Human Ecology (2023) 51:265–277
https://doi.org/10.1007/s10745-023-00394-0

Niches, Interstitiality and Impoverishment. Pastoralism Among Afghan Kochi Refugees in Mansehra, Northwest Pakistan

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Accepted: 17 February 2023 / Published online: 23 March 2023

Abstract
We investigate the pastoral practices of Afghan Kochi refugees in Mansehra, Northwest Pakistan, and discuss them through the analytical lenses of *pastoral niche* and *interstitial pastoralism*. We argue that Kochi refugees, in recovering livestock husbandry in exile and doing so in a context of increasing impoverishment, have largely engaged in ram fattening and sale – occupying a niche that requires less financial capital and less labour than ewe husbandry – and that they have done so moving their livestock in the green interstices of a crowded and fenced landscape, relying on networks of (sometimes hostile) relations with local pastoralists and farmers. Fattening systems, interstitial feeding practices, and occupation of dependent economic niches are all features of contemporary and impoverished pastoral livelihoods. The study contributes to the theoretical articulation of these concepts, which might help to capture the complexity of pastoral transitions across the world's rangelands.

Keywords Exile · Sheep husbandry · Pastoral niche · Interstitial pastoralism · Fattening system · Afghan Kochi refugees · Mansehra · Northwest Pakistan

Introduction

Pastoral systems are radically alering across the world's rangelands, with pastoralists navigating across the uncertainties that characterize livelihoods in changing contexts (Galvin, 2009; Namgay et al., 2014; Nori & Scoones, 2019; Nori, 2019b). Loss of rangelands, hindered mobility, market integration, cultural change and formal education are all factors that impinge on pastoral livelihoods engendering multiple and contextual system features and trajectories (Bishop, 2007; Fernandez-Gimenez & Le Febre, 2006; Volpato & King, 2019). Destitution, i.e. loss of livestock and pastures as main means of production, and forced sedentarization have been the fate of countless pastoralists under colonial regimes and continue today with land grabbing (e.g., for plantations for food or biofuel, for conservation purposes) and the engulfment of rangelands in war or drought (Fairhead et al., 2012; Galaty, 2013; Khalif & Oba, 2013; Mezhoud & Oxby, 2011). Everywhere this occurs, pastoralists struggle to regain access to livestock, pastures, and mobility (Blench, 2001; Fratkin & Roth, 2004; Salzman, 1980).

All this is especially true for refugees, i.e. populations uprooted from their environments, deprived of their means of production, and encamped or relocated elsewhere (Colson, 2003; McDowell, 1996). Refugees epitomize the experience of dramatic changes in lifeways and efforts to rebuilt livelihoods in ways that are informed by the past and conditioned by the refugees' status (Agier, 2002; Dudley, 2010). There are recurrent cases in which recovery happens in foreign land, where refugees relate with the social and environmental matrix of the host country, engaging in farming, trade, and wage jobs, while maintaining the ties with members of the community's diaspora (Dudley, 2010; Horst, 2006; Jacobsen, 2005). Refugees with a pastoral background strive to re-engage with livestock husbandry in the host country, deploying social and financial means, mobilizing social networks and diverting resources toward restocking (Volpato & Howard, 2014). This recovery, however, often takes place amidst conditions of impoverishment, uncertainty and marginalization, is subjected to constraints that are different from those in which pastoral systems

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historically evolved, and as such the forms in which it unfolds are a fertile ground for investigating the complexities surrounding contemporary forms of mobile livestock husbandry (Galaty, 2021; Nori & Scoones, 2019).

In this study, we investigate the recovery of pastoral practices among the Afghan *Kochi* (also spelled *Kuchi* and *Koochi*) refugees in Mansehra,[1] Northwest Pakistan, focusing on how these practices are informed by the Kochi's nomadic pre-exile way of living but are also deeply shaped by processes of adaptation to the place of exile with its environmental and social specificities. The engulfment in war of the Kochi rangelands with the Soviet invasion of Afghanistan in 1979 led to some three million Afghans crossing the border into Pakistan. Among them, there were several groups of nomadic Kochi, who struggled over decades of exile to rebuild their pastoral livelihoods. In spite of being one of the most intractable protracted refugee situations in the world, scholars have paid little attention to the ways in which Kochi refugees engaged with the environmental and social landscape of Mansehra (Manduzai et al., 2021), and no research has been conducted on Kochi refugees' pastoral endeavors in Pakistan.

The objective of this study is to investigate the pastoral practices of the Kochi refugees in Mansehra and to find out the ways in which these practices have been shaped by the social and environmental milieu of the host country. We discuss Kochi livestock husbandry in exile within the contours of pastoral transitions using the notions of *interstitial pastoralism* (Mattalia et al., 2018) and *pastoral niche* (Barth, 1956; Spengler, 2014). We argue that Kochi refugees in Mansehra have largely occupied a niche involving ram fattening and sale, and that they have done so through widespread use of the interstices and opportunities for feeding livestock created in the busy landscape of the host country. We further argue that the deployment of these pastoral strategies indicate that Kochi refugees are exerting their agency within a context of impoverishment and widespread uncertainty. As such, the study contributes to the literature about transitions in pastoral system and to understanding the ways in which pastoralists adapt to changes (e.g., in land tenure and use, urbanization, agricultural intensification) that are pushing them toward further impoverishment and marginalization.

