

Food security, food systems and community-based actions



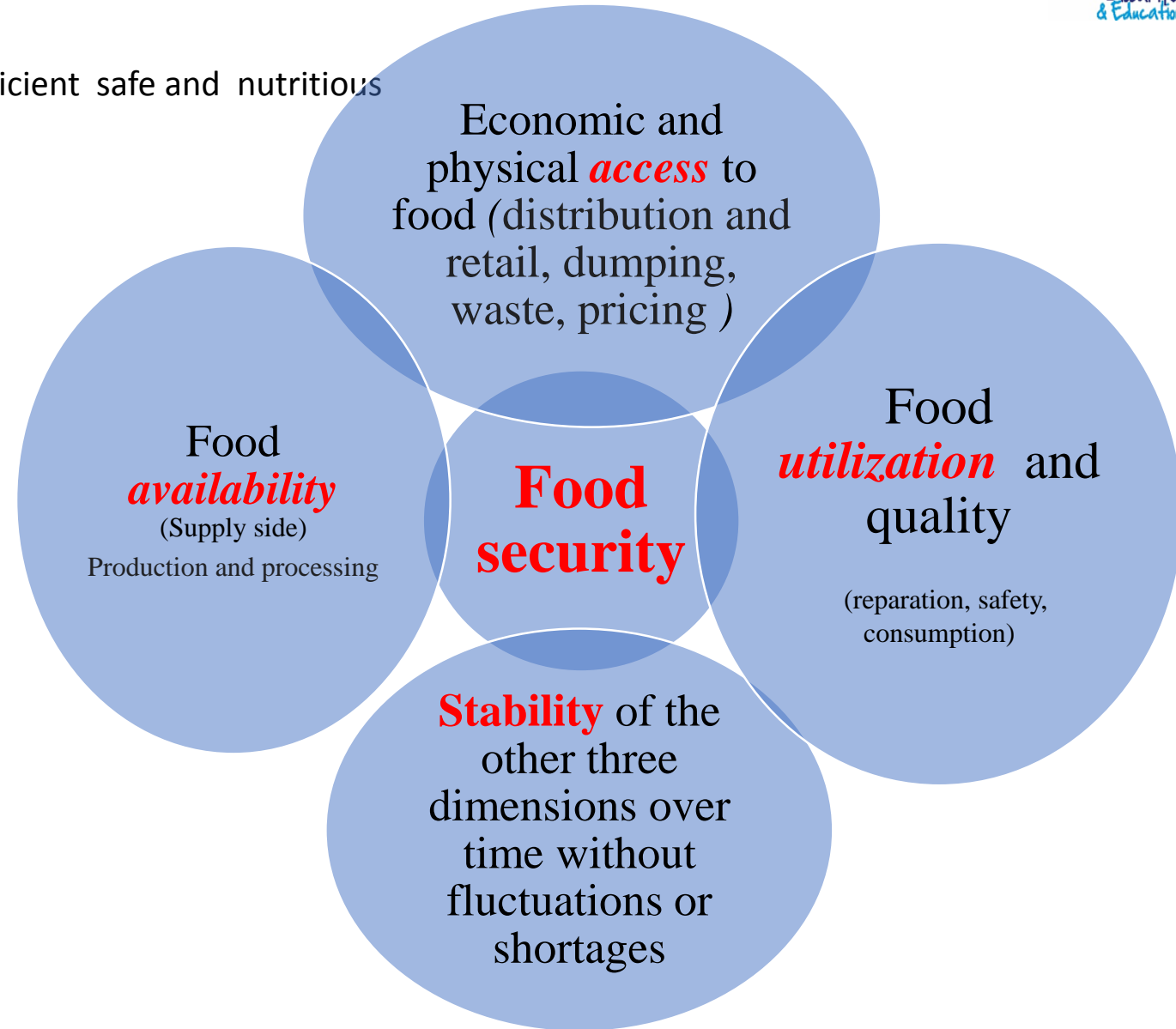
