

Food Security in Impact Assessment



IAIA Webinar
June 20, 2023

Welcome everyone!

Project Partners

- *Dr. Jill Blakley, Canada*
- *Vice Dean Faculty Relations & Professor University of Saskatchewan*



- *Dr. Juan Carlos Tejeda-Gonzalez, Mexico*
- *IAIA's AFF Section Co-Chair*
- *Full time teacher and researcher University of Colima*



- *Veronica Rohr, MA, Canada*
- *PhD Candidate University of Saskatchewan*



Project Purpose

2021 IAIA Innovation Grant

Partnership between Canada and Mexico

Based on award winning thesis exploring the intersection of food security and impact assessment.

"To provide IAIA members with guidance about how to incorporate food security considerations in regional-scale IA."

Project Objectives

- Help the IAIA demonstrate leadership in the area of food security; contribute to the IAIA's vision of a "just and sustainable world for people and the environment"; benefit vulnerable populations (especially Indigenous).
- Assist those in countries suffering from regional food insecurity caused by industrial development pressure, climate change or other factors, by providing specific guidance on how to incorporate food security assessment in IA.
- Advance the food security assessment agenda and conversation within the impact assessment community, as has previously been done within human rights assessments, and life cycle assessments.

Webinar Itinerary

1. FasTips Overview
2. Primer Overview
3. Questions and Discussion

FASTIPS

No. 24 | February 2023

Integrating Food Security into Impact
Assessment

A Primer

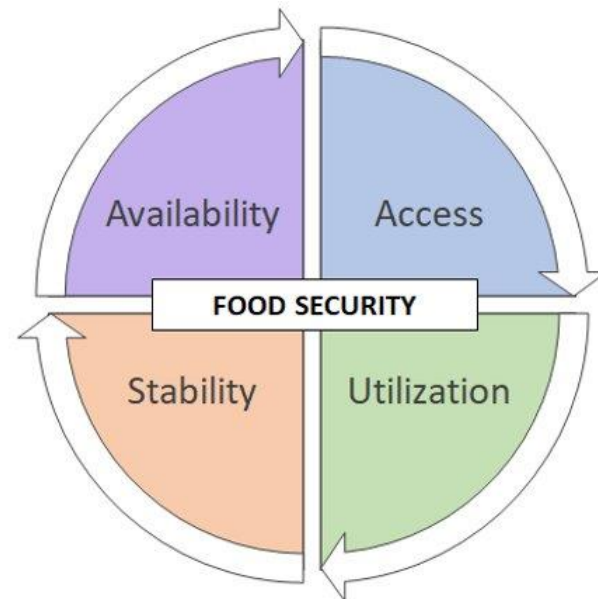




Food Security and IA: A Crucial Connection

What is Food Security?

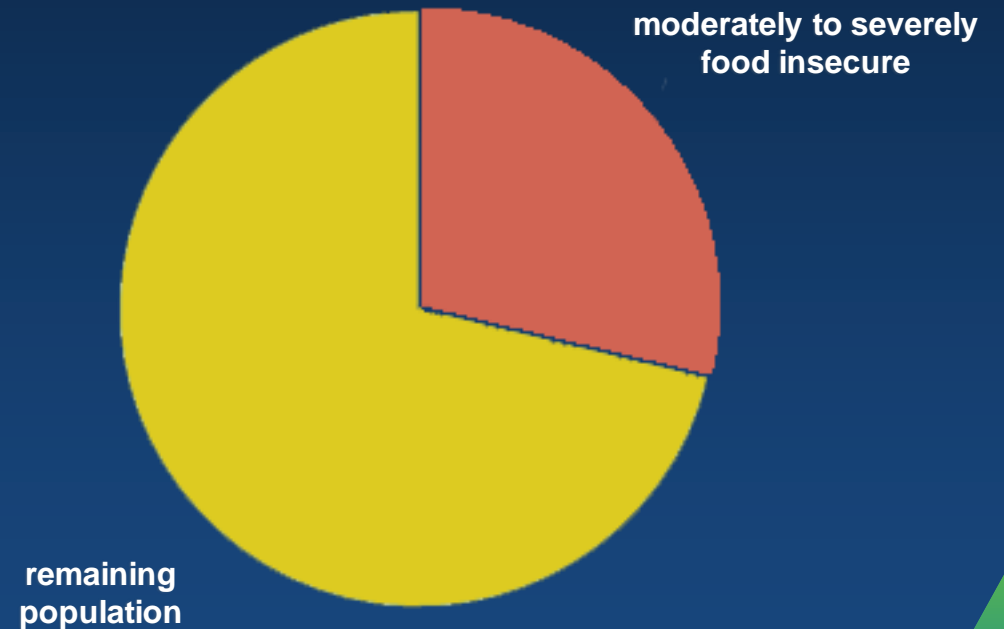
"all people, at all times, have physical, economic and social access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life"



