Examining the Role of Intergenerational Relations in Food Systems: Evidence from Western India

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Abstract: Food systems and their normative goal of achieving food security remain a robust global agenda. However, with the shifts toward a sustainable food system, there is an increasing interest in consolidating evidence on multiple dimensions of the food system. This article is an empirically grounded argument for using intergenerational relations to expand understanding of food systems by looking beyond the usual security outcomes and emphasising social welfare outcomes. Drawing on ethnographic research in an indigenous village in western India, I examine a rural, local food system and the transformations therein because of various socio-economic drivers, including changing livelihood opportunities. Evidence shows growing generational solidarity, with some positive effects for environmental sustainability and for revaluing indigenous culture, including traditional food systems, and generating new local livelihoods. Simultaneously, though, tensions are being created around intergenerational autonomy and cultural expressions. Moreover, the food transition has resulted in a decline in the nutritional content of local diets, which has health implications. This article raises questions whether trends towards sustainability and resilience are necessarily mutually reinforcing for natural resource-dependent indigenous communities and our natural environment.

Key words: Food systems, India, indigenous, intergenerational, sustainable development

I. Introduction

Irjuk, a traditional agricultural practice in an indigenous village of Makadwadi (a pseudonym) in western India, entails a group of male farmers coming together to celebrate their harvest, typically eating a vegetarian dinner on a farm. Irjuk has gradually disappeared from the village over the last decade. It is not that farmers have abandoned the practice of *Irjuk*; instead, the younger generation has repurposed *Irjuk* in the form of a *Komdi* (Chicken) party to fit their view of 'modern' culture. The *Komdi* party also celebrates the harvest and brings together young male farmers, although they prefer eating non-vegetarian food, dancing and drinking alcohol. This brief account reflects the changing socio-cultural dimensions of a local food system, highlighting the shifts in generational food choices and consumption practices, which are particularly relevant for developing countries.

A food system is a complex, social-ecological system (Ericksen, 2008a) broadly defined as a chain of activities from food production, processing, distribution, and consumption. Food systems have multiple outcomes, so

in addition to food security as one of the principal outcomes, other outcomes include social welfare and environmental security. They comprise interactions between various social, economic, political and geographical drivers. These food system activities, drivers and outcomes produce feedback loops that interact and impact all these components of a food system (Ericksen, 2008a). *Irjuk*, the local phenomenon presented here, exhibits one of the integral components of food systems, namely, the socio-economic drivers, emphasising the process of changing cultural practices shaping food consumption behaviours. My analysis of the shift from *Irjuk* to *Komdi* party echoes the sentiments of many debating transitioning food systems and the desire to achieve more sustainable ones.

Emerging food behaviours in Makadwadi can be attributed to changing livelihoods. Over the last decade, ecotourism has rapidly developed in the region. High-class resorts advertised as 'Eco Boutique Resorts' promote the region as the 'Scotland of Maharashtra'. Key attractions include trekking in the mountain ranges, a clean natural environment, fresh food from organic kitchen gardens, dining under the stars, luxurious private cottages and open-air banquet venues catering to sunset cocktail parties, conferences, corporate getaways and more. These livelihood changes appear to have led to a revival of traditional knowledge and food practices and a higher degree of intergenerational solidarity and support. Despite generational conflicts, these emerging positive intergenerational encounters provide valuable entry points to expand our understanding of sustainable food systems, as I will argue in this article.

This article uses two conceptual ideas to navigate the tensions between the continuity and change in local food consumption practices in a village landscape experiencing rapid change due to the growth of ecotourism over the past decade, namely, food environments across different food systems and intergenerational relations.

Global food systems' contribution and performance are directly linked to the Sustainable

Development Goals (SDGs) of zero hunger, good health and well-being, sustainable cities and communities, responsible consumption and production and overlap towards other common global goals (Chaudhary et al., 2018). Food systems, thus, are acknowledged and employed as a core actionable entry point to achieve food security and nutrition (Haddad et al., 2016; Pinstrup-Andersen, 2009). They largely remain conceptualised as a linear set of activities focusing on agricultural production to consumption, often referred to as 'farm to fork' (Haddad et al., 2016). However, recent studies have mostly focused on agricultural production and its impact on health and nutrition (Gillespie et al., 2018; Kadiyala et al., 2014, 2019; Ruel et al., 2018). There also exists a growing body of work concentrated on malnutrition and its risks for older generations (Amarya et al., 2015; FAO, 2014; Vedantam et al., 2010) and among youth (Kadiyala et al., 2019), for example, yet all these focus on specific groups, and selected components of food systems, rather than the linkages between them.

While perhaps implicit, an open discussion of intergenerational differences, commonalities, and specific vulnerabilities is missing in the above framing. Despite increasing scholarship surrounding food systems activities and their food security outcomes, the link between the food systems drivers, namely, socio-cultural drivers (in this case, the intergenerational relations) and outcomes remains largely unexplored, with a few exceptions (Carm, 2014; Jackson et al., 2020). For example, there is significant emerging literature on food systems' other key components, such as resilience and sustainability (Bene et al., 2019; Foran et al., 2014; Tendall et al., 2015). Nevertheless, there remains scope for research on food systems to better engage with other dimensions of importance, such as social welfare, by including consideration of intergenerational relations as a key critical driver.

Intergenerational relations are studied in the gerontology literature that typically focuses on demographic trends and their effects (Cohen, 1992), social security (Agarwal,

1994), social contracts (Kabeer, 2000), health care and emotional well-being (Vera-Sanso, 2004), and living arrangements (Jothikaran et al., 2020). From an agricultural context, the literature focuses on material dimensions, such as the intergenerational succession of land and resources, labour and employment (Agarwal, 1994).