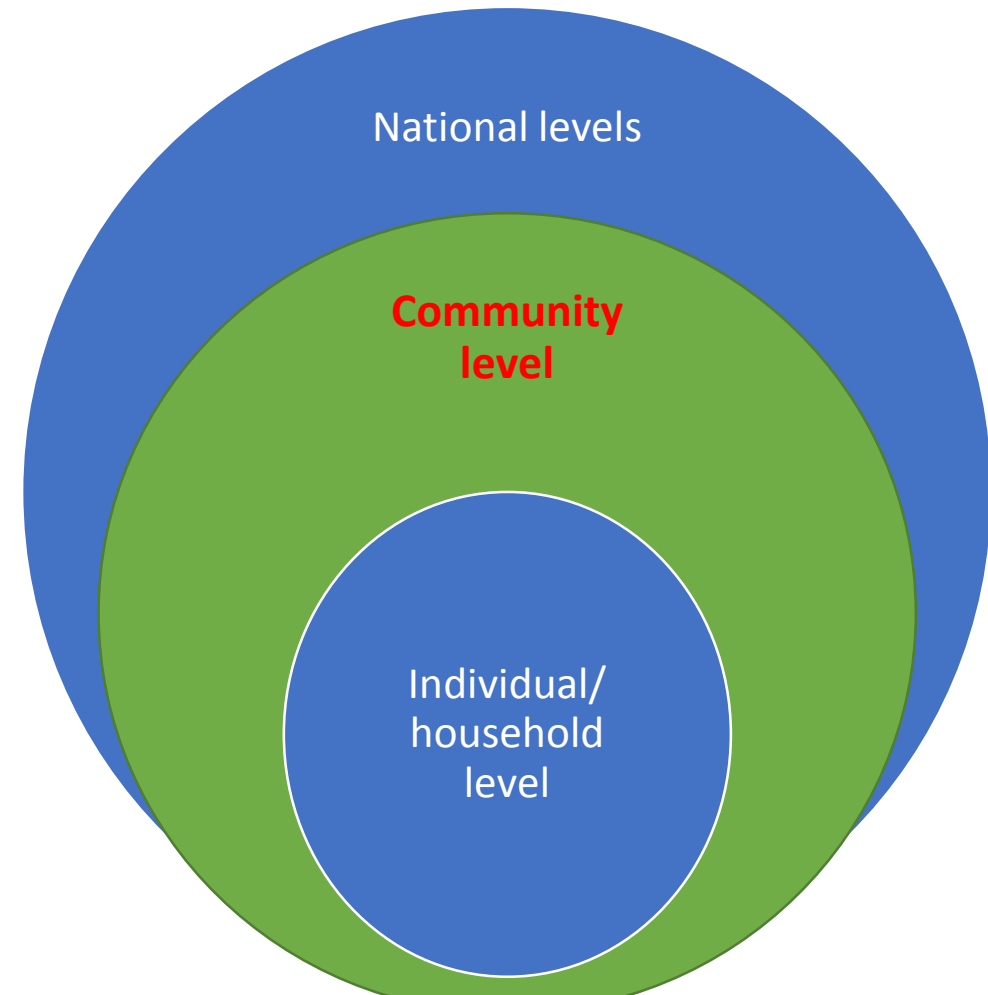
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Food security

