Contextual factors of food insecurity in rural communities in Tanzania: developing social learning for community-based innovations

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Introduction

In Tanzania 40% of children younger than five years of age stunted. This situation is even more severe in remote rural areas (McGuire, 2015). To safeguard nutrition security and sustainable development, projects put strong emphasis on tailored nutritional education programmes. Education programs are more effective when local knowledge and problem perceptions are integrated into social learning processes. However, it is not clear which pedagogical process should be included to consider contextual factors in nutrition education programs in the context of sustainable development. This work aims to understand the contextual factors of food and nutrition insecurity, targeting community problem perceptions in remote rural villages in Tanzania, Africa.

Methodology

The methodological approach was based on three rounds: (a) exploratory expeditions; (b) household survey (n=663); and (c) pedagogical workshops (n=270) applied in four study cases (Morogoro and Dodoma regions). The pedagogical workshop was especially designed as a educational tool to guide the local creation of food security strategies by community people (fig. 1).
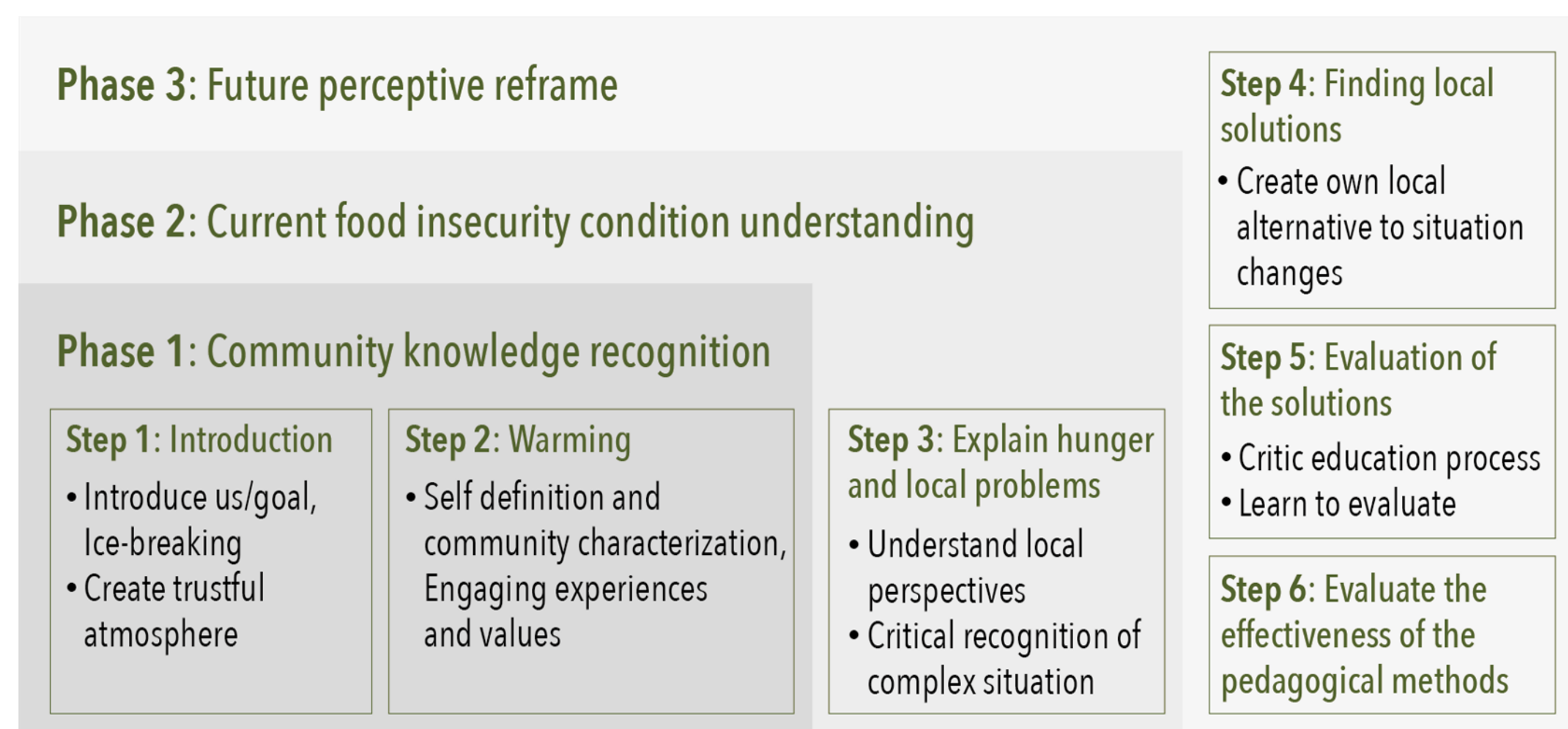

Figure 1: Phases and steps of the educational tool

Picture 1: Participants voting food preferences in the pedagogical workshops

Figure 2: Contextual factors of food insecurity in Dodoma and Morogoro

Results and discussion

A variety of contextual factors drive food and nutrition insecurity in Tanzania regions (fig. 2). Community driving forces are those events, constraints, and motivations that might induce local people to change behavior and to become engaged in activities and projects (Baur, 2002). They can also be considered starting points to open communication and engage residents in research projects, as well as to start to promote community-based strategies.

The results are related to two specific factors: first, community food choices are influenced by personal and intra-personal factors, such as beliefs, attitudes, knowledge, skills, and social norms, as well as inter-personal factors such as families and social structures. Secondly, especially in the case of Dodoma, environmental factors (Contento, 2008) (fig. 2).