Global Food Insecurity: Current Situation

- Food Insecurity: A Global Issue
 - Moderate to severe: over 2.3 billion affected (Almost 1 in 3)
 - Particularly pronounced in certain regions
- Importance of Food Security
 - Essential for a healthy, just, and sustainable future
- Impacts of Food Insecurity
 - Individual health: physical, mental, and psycho-social
 - High healthcare costs
 - Worsens social inequalities

Global Food Insecurity



Sustainable Development Goals (SDGs) & Food Security

- Food security is central to the global development agenda
 - Sustainable Development Goal (SDG) #2: “achieve food security”



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

Why Connect IA and Food Security?

- IA positioned to play a crucial role in addressing global food insecurity
 - Food security is threatened by many industrial developments that trigger IA
- Food security in IA: a natural fit
- Aligns with established IA best practices:
 - Pursuing sustainability: a core objective of IA
 - Public health as a consideration
 - Coordination with internationally recognized development priorities



IAIA FasTips: Food Security in IA



Assessing food security, as a result of economic development or displacement and resettlement, serves vulnerable populations, often indigenous, underscoring their rights to survival, dignity, and well-being.

AUTHORS

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Food Security in Impact Assessment

Food security is essential to achieving a just and sustainable world. Unfortunately, the number of people living in a state of food insecurity has been growing steadily over the last few decades.

This increase continues despite global efforts to address the problem, including the prioritization of food security in the United Nations' sustainable development goals (SDGs). According to the Food and Agriculture Organization of the United Nations' (FAO) *State of Food Security and Nutrition in the World 2022* report, moderate or severe food insecurity affecting the world's population has increased, on average, almost one percent per year, reaching nearly 30 percent in 2021.¹ Today, the FAO estimates 2.3 billion people are experiencing moderate to severe levels of food insecurity. Impact Assessment (IA), especially strategic applications of IA, is well-suited to integrate food security.

WHAT IS FOOD SECURITY?

Food security is a situation in which "all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life."² Since the 1970s, food security has become widely known as including four equally important pillars: availability (adequate supply), access (physical, financial and social access to preferred food), utilization (nutritious, safe, culturally appropriate food), and stability (having the resilience and security to maintain access, availability and utilization).³ All four pillars must be addressed to achieve food security.

Food security manifests differently across regions and cultures. The specific factors that contribute to food security in one region are often very different from those in another. Effective food security assessment must, therefore, consider the specific regions, peoples, cultures, and socio-economic histories, in consultation with people from the region.

FOOD SECURITY IN IMPACT ASSESSMENT

Impact assessment processes may be enhanced through food security considerations. Incorporating food security into IA processes is especially important when proposed developments and associated changes in environmental goods and services, including land loss, could weaken a community's food security situation (i.e., intensify food insecurity). Many forms of IA can address food security, including Social and Economic Impact Assessment, Health Impact Assessment and, ideally, Strategic Environmental Assessment. Food security can be explicitly identified as a valued component in project IA, but when it is, the IA process should evaluate food security in a fulsome "four-pillar" manner, avoiding piecemeal applications.

1. Food and Agriculture Organization (FAO), International Fund for Agricultural Development (IFAD), UNICEF, World Food Programme (WFP), & World Health Organization (WHO). (2022). *The state of food security and nutrition in the world 2022*. [fao.org/documents/card/en/c/cc0639en](https://www.fao.org/documents/card/en/c/cc0639en)

2. Food and Agriculture Organization (FAO). (1996). Rome Declaration on World Food Security and world food summit plan of action. [fao.org/3/w/3613e/w/3613e00.htm](https://www.fao.org/3/w/3613e/w/3613e00.htm)

3. (a) Peng, W., & Berry, E. M. (2019). The concept of food security. *Encyclopedia of food security and sustainability*, 2(1), 1-7.; (b) Coates, J. (2013). Build it back better: Deconstructing food security for improved measurement and action. *Global Food Security*, 2(3), 188-194. (c) Maxwell, S. (1996). Food security: A post-modern perspective. *Food Policy*, 21(2), 155-170.