All people, at all times, have physical and economic access to sufficient safe and nutritious food for an active and healthy life ([World Food Summit, 1996](#))



All dimensions of food security must be fulfilled **simultaneously**

Food security as a social determinant of health and development



End hunger, achieve food security and improved nutrition and promote sustainable agriculture



Food and Agriculture Organization of the United Nations

As many as

828
MILLION

empty plates
in 2021



The one in six people worldwide

Consumers and food industries discard it in great quantities.

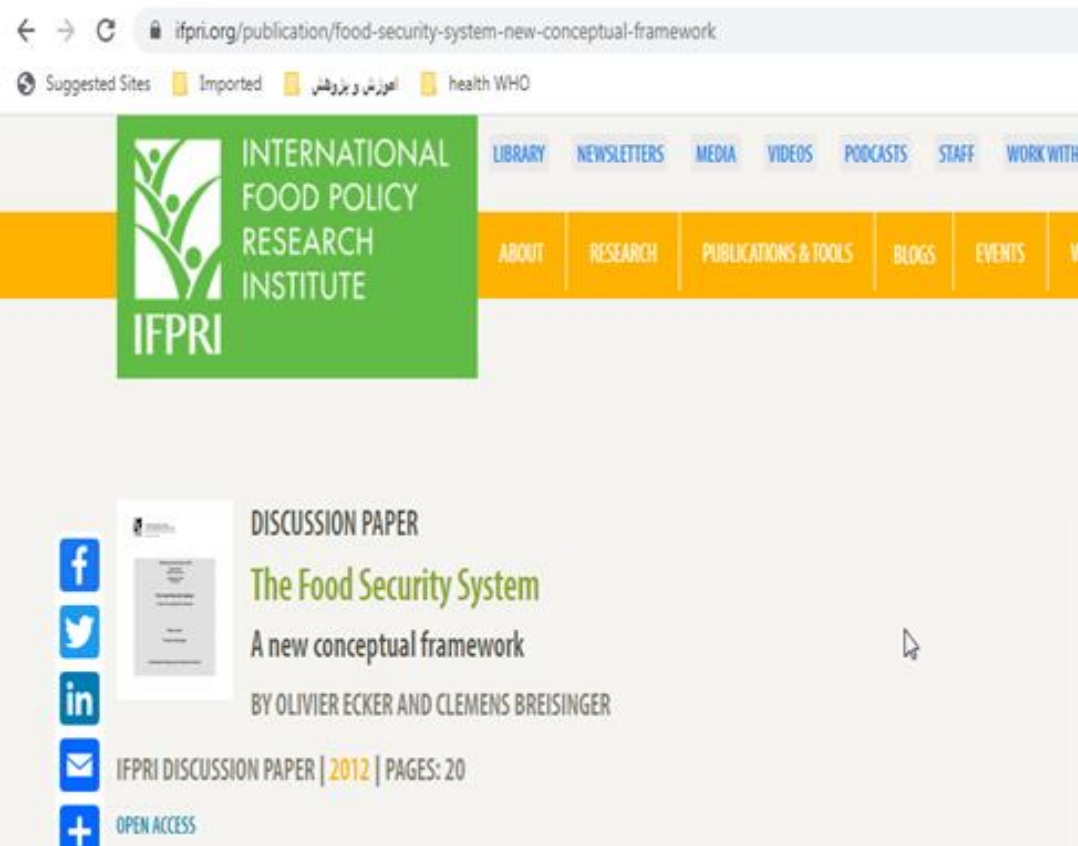
Cause of food insecurity?

Problem definition: Why and how?  **Solution generation : what and how?**

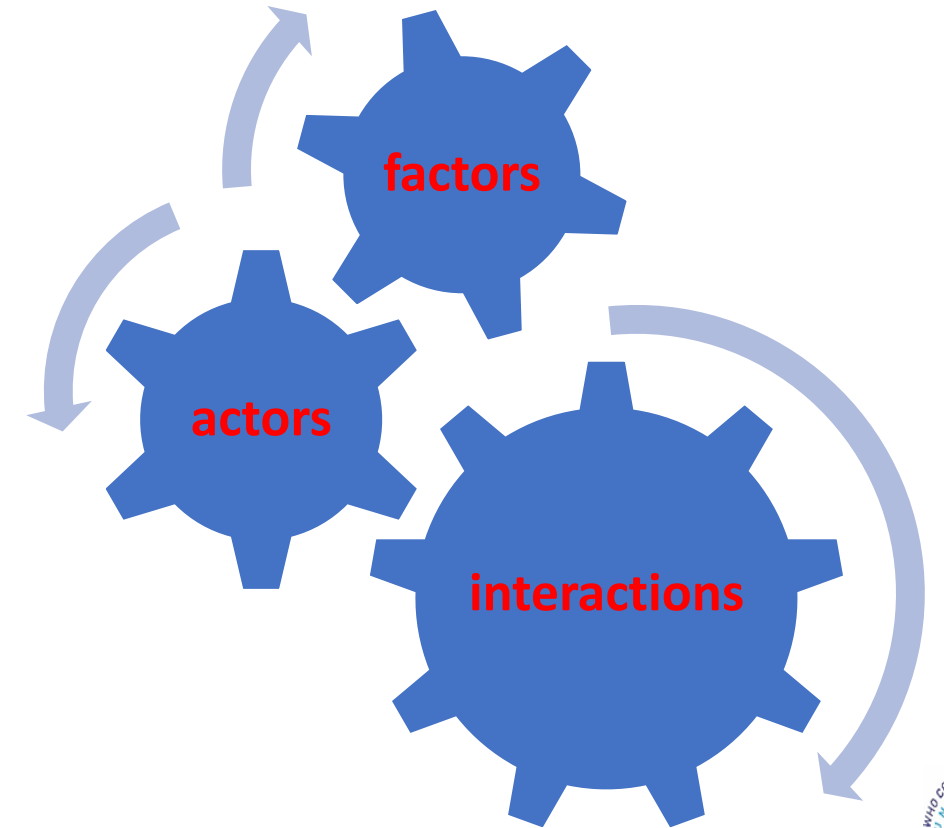
Elements of definition	Different definition approach	Different Solution orientation
Definition approach	A biological issue	Improving nutrition status of individuals
	A social issue	Improving food systems
Number and interrelation of causes	few key isolated determinants/ causes	Changing few elements independently
	Interconnected multiple multilevel determinants	Changing many causes simultaneously
Process	Simple linear	Simplistic approach
	Complex non linear	Complexity-informed approach