During the workshop, participants talked about many aspects of their beliefs in witchcraft and its influence on farm productivity. At local level, superstition also plays an important role in health and nutrition conditions. For example, in some communities existing beliefs that sleeping under a mosquito net can cause infertility; or a woman gives more meat to a man it represents love.
These personal factors in these communities, like motivations and cultural aspects, must be considered key in the implementation and design of nutrition security strategies and nutrition education programs. In large measure, an educational campaign's success depends on the capacity of social marketing to address local constraints with appropriate educational and motivational techniques (FAO, 1997)

Conclusions

Although food insecurity was identified in all four case study sites as a significant local problem, the underlying causes and contextual factors of food insecurity differ in each one of the four Tanzanian villages studied.

Identifying local problems perception is a fundamental approximation to the reality of local population which the sustainable development projects propose to transform. The pedagogical process of Codification and Decodification (Freire, 2000) of hunger situations are indicated as key activity to generate nutrition education program in the context of social learning to development projects. The findings can inform the policy planning sectors of food security in developing livelihood diversification strategies and educational tools for community-based innovations.

References:
Baur, P. (2002). Preconditions and driving factors in (non-) developing financial instruments in Swiss forest policy–a tentative politico-economic analysis. FIFP 125.
Contento, I (2008). Nutrition education: linking research, theory, and practice. Asia Pacific Journal of Clinical Nutrition, 17(S1), 176-179.
FAO (1997). Agriculture Organization of the United Nations. Food, & Nutrition Division. (1997). Agriculture, Food and Nutrition for Africa: A Resource Book
McGuire, S. (2015). FAO, IFAD, and WFP. The State of Food Insecurity in the World 2015: Meeting the 2015 International Hunger Targets.
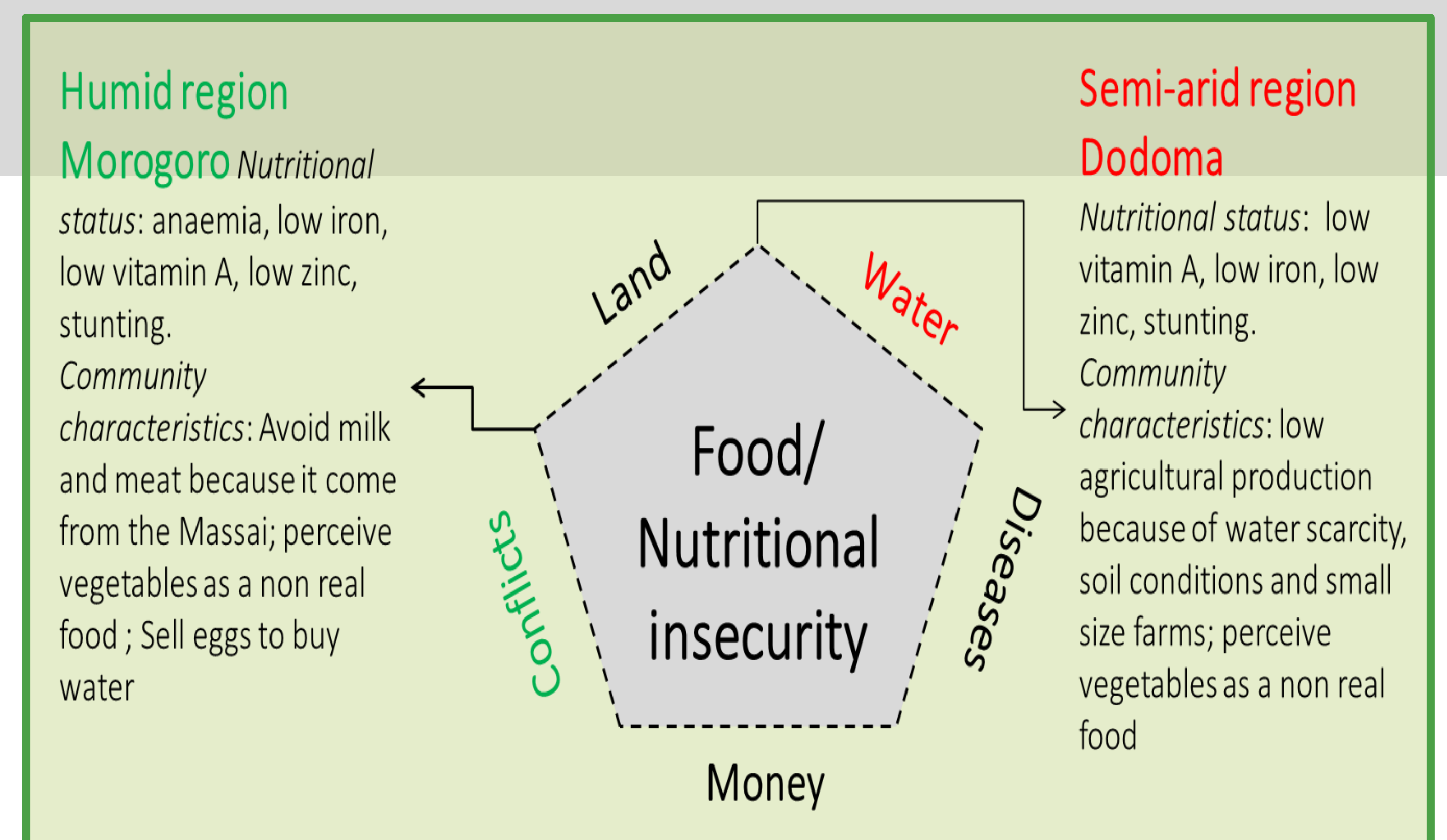Freire, P. (2000). Pedagogy of the Oppressed. New York: Continuum.