FIVE IMPORTANT THINGS TO KNOW

1. Food security is linked to psychological and socio-cultural health: absence of it can lead to cultural disintegration, severe stress, and undernourishment which may further undermine education levels, mortality rates, etc.
2. Food security is easily misdiagnosed: consider and address all four pillars (i.e., availability, access, utilization, stability) within an IA process. If one pillar is forgotten, food insecurity could intensify.
3. Assessing food security is challenging due to its complexity. Food security policy is often dealt with in disciplinary silos (agriculture, trade, nutrition, environment, and so on). An interdisciplinary approach that emphasizes collaboration is therefore strongly recommended.
4. The IA must also respect context-specific food systems, particularly in developing countries, densely populated areas and politically unstable and war-affected regions or countries.
5. Food security is an SDGs key feature. Strengthen sustainability-oriented decision-making by embedding food security in municipal, regional and national-scale strategic assessment tiered to inform project-level IA.

Do you have a suggestion or a request for a FastTip on a different topic?
Contact Maria Partidário (mpartidario@gmail.com), FastTips Series Editor.
FastTips Task Force: Maria Partidário (Chair), Jos Arts, Charlotte Bingham, Peter Croal, Richard Fuggle, Anita Mosby, Asha Rajivanshi.

FIVE IMPORTANT THINGS TO DO

1. Gathering indigenous local knowledge perspectives on food security is critical, as is knowledge of local technology and traditional farming practices: use this information to inform all stages of IA. Especially, consult marginalized and vulnerable populations reliant on the development region for food security.
2. Study the regional or local food security situation, including socio-political settings, history of development, and social barriers contributing to food insecurity. In most cases, baseline studies will not reveal food insecurity.
3. Include food security indicators as valued components in the IA when the project or development study area is identified as important to the food security of affected communities.
4. Incorporate a resilience assessment of affected communities for each of the four food security pillars (as referred above). This assessment should focus on the communities' food vulnerabilities before and after disasters.
5. Projects that do not demonstrate improvements or result in net benefits to the regional food security system, or at least demonstrate no significant adverse effects on it, should not be authorized.