Along with the intergenerational succession of farmland and other material resources, the generational transfer of traditional skills and knowledge, from a livelihood perspective, remains a valuable aspect of a food system. Although farming underpins most of the economic activity in a food system, it is not the sole contributor. Other livelihood options, such as non-farm labour wages and businesses (including tourism), contribute to a local food system (Tomich et al., 2019). Studies show that thirty to fifty per cent of rural income in developing countries is estimated to come from rural non-farm activities (Townsend et al., 2017; World Bank Group, 2017), often embedded within traditional skills and knowledge. Recent scholarship incorporates comprehensive livelihood resilience indicators of the food system such as 'local knowledge, resources, capabilities, making a living, power and participation and social capital' (Jackson et al., 2020: 172).

Understanding the role of intergenerational relationships in food systems and how they change over time, especially with changes in the food environment relating to their multiple outcomes, has received less attention. This article seeks to plug this gap by specifically asking: What is driving the food transitions in this food system? What are the implications of the dynamic shifts in food environments for intergenerational relations, both solidarities and conflicts?

The article first presents the two conceptual starting points and the methodology. The analysis will reveal areas of conflict and solidarity in intergenerational relations in the context of different food systems and the transitions therein. I then discuss the emergence of hybrid practices between the 'traditional' and the 'modern' food system,

spurred by the development of ecotourism and the search for the 'authentic'. I conclude with the suggested role of intergenerational relations as a valuable socio-cultural entry point for a better understanding of the sustainability of food systems.

II. Conceptual Starting Points
Food Systems
Various food systems exist globally, nationally, regionally and locally. Some share features and outcomes, but any changes in food systems must account for their uniqueness, including culture, local economic structures or traditions. Food systems are multi-dimensional and remain contested, with studies focusing on different food chains or varying contexts (Ingram, 2011; Martinez et al., 2010; von Braun et al., 2021). I draw on Ericksen's (2008a) definition of food systems in this article. Her seminal work on the conceptualisation of food systems incorporates various activities (production, processing, distribution, preparation, and consumption), their interaction with and within their bio-physical and social drivers (environment, people, inputs, processes, infrastructures, institutions), and outcomes (socio-economic and environmental). These social and bio-geophysical drivers do not operate in a vacuum; they are complexly interconnected and can impact outcomes and produce feedback loops. According to this definition, producers and consumers are embedded in a food system governed by multiple objectives, including reducing malnutrition, promoting health, contributing to income and employment, and other environmental security factors. The multiple actors, processes and interactions at different scales and levels illustrate food systems' complexity and unsettled nature.

Global food systems face the challenges of providing food security and nutrition, providing livelihoods, and ensuring environmental sustainability (Garnett, 2014). In the context of the future of food systems, calls for the transition of food systems to sustainable food systems are gaining momentum (Bene

et al., 2019; Foran et al., 2014). Food systems research and intervention programmes have responded to these urgent calls by incorporating sustainability dimensions into measures of food security outcomes and movement in this direction is being driven by a rising demand for healthy diets. However, to support a transition to a sustainable food system, the assessment of the multi-dimensional performance of the food systems needs to go beyond concerns around productivity, yield gaps and nutrient gaps. Studies exist assessing the vulnerability of food systems (Ericksen, 2008b). However, investigation of the linkages between local food systems and cultural processes (in this case, through intergenerational relations) and their implications for food security from a sustainable food systems perspective still is in its infancy (Ericksen et al., 2009). In other words, little is yet known about how the vulnerability and resilience of food systems are related to changes in intergenerational relations.

The FAO (2018) defines a sustainable food system as one that delivers food security and nutrition for all so that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised. Such a definition infers that a sustainable food system is profitable (economic sustainability), has broad-based benefits for society (social sustainability), and has a positive or neutral impact on the natural environment (environmental sustainability).

Despite sustainability being a multi-dimensional concept, it often remains narrowly defined as too environment-focused. Sustainability is usually framed linearly in the food context, such that healthy diets are seen as equalling sustainable diets: such selective formulations leave gaps and reinforce misleading notions (Haddad et al., 2016). However, progress is gradually being made. For example, in their proposition of sustainable food systems, Foran et al. (2014) emphasise the need to investigate the cultural drivers of food systems, particularly attending to culturally acceptable foods, and to challenge

their applicability to sustainable food systems. The recent work of Jackson et al. (2020) provides an expanded framing of culture and sustainability. They highlight the importance of tangible and intangible loss from a disaster vulnerability perspective in an indigenous food system. They caution against the easily quantifiable documented entry points that may, for example, oversimplify deforestation and the deterioration of traditional knowledge. The conceptualisation of food systems needs to account for intangible loss, including loss of identity, sense of place, ownership of a place, and spiritually valued locations (Jackson et al., 2020). I attempt to locate my empirical findings in this space of culturally inclusive and comprehensive sustainable food systems perspectives.

Mapping Intergenerational Relations:
Cultural Drivers of Food Systems
One of the most influential models of intergenerational solidarity, Bengtson and Roberts's solidarity model (Bengtson and Roberts, 1991), puts forth different dimensions of solidarity as constitutive of intergenerational relations. These include structural solidarity (residential proximity), associative solidarity (frequency of contact between family members), consensual solidarity (agreements on beliefs and values), normative solidarity (expectations, mutual obligations), emotional solidarity and functional solidarity. The solidarity model focuses on the emotional and social aspects of the relationship between the two generations. Other frameworks of intergenerational relations also focus on the conflicts and ambivalence dimension (Duflos and Giraudeau, 2022; Lüscher and Pillemer, 1998). Accordingly, my analysis of intergenerational relations attends to both aspects of solidarity and conflict between the generations.

Since my research interest is in ecotourism's effects in a rural Indian village, I concentrate most on the material dimensions of intergenerational relations, which are less prioritised in Bengtson

and Robert's model. Further, I specifically locate my analysis of intergenerational relations in the South Asian context, where intergenerational relations are primarily characterised by the normative, region-specific, and gerontocratic pathways that make up family and kinship hierarchies. In India, patriarchy is strong, kinship is predominantly patrilineal, and patrilocal residence is normative (Shah, 1998). The elderly men command power, control over assets, respect and authority and are perceived as ultimate gatekeepers of knowledge, a common feature of such kinship structures.

