

Addressing zero-hunger through tourism? Food security outcomes from two tourism destinations in rural Ethiopia

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ABSTRACT

Underpinned by sustainable livelihood thinking, this study investigated community stakeholders' perspectives on the impacts of tourism on food security in two rural tourism destinations: Debarq and Meket in Ethiopia. Semi-structured interviews and focus group discussions were conducted with a range of stakeholders to solicit their perspectives, revealing the complexity of the tourism and food security relationship. Although tourism had brought about some small changes to food availability, access and utilisation, there were limitations around its contribution to food stability. This was primarily due to the nature of tourism employment and lack of linkages between tourism and local agriculture. Tourism was not strong enough nor properly integrated with existing livelihoods to support the local communities' food security, generally only offering a minor contribution. This research highlights the challenges for tourism to contribute to local communities' food security, offering policy-relevant guidance for addressing the food security challenges of tourism destinations.

1. Introduction

Ensuring food security is an important contemporary global, national and local development goal that has long attracted the attention of governments, non-governmental organisations (NGOs) and researchers (Devereux, 2001; McDonald, 2010; Pérez-Escamilla, 2017; Smith, Alderman, & Aduayom, 2006). Food security is the second Sustainable Development Goal (SDG2 *Zero Hunger*), and one for which a transformative shift across different sectors has been deemed necessary (United Nations, 2018), recognising that food security concerns and solutions fall not only within the domain of the agriculture sector, but across multiple sectors, including tourism (Foran et al., 2014; Timmer et al., 1983). Existing evidence suggests that tourism has diverse economic, social, cultural and environmental impacts that have a direct and indirect relationship with food security outcomes (Degarege & Lovelock, 2019). Notwithstanding recent research on this topic, considering tourism's development potential, the role of tourism in relation to food security has not been adequately discussed.

Yet a substantial body of tourism research has propelled the topic of 'food' to the forefront as an integral element of the tourism sector's performance and component of the visitor experience (Bertella, 2011; Dougherty, Brown, & Green, 2013; Hall & Gössling, 2016; Hjalager &

Richards, 2002; Lin, Pearson, & Cai, 2011; Long, 2013; Pérez-Priego, García, de los Baños, & Gomez-Casero, 2019; Smith & Xiao, 2008). Food is said to offer opportunities to strengthen tourist destination performance through improving the overall holiday experiences of visitors thereby contributing to community and regional development. Conversely, researchers are also increasingly concerned about tourism's role in the consumption and production of a substantial amount of food resources, and the associated sustainability implications (Gössling, Garrod, Aall, Hille, & Peeters, 2011). So while food has received increasing attention from tourism researchers and practitioners (Berno, 2006, 2011) the question arises as to whether tourism will contribute to making food insecurity a thing of the past, or conversely, exacerbate the food insecurity of host communities in tourism destinations.

While tourism is responsible for production and consumption (SDG12) of food, its direct and indirect implications for food security are yet to be explicitly addressed. Unless explicit and implicit connections between tourism and food security are established, it may be difficult to make judgements on possible strategies and roles for tourism. In order to fully examine the role of tourism in connection to SDG2, *Zero Hunger*, a number of questions need to be addressed: What is the relationship between tourism and food security? What are the key determinants in this relationship? What constitutes sustainable consumption of food by

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the tourism sector? And what does the future of food security look like in a tourism-assisted economy? Understanding the multi-faceted dimensions of food security from a tourism development perspective is crucial to enhancing the sector's performance in combating food insecurity and addressing sustainable development concerns, especially for Global South destinations such as Ethiopia with pervasive food security challenges. With the above concerns in mind, this paper examines the food security outcomes experienced by diverse stakeholders within two rural tourism destinations located in Amhara Regional State, Ethiopia. The aim is to help identify and understand the mechanisms through which tourism can assist food security strategies for rural tourist destinations in developing countries.

The sustainable livelihood framework (SLF) underpins this study. The framework explains how, in different contexts, sustainable livelihoods are achieved through access to a range of livelihood resources which are combined in the pursuit of different livelihood strategies (Scoones, 1998). The SLF explains the tourism-food security links in terms of complex inter-relationships that are formed between five main components: livelihood assets, context, conditions and trends, moderating institutions and processes, livelihood activities (of which tourism is one), and the resulting food security outcomes (Ashley, 2000; Degarege, Lovelock, & Tucker, 2018; Tao & Wall, 2009a; Wu & Pearce, 2014). The rationale for using the SLF is that it helps to develop a holistic understanding of the challenges and impacts across multiple tourism and food security stakeholders at community and destination levels. A livelihood approach to food security assessment explores the severity of food insecurity and the processes that generate food insecurity by its impact on people's ability to feed themselves in the short term and its impact on livelihoods and self-sufficiency in the longer term (Young, Brown, Frize, & Khogali, 2001, p. 4). It considers food security as a subsystem of broader livelihood security (Swift et al., 2001). The framework helps identify how tourism as one means of alternative livelihood can contribute solutions to the food security concerns of tourism destination communities. The sustainable livelihood approach can also link local-level livelihood activities to macro-level policies and thereby identify areas of adjustment for intervention (Degarege et al., 2018; Degarege & Lovelock, 2019). In light of the discussion above, this study utilised SLF to connect tourism means of livelihood with the core food security outcomes.

2. Literature review

2.1. Meaning and drivers of food security

Food security has remained a universal human rights issue that constitutes one of the world's primary global, national and local development policy concerns (Pérez-Escamilla, 2017; Smith et al., 2006). Food security has been defined and interpreted in different ways, and measuring it in reliable and valid ways has proven to be challenging (Maxwell, 1996; Pieters, Guariso, & Vandeplass, 2013). Our current understanding of food security is that it exists when "all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (Food and Agriculture Organization (FAO), International Fund for Agricultural Development (IFAD), & World Food Program (WFP), 2015, p. 53). This definition recognises food security as being multidimensional and involving not only the supply of food (food availability), but also other interdependent and hierarchical components: access to food, food utilisation and food stability (Jones, Ngure, Peltó, & Young, 2013).

Food availability refers to the physical availability of sufficient quantities of food of appropriate quality, supplied through domestic production, imports or food aid (Jones et al., 2013). Access to food will be ensured when all households and all individuals within the households have sufficient resources to obtain appropriate foods for a nutritious diet (Riely, Mock, Cogill, Bailey, & Kenefick, 1999). This involves

physical, economic and sociocultural access to food at the household and individual levels. Food utilisation involves the storage, preparation, distribution, and consumption of food to derive enough daily nutrition from the available and accessible food (Jones et al., 2013). The phrase "at all times" (FAO, 2006) signifies the last component of food security - food stability. The concept of stability cuts across the first three dimensions of food security and can refer to variability and uncertainty in availability, access and utilisation across time because of shocks stemming from economic, climatic, social, political and related crises (Jones et al., 2013).