Want to know more?
www.iaia.org > Resources > Publications > FastTips

FURTHER READING

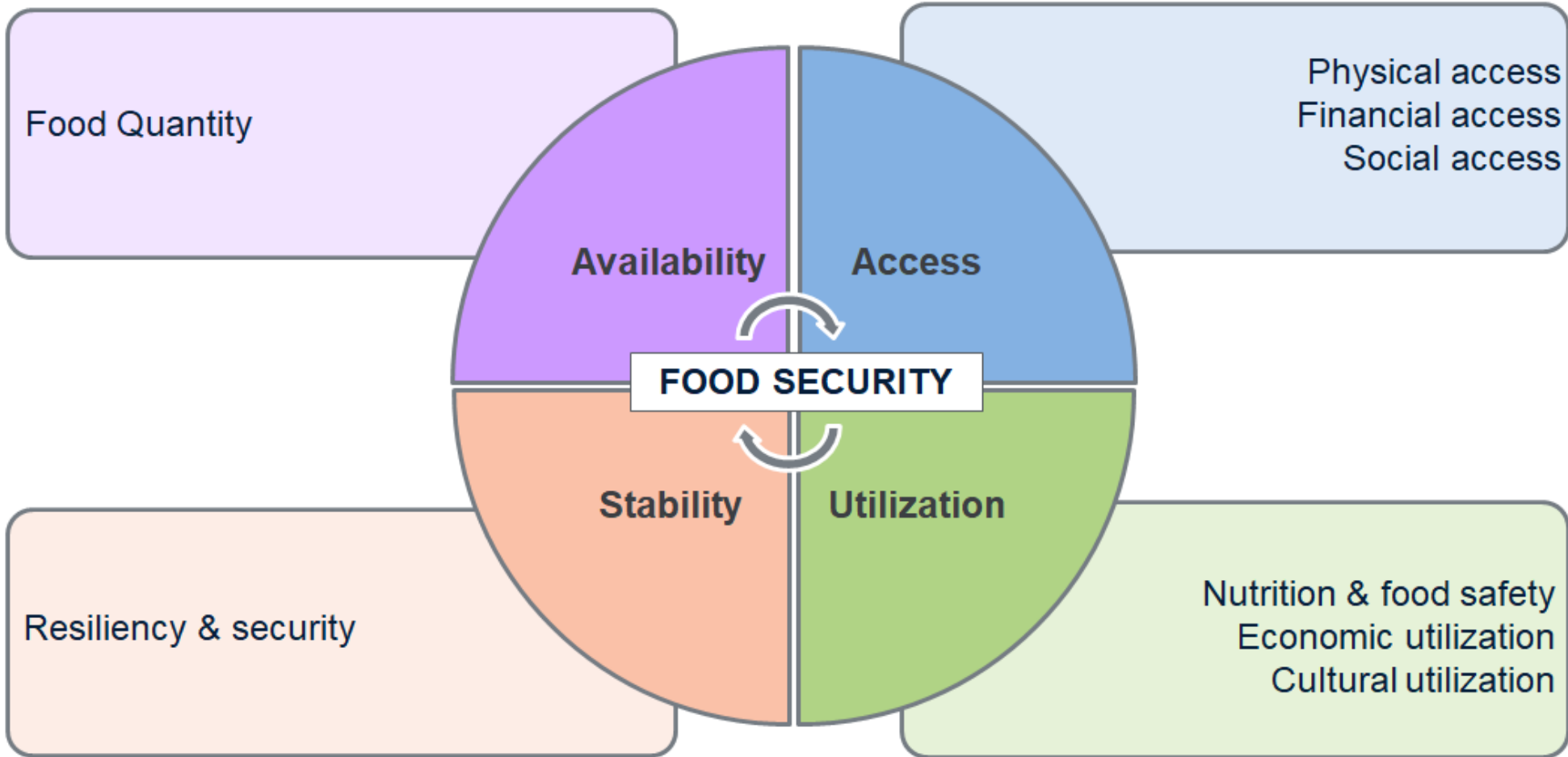
- Baquedano, F., Christensen, C., Ajewole, K. & Beckman, J. (2020), *International Food Security Assessment, 2020-30*, GFA-31, U.S. Department of Agriculture, Economic Research Service.
- Coates, J. (2013), Build it back better: Deconstructing food security for improved measurement and action, *Global Food Security*, 2(3), 188-194.
- Ericksen, P. J. (2008), Conceptualizing food systems for global environmental change research, *Global Environmental Change*, 18(1), 234-245.
- Hendriks, S. L. (2015), The food security continuum: a novel tool for understanding food insecurity as a range of experiences, *Food Security*, 7(3), 609-619.
- Maxwell, S. (1996), Food security: a post-modern perspective, *Food Policy*, 21(2), 155-170.
- Reis, K., Desha, C., Campbell, S. & Liddy, P. (2022), Working through Disaster Risk Management to Support Regional Food Resilience: A Case Study in North-Eastern Australia, *Sustainability*, 14, 2466.
- Rohr, V., Blakley, J. & Loring, P. (2021) A framework to assess food security in regional strategic environmental assessment, *Environmental Impact Assessment Review*, 91, 106674.