Multigenerational family structures or co-residential living arrangements in India are well documented, especially from a sociological perspective (Lamb, 2005; Madan, 1993; Shah, 1998). Within this residential arrangement, family members share household functions, economic resources, assets, and emotional support between older adults, adult children, and grandchildren (Chadha, 2004), with clearly defined gender roles. Income generation and provision largely remain male responsibility, while the caring responsibilities of older people and the household tasks chiefly remain the responsibility of female family members. The extended family system in India has been a core support system, fulfilling filial obligations and embodying the continuity of traditional family values, customs, rituals and culture (Madan, 1993).

The 20th-century modernisation theory of sociology predicted societal transformations and the move towards a nuclear family structure owing to industrialisation and urbanisation. However, Indian sociologists have challenged this prediction (Madan, 1993; Shah, 1998; Sudha et al., 2006) that framed family structures as having economic interests at their core. For example, Madan (1993) argued that the 'cultural ideal' of extended family living overrides economic interests. Nonetheless, globalisation, education, age-selective migration, livelihood opportunities and labour market transitions have caused an increase in the nuclearization of Indian families. Research supports the assumption that the rising nuclearization of Indian families has led to declining family bonds and diminishing family values (Lamb, 2005), which further results in the marginalisation of older adults (Chadha, 2004). However, recent research demonstrates that families use multiple strategies to maintain traditional family values and emotional bonds despite changing living conditions: for example, family members offer each other emotional support through online calls, maintain caring obligations from afar by outsourcing care and/or redistributing caring responsibilities between siblings (Bailey et al., 2018; Jothikaran et al., 2020). The Indian extended family structure typically constitutes three generations (older adults, adult children and young children): it is often presumed that filial obligations, multigenerational solidarity and bonding are universal features of these extended family structures, even though there is strong evidence to suggest that conflicts occur within them and actual relationships are divergent (Kabeer, 2000; Lamb, 2005).

A significant dimension in most developing countries' multigenerational households is material leverage. In agrarian societies, in contrast to some urban populations, people do not typically retire at 60. Thus, many older men and women farmers remain physically active and contribute economically toward household livelihoods and welfare (Sen, 1982). In my case study area, as in most traditional, agrarian patriarchal societies, family structures, life cycle patterns, and social relations place senior male members in a position of power and control over material resources. Women, typically, experience gender inequality; however, as in most South Asian societies, older women command relatively more power and autonomy than younger women (and some younger men) (Gupta, 1996).

III. Context and Methods
Study Area
Makadwadi is a small village in the foothills of Kalsubai, the highest peak in the western Indian state of Maharashtra. Located in Ahmednagar district, the village is nested within

the high-altitude Western Ghats landscape, with rugged terrain, deep valleys, waterfalls and dense forests above an altitude of 900 meters. It is home to a rich biodiversity of flora and fauna, including a diversity of birds and insects and has an abundance of mango and jamun (Indian blackberry) fruits. There is significant variation in the annual average rainfall in the region, in a range of 500–1200 mm, estimated from 1990 to 2020 from the India Meteorological Department data.

In 2011, Makawadi had a population of 1214 in 258 households and a female literacy rate of 24.4%, lower than the average Indian literacy rate of 57.7% in the village. Makadwadi is a scheduled tribe village, with more than 95% of its population belonging to the predominantly Hindu Mahadeo Koli tribe (Census of India, 2011).

Agriculture in Makadwadi is *Koradwahu Shethi* (rainfed in semi-arid tropics). With red laterite soils, it is primarily known for its paddy cultivation, though Varai (Proso Millet) and Nachani or Nagali (Finger Millet) are grown along with rice. Most small and marginal farmers own land on the mountain slopes; only a few better-off farmers had small plots in the foothills and the plains in and around the village. Traditional agricultural practices of land clearing, burning biomass, worship, and sacrificial rituals are followed by sowing, weeding, harvesting and threshing, all tasks performed manually. Women and men are engaged equally in agricultural activities—258 men and 252 women were classified as main cultivators in 2011. In comparison, 31 men and a slightly higher number of 52 women were classified as agricultural labourers (Census of India, 2011).

Ecotourism has rapidly expanded over the last decade in this picturesque village. Most urban clientele come from the big cities of Mumbai and Pune. A large number of health and wellness spas have mushroomed in the area. Campfire nights, forest night walks, trekking, rappelling, free climbing, bird watching, canoeing, and kayaking are available. Several private corporate resorts, as well as the Maharashtra Tourism Development Corporation (state government Tourism Directorate), have created special packages for different categories of tourists, for example, pilgrimage packages for the devotees, honeymoon packages, adventure packages including trek to forts, rappelling, and heritage tours to explore world heritage sites in the region. There are special discounts for schools, families and corporations.

Youth who had previously moved to the cities for jobs and higher education (a common livelihood practice) are returning to Makadwadi. Ecotourism has created local demand for shops, eateries, camping gear, rental tents, tour guides, parking lots for vehicles, and several other small businesses. Most farming families are becoming entrepreneurs during the monsoon's peak tourist season. Young people are innovating with digital technologies to promote various activities to attract tourists. While social relationships between the youth and older generation, particularly concerning care provision, had become increasingly strained due to youth out-migration, leaving older parents to manage independently in their rural homes, this is gradually changing again because of the development of ecotourism.

Methodology

The article draws on ethnographic research investigating the role of intergenerational relations in changing food systems, both production and consumption practices. Fieldwork was conducted during April, May, and December 2019. A total of 20 audio-recorded, in-depth semi-structured interviews were conducted with three generations of male and female community members (older adults, adult children and grandchildren), most of them engaged in agriculture on their family farms. Young respondents (grandchildren), females and males, six of each interviewed, were aged 16–25. While the older respondents (older adults and adult children) were between 45 and 90 years of age, three of whom were

women, and five were men. I conducted interviews in Marathi, the native language of the respondents and myself. Interviews were recorded, transcribed and translated from Marathi to English. Purposive sampling was used as I began by recruiting farming families who were also involved with some aspect of an ecotourism-related business and later used snowballing techniques to recruit other similar families.