Redefining food insecurity by a System framework

An emerging product of complex food system with diverse interdependent components , complex problem with several root causes



The screenshot shows the IFPRI website interface. At the top, there is a navigation bar with the IFPRI logo and the text 'INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE'. Below this, there are several menu items: 'LIBRARY', 'NEWSLETTERS', 'MEDIA', 'VIDEOS', 'PODCASTS', 'STAFF', and 'WORK WITH'. A secondary navigation bar contains 'ABOUT', 'RESEARCH', 'PUBLICATIONS & TOOLS', 'BLOGS', 'EVENTS', and 'WORK WITH'. The main content area features a 'DISCUSSION PAPER' titled 'The Food Security System: A new conceptual framework' by Olivier Ecker and Clemens Breisinger. The paper is dated 2012 and is 20 pages long. It is marked as 'OPEN ACCESS'. Social media icons for Facebook, Twitter, LinkedIn, and Email are visible on the left side of the page.





Constructs of food security as a system

• **Actors:** **people** and organizations

-People: food producers, processors, distributor/transporters, retailers, consumers and waste handlers and **community members** , food decision makers

And

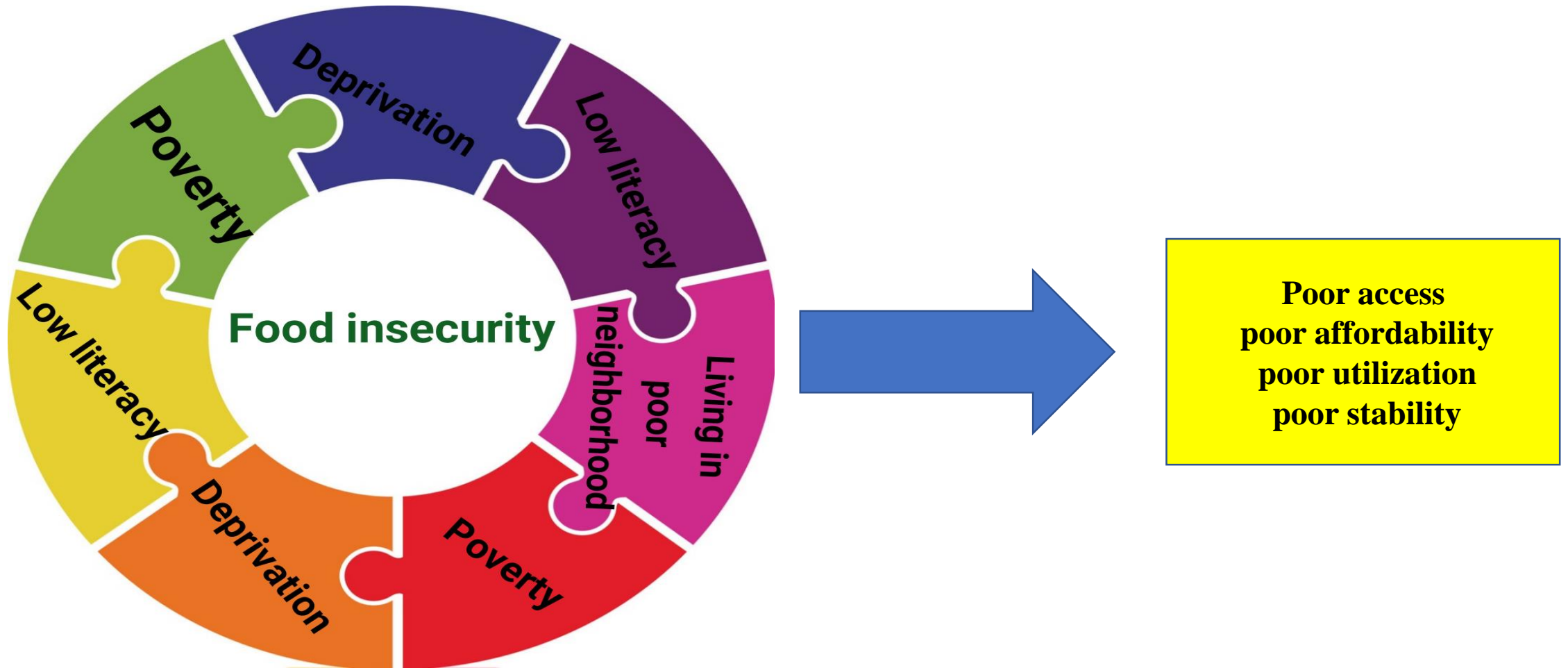
their attributes (knowledge, skills, literacy, lived experience, cultures, education, family structure) and **their actions**