Food security outcomes encompass different sectors and moderating factors that are involved in the process of directing livelihood opportunities towards food security (Degarege, 2019; Degarege & Lovelock, 2019). A variety of environmental, social, economic and political factors contribute to food insecurity at different scales (Burchi & De Muro, 2012, 2016; Devereux & Maxwell, 2001; McDonald, 2010). Climate change and other environmental challenges disrupt food production and cause famine (such as drought and flood) (Devereux, 1988). This has been witnessed in the famine disasters that have resulted in the deaths of millions of people in Sub-Saharan Africa and South Asian countries over decades. For instance, the Bangladesh famine in 1974 was triggered by the flood that disrupted rice production (Devereux, 1993). Similarly, the Ethiopian famines in 1972–73, 1984 and 2002–2003 are partly explained by drought and resultant crop failures and massive deaths of livestock (Devereux, 1988; Tolossa, 2005). Climate change and environmental stressors such as crop failure, food price rises, and so on (Misselhorn, 2005) are not the only challenges to food security. Political factors such as poor government policies, failure of the international community to give relief, and war result in food insecurity in many developing countries (Devereux, 2001, 2009).

The above factors determine food security conditions across different scales. At the household scale socio-economic conditions are critical factors of food security (Burchi & De Muro, 2012, 2016). Empirical literature suggests that farm size, farm income, non-farm income and household size, and level of technology adoption are determinants of rural household food security (Aidoo, Mensah, & Tuffour, 2013; Beyene & Muche, 2010; Feleke, Kilmer, & Gladwin, 2005; Sultana & Kiani, 2011). Livelihood and income diversification through non-farm activities helps to maintain food security status in the face of recurring crises of agricultural productivity (Reardon, Delgado, & Matlon, 1992). This suggests that attaining food availability requires both increasing food production and enhancing the economic base (FAO et al., 2015; Gladwin, Thomson, Peterson, & Anderson, 2001; Maxwell & Smith, 1992).

2.2. Tourism and SDG 2 linkages: The knowns and unknowns

The most recent of a line of food security policy aspirations has been SDG 2 which includes ending hunger, achieving food security, and improving nutrition (UN, 2015). While SDG2 aims to "ensure access by all people, in particular, the poor and people in vulnerable situations through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment" (UN, 2015, p. 15) tourism's role concerning this aim, from a food security perspective, has not been clearly articulated. The UNWTO limits tourism's contribution to enhancing agricultural productivity by promoting the production, use and sales of local produce in tourist destinations and its full integration in the tourism value chain (UNWTO & United Nations Development Programme (UNDP), 2017, p. 16).

Tourism researchers are increasingly concerned with questions surrounding what tourism means for food security and what determines tourism's role in this regard (Addinsall, Weiler, Scherrer, & Glencross, 2017; Beckford & Campbell, 2013; Degarege et al., 2018; Degarege & Lovelock, 2019; Giampiccoli & Kalis, 2012; Laeis, Scheyvens, & Morris, 2020; Pirani & Arafat, 2016). But despite assertions that tourism will contribute to the food security and sustainable development of

destinations (Gössling et al., 2011), tourism research has paid relatively little attention to the process and drivers of food security in those destinations. Likewise, the tourism and livelihoods literature consistently supports the notion that tourism can provide a sustainable livelihood option for destination communities without explicitly disentangling food security livelihood outcomes. The discussion has mainly centred on immediate employment, income and other benefits from tourism - and has not necessarily connected with food security outcomes (Degarege et al., 2018; Degarege & Lovelock, 2019).

Food availability challenges exist when agriculture fails to meet expected production and/or the capacity to buy/import food is low (Carletto, Zezza, & Banerjee, 2013; McDonald, 2010). While the former occurs among food producers, the latter occurs among households that pursue livelihood activities other than producing food. In this regard, it is often believed that tourism's backward linkages with other economic sectors may stimulate local development (Torres, 2002). Adoption of tourism as a broad based growth and development tool can address food availability in different forms, including: 1) Tourism and food production links such as tourism-induced agricultural productivity leading to food availability, or tourism-induced food processing and manufacturing sector development leading to availability of processed food; and 2) Tourism-income induced capability to improve food availability through purchase and imports (Degarege et al., 2018; Degarege & Lovelock, 2019).

However, there is limited empirical evidence of tourism and food security linkages. More specifically, there is a lack of consideration for addressing all constituents of food security in tourism research. Degarege et al. (2018), in their conceptual paper, highlight how tourism, as one means of alternative livelihood can contribute solutions to food security causes. They emphasise the direct and indirect relationships between tourism and food security and the potential of tourism for advancing food security. Conversely, tourism's effectiveness in doing so can be influenced by pervasive food insecurity in the host destination (Degarege, 2019). This compels a food security-centred approach to the tourism-poverty and tourism-livelihood linkages. Our knowledge in this area can be expanded through empirical explorations of tourism's role in relation to all constituents of food security (food availability, food access, food utilisation and stability).

3. The research context: Ethiopia

Ethiopia is the second-most populous country in Sub-Saharan Africa (SSA), and with a per capita annual income of US\$660 is one of the poorest countries in the world (World Bank, 2018). Agriculture is the mainstay of Ethiopia's economic, social and political fabric where 84% of its population are dependent on subsistence agriculture for their livelihoods (Central Statistical Agency, 2007). Productivity in the agricultural sector is low and reliant primarily on rain-fed production (Cheung, Senay, & Singh, 2008). Drought and lack of institutional capacity to address food insecurity have led to large-scale famine (Tolossa, 2005), with historically, Ethiopia being one of the most famine-affected countries in SSA, (Devereux & Sussex, 2000; Von Braun & Olofinbiyi, 2007). According to FAO et al. (2015), 32% of the Ethiopian population is undernourished, and in 2016, 10.2% of Ethiopia's population were chronically food insecure, with 2.2 million people requiring immediate food assistance (FAO, 2016).