I also report on data from two focus group discussions with women farmers aged 25–75. Using participatory tools and a semi-structured topic guide, seasonality, food consumption practices and broader intergenerational relationship experiences of women in their communities were explored. The seasonality maps and running notes during the discussion were later used to generate written notes of the group discussions.

In addition, I draw on recorded participant observation data from the three field visits, each lasting a week. Detailed notes from my discussions with community gatekeepers, such as the *Panch* (elected village leaders), school teachers, primary health care workers, *Anganwadi* workers and youth groups exploring broader intergenerational dynamics in an indigenous agrarian community, are recorded. The discussion topics included decision-making around agriculture-related activities, education, marriage, career aspirations, non-farm ecotourism businesses, caring for older people, household residence, and migration. Interactional data between three generations were recorded. I also participated and took notes in two informal group meetings: first of male farmers with *Sarpanch* (the elected leader of the village) and second, amongst themselves. Both informal meetings discussed using hybrid seeds, chemical fertilisers, water provision, and government contingency funds to cover losses from the last harvest. Women's self-help group meetings that discussed techniques for preserving wild foods and seed preservation were observed. Informal meetings of young males discussed membership of the *Ganapati*

Mandal (an informal youth group), water conservation techniques, new business plans, and addiction and gambling problems.

My positionality may have influenced the kinds of responses I got from study participants. As an experienced ethnographer, I employed critical reflective writing techniques and maintained a journal to record my interpretation process and thoughts. My age, marital status, nationality, shared language, and certain cultural aspects proved helpful in building rapport with the community members. The older adults perceived me as socially acceptable. They particularly appreciated that I was from a similar extended family and farming background, if not of their ethnicity. The younger generation was fascinated by the fact that I had visited many different countries and tried to make sense of and identify commonalities in, our rural-to-global journeys.

The data were thematically analysed, using Braun and Clarke's reflexive thematic analysis approach (Braun and Clarke, 2006, 2019). The underlying theoretical assumption in this study is based on the key principle of respecting the participants' experiences and expressed subjectivity while embracing my reflexive influences in interpreting these meanings. Thus, I situate the analysis in a constructivist epistemological framework and employ an experiential orientation to understand the data. My experiential approach acknowledges and prioritises the socially constructed nature of intergenerational relations from the participants' subjective accounts and their 'meaning making': as such, my analysis is not concerned with trying to arrive at a singular or positivist understanding of social reality.

I used an inductive approach to analysis, predominantly, in which open coding sought to represent the meanings communicated by the participants. Following Braun and Clarke (2006), my analytical process began with data familiarisation, followed by the preliminary coding of data to generate themes around

food systems, intergenerational conflicts, solidarities and resilience. A review of initial themes was conducted to assess whether they offered a meaningful interpretation of data that related to the research questions. This analytical process generated a thematic map of intergenerational relations in the context of changing livelihood opportunities and their impact on the food system. The map consisted of three themes (traditional, modern and mixed food systems), each with sub-themes, which I will present in the following section.

The ethical approval for this study was obtained from the Ethics Committee of the School of Global Development, University of East Anglia, UK.

IV. Food System Transitions and Intergenerational Relations

In this section, I first discuss generational perspectives on 'traditional' and 'modern' food systems, exploring areas of conflict and solidarity across them. I then present the impacts of ecotourism on local food systems and how intergenerational solidarities are changing; as a result, I focus on the negotiations and conflicts around food served to tourists and consumed at home through the 'mixed' food systems.

Traditional Food Systems

The respondents' perspectives on traditional food systems illustrate solidarities and conflicts in generational constructions of food and its embeddedness in their lives. The respondents generally place food into a higher realm of existence, seeing it as the essence of life and a guiding life force. Their sentiments about food are manifest in a local saying: *'Anaa he prana, aaushadhi ani poshan'* (food is vital life-energy, medicine, and nutrition). This philosophy is also rooted in *Ayurveda*, the ancient Indian medical system. Most participants perceived nature, environment, and human well-being as interconnected entities, which only made sense when spoken holistically.

The participants took pride in their family identity of being *Malkaris* or *Warkaris*, a devotional cult, followers of the Hindu Lord *Vitthal*. They expressed their identity through everyday food rituals, for example, following strict vegetarian diets, eating specific foods when fasting, not consuming alcohol and participating in communal religious activities. The findings align with a recent study (Albert and Ferring, 2018). It shows shared family values that provide a map or rule book for family members to live their lives and interact with each other, including certain obligations and specified roles and boundaries within the family unit, which played an essential role in how people adhered to food consumption practices. I discuss the generational commonalities and conflicts around traditional food systems below through the subthemes of traditional knowledge exchange and the role of festivals.

Traditional Knowledge Exchange
Around Food

Most respondents defined well-being as remaining close to nature and drawing on traditional knowledge to maintain a healthy lifestyle. Knowledge of the nutritive and medicinal values of wild and uncultivated crops found and consumed locally is still passed on from the older generation to the younger generation. Elsewhere (Shukla, 2023), I demonstrate that these encounters create and sustain vernacular food literacies in ways that can positively impact sustainable development. All three generations of respondents in Makadwadi expressed a sense of losing traditional knowledge, especially about using various local wild foods. For example, water is scarce in the village and hard, with a high mineral content (*shaar*). The high content of calcium and other minerals in the borewell is understood to cause kidney stones, a common health complaint in the community. Many respondents from all three generations could identify a specific herb[1] and its medicinal properties. Consuming this herb was widely believed to cure and prevent kidney

stone formation. Several success stories were shared.

Likewise, an older male participant shared his traditional knowledge of a wild fruit with medicinal properties and its usefulness in maintaining good health: '*Laxaman Phaal* [a wild fruit] is a charm for those with a low WBC count [White Blood Cells]. I have a tree in my backyard. It sells for 70 or 80 rupees per piece in cities' (77-year-old man). He expressed sadness: 'Our *Vana aaushadhi* [wild medicinal plants] are declining now. How will this young generation learn about these things? We try to teach them while we live, the rest God knows'. His mention of the commercialisation of this wild fruit may be a way of providing a comparative perspective to underline the credibility of the indigenous claims about its properties. His words confirm the tangible loss of traditional knowledge and resonate closely with the inclusion of losses of indigenous medicines, as culturally important goods, as 'tangible losses' in Jackson et al. (2020).