Integrating Food Security Into Impact Assessment: A Primer

DRAFT
In review, June 2023

The Four Pillars of Food Security

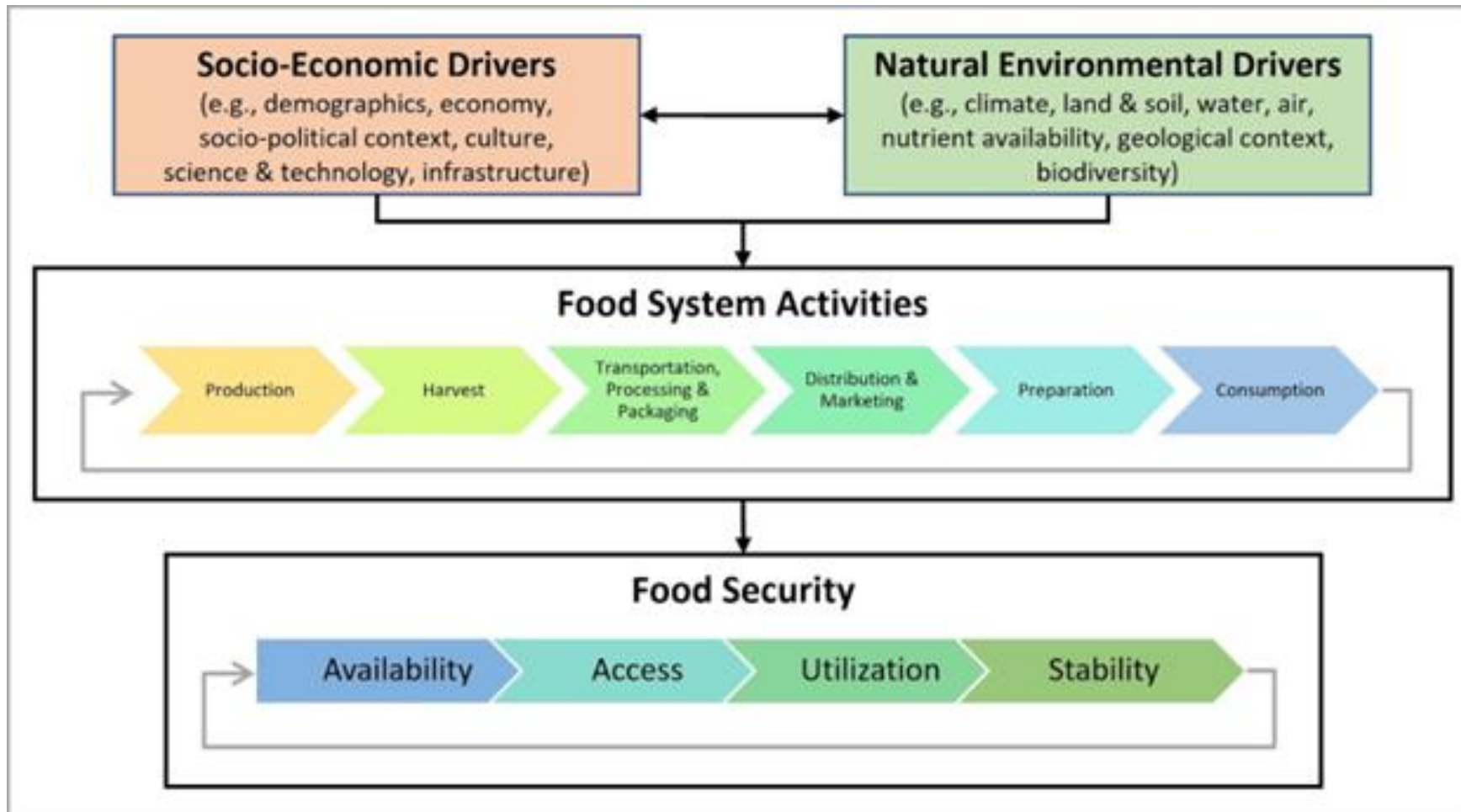


Misconceptions in Food Security

- Food security in policy is often misunderstood
 - Lacking holistic four-pillar treatment
 - Potential misdiagnosis and intervention



Understanding Food Systems



Food Security in Developing Countries

- Latin America and the Caribbean, Africa and Asia have issues with both rates of malnutrition and obesity-overweight.
- Climate change will affect all four dimensions of food security.



- Other major issues affecting food security in developing countries: wars, urbanization and aging.
- Developing countries are most vulnerable to environmental effects of development activities.
- Measuring food security across different scales was too complex. It has to be done on smaller scales (regional).



State of Research: Food Security in IA

- The topic of food security is nascent in IA discourse and practice
- Not yet a prominent aspect of IA research and practice
- Often focused on single aspects of food security
- It is rare to find IA research that treats food security in a four-pillar fashion
- Some good examples of holistic treatment of food security do exist



State of Research: Food Security in HIA

- Food security and food-related issues are more commonly considered in HIA than other forms of IA
- Food-related issues are routinely considered
- Four-pillar approach remains rare



State of Research: Food Security in SEA

- Food security is ideally examined in programmatic, regional-scale SEA.
- Food systems are characteristically regional and impacts often extend beyond local spatial and temporal scales.
- First of its kind, a 2021 study explored consideration of food security in Canadian SEA practice, based on 17 SEA reports for off-shore petroleum exploration.
- Food security systems must be defined for the spatial region examined and local communities. Care should be taken to define which elements of food security systems are most important by region and community, noting regional differences.