To address such challenges, the Ethiopian government has launched various policies and strategies that aim to transform Ethiopia into a food secure country (National Planning Commission, 2016). One of the pathways towards achieving sustainable development in the country is the development of the tourism sector (National Planning Commission, 2016). Rich in cultural and natural history, Ethiopia has a recorded history which dates back more than 3000 years, and the country boasts 80 different ethnic groups each with its own language, culture and tradition (Phillipson, 1998; Selassie, 1972). Ethiopia's tourism potential is reflected in the granting of World Heritage status to nine sites, with a

further five in the tentative list (United Nations Educational Scientific and Cultural Organization (UNESCO), 2018). Despite this potential, tourism as a development sector has largely been overlooked, and only recently has tourism has been viewed as a vehicle for development. Both nature-based and cultural tourism have been considered as promising means of growth, employment generation (particularly for women and youth) and earning foreign exchange (MoCT, 2009), with Ethiopian tourism policy placing emphasis on the need for local communities' participation in and benefits from the sector (Degarege & Lovelock, 2019). However, drought, famine and instability continue to challenge these aspirations (Sukkar, 2004).

The current study was set in two tourism destinations in Amhara Regional State, Ethiopia (Fig. 1), namely Debarq and Meket Districts. Both study sites have similarities regarding their livelihood, food security and tourism contexts. While rain-fed agriculture is the predominant livelihood means, the local communities also participate in community-based tourism initiatives. They also have a similar tourism development approach and tourism characteristics; both are located in the same region, and share similar institutional frameworks; and both are classified as the most drought-prone areas in the region.

The first tourism study site is Simien Mountains National Park, in Debarq District, 885 km northwest of Addis Ababa, Ethiopia's capital. The park was inscribed on the list of World Natural Heritage Sites in 1978 for its unique landscapes and abundant biodiversity (EWCA, 2016). The highest peak in the country (4533 Metres), *Ras Dashen*, is found in this park, which is home to rare animals such as the Gelada baboon, Ethiopian Wolf and the Walia Ibex (UNESCO, n.d.; EWCA, 2013). Debarq's visitor arrivals for 2016 were 25,999, generating revenue of 19.7 million Ethiopian Birr (ETB¹) (Debarq District Culture and Tourism Office, 2017).

The second study site, Meket district, is located in the eastern highlands of Amhara Region, and is also a food insecure area with recent community tourism development. Enhancing living conditions and protecting the threatened environment has been the driving force behind the running of community tourism in Meket district (Gebeyaw, 2011). In 2017 tourism contributed 2 million ETB (Meket District Culture and Tourism Office, 2018). While the former is a UNESCO registered nature-based tourism destination with community-based tourism, the latter is a recent community-based tourism development initiative by both local and international NGOs. Both sites serve similar types of visitors and provide valuable case study contexts in which to investigate the impacts of tourism on food security of tourism destination communities.

4. Methodology

A qualitative exploratory research design was selected as the method of inquiry (Clarke & Braun, 2014). This method is used to generate information that may be critical for a deeper understanding of fundamental issues and concepts related to the overall impacts of tourism on food security of the local communities. In line with the aims of the study, qualitative semi-structured key informant interviews and focus group discussions (FGD) (Altinay, Paraskevas, & Jang, 2015) were used to collect data critical for addressing questions about tourism development, and its effect on food security. The study used a maximum-variation purposive sampling technique to elucidate various aspects of the phenomenon under investigation from multiple stakeholders' perspectives (Sandelowski, 1995). Key informant interviewees were selected based on residence in the study area, and length of experience and role in relation to the research topic. Accordingly, informants were purposefully selected from the members of the local communities, tourism cooperatives, and district-level government office experts working in the tourism, agriculture and food security sectors. A total of

¹ Based on 2015 currency exchange rates 1 USD was 21.2735 ETB.

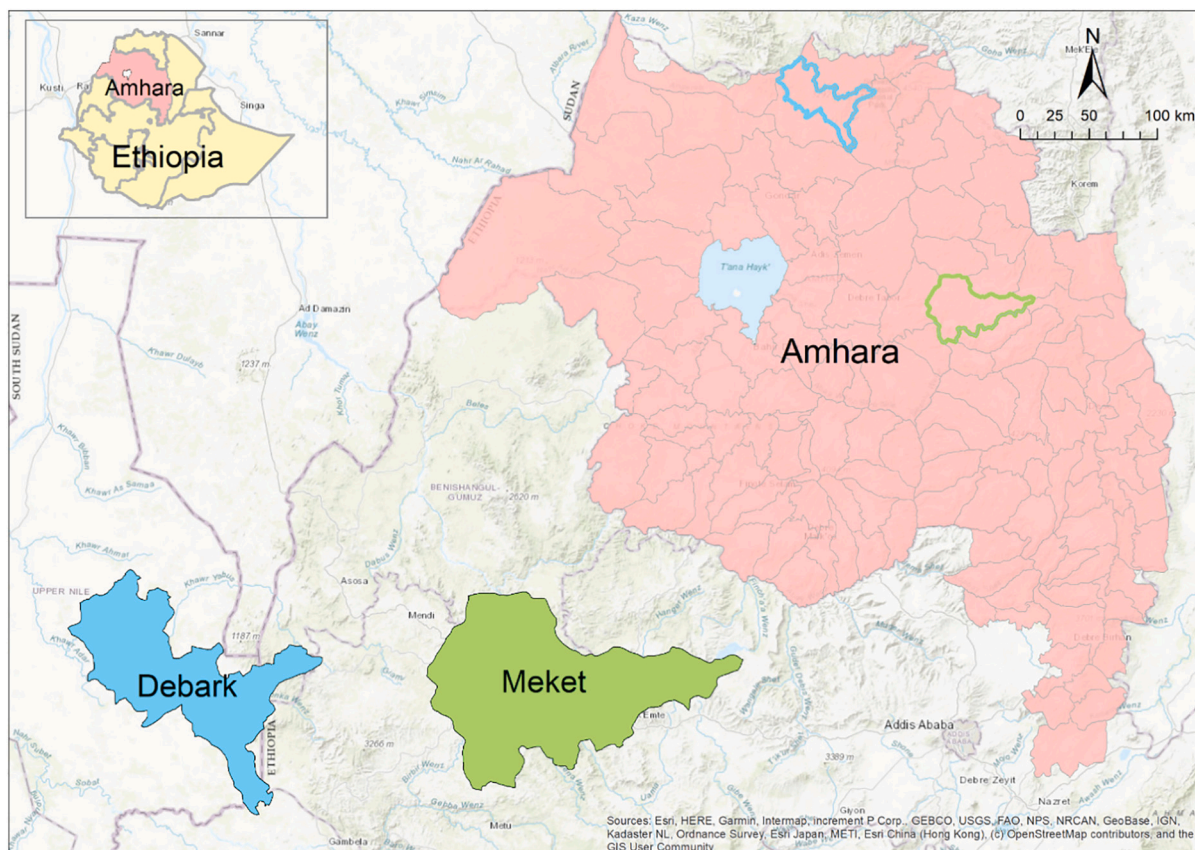


Fig. 1. Study area map Source: authors.