Several younger generation respondents shared their concerns about the reduced forest cover and consequent decline in the availability of medicinal herbs. They associated this with cutting trees for firewood and the commercial use of medicinal herbs.

The older generation also shared their food memories, stories of forgotten foods, and their use as energy sources and medicinal properties. These memories referred to the bulky fibre content of some of these foods that filled their stomach and held hunger for more extended periods:

> We ate lots of *Chhai* and *Komda* [wild leafy greens] with *Nagali Bhakari* [Finger Millet bread]. We boiled it and ate, no salt, spices or oil. Only to fill our stomachs (88-year-old man).

This knowledge of these fibrous foods' contribution to energy balance, their ability to regulate hunger, and the ability of satiety-inducing effects, was specific to the older respondents. Although the younger generation could identify these wild greens and collect them from the forests, they were unaware of their impact on energy balance. The opportunity to pass on this valuable element of traditional knowledge to younger generations appears to have been missed.

The various functional and utilitarian aspects of forgotten foods were reminiscent of the poverty and hunger that older generations had confronted. However, the nutritive value, medicinal use and health benefits are not lost upon them, making them keen to pass on this knowledge to the younger generation. However, the older generation felt alienated from the important cultural role of elders sharing their traditional wisdom with the younger generation. Older respondents noted that the generations had drifted apart somewhat, noting: 'They do not have time, they make fun of us, they think we are stupid and useless' (older woman in group discussion 1).

Youths associate traditional knowledge closely with older generations, their older ways and inevitably with patriarchal power hierarchies that privilege older men. One youth's criticism of the persistence of these hierarchies was revealed when he was asked if traditional knowledge could be put to some other use. The youth responded: 'In our village, that is the norm. An older person who has probably lost their mind, gets to decide what needs to be done for the development of village' (25-year-old man).

While there was consensus and solidarity amongst the older and younger generations on issues of well-being and indigenous knowledge, especially about medicine and health, there were conflicts around some cultural practices, which the youth see as outdated and superstitious.

In a group discussion, older respondents noted that traditionally animal sacrifice to the village deity had been practised to safeguard their community's collective health and well-being. Sacrificing an animal (usually a goat) for special events, such as the first or last marriage in a household, had also been a marker of cultural prestige. The practice was now moribund despite older respondents' continued

assertion that it was necessary. However, the younger generation did not agree that animal sacrifice was needed to signify cultural prestige and were happy that such practices had stopped in their village. In spite of this change, some youth felt disillusioned and voiceless concerning matters of such cultural prestige. In a focus group, several youths agreed: 'The older people take all decisions, we cannot speak, we are idle watchers' (focus group 2).

The Role of Food in Festivals

Festivals and associated communal food rituals are still strictly adhered to in this community and are intertwined with their indigenous identity as *Malkari*. One of the most important celebrations is the *Ganapati* festival (worshipping the elephant god). Spread over ten days, usually during the monsoons, people cook elaborate meals, eat, pray, and organise many social events. Culturally, the festival acts as a binding factor across generations by presenting opportunities for procedural knowledge exchange. For example, by performing certain rituals together, younger members learn *Pooja* (worship), thus developing social cohesiveness in their community. Customarily, the older people pray and undertake devotional activities while the youth engage in fun games and dancing. This period also brings in many tourists for pilgrimage, to observe the festivities, and trekking and camping.

The food cooked and consumed during various festivals reveals dietary diversity in this traditional food system. Besides the medicinal value of uncultivated foods, older respondents shared stories of varied diets, special foods, and seasonality, which were also reflected in their preparation for festivals. Older women mentioned that making *Puranpoli* (sweet naan bread-like recipe) or the agricultural festival of *Pola* (showing gratitude towards oxen) and four or five other local recipes was mandatory. Similarly, the onset of the spring season is culturally and traditionally celebrated as *Sankranti,* a festival celebrated in many parts of India with different names. For *Sankranti,* women cook a special rice recipe, as well as *Teel chi laadoo* (sesame seeds and jaggery sweets). The *laadoo* symbolises peace and joy, celebrating differences between individuals, and is exchanged between people on this day.

There exists a gendered normative difference across generations regarding expectations and obligations. Younger women said that cooking the traditional recipes was labour and time-intensive, which is one reason for their decline. However, the village's fast-transitioning culture has brought modern food systems that mark the festivals and food rituals differently, with easier-to-make recipes. However, younger women believed that they would only be able to decide what/how to cook for festivals and rituals once they had reached a stage in their life cycle when they were senior enough to have the authority to do so. 'If they were recently married, they did not have a choice' (17-year-old young woman). Most young men expected the elaborate cooking in their households during festivals to be undertaken by women of their families. Although they helped in the cooking, they largely perceived this as a woman's role. An exception was the large communal cooking events, which are public and command prestige, where men specifically led in their community. Adult male respondents proudly recounted their experience of cooking for a traditional religious event in their village, 'we cook non-stop for those seven days and feed more than a thousand devotees' (54-year-old man). The labour-intensive cooking by men in such instances is perceived to be a performance worthy of social recognition.

Powerful age normativity is evident in several interviews. It was also clear during participant observations that the older generation perceives themselves as custodians of valuable traditional knowledge—environmental, farming, nutrition, and life cycle—often discarding the formal and informal knowledge that the younger generation may have. Interview and focus group responses

revealed how older respondents constructed their identities as the pure and unblemished protectors of the indigenous *Malkari* culture and the environment whilst youth perceived themselves as powerless, lacking a voice in community-level decisions. These underlying differences raise questions of trust and autonomy between the generations in relation to the traditional food system and its associated cultural practices.

Modern Food Systems

The respondents' perspective' on 'modern food systems' reflects the changing nature of food systems and I discuss these below through the sub-themes of food consumption practices and behaviour; perceived transition in culture, heritage, and identity; and changing notion of the physical self. An older adult referred to the overall changes in his community as '*Te mordernaa zale*' [they became modern] (88-year-old man) expressing the dynamic whereby their indigenous community generally is being exposed to the modern world.