-Organizations: food related businesses, corporates, organizations, NGOs....

• **Factors:** natural environment, built food environment , Policies, Politics, infrastructures, services, time, economic factors, social factors, governance and its sustainability, the growing human population...

• **Interrelations and interactions** within and between factors and

Key networked causes of food insecurity



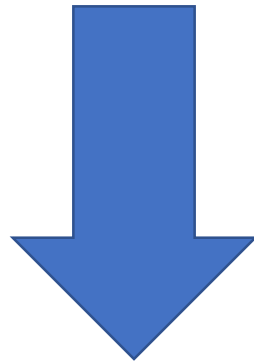


Where are we with advance understanding of food insecurity?

- ✓ More comprehensive, holistic or systems thinking based understanding
- ✓ A multifactorial complex social phenomenon
- ✓ With **networked causes**
- ✓ Entangled with **poverty** and **deprivation**, low **literacy**, living in **poor neighborhood**

Where are we with solution lessons?

- No single easy, fast, or golden bullet solution
- Needs combination of science, policy and **actions** (education, policy, services and support)
- Actions at international ,national, but also at **community level**



Emerging Bottom-up community-based food systems approaches

Typology of community food security interventions

1. Agricultural interventions to improve availability by food growing, agricultural productivity and sustainability and food quality

- ✓ establishing community level gardens
- ✓ food production or harvest support: such as provision of seeds and tools
- ✓ preparing and improving soil and seeds
- ✓ improve agricultural productivity by education, utilizing traditional knowledge and skills, agro ecological, sustainable farming practices

✓ 2. Nutritional interventions to improve food access and utilization

- ✓ Food provision (free meal, shared meal, food vouchers, food sharing and Social cooking and or/eating (Community kitchens, Cooking club, Intergenerational lunch, Social eating event)
- ✓ food and nutrition literacy promotion such as Store and shopping programs

3. Income generation intervention or investment support programs to improve affordability of farmers and community members

- ✓ Market and marketing programs such as farmers' markets,
- ✓ Community-supported agriculture (CSA model) or crop sharing
- ✓ improving household farming income
- ✓ improving household income
- ✓ Digital networking and marketing (applications, market information)

Settings for community level food security actions

- Homes
- Streets
- Community spaces, public land
- Slums
- Rural, inner city
- Schools
- Worksites
- Churches
- Stores
- Care homes
- Farms

Aspects of food security	Aspects of addressing food insecurity
Food availability	Food growing
Food access	Local food market
Food affordability	Income generation Lowering food price Food supplements Food sharing/swaps
Food consumption	Food and nutrition education
Food sustainability	Resilient agriculture, stable communities

All requires training, tools, policy and support



Different effects/and range of food security interventions

Temporary relief



sustainable solutions

outputs: the immediate effect

such as provision of food, food-related services and interventions, improving their quality

Address one



multiple dimensions

Outcome: the short/ medium-term effects

such as greater utilization of nutrition programs and services, strengthened community capacities

Disempowering/weakening



empowering targets

Impact: long term effects

such as improved food security status based on Food Security Performance Indicators like underweight, hunger





Food security improvement and community

- Food security improvement **for** the community
- Food security improvement **through** the community
- Food security improvement **with** the community
- Food security improvement **by the community**: strengthening community actions by Community based food security interventions

Community and tackling food insecurity:

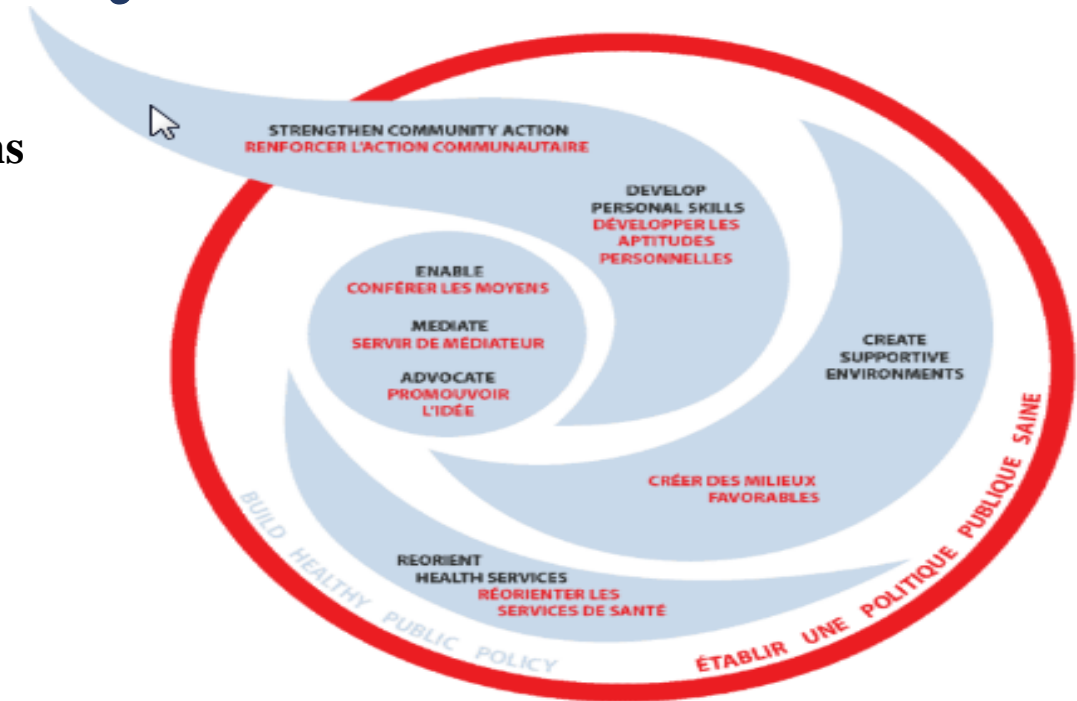
Two different approaches


	Traditional community food programs	Community based food programs
Role of community	a passive target (receiver of education or food services)	an active partner
Perception of community	Community as a problem (food insecure, vulnerable and malnourished populations)	as a solution (provider of knowledge, experiences, resources, solutions)
Experts responsibility	Increasing the coverage of service utilization	Strengthening community action in fighting food insecurity
Example of strategies	For community: supplementary feeding, food aid Community kitchens Food cooking and eating	By community: Empowerment, skill education, participatory planning, implementation or evaluation, food growing, food sharing Initiative
Action approach	Top-down expert driven	Bottom-up Community driven development

Strengthening community actions for food security

Community-based or community participatory food security programs

Needs mindset and practice shift:



problems of community  assets of community members and local natural, and socio-economic resources

informing or utilization of services  power sharing with people and their participation in all stages of the program

Empowering community to take action!

Why fostering active community participation?

- Ethics and morality
- **More success** of the interventions: Improved community food system by Improving more aspects of food security simultaneously
- More socio-economic development
- Improved community food and nutrition literacy and behavior
- **More sustainability**
- Equity-oriented (Hearing and addressing marginalized voices)
- Resilience and adaptation to any cause of instability and assure their own food security in the future



Mobilizing and organizing Community assets for food security



- **Natural local food resources:**



Rosa Canina, in Persian Nastaran

- **Culture:** Food and or community work related traditions, ceremonies...
- **Religion:** Religious beliefs and practices

One is not my follower if he sleeps full while his neighbor sleeps hungry (a quote by Prophet Mohammad)

- **Women and elderlies**
- **Co-funding, co-investment, Crowd funding, shared ownership**

Urban Agriculture and food security

- Sustainable cities
- Green cities
- Family/home gardening
- Street gardening
- Community gardening
- School gardening
- Rural community Garden,
- Gardening the urban public spaces
- Urban collective or individual gardening

Growing for Good: A Community Garden Connections Manual



A manual with best practices and tips for garden leaders managing growing spaces designed to increase food security, offer community education through volunteer opportunities, and build community capacity to grow food.