23 semi-structured interviews were conducted, and in addition, two FGDs comprising 15 participants were held to substantiate the validity and reliability of data generated through interviews (Creswell, 2013; Kitzing, 1995).

Table 1 and 2 show the profile of the interview and focus group participants, respectively. Individual semi-structured interviews lasting 30–40 min were conducted face-to-face over a five month period in 2016. The interviews and FGDs were undertaken in Amharic and were audio-recorded with the consent of participants.² The interviews focused on past and present living conditions, livelihood and food security history, change and continuity in the social, cultural and economic realities of the participants and their communities, and relationships between tourism and food security, while allowing flexibility to probe more deeply on relevant topics (Jennings, 2005). FGDs were used to obtain a deeper understanding of tourism development challenges, development interventions and to elicit how the different stakeholders relate tourism to food security (see Appendix 1 for interview and focus group guides).

The data from interviews and FGDs were transcribed in Amharic and then translated from Amharic to English, categorised and analysed qualitatively through narrating and interpreting the issues as well as a conceptual generalisation based on thematic issues (Braun & Clarke, 2006; Teddlie & Tashakkori, 2009). A six-step process of thematic data analysis that involves becoming familiar with the data (transcribing, reading and re-reading and noting down initial ideas), generating initial codes, searching for themes, reviewing themes, defining and naming themes and finally producing the reports was used (Braun & Clarke, 2006).

² Ethical consent was gained prior to research addressing informed consent and participant anonymity.

5. Findings and discussions

The findings are organised in this manner: first the community members' understandings and experiences of food security are presented. This is followed by a description of how participants perceived the relationship between tourism and food security, addressing the connections between tourism and the four dimensions of food security: food availability, food access, food utilisation, and food stability.

5.1. Experiences and meanings of food security

Members of the community experienced food insecurity in many and varied ways. While the majority of households in the study sites exhibited diversified livelihood activities, with tourism being a recently adopted alternative means of livelihood, for most respondents, the production of food crops and livestock was insufficient to cover household food consumption and expenses. Many felt that food insecurity in their locality was widespread.

Participants' responses to questions about what food insecurity means for their household revealed a range of food security conditions that mainly reflect food availability and consumption-related issues: not having food at all, a shortage of preferred food, reduction in consumption patterns, and eating only a limited variety of food. As one community member explained, "food insecurity is no food at all in the house" (LCOM1). Another participant felt that "food insecurity means a shortage of 'injera be wott' [a typical staple food in the study area] to feed [his] family" (LCOM2). Others noted that food insecurity is a matter of reduction in food intake, insufficient food intake and a shortage of 'preferred' food to feed their family (e.g. LCOM3). The consumption of balanced diets was not raised as an element of food security; participants' references to food type more prominently focused on food habit and culture-specific preferences instead of nutrition. In the study sites,

Table 1
Profiles of research participants (interview).

Pseudonym	Stakeholder type	Gender	Age	Residence	Role
LCOM1	Local community	Female	41	Debarq	Local community
LCOM2	Local community	Male	44	Meket	Multiteer
LCOM3	Local community	Female	32	Debarq	Cook
LCOM4	Local community	Female	47	Debarq	Local community
LCOM5	Local community	Female	34	Meket	Local community
LCOM6	Local community	Male	67	Debarq	Elder
LCOM7	Local community	Male	37	Debarq	Multiteer
LCOM8	Local community	Male	47	Debarq	Local community
LCOM9	Local community	Male	62	Meket	Elder
LCOM10	Local community	Female	40	Debarq	Local community
LCOM11	Local community	Female	39	Meket	Local community
LCOM12	Local community	Male	46	Meket	Entrepreneur
LCOM13	Local community	Female	38	Meket	Cook
LCOM14	Local community	Male	57	Meket	Entrepreneur
LCOM15	Local community	Male	39	Debarq	Cook
LCOM16	Local community	Male	44	Debarq	Local community
DCTO1	Culture & Tourism office	Male	36	Debarq	Manager
DCTO2	Culture & Tourism office	Male	35	Meket	Manager
NGOO1	NGO	Male	38	Debarq	Manager
ARDO1	Agriculture & Rural Development Office	Male	48	Meket	Manager
ARDO2	Agriculture & Rural Development Office	Male	41	Debarq	Manager
CTAA2	Community Tourism Association	Male	44	Debarq	Chairperson
CTAA1	Community tourism Association	Male	42	Meket	Chairperson

Table 2
Profiles of research participants (FGDs).

Pseudonym names	Stakeholder type	Gender	Residence	Role
FGD1	Local Government	Male	Debarq	Administrator
FGD2	Ecotourism Association	Male	Debarq	Head
FGD3	Park Office	Male	Debarq	Expert
FGD4	Community	Female	Debarq	Community representative
FGD5	NGO	Male	Debarq	Coordinator
FGD6	Culture & Tourism Office	Male	Debarq	Head
FGD7	Community	Female	Debarq	Women affairs coordinator
FGD8	Community-tourism association	Male	Meket	Head
FGD9	Church/religious leader	Male	Meket	Community representative
FGD10	Culture & Tourism Office	Male	Meket	Expert
FGD11	Community	Female	Meket	Community representative
FGD12	Local Government	Male	Meket	Administrator
FGD13	Agriculture & Development Office	Male	Meket	Development Agent
FGD14	Agriculture & Development Office	Male	Debarq	Food Security Coordinator
FGD15	NGO	Male	Meket	Focal Person

meat products, mainly chicken, beef and lamb are often eaten during cultural and religious ceremonies. Being able to eat meat products is a recognised community-level indicator of food security and wealth.

Insufficiencies in their level of food production and a lack of capability to buy food were also important aspects of food security for participants. The majority of participants considered themselves food insecure when they were unable to produce enough food. Some of the local community members also explained food insecurity as a matter of “*God's will to provide* [or not provide] *food*” (LCOM3). It is a commonly held belief that God controls their food security, meaning that whenever there is a problem of drought and crop failure or livestock death, it is common to say that this is ‘God's will’. Such a position externalises all causes of food insecurity to being a matter of God's decision.