Food Consumption

There was an inclination toward non-traditional food consumption in Makadwadi. Data showed observable shifts in the consumption of traditional staple crops such as millets to wheat. Similarly, a gradual change in food access (e.g., new urban food markets) and production practices (e.g., an increase in street food vendors in local markets) was evident. Accessing and consuming pre-packaged foods and aligning their 'taste' to match their urban, sophisticated clients was perceived by respondents as a symbolic gesture of becoming 'modern' in the village. It was more acceptable though to consume street food brought back from the local marketplace. However, both street foods and pre-packaged foods were clustered together as '*soppay khane*' (easy foods) by one of my young respondents to denote less physical effort to cook and time-saving food, and I employ this categorisation in this analysis.

While a few respondents from old and young generations viewed health as wealth and reported making careful choices in terms of what they consumed, one of the visible changes in diets was the consumption of 'easy food'. The following quote summarises what the respondents saw as a modern food system, namely one where the household food culture incorporates easy street foods as part of their routine food consumption.

> On average, once a week. Whenever a family member goes to the main *bazaar* [market], they bring a parcel of street food back home. It is common. It can be anything like *pav wada*[2], for example (25-year-old man).

While some respondents appreciated that some pre-packaged foods and street foods provide 'empty' calories with, in their opinion, reduced nutritional value, they nevertheless felt unable to withstand this change in consumption practices. The quote below also highlights the shift in choice of staple grain consumption, towards wheat, the green revolution grain crop:

> No matter how beneficial to our health, people will not eat it if it is not tasty. For example, many *Raanbhajya* [wild vegetables] are highly nutritious, like *Kandmule* [roots and tubers] boiled and included in diets to strengthen our bones, or *Shevagyachi bhaji* [drumstick] is helpful to prevent night blindness. People know this all, but they are not inclined towards these foods; they are interested in cooking wheat chapati, dal [pulses] and vegetables, pre-packaged food with it, more oil, and spicy foods these days (25-year-old man).

Loss of Identity

'Modernness' is not just restricted to changes in daily food choices in this indigenous community; it also extends to the cultural shifts associated with becoming modern. There are complex intergenerational dynamics around these shifts: what is acceptable modernness for some younger respondents is rejected by their elders. Despite an agreement between the generations on various issues related to

food consumption and the celebration of festivals, some critical points of difference remain regarding modern culture and identity. For example, while the elders are not against socialising, they see the modern idea of 'partying' as an 'addiction'. They complained that 'Now our *Ganapati* drinks and gambles', a vernacular way of saying that the youth clubs organising the *Ganapati* festival use the opportunity to party and gamble. The fear of losing their pride as a *Malkari,* who traditionally do not drink alcohol, and, as a result, of their community getting a bad name in society, was underpinned by the older respondent's criticism of the drinking culture amongst the youth. They perceived 'addiction' amongst the youth because of the influx of eco-tourists, where urban youth would drink alcohol during their trek and in the camping areas on the peak near the sacred Kalsubai shrine. They felt the younger generation was imitating the '*shahari poree*' (city boys) not only by drinking alcohol but also by disrespecting the tradition of the *Ganapati* festival, which encourages a period of virtuous worship period. During my fieldwork, I visited a small hut used as an unofficial gambling hangout for young village boys and spoke to the informal groups of young men in its courtyard. The young respondents joked about gambling and drinking as 'timepass' activities, implying that they were 'not a big deal'. Young women also complained about the rising 'addiction' amongst male youth in their village. However, they appeared to be more concerned about young boys slacking off work rather than cultural and identity aspects:

> There is too much addiction here, especially more amongst boys. They use cigarettes, chewable tobacco and alcohol. Who will do the work then? Meanwhile, the girls only use the roasted and finely ground tobacco leaf powder (19-year-old young woman).

The older respondents' narratives around 'modernness' reflect 'intangible loss' and resonates with the way that Jackson et al. (2020) conceptualise intangible loss as including a loss of sense of identity or a decline in the sense of attachment to a place. However, the vulnerability experienced to these intangible losses varies notably between older and younger generations. Here, the memory of the scared pilgrimage place, the Kalsaubai temple, is being diluted for the older generation by contemporary practices around visiting it, practices that the younger generation happily participates in. The older generations perceived 'addiction' as a direct effect of ecotourism that has diluted their culture, heritage and *Malkari* identity. Importantly, the younger respondents may also feel socially vulnerable in the face of 'modernness' owing to their indigenous and rural status. For them, engaging in 'modern' practices can be seen as an attempt to break away from these normative identities, demonstrating their aspiration for a modern life, and to fit in with the urban city clients of local ecotourism.

Changing Nature of Physical Identity

The sense of 'modernness' also encapsulates ideas about physical identity that have differed between the generations. Most young male and female respondents' narratives expressed concern with keeping a 'good' physique and working to achieve or maintain a 'desirable' body. The young generation respondents were inclined to work on their physical appearance and characteristics but perceived less need for 'unnecessary' physical hardships, such as 'extra' mountain trips. Conversely, older adults relate physical work to livelihood, survival and food security based on their life experiences. Most older respondents complained that the younger generation was becoming lazy and blamed their decreasing physical activities and increased watching television.

During my fieldwork, I observed the younger boys making multiple trips with oxen to the water well to provide them with water to drink and the younger girls made multiple trips to collect drinking water for the household. Clearly, the younger generation is still doing physical labour, highlighting that

the older respondents' complaint narrative is comparative: in other words, they believe that young people do considerably less arduous physical work today than in the past. An older male complained: 'They will not step one foot outside the house; they say it is hot and sunny. They only want to watch TV and bury their faces in their phones' (54-year-old man). The older respondents associate the physical fitness that comes from climbing the mountains and collecting food and firewood from the forests as inherent to their livelihood and sustenance. As another older male leader noted: 'These days they are all *najuk* [delicate, said mockingly]. We used to climb the mountain four times a day and bring coal in gunny bags thrice our weight. They do not make them like us anymore' (88-year-old man).

