrition** goals, food-environment factors and consumer behaviour in VC analyses.
3. **Tailor strategies to context**, prioritising women’s empowerment and support for small-scale producers.

