

- **How does research address the role of vegetables in food systems for healthy diets?**

Inclusion	Exclusion
<p><u>Type</u> Since 2000 All languages: If you can't read an article, please flag it for discussion All human populations (adult and child studies) All study types (qual and quant, all designs. Reviews) Multiple studies from the same trial/research project Peer-reviewed article published in a scientific journal</p>	<p><u>Type</u> Animal studies, soil quality studies, plant nutrition studies Studies describing the nutrient content of vegetables without a clear food systems angle Not a published peer reviewed paper (we are not including books/reports) Not relating to low- or middle-income countries</p>
<p>It must clearly include all three aspects in the core analysis (central thesis) of the paper</p> <ul style="list-style-type: none"> - Diets - Vegetables (flag papers only about fruits for discussion) - LMICs (including global studies that include LMICs) <p>Theoretical or conceptual papers that explicitly relate to vegetables and diets (and no geographical focus) should be included (if relevant to any country)</p>	<p>Not relating to all areas: The title and/or abstract must clearly state the issues of both D+V that it is addressing related to LMICs</p> <p>Ambiguous treatment of either vegetables or diets or location (lack of clarity) in the title and abstract</p>
<p><u>Vegetables</u></p> <p>What is a vegetable?</p> <ul style="list-style-type: none"> - Using the HDDS categories – exclude anything that falls into the other food groups - Use the AVRDC web definition - Can be vegetables as a group or individual vegetables <p><u>Include</u> if the paper addresses vegetables (or one vegetable) alone, or as part of a set of foods where vegetables are explicitly part of the analysis/thesis</p>	<p><u>Vegetables</u></p> <p><u>Exclude</u> if the paper does not explicitly analyse vegetables or have a clear way of interpreting findings for vegetables</p>
<p><u>Food Systems</u></p> <p>What is a food system?</p> <p>Food systems have been defined as “all the elements [...] and activities that relate to the production, processing, distribution, preparation and consumption of food, and the output of these activities” (HLPE, 2014). These complex and spontaneous systems</p>	<p><u>Food Systems</u></p> <p><u>Exclude</u> papers looking at rural non-agriculture employment (such as basket weaving, crafts).</p>

are shaped by a range of drivers, from the biophysical and technological to the political and socio-cultural (HLPE 2017).

Food system drivers:

Include if the paper is about biophysical or technological drivers of vegetables in food systems, including seed systems or genetic resources for vegetables

Include if the paper is about political, economic or policy drivers of vegetables in food systems, including the enabling environment for vegetables in food systems

Include if the paper is about socio-cultural or demographic drivers of vegetables in food systems, including equity and population drivers of consumer behaviour

Include if a paper describes an intervention into any of these drivers, with an explicit vegetables and diets analysis also.

Primary production papers:

Include if the paper is about primary production of vegetables

Include if the paper is about agricultural effects on landscapes/environment/biodiversity related to vegetable production

Value Chain papers:

Include if the paper is about workers in vegetable production, processing etc IF the paper spells out how their work explicitly links to diet outcomes.

Include if the paper relates to aspects of the vegetable(s) food supply chain, including food transport, food processing and packaging activities, and food vending/trading/markets. This can include papers that focus on the whole value chain or just parts of it.

Food Environment papers:

Include: If the paper looks at the food environment (availability, price, affordability, marketing).

Include if the paper covers aspects of food safety (industrial or biological contamination) from a food system (production / food environment / consumer behaviour) perspective

Consumer Behaviour papers:

Include: Papers that look at consumer behaviour/demand/food choice of vegetables (including the role of dietary education/knowledge)

*** Note that household food purchases (also sometimes referred to as consumption) is an aspect of consumer behaviour, not diets ***

Exclude papers looking at vegetable related value chain actors (e.g. market workers) which don't spell out how their value chain/food system/ agricultural work links to the diet outcome.

Exclude studies that merely take place in rural/farming communities but are not food system papers. Agriculture as a broad context is likely to be too broad and give us too many tenuously-linked papers.

Exclude food safety papers related only to contaminant analysis within foods, if they don't also analyze implications for individuals or populations eating those foods.

Diets

What are diets?

- What individuals (or populations of individuals) eat
- Go beyond availability (which is the food environment) and beyond household purchases (which are consumer behaviour)
** be careful of the word 'consumption', which means buying to some people and eating to others**

Diets

Include where diets or attention to the quantity, quality or diversity of vegetables consumed is clearly assessed (quant or qual)

Include where the role of vegetables is described/analysed in achieving diet quality or diversity

Include where contribution of vegetable contamination to food toxicity through diets is analysed explicitly (not just mentioned or assumed)

Include where vegetables are ingested for medicinal purposes if this is through the eating of vegetables

Diets

Health or nutrition status outcomes

Exclude papers that only look at issues downstream of diets to nutrition

Exclude human health or nutrition status outcomes (such as NCDs, malnutrition types, anthropometric measurements, micronutrient deficiencies or illness) if there is not also a link to diets.

Exclude papers that are about hunger/calorie sufficiency if they do not relate to healthy diets

Exclude papers that are about specific health issues related to agriculture, such as zoonotic disease and anti-microbial resistance, or pesticide use, where diets are not included

Exclude papers looking at health system access

Exclude papers that speak about 'wellbeing' or 'quality of life' generally, unless there is a clear definition and link to diets.

Food security and household purchase should not equal

diet/nutrition: Food security / household demand or consumption does not necessarily go as far as including nutrition (usually it is about quantities or calories or elasticities).

Exclude: Food security or demand studies that don't also explicitly look at impacts on food consumption, or diet diversity or quality.

Food safety / nutrient content

Exclude papers that look at nutrient content or contamination of vegetables where there is not also an analysis of what this means for populations consuming these

Exclude studies that look at consumer knowledge of food safety if these do not also have an analysis of diets