Nevertheless, some young respondents were health conscious. For instance, a young male respondent told me: 'I go to the gym in the nearby village and work out every day for two hours' (20-year-old man). His sister sitting nearby gestured to his strong sculpted biceps. These different approaches to physical activity bring out the normative differences in beliefs and values across generations, with older people leading physically active lives as part of their everyday livelihoods, whilst younger people prefer more sedentary lifestyles, but also focus on 'exercise' as an independent task.

Mixed Food Systems

The respondents' perspectives on 'mixed food systems' acknowledge the complexities of contemporary diets in the village that combine foods that are fresh and locally-produced with those that are brought-in and highly processed. Respondents encapsulated 'mixed food systems' as being *'Maggi and thecha'* (Maggi noodles and chilli chutney). Mixed food systems are often interpreted as arising during a transition to 'modern' food systems. Whilst they are generally associated with urbanisation in India, mixed food systems have also penetrated the rural hinterland. Seasonality, food insecurity, the need to pursue multiple livelihood options, and

cultural norms all mean that some dependence on external markets and processed foods has always been a part, albeit limited, of local diets. Consumption practices are not static and commonly involve letting go of some foods in favour of others over time. Although it is not unexpected that this indigenous community is transitioning from a more traditional food system to a mixed one, the drivers and nuances behind this transition point to possible pitfalls regarding the local people's health and well-being.

The food transition in Makadwadi is a result of the current boom in ecotourism. Its national reputation as an attractive ecotourism picnic spot has spurred several changes. As noted, there is reverse migration, with youth from the village returning from cities to pursue local businesses related to trekking and ecotourism. This change has brought imports of pre-packaged foods such as potato chips, Maggi noodles, biscuits, diet sodas and bottled juices to cater to the urban clientele. A range of street foods, such as *pav wada,* is now available locally. As an older man shared:

> The village people cater to their client's food choices. Wild animals like tigers need meat, and urban city people need Coca-Cola. We benefit from the shops, and tourism is important. Youth are taking this opportunity to set up shops. They are not interested in agriculture anyway (88-year-old man).

Nevertheless, ecotourism has also contributed to preserving some of the traditional cooking practices in Makadwadi. All three generations of women shared that despite having access to gas and electricity, they still cook certain dishes the conventional way. For example, most chutneys are still made on a stone mortar pestle, though they acknowledged that most homes had a mixer grinder and electricity for at least some part of the day. They asserted that the texture and flavour of the chutney are better if made on a stone mortar and pestle:

> Mixer is less laborious and quick. My children or in-laws will eat *thecha*[3] [only] if I grind it in a mortar and pestle. I am not too fond of

a mixer grinder's taste and paste-like texture. The tourists also prefer mortar pestle (Female farmers' focus group 1).

A second issue relates to the ingredients and products rather that the style of cooking. Agrarian livelihoods are seasonal, and traditionally the lean summer season is the most food insecure for a majority in the village. Women provide food during the lean period, collecting wild foods (fruits and vegetables) from the forests. Young girls help them collect roots and tubers (Chitnis, 2011). Most households (who can afford to do so) store firewood, food and pickles for the summer and monsoon. The monsoon period is a difficult one as not only does the heavy rain make it difficult to collect wild foods from the steep mountain slopes, but most people are also very busy working on their farms or taking up labouring jobs in nearby villages. A young woman explained:

> Usually, the mothers make pickles from *Awla* [Indian Gooseberry] and mango. They also make rice and other *papads* [poppadoms], *Jamun* [Indian blackberry] preservatives, and *Kurdai* [wheat recipes like fryums], usually for the entire year (17-year-old woman).

With increased trekkers and associated food shops, tents and camping events, alongside the annual pilgrimage to the Kalsubai temple on the mountain and other cultural activities, there is now a greater demand for some traditional foods. Wild foods are served as a special delicacy for lunch and dinner to tourists and others taking a range of holiday packages to the region. Older men and women shared their stories of consuming wild foods to survive in their earlier years and reminisced that wild roots, tubers, and greens were a source of countering starvation. Many had looked down upon these foods, including the younger generation, rather than regarding them as being prestige foods. Today, the same 'wild' foods have gained renewed status with the rising demand from urban clients. However, there is also a stereotype about the idyllic rural life being created. Several participants observed that urban clients perceive the village as idyllic and endowed with rich natural resources and assume that local people's lives afford them ample time to collect and cook wild foods, unlike their own fast-paced city existence.

The older generation welcomed the new narrative about the wild foods that eco-tourists were constructing, namely identifying wild foods as organic, pure or luxury foods, as these now provide livelihoods, income and social status. An older woman told me that:

> *Raanbhajyaa Mahatsov* [wild vegetables festival] is an annual event we have conducted in our village for the last five years. We bring wild fruits, tubers, and greens from the forests to show them to our guests. There is a live demonstration of cooking traditional recipes (58-year-old woman).

However, there were also some important concerns about the commercialisation of these foods. Older women suggested that they keep the wild foods and their traditional food practices for their businesses and the tourists whilst consuming cheaper and easier-to-access foods in their own homes. For example, wild leafy greens were collected and cooked when a group of eco-tourists booked lunch or dinner. The tedious cooking process on the clay stove was also reserved for the eco-tourists while the family cooked their food on the gas cooker. The older adults and the younger generation seem to concur that the needs of the ecotourism clients should take precedence over their personal nutrition needs. A young woman told me:

> Our father stays on the mountain in our farm home and comes to our village home every fortnight to meet us. He will get the vegetables from the nearby market or might bring *Raanbhajya* [wild vegetables] for tourists, and we will keep little for ourselves (22-year-old woman).

An older woman explained this in cultural terms, noting that guests are treated as God, and their traditions require them to be hospitable. Quoting a local saying, she says: 'we serve the guest first, and then the family eats their food' (65-year-old woman).