The findings from the interviews with the respective district Agriculture and Rural Development Office participants indicate that the food insecurity status of their local communities has deteriorated because of both human-made and natural causes including meteorological, agricultural, socio-economic and hydrological factors. These sentiments are reflected below.

In the area local people lack farming land, the population is growing, and crops and livestock are less productive due to the arid nature of the area and weather change... The [government's] efforts towards eliminating food insecurity have seen some improvements but far from eliminating the problems from the root (ARDO1).

Our community is living in poverty, and food security is a big concern. The population is growing fast while agriculture is sedentary and very traditional; lack of irrigation water, a sizeable number of people are landless; limited off-farm income-generating activities, bad weather, the death of excessive numbers of livestock because of the sudden livestock diseases (ARDO2).

It was widely acknowledged that the prevailing food insecurity could be attributed to a combination of factors that have accumulated over many years, including a shortage of rainfall, drought, floods and erosion, crop pests, animal disease, resource-use problems, and a lack of infrastructural development. The weather condition in the harvesting year, size of the annual crop production, and the number of livestock are important factors. Almost all participants equate food insecurity with a lack of land, not being able to produce enough crops and livestock, and limitations related to the contribution of alternative means of livelihood, including tourism.

5.2. Tourism and local food security

Participants' views of the effects of tourism on food security were mixed. At one extreme, many community members perceived tourism positively in relation to their food security. These were primarily those who were ‘actively’ participating in tourism opportunities, and who emphasised the important role of tourism as a source of livelihood income. One community member who had been participating in tourism activities for the last ten years in Debarq noted the evolution of tourism as a means of livelihood:

The state of tourism [in our locality] is showing progress gradually. It is more organised than fifteen years ago where only people from the town come with guests, and we hardly benefit from their visit. In those days, the types of benefit being gained from tourism were limited to earning direct income from business transactions made with foreigners [tourists], and individual gains in the form of monthly salary by serving as a security guard to the (national) park. Now opportunities are diverse (LCOM7).

Conversely, the interviews with non-tourism participant respondents commonly indicated that there were no perceived direct or indirect food security benefits from the tourism sector (FGD9 and FGD11). A participant of the FGDs from the NGOs working in Debarq on a livelihood

development programme explained:

We always argue that the problem in Debarq [food insecurity] will not be solved by only creating income and employment from the so-called tourism jobs. Regarding the extent of benefiting from tourism, all people are not fully benefited from tourism currently, and it would be difficult to benefit all in the future as long as we do not expand the supply chain to embrace more people (FGD5).

Under the label of 'community tourism', much of the tourism businesses in the study areas are structured under an umbrella cooperative or association organisations without creating wider networks of business opportunities for locals. This view was also supported by institutional participants (DCTO1 and FGD3, and DCTO2 and FGD10) from the tourism offices of Debarq and Meket who explained that while their local communities benefited from community development projects supported by tourism-related NGOs and the private sector, this support could be better structured to grow the benefits of tourism. An example of this raised by participants concerned the gender dimension of benefit-sharing from tourism, there being no adequately designed mechanism to benefit women and elder households:

The nature of jobs is not conducive to foster women's participation. When I get a call [to work], I send other people [relative/s] on a sharing basis ... the money is not big enough though... I depend on support (FGD7).

The quote above reflects the predominant view in interviews and FGDs that 'tourism benefits only a few'. Moreover, participants from the local communities pointed out that tourism not only has limited benefits, but actively disadvantages their communities' food availability and consumption.

Much of the failure of tourism to bring value to more community members, and to contribute to food security was attributed to the underdeveloped tourism and agricultural linkages in the study sites. The interviews and FGDs with the participants from the tourism and agriculture offices suggest that despite policy calls for broad-based development, the role of tourism in supporting agriculture was limited, with a weak local value chain. Members of the local community who managed to produce seasonal fruit and vegetables did not get the chance to sell their products to the private tourism firms. These firms instead tend to buy their product in bigger towns due to perceived lack of quality locally, and because of income tax related constraints. In this respect, tourism has created limited opportunities for bringing control back to the local area by prioritising the creation of local market opportunities for agricultural produce. Initiatives to create other beneficial relationships between tourism and the existing agricultural practices of the local communities were limited. The local agricultural products, as well as the farming activities practiced in the rural areas, despite having potential as tourism products, are not currently considered for tourism development.

5.2.1. Tourism and food availability

Tourism's contribution to food availability implies tourism-induced agricultural productivity, and tourism-income induced capability to improve food availability through purchase (Degarege, 2019). Given the shortage of income in the study areas, many stakeholders recognised the roles of tourism income in supporting the agricultural undertakings of the local people. However, tourism's role in relation to food security is mainly seen as being marginal in terms of the additional economic benefits it brings to the local community. The findings suggest that tourism as one of the recent developments and livelihood activities in the study sites stands out as the most significant activity in terms of its potential to increase the local communities' incomes due to the sheer number of community members participating in multiple tourism-related employment and income-generating activities. This includes employment as scout, porter, muleteer, pack animal provider, local tour

guide, cook, or traditional performer. Community members accrue incomes from tourism as direct providers of such services, as well as receiving cash and material gifts from the tourists and annual dividends from the community tourism associations.

Asked whether their tourism income has supported their agricultural activities, a few local community members indicated the role of tourism income in easing their cash constraints through making money available for use in farm production:

Personally, I hardly see a business type of relationship with our agricultural activity. Economically, though I cannot say this is from tourism, I can say the income from tourism has supported us to buy agricultural inputs. To what extent I do not know... In the past, we were running out of cash to buy fertiliser and modern hybrid types of seeds. There was a time that I run out of cash to pay back the credit I took for fertiliser. Now I have tourism income as a backup, but still, it is very small (LCOM5).

Similarly, a few local community respondents from Meket mentioned that tourism income had an enabling effect on the use of productive farm inputs. LCOM12 explained that

The money from tourism [including the loan I took from community tourism] has partly supported [me] to pay for chemical fertilisers and to buy the improved seeds for fruits and vegetables, which is good... Sometimes tourists stop by the farm and buy fruit, which is very good.

This illustrates the relative role of the tourism sector in supporting agriculture-related expenses, as well as its direct income role when tourism brings the market to the farm. There was also recognition that tourism supports a certain degree of business development related to agriculture but this is not substantial or visible, as explained by a participant from Meket District:

The community tourism association provides tourism loans for small-scale business investments. There are farmers [who are] engaged in animal husbandry activities such as poultry and sheep. Very few people have changed their life through such tourism schemes. (FGD8).