Community Garden Connections:
<http://www.antiochne.edu/cgc/>

School Gardens Manual



Guide on How to Plan, Establish &
Maintain a School Garden

Second Edition, 2013
Banjul, The Gambia



With contributions from:
SAFMU, NaNA, the Horticultural Department of the MoA & FIOH



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Home Gardening: Backyards or Roofs

homes, residential/commercial or industrial buildings



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A review of community –based food security interventions on food security

frontiers | Frontiers in Nutrition | Sections | Articles | Research Topics | Editorial Board | A

SYSTEMATIC REVIEW article

Front. Nutr., 19 December 2022
Sec. Nutritional Epidemiology
Volume 9 - 2022 | <https://doi.org/10.3389/fnut.2022.1028394>

Community-based participatory interventions to improve food security: A systematic review

Azam Doustmohammadian^{1†}, Fatemeh Mohammadi-Nasrabadi^{2†},
Nastaran Keshavarz-Mohammadi^{3†}, Melika Hajjar⁴, Sepideh Alibeyk⁵ and
Maryam Hajjigholam-Saryazdi⁵

1. What were existing interventions on food security and/or its dimensions
2. What are the characteristics?
3. What are the characteristics of effective interventions?

Target indicators in all dimensions

(Doustmohammadian et al, 2022)

Community-based participatory (CBP) interventions to improve food security and its dimensions, including (34–38).

1) Food availability, through:

- Infrastructure development (e.g., wastage control, marketing strategies).
- Agriculture and food security programs (e.g., monetary support for farmers, land assignment-security).
- Food security capacity-building in agriculture and/or other food production).
- Local vegetable gardening.
- Policies and trade regulations.

2) Food accessibility, through:

- Income-generation cash transfer schemes and opportunities to improve buying power;
- Policies, vouchers, discounts, and subsidies addressing food prices;
- Social environment and social support interventions, including social support from family, neighbors, or government.

Food utilization, through:

- Food literacy improvement regarding knowledge empowerment and skills building (e.g., Nutrition Education and program (37), interventions related to healthy food selections, cultural aspects that influence food utilization, choices within the household).
- Knowledge and skill-based education about food safety.

3) Food stability, through:

- Improved production and productivity of agriculture in a sustainable method, including more comprehensive, modern inputs (e.g., seed, water, fertilizers, and credit) by smallholder farmers, including women farmers (73)