State of Research: Food Security in IA in Developing Countries

- Kenya (2011) - recommendations for integrating food security with country's IA process.
- Some other examples: Bolivia (2019), Burkina Faso (2012), Cambodia (2017), Rwanda (2012), and Swaziland (2016).
- SEA is not systematically handled – most of examples of using IA tools related to intervention of foreign organizations.
- Developing countries must develop food security plans within an IA framework (ideally SEA)





How to Integrate Food Security in IA Practice

Scoping Phase

- **Guage** the importance of the study region to the food security of nearby communities
 - Through **characterization of the regional food system**
- **Decide** whether food security should be included as a valued component
- **Characterize** the regional food system:
 - Food system activities, drivers, and processes
 - Include temporal, seasonal, environmental and social factors
 - Four pillars of food security as a constant reference for data collection

Useful Indicators to Evaluate (examples)

Availability

- Culturally and socially important food species
- Foods produced or harvested in the region

Access

- (Physical Access) Geographical areas of importance for food harvest/production
- (Financial Access) Community economic profile
- (Social Access) Socio-cultural factors (laws, institutions, values, norms, etc.) that influence food acquisition

Utilization

- (Nutrition & Safety) Human health profile (prevalence of food-related diseases)
- (Economic Utilization) Regional food system components that contribute to profit and livelihood (i.e., processing, sales, etc.)
- (Cultural Utilization) Traditional or cultural diets or culinary practices involving regional foods

Stability

- Institutional supports

Helpful Hints in Scoping

- Seek existing research and databases
- Seek new information - Public participation is essential in early stages
- Current situation likely not food secure
 - Baseline should be defined in terms of food security versus current scenario or context



Impact Assessment Phase

- Any good practice IA considers both direct and indirect impacts, short-term and long-term implications, and cumulative effects.
- Evaluate potential impacts of proposed development program(s) or project(s) on the regional food system and selected indicators of food security, and implications for affected populations.
- IA methodologies and method selection must be 'fit-for-purpose'

When evaluating significance of impacts, the gold standard is 'food security', NOT marginal improvement to the diminished baseline state

Impact Assessment Phase

- **Significance determination** is a complex process that requires a deep understanding of the local context, including the socio-economic conditions, cultural practices, and health situation of the community.
- It also involves considerations of equity, as certain groups may be disproportionately affected by the impacts.
- Also important in any community's regional food system is evaluating its role as an importing or exporting area for food worldwide.
 - Recent examples include the Russia-Ukraine war and its impact on world food security, as both countries have a significant role in the production and distribution of wheat, corn, sunflower oil, and fertilizers; another case is the increase in the price of olive oil due to lower production, a result of intense drought in producing countries.

Impact Assessment Phase (Catfish example)

- To illustrate, consider a scenario where a certain species of catfish plays a critical role in all activities within a community's regional food system (harvest, transportation, processing, distribution, preparation, use and consumption) and evaluating impacts to all four pillars of food security.



Mitigation & Follow-up Phase

Conform to IA best practices:

- Context-Sensitive Mitigation: Uniquely tailored, public-informed strategies
- Knowledge-Based Approach: Informed by diverse, localized knowledge
- Community Engagement: Ongoing involvement and adjustments
- Adaptive Management: Proactive, feedback-responsive strategies



Mitigation & Follow-up Phase

Additional considerations:

- Not only for mitigating impacts, but also monitoring changes to food security system features
- Targeted training and capacity building programs could help enhance resilience to potential food system disruptions
- Consider "food security impact offsets": compensate for potential adverse impacts in the project area





Next Steps in Research & Practice

Progressing Research

Identify and Optimizing Best Practices



Policy and Regulation Research



What Can Enhance Efficacy of Food Security in IA?