The majority of local community participants observed that the size of the tourism economy and its capacity to make a significant contribution to individual incomes and then to cover expenses related to the use of better inputs for agriculture is limited. Participant CTAA1, a representative from the community tourism association in Meket, indicated that for a few people tourism has contributed to addressing their cash income for expenses associated with medical costs and schooling. As a result, these households have not needed to sell their oxen that they use to plough their farmland. This suggests that tourism has implicitly contributed to a level of resilience to the uncertainties (such as health and crop failure) that used to force these households to sell their productive assets.

Some local community members have started taking credits from the tourism association to fatten sheep and to plant fruit and vegetables for both household consumption and business. Their own production through those channels contributes to both the availability of food as well as the capability to purchase other food and non-food items in exchange. However, such initiatives to support agriculture through direct community tourism funds as well as through reinvestment were only relevant for a few farmers. A Debarq tourism office participant explained:

Farmers who are involved in the production of seasonal vegetables and fruits are relatively wealthy families who are called 'model farmers' in our district (DCTO1).

Asked whether there are any other direct interventions in the form of voluntary tourism or corporate social responsibility initiatives from the

tourism sector to directly support the agriculture sector, none of the participants could identify any. However, respondents from the community tourism associations (CTAA1 & CTAA2) described how they proportionally allocate tourism income for different community development projects that have a strong association with food security such as loan provision and grain mill development.

One of the areas that we are working on now and that we have registered remarkable support from our member communities is the provision of credit and loan for several reasons such as small-scale investment, social activity and health expenses. In addition, we have developed a grain bank to help any member of the local community who runs out of food because of agriculture productivity loss and lack of money (CTAA1).

This shows that community members have been focused on how tourism-generated funds can contribute to addressing community needs, including food availability.

Conversely, participants from the local communities from Debarq pointed out that farmers there face additional costs in their food production because of tourism. This is because of their proximity to the national park and the resulting crop damage by wild animals from the park, as well as the disbenefits associated with the community's restricted access to the park's resources.

5.2.2. Tourism and food access

Linking resource-poor local people to the tourism market is central to creating a wider range of people participating in and benefiting from tourism (Degarege et al., 2018; Hall & Gössling, 2016). For almost all community participants, when asked why they are engaged in tourism activities, a typical response was that it is because they are poor; they need to earn money to support their living and to buy food for their household and cover other expenses. One participant noted that *"the types of jobs and means of earning income from tourism have improved over time"* (LCOM7). Highlighting the importance of tourism in supporting the livelihood of local communities, two local community members explained:

After tourism [development], some of us are now able to send our children to school. Those of us who are benefiting from tourism is in a position to access credits to engage in income-generating activities and modern farming. This reduced the difficulty in accessing food from the market and healthcare and medication (LCOM14).

A few people from our community have significantly changed their life because of tourism. We have changed our lifestyle and way of living and improved our food security (CTAA2).

The quotes above explain some of the perceived income-mediated food security benefits of tourism to the local communities. But only a very few local community members revealed that they had substantially supported their food purchases through tourism:

Tourism has contributed to our family food security. My husband works as a muleteer. I make a handicraft, sell to the association, and buy grain from Debarq market (LCOM9).

It partly supported my household food security. I work as a guard in the community lodge and get a monthly salary. I use the money to buy grain and food ingredients (LCOM15).

This indicates some direct role of tourism income in bridging households' food demand through market purchases. This entails that the total earnings at the household level are significant enough to bridge household food insecurity. However, for the majority of local community members, the incomes accrued from tourism were small and inadequate to supplement their household food purchase expenses substantially.

I cannot say tourism has exclusively brought food security to my household due to the fact that other livelihood means are also contributing towards my household, and tourism is just a small portion. However, I think it has added something in (LCOM16).

The benefits from tourism for many are inadequate alone to address their food security challenges. Some participants explained that tourism's direct role in subsidising food purchases was limited to minor food items such as condiments; *"it [tourism income] is not a big thing... not enough to buy grain...it contributes to my expenditure on pepper, salt and coffee"* (LCOM10). Similarly, a Meket participant indicated that given their cash constraints, *"the small amount of money accrued from tourism is vital in supporting [her] expenses for condiments as well as expenses for other non-consumable expenses such as farm inputs and medical expenses"* (LCOM11).

5.2.3. Tourism and food utilisation

Tourism-food utilisation implies improved consumption of food both in quantity and in quality, meeting peoples' energy and nutrient needs, and involves food storage, cooking, processing and changes in consumption patterns and food habits. The findings of this study suggested two major themes concerning tourism and food consumption: tourism induced changes in food consumption patterns and the conflicting relationship between tourism employment and food consumption. The interview data shows that some change in lifestyles have driven local communities towards embracing new ways of food preparation and consumption. Local communities involved in tourism have opportunities for sociocultural exchange with visitors, guides and cooks. Asked if there is a change in their food habits consequent to participation in tourism employment, a local community member from Debarq who has participated in tourism as a muleteer for more than eight years explained that:

Personally, I can say that at a personal level, there is awareness and interest in different food items. I think my food habit and types of food I feed to my family have changed upon my participation in tourism. In the past, for breakfast, we use to eat Injera, and now after seeing the tourists and guides, we started eating bread and drinking tea in the morning. I think now the problem is affordability (LCOM6).

Similarly, a local community from Meket district who works as a cook expressed how tourism has partly influenced her household food habits:

In the past, we use to eat only injera, potatoes and other farm products. Now we have started buying and consuming pasta and macaroni. I think now, almost everybody in the community is aware of these things, and these food items are available in the nearby market [towns]. However, it [pasta and macaroni] is expensive and requires other ingredients like tomatoes and sauces, which are often a matter of money to buy at the end. If we buy one packet of pasta, it can sufficiently feed my family at a time. However, expenditure of the same amount of money on other locally accessible usual food such as potatoes or flour can cover a one full day consumption (LCOM13).

Exposure to different food items were also mentioned as a factor for being motivated to buy some food ingredients, which were not part of participants' diets in the past. Some of the changes partly attributed to tourism interactions include increased awareness of vegetables and fruit as food items, and adoption of fuel-saving stoves. Changes in the understanding and practice of cooking technologies, food processing and cooking style were also observed. Fuel-saving stoves were found to save firewood and were healthier than the traditional stove. Nevertheless, such behavioural and perception changes were found to be constrained by lack of resources, notably income. This signifies the small magnitude of tourism benefits and its interplay with food practice.