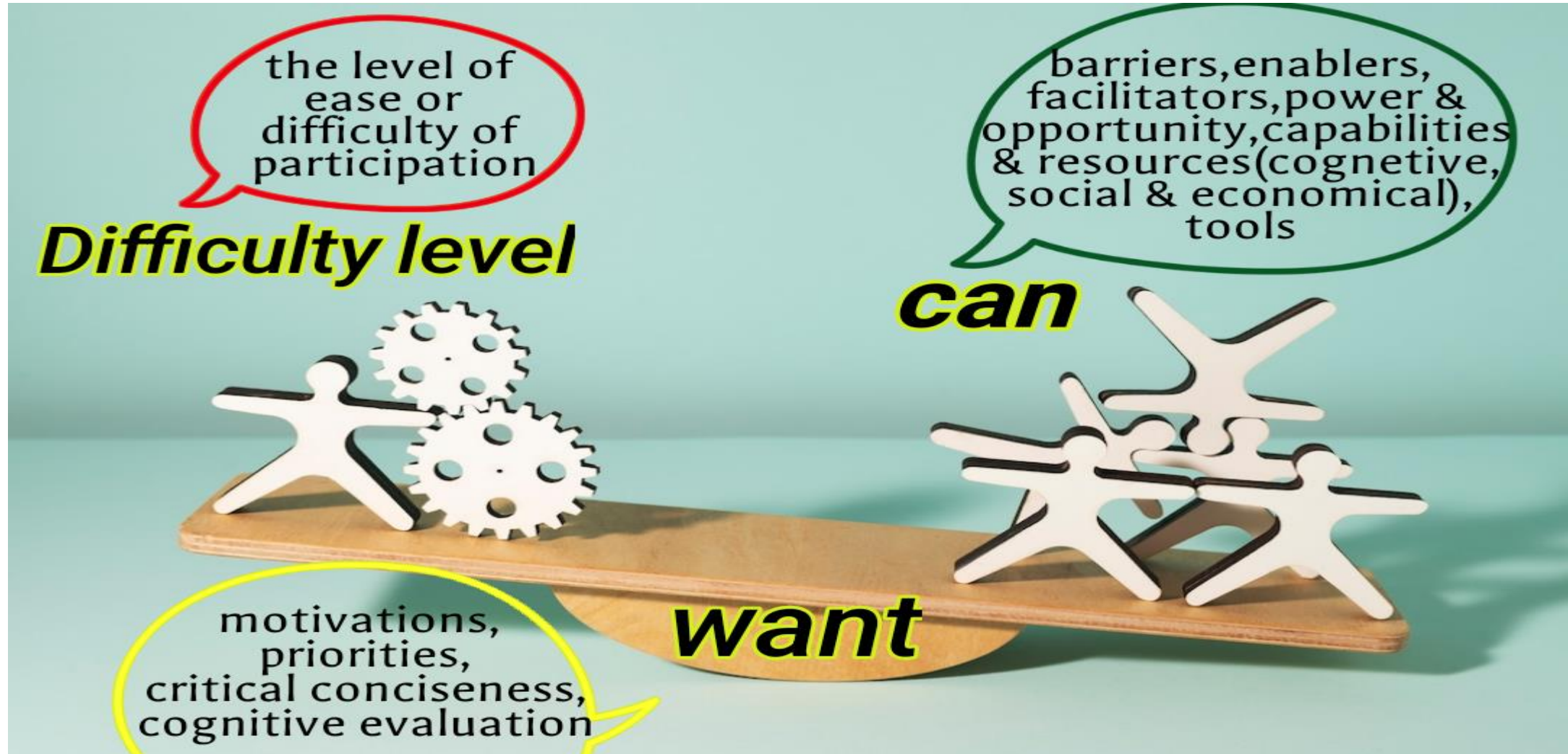
Findings

(Doustmohammadian et al, 2022)



- Limited studies (Only 12 qualified community-based interventions)
- Intervention type (a range of agricultural, nutritional interventions such as education tools and services, skills development, income generation, free resources)
- However, nutritional interventions were not effective for some access components such as mean adequacy ratio, fruit and vegetable intake, and nutrition environment of the stores.
- Intervention settings: (50%) at the household level, (33.3%) at the individual level , (33.3%) at the local store setting, and one included both household and individual level
- Often evaluated only output and rarely outcome, only two study (agricultural interventions)evaluated food security as impact.(positive impact)
- Community partners: universities, *markets, community health workers, on-profit organization*, local farmers , community groups and leaders, volunteers and local agencies
- In 2 of 12 study, community had **no participation**, others involved community in translating research findings into policy-changing, managing, and sustaining the program or interventions (**not in planning**)
- **None** of the studies mentioned the challenges of implementing the interventions

Influencing factors on community actions



All, could be improved b combination of education, mentoring, support, resources

Different community participation contribution

- As NGOs and or Charities (often as providers or distributors of food)
- As community volunteer members (often as providers or distributors of food for the poor, homeless, and children, donations)
- As local education and research organizations (empowerment tools and practices especially for women and)
- As Entrepreneurs, corporates (healthy, affordable, sustainable food systems including training, production, preparation, distribution, marketing and consumption of food through innovative practices, and technology.)
- New investment and market approaches Shared funding of community food projects,



Community based food system

as a parallel alternative to the industrial food system

Comparative advantages: offer a valuable opportunity to

1. address the networked causes of food insecurity by improving their incomes, their livelihoods and their food and nutrition literacy
2. produce food in a healthy, environmentally sound and culturally appropriate and economically affordable way
3. Better use of local nature for health (**natural local foods**, mental health, social health)

Comparative disadvantages:

time consuming, requires efforts for establishment (new mindset, beliefs, approaches, practices and policies attitude, conflict of interest for the food industry)

For stronger community action to address food insecurity

1. Community **needs capacities to be empowered for action**

Such as cognitive, skills, economic, tools, power, support, networks...) to produce sustainable good quality food, generate more income, access to foods that can not produce, and consume it in healthy

2. We as health experts need to collaborate with **agriculture, marketing and technology experts** more than ever to achieve more success

3. We all need to know better **local natural food** resources, local food related **culture** and practices

4. Be careful about **disempowering/demoralizing** food security interventions



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Thanks! And Any question?

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Let's work together to reaching the top of the food security mountain!