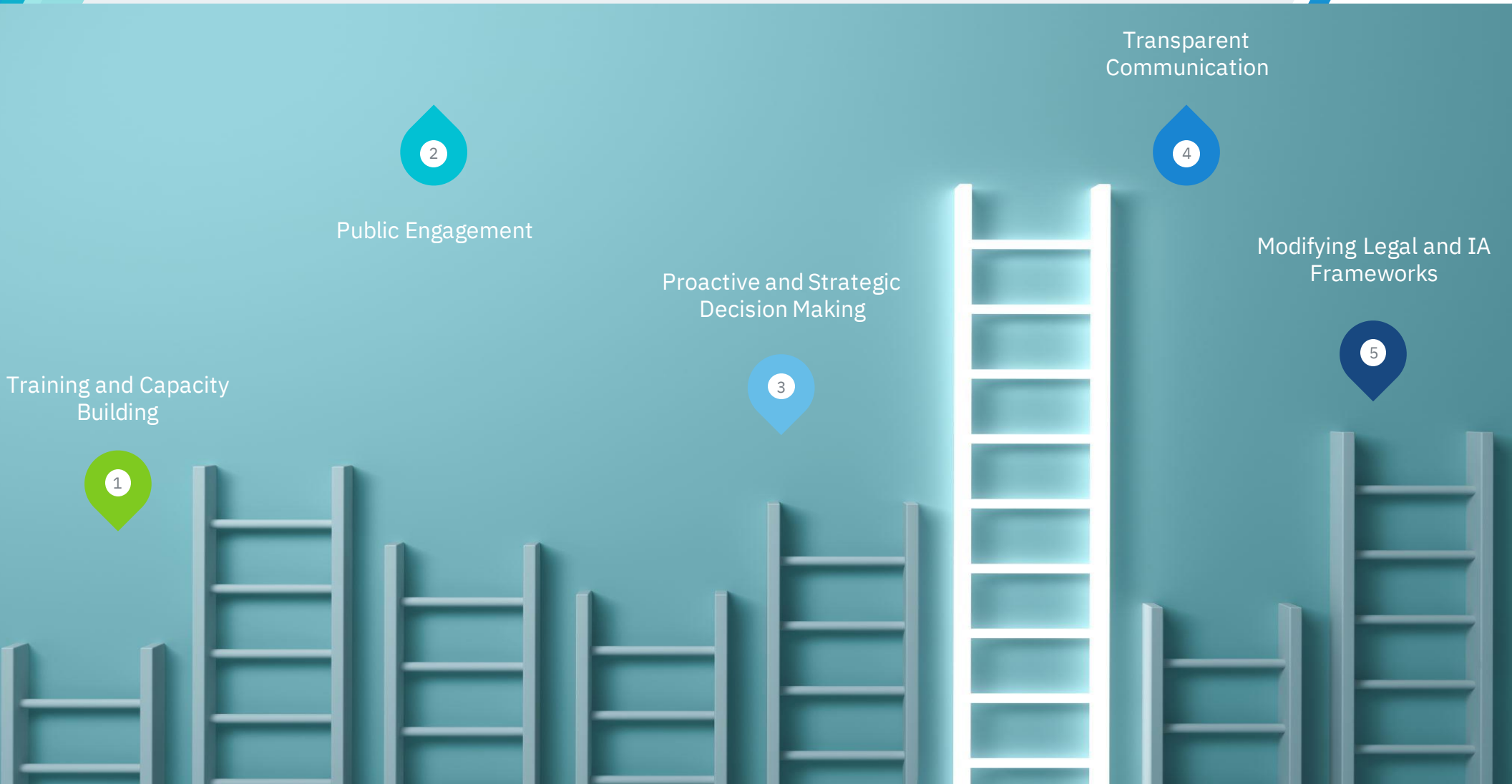
Case Studies and Comparative Analysis



Identify Key Regions for Global Food Security



Progressing Practice



Additional Resources (examples)

■ Food Security:

- Bozsik, N., Cubillos, T., Stalbek, B., Vasa, L., & Magda, R. (2022). Food security management in developing countries: Influence of economic factors on their food availability and access. *PLoS one*, 17(7), e0271696. <https://doi.org/10.1371/journal.pone.0271696>
- Ericksen, P. (2008). Conceptualizing food systems for global environmental change research. *Global environmental change*, 18(1), 234-245. <https://doi.org/10.1016/j.gloenvcha.2007.09.002>

■ Integration of Food Security in IA:

- Rohr, V., Blakley, J., Loring, P. (2021). A framework to assess food security in regional strategic environmental assessment. *Environmental Impact Assessment Review*, 91, 106674. <https://doi.org/10.1016/j.eiar.2021.106674>
- FAO (Food and Agriculture Organization of the United Nations) (2011). *Environmental impact assessment: Guidelines for FAO field projects*. FAO. <https://www.fao.org/climatechange/29103-02e9a33753ffc325da1e25250c06c927b.pdf>



Closing Remarks

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QUESTIONS & DISCUSSION