Tourism was often praised for creating employment, with participants generally focusing on the income rather than the nature of the jobs and their effect on food utilisation and security. Regarding working conditions, tourism was not always beneficial in terms of employees' food consumption, as indicated by a participant from Debarq who had been working as a muleteer:

I take food when I go for tourism jobs, and it is always hard after three-four days. The daily income of 100 ETB is not also enough to buy and eat from tourist serving outlets. There is no food providing restaurants at the night stop and lunch stop points (LCOM6).

Individuals participating as a scout or porter need to be away from their homes for about eight days, and where food-related facilities and services mainly cater to the needs and incomes of visitors. Given the low daily subsistence allowance, eating in restaurants is not affordable for the workers guiding and escorting visitors. The muleteer further explained that those community members who work as a scout or porter take cooked food in bulk for a week or so from their homes, and in the absence of any food preservation facilities, the food gets mouldy within two or three days. As a result, some participants have experienced severe health problems that have occasionally led to more harm and expense than gains from their tourism employment.

5.2.4. Tourism and food stability

Food stability involves the variability and uncertainty of tourism-food availability, tourism-food access and tourism-food utilisation conditions, both in the short and long term (Degarege et al., 2018). This is a matter of whether tourism as a means of livelihood diversification may contribute to either offsetting or accelerating the causes of food insecurity and how tourism as an alternative livelihood is integrated with other livelihood strategies to provide a stable and robust basis for food security. It was also explained that tourism opportunities are not available for everyone. A community member from Debarq, explained:

Most of the high paying tourism jobs and consequent food security outcomes are limited only to a few educated youths, and a significant proportion of revenue is not rightly going to the broader community. Instead, it goes to local guides, cooks and the government national treasury single account [not re-invested or used by local tourism offices or community members] (LCOM15).

Thus the predominant view that '*tourism benefits only a few*'. Both the community members and other stakeholders emphasised the need to introduce more and new income sources, that would create job opportunities, and increase sales and business activities within the local economy. The view was that consideration must now also be given to the capacity of tourism operations to produce *better* jobs and opportunities that lead to more stable and better food security outcomes.

The interviews also highlighted concerns about the seasonal nature of tourism and its impact on the stability of food security. A participant from the Meket Community Tourism Association explained that employment is seasonal, and hence the income is not only small but also unstable, while another recounted that:

My family had a severe food shortage, especially during the summer season [from June to September]. The tourism income is occasional and comes mostly during the harvesting time, and yet did not enable my family to buy sufficient food. As a result, I was forced to request grain or cash loans from the tourism association and individuals. Otherwise, my children could have starved (LCOM8).

It was also observed that the peak tourism season in the study sites matches with crop harvesting time, when food security conditions are relatively better. The most prevalent food shortage months coincide with the low tourism season. With the majority of participants' landholdings being small and unproductive, barely enough crops are produced to cover their yearly food intake. As a result, they partly cover

their grain requirement by purchasing from the market using the income they accrue from different sources. Most of the local community members believe that tourism would be a potential contributor to their food security if tourism develops further and more tourists came to their locality, and they could subsequently earn more income.

6. Discussion and conclusion

In response to calls by researchers (Degarege et al., 2018) to broaden the theoretical and empirical understanding of tourism-SDG2 linkages, this study employed a holistic and multiple stakeholder perspective to investigate the perceived impacts of tourism on local communities' food security, focusing on two food insecure tourism destinations in Ethiopia. Guided by the sustainable livelihoods framework, this research identified a diverse range of views about the relationship between tourism and food security. The findings show that tourism benefits, in general, appear to be small, and substantial benefits limited to very few community members. Although participants consider tourism as a means of income to support their food security, they seldom rely on tourism alone, as tourism, as a source of income is generally seen as a minor contributor. Despite the strong presence of tourism in the study sites, no participant solely depended on tourism to secure his or her household's food demand. And although some of the community members regarded tourism as a contributor to their household food security, they still regarded agriculture as a better means of food security both in terms of its contribution to direct food sourcing and also indirectly as a source of income. Furthermore, some informants felt that tourism actively disadvantaged their communities' food security. For example, the food consumption of local people during their employment in the tourism sector as guides was constrained. Also, tourism was identified as indirectly contributing to crop damage from wild animals, with associated loss of food production, due to the wildlife-tourism focus of the adjacent national park.

The interviews did reveal that tourism has resulted in changes to food availability, food access, food preparation and consumption, and food stability by providing a platform for income, employment, socio-cultural exchange and experience sharing. However, the findings indicate that currently, there is a limited capacity of tourism to support agricultural productivity and the incomes of small-scale farming communities. The community's interests and prevailing food security challenges cannot be satisfied by the existing limited tourism businesses. The role of tourism income in supporting households' food access through market purchase is also a matter of how much the household earned over a given timeframe and the proportion of tourism income to overall household earning. The way forward, as identified by participants, is improving the quality of current tourism products and developing new products to allow entire communities to benefit.

Importantly, the contribution of tourism to food security was mainly seen in terms of its immediate economic impacts on the local communities without any recognition of the broader tourism-agriculture linkage as a means of addressing food security concerns. It was found that the tourism sector as a whole is not adequately interconnected with agriculture, nor strong enough to support the local communities' food security. The study recognises the importance of developing a form of tourism that is well integrated with local agriculture and supporting the productivity and efficiency of local agricultural practices and production. As expressed by a participant in this study, there is a need to reform tourism from a sector that is interested in food to a sector that supports production.

6.1. Theoretical implications

This study is among the very few empirical studies that have systematically explored the relationship between tourism and food security. Previous tourism research on tourism and livelihoods has primarily focused on the generic impacts of tourism, such as income and

employment, rather than processes and outcomes related to food security (Mitchell & Ashley, 2010; Richardson, 2010; Tao & Wall, 2009b). This is problematic as it doesn't recognise food security as an ultimate development outcome of tourism and thereby overlooks the diverse links between tourism and food security. Most of the studies to date in the field of tourism and sustainable development have mainly focused on the tourism-poverty reduction link (Scheyvens, 2007; Scheyvens & Russell, 2012; Zhao & Xia, 2020) rather than focusing on food insecurity per se, and without explicitly addressing food insecurity challenges (Degarege, 2019). This study extends the application of the sustainable livelihood framework to tourism and food security linkages, exploring the direct and indirect relationships between tourism and food security. Understanding how tourism relates to perceived food security outcomes of tourism destination communities facilitates a more nuanced understanding of tourism and SDG2 (Degarege, 2019; Degarege et al., 2018).