The transition to a mixed food system here seems to prioritise livelihood over nutritional

needs. The urban clients are served fresh, local, and healthy foods, while for the village community, the consumption of less nutritious food, often 'easy foods', is increasingly normalised. While women ignoring their food consumption in favour of other family members is well documented (Haddad et al., 1997), the shift now is to save the 'good food'—the nutritious wild greens or vegetables—for the ecotourism guests. The earnings generated are not necessarily spent on healthier diets for themselves. Instead, young and older generations seem to prioritise livelihood security and have accepted food insecurity and dietary deficiency as their way of life.

> We cannot get vegetables daily, so we eat more pulses in our routine food consumption—fewer vegetables. We do not have water, so we cannot grow anything. We buy vegetables only once a week, and we must stretch it for the rest of the week (23-year-old woman).

The older respondents reported that satiety and palatability were not traditionally essential in food consumption practices. They believe that the notion that certain ingredients are required to make the food tasty is embedded in modern thinking. They reported that cooking practices have shifted to include more cooking oil, spices and condiments and suggested that this shift compensates for the absence of nutritious food. Older respondents noted at least two reasons why their food preferences were less dependent on condiments and spices than those of younger generations. One was the lack of resources (money) and access to the markets, and the second was their strong perception that the natural flavours of vegetables should be enjoyed rather than destroyed with the addition of spices.

Despite some conflicts and differences of opinion, intergenerational consensual solidarity in the 'mixed' food system practised in Makadwadi is not limited to accommodating more varied food behaviour. It extends also to continuing to value the essence of indigenous identity, their relationships with nature and the forests, within this mixed food system. A young 17-year-old boy, when asked how they learn about food and farming, commented: 'Our life is all about it. Since childhood we have seen, learnt and lived with nature'. Despite food system changes, both older and younger generations continue to value the reciprocal relationships between nature and the community. Children are brought up observing and exploring nature and the forests around them, and this initiates and socialises the younger generation into traditional practices and knowledge. Their conversations with older generations often cover the conservation of indigenous seeds and germplasm, the importance of agro-biodiversity and sustainable ecological farming practices. With the coming of ecotourism, collaboration and solidarity appear to have grown to a degree between the generations. Despite the divergences and conflicts, they need each other materially (resources, land inheritance, traditional skills) and socially (local knowledge and identity) if the community is to succeed with a shared goal in this new ecotourism livelihood. The changes in food systems are part of how Makadwadi farmers are adapting to changes and uncertainties by finding ways to develop livelihood resilience.

V. Conclusion

This research article examines the impact of economic development on intergenerational relations and food systems, specifically in the context of ecotourism. It goes beyond just looking at food security and considers the social welfare outcomes of the food system. The research investigates the complexities of food system transitions in the indigenous community of Makadwadi in western India, including what drives these changes and their implications. The findings show that the current food system sees the growing generational solidarity that revalues traditional food systems but also creates generational conflicts around decision-making and cultural expression. The article emphasises the role of intergenerational relations in

expanding our understanding of food systems and provides a nuanced discussion of sustainable food systems from a social welfare outcome perspective. Finally, the article raises important questions about sustainability and resilience assumptions, particularly concerning natural-resource-dependent indigenous communities and our environment.

The study shows that the transition is driven by new economic opportunities with some positives for environmental sustainability and for valuing indigenous culture, including food culture. However, at the same time, and because of this dynamic, there is a disturbing decline in the nutritional content of local diets (that young and old alike acknowledge). The traditional food system is increasingly becoming something performed for and by tourists whilst everyday local diets have shifted decisively towards a mixed food system. These shifts have generated new local livelihoods but also have implications for health, intergenerational authority and everyday cultural practices. The mixed food system (which retains some elements of the traditional food system) becomes a pragmatic compromise with economic reality and modernity in the name of livelihood resilience.

There is a tendency for urban clients to idealise indigenous lives as idyllic, and linked to this is a reification of the patriarchal authority of senior males even though younger men and women are heavily contributing towards making ecotourism work. The 'cultural brokerage' of women (old and young) and young men remains undervalued, reinforcing patriarchal age normativity.

These observations contribute to the existing intergenerational relations literature (Bengtson and Roberts, 1991; Duflos and Giraudeau, 2022; Lüscher and Pillemer, 1998), by focusing on the material aspect of relationships between three generations of farmers amid livelihood transition. Whilst the new economic opportunities have brought young people back to the village and require them to work across the generations, there are identified challenges for this community that may increase over time,

also documented in literature (Johnston, 2000). These include possible strained relationships, particularly the continuing authority of male elders and disapproval of younger people's lifestyles, and the widely accepted health implications associated with changing diets (incurring tangible and intangible losses, as well as possibly extinction of some aspects of valued traditional knowledge).

The findings echo the need to further investigate cultural drivers of food systems, as suggested by Foran et al. (2014). Further, they align with the expanded framing of sustainability by Jackson et al. (2020), moving beyond the narrow interpretation of sustainability, accounting for cultural dimensions in a food system. The intangible loss of the declining identity of *Malkari*, a sense of place that is particularly religiously and spiritually valued, and other culturally more tangible losses, such as the loss of traditional knowledge of medicines in this food system, should all be considered when considering sustainability.

This research demonstrates the intertwined natures of the local food system and associated socio-economic and cultural processes by examining intergenerational relations. It asks if promoting the food system's resilience in the context of the sustainability agenda is a trade-off for the social welfare of indigenous communities. It challenges the assumption that indigenous and modernist (Western-centric) notions of sustainability are consistent, and calls for alternative perspectives to support the sustainability agenda (Johnson et al., 2016; Parsons et al., 2017; Velasco-Herrejón et al., 2022). The key questions are neatly summarised in a rhetorical question posed by a 56-year-old adult respondent in one of the group discussions: 'Progress, development and sustainability? Whose? And at what cost?'

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Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

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Notes

1. I have not disclosed the name of the herb for ethical reasons.
2. Deep-fried potato patty coated in gram flour, usually eaten in a bun, with chutney.
3. Green chillies chutney is a staple side dip in the village diet. Very spicy and strong in flavour.

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