The findings of this study emphasise that tourism may help address the concerns of food security in the long-term but only when win-win relationships between tourism and agriculture are established (Berno, 2011; Telfer & Wall, 1996; Torres & Momsen, 2011). In this study, similar to Hepburn's (2016) findings, limited tourism-agriculture linkages have restricted the capacity of tourism to contribute to food availability and other components of food security. However, some capacity for tourism to help farmers to safeguard their ability to ensure local food security was identified from two perspectives. First, the role of tourism earnings in supporting the household's expenditure for different agricultural essentials was highlighted. For a few households, tourism-income-induced purchasing power was found to contribute to production-based entitlement or agriculture sector performance by enhancing a household's ability to buy and use modern farming inputs and technologies such as modern seeds and fertilisers. Secondly, some community members have started taking tourism loans to fatten sheep and plant fruit and vegetables. This study asserts that despite the limited scale of such practices, householders' own production through such channels influences both the availability of food as well as their capability to purchase other food and non-food items in exchange.

The research also identifies that employment, income and other economic roles of tourism are important for economic access to food. The study recognises the value of a strategic intervention addressing the poorest of the poor, and that creating strong backward and forward linkages between tourism and other sectors focusing on smallholder farmers is essential. Existing tourism literature does not recognise how tourism jobs and income can result in stable food security or the reverse. The current study highlights how tourism employment is related to both food consumption and food stability. These findings underscore the importance of future research that examines the nature of tourism employment and how this may impact upon food security for employees

as individuals and for their households.

6.2. Sustainable tourism policy implications

Despite being a global concern, food security is almost absent as a subject of tourism-related development policies and plans in many cases. Likewise, given that Ethiopia is under a pervasive situation of food insecurity, the findings suggest that initiatives thus far fail to acknowledge the food security implications of the tourism sector. It was the premise of this research from the outset that understanding the tourism-food security link is essential to systematically identify sustainable tourism practices that may help to address the enormous global challenge of food insecurity that is positioned as SDG2. Food security-oriented interventions in sustainable tourism need to be guided by policies and implemented using policy instruments that put policy into practice (Howlett, 2010). There may be value, for example, for tourism offices to specifically identify food security as a separate goal - something that was absent in this study, despite the profound food insecurity at both study sites. Such policy initiatives may contribute to tourism contributing to better food security outcomes for tourism destinations that rely upon well fed and nourished communities.

6.3. Limitations and future research

The results of this study contribute to the broader and interdisciplinary area of study - tourism and sustainable development - with special emphasis on food security. In this paper, while consideration was given to providing unique theoretical and practical insights on tourism and food security relationships, along with addressing public policy implications, the findings may not necessarily apply to different destinations. Research in a range of tourism destinations may provide a more comprehensive understanding of the research issue. Given the variability of the food security situation prior, during and after harvesting periods, carrying out data collection with a more diverse range of stakeholders and using a longitudinal research design may provide more in-depth, potentially distinct findings. Future research can address the limitations of this exploratory study in several ways. One approach would be to evaluate a range of variables that could be used to quantify the impacts of tourism on food security. This approach would provide a helpful baseline for policy development and intervention. Moreover, comparative studies between different destinations could provide further insights into the range of food security implications of tourism. In this regard, more in-depth research that centres on each component of food security is suggested. Despite these limitations, this study provides a valuable theoretical and conceptual basis for more critical future research on the tourism and food security nexus.

Appendix A. Appendix 1: Interview and Focus Group Guides

General information about the participant	
Research site:	_____
Code for the interviewee:	_____
Educational level:	_____
Age:	_____
Role	_____

Questions for local community participants

- What are the major livelihood activities for your household?
- What are the major livelihood challenges/problems for your household?
- What was the livelihood and food security context before the arrival of tourism?
- Do you think that tourism brought about better market access? If yes, how? If no, why?
- Do you notice any change in food processing and storage? If yes, how? If no, why?
- Do you notice any change in livelihood and food security? If yes, how? If no, why?

- How could you explain the change in food availability?
- How could you explain the change in food access?
- How could you explain the change in food utilisation?
- Do you think tourism income influences your agricultural practices? If yes, how much is it helpful? If not, why is it not helping?
- Have you faced any problems with resource ownership - such as land? If yes, how? How have you addressed this problem?
- Based on your experiences of working with visitors do you notice any changes in your eating culture? If yes, how? If no, why?
- Do you think the community's food security can benefit through tourism?

Interview questions to other stakeholders

- What are the major livelihood challenges/problems of the area?
- What are the possible causes of food insecurity?
- Who are most affected by these problems? Why?
- What policies/strategies/programs are available to solve these problems?
- What measures do the communities take by themselves to overcome the problems?
- Do you think that your organization's initiatives are sufficient to bring about food security? If yes, how are these initiatives working? If not, why are they not sufficient?
- Do the interventions have negative impacts in the locality or on other surrounding areas' food security?
- What are the challenges for the organization in implementing activities aimed at improving rural livelihoods and food security?
- Do you have a working relationship with the tourism sector with regard to food security and beyond? If yes, how? If no, why not?
- In your opinion, how do you explain the role of tourism?
- Do you think that the community can gain food security within the current framework? If yes, how? If no, why not?
- What do you think are the solutions to overcoming development problems in your area and enhancing food security?

Focus Group Discussion Guide

General information about the participants

Code for the participant/s:

Educational level:

Role:

Themes and discussion points

Livelihood and food security context

- What are the major livelihood problems in the area?
- How do these problems affect the livelihood of the local community?
- What activities are carried out to address the problems?
- What are the challenges encountered?
- What are the major outcomes registered?

Tourism and food security

- How do you describe the relationship between tourism and food security?
- What interventions are there by the government? Is there a coordinated effort?
- Do you notice any change in livelihood and food security before and after tourism development in your locality? How?
- Have you had any mechanisms to link tourism with food security outcomes?
- What is the plan to foster food security through tourism?
- What are the challenges in undertaking tourism in your locality? Specifically with food security?

Institutions

- Do all community members equally benefit from tourism? How? Why/why not?
- What support do the communities get from local government offices/NGOs to improve their food security?
- Do you think that the current institutional system is supportive to advance food security through tourism? How? Why/why not?

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