Background

The Afghan Kochi Diaspora in Pakistan

Some three million Afghan refugees were living in Pakistan in 2016 (Ahmadi & Lakhani, 2017). This protracted refugee situation stems from the events following the Saur Revolution of 1978 and the Soviet military intervention in Afghanistan in 1979, and the ensuing decades of war and political turmoil (Ghosh, 2019). While during the initial phase of the exile refugees were hosted in three hundred refugee camps set up by UNHCR, many increasingly abandoned the camps, moved into the surrounding rural, urban and periurban areas of the host country, and re-built their livelihoods there with the passing of years and generations in exile (Ghosh, 2019; Ministry of States and Frontier Regions of Pakistan & UNHCR, 2011). The process has been however fraught with constraints and difficulties, with the threat of repatriation looming over refugees' for the last two decades (Grare & Maley, 2011; Siyal, 2016). A minority population among these refugees were Pashtun pastoralists known in Afghanistan as *Kochi*, a term that in Pashto, a language of southern and eastern Afghanistan, translates as 'nomads' (Davis et al., 1995; Foschini, 2011; Tapper, 2008). The term thus refers to populations defined by a mobile mode of dwelling based on livestock husbandry,[2] which for the Kochi translated in customary transhumant movements from the southern deserts of Afghanistan during the winter toward the foothills of the Hindu Kush and other mountains in central Afghanistan for the summer and back, with their herds of camels, fat-tailed sheep, and goats. Some Kochi customarily spent the winters in the plains of the Indus River in Pakistan and moved through Baluchistan toward the mountain pastures of Afghanistan in summer (Davis et al., 1995; Ferdinand & Nicolaisen, 2006). Before losing their nomadic livelihoods, the Kochi used livestock for subsistence and trade, obtaining a variety of dairy products (e.g. yogurt, cheese, butter) as well as wool, which was spun into rugs sold at Kabul and Jalalabad markets.

The ways of life of the more than two millions Kochi crisscrossing Afghanistan until the late 1970s have been dramatically disrupted by war and social and political turmoil (Davis et al., 1995; Glatzer, 2019). Loss of animals to bombings and mines, curtailing of nomadic routes, and increasing violence pushed these nomads toward sedentarization and urbanization, initiating a process of livelihood diversification away from livestock husbandry (De Weijer, 2007; Pedersen, 1990). In the meantime, many destitute nomads, mostly from Eastern Afghanistan, fled to Pakistan in search of safety. Some managed to cross the border with their herds and flocks, but found they could not sustain them and were forced to sell (De Weijer, 2007).

The District of Mansehra is part of the Khyber Pakhtunkhwa, the northwestern province of Pakistan bordering Afghanistan. About 1.5 million Afghan refugees are estimated

[1] Throughout the paper, we use the term 'Mansehra' to indicate the Pakistani District of Mansehra, when not specified otherwise.

[2] With the abandonment of livestock husbandry by many Kochi during the last half century, the term is now also applied to people with a pastoral background but not engaged in livestock husbandry anymore.

to live in the province, corresponding to roughly half of the Afghan refugees in Pakistan (UNHCR, 2020). Although official data are hard to find, perhaps 20–30,000 Afghan refugees live in Mansehra (amidst a Pakistani population of one and a half million), and some 4–5,000 of these refugees are Kochi. In leaving the refugee camps where they were initially lodged, these Kochi refugees settled in tents and huts along riverbanks and in abandoned plots in the peri-urban and rural environment of the Mansehra lowlands, among local population groups. There, they struggled to restock and recover a pastoral way of life, complemented with opportunistic farming and wage jobs. Albeit a minority of refugees have managed, often through remittances, to rent land for cash cropping, to establish profitable trading networks, and to settle in Mansehra under comfortable living conditions, most continue to wrestle poverty and attendant uncertainties. Economic precariousness is compounded by anxieties about the refugee status (the permit to stay in Pakistan must be renewed every second year) and by the recurrent threat of relocation or repatriation on the side of Pakistani authorities (Khan, 2017).

Study Area

Mansehra District, the area where the study took place and interviews were conducted, belongs to the Hazara Division of the Khyber Pakhtunkhwa (KP) Province of Pakistan. Mansehra occupies an area of 4579 square kilometers located between 34°14′ and 35°11′ latitude and 72°49′ and 74°08′ longitude. The landscape encompasses plains and hills largely occupied by cultivated fields (maize, wheat, potato, cauliflower, spinach and other greens are the main crops) and surrounded by mountains with forests and summer pastures. The population speak predominantly Northern Hindko (about 15% speak Pashtu) and is largely Muslim, with a small number of Hindus and Sikhs.

Pastoralism and transhumance have historically been an integral part of the Mansehra landscape. Local Pakistani pastoralists prevalently spend the winter in the lowlands around agricultural fields and move for the summer to the mountain pastures of the region. Farmers practice diversified livelihoods with small-scale farming of maize, feed, and vegetables and a mixed livestock portfolio of buffaloes, cows, goats and sheep (Khan & Usmani, 2005). These animals are widely fed through grazing, with hay of own production, as well as with wheat bran and straw, corn stubbles, and vegetable and fruit wastes (Khan & Usmani, 2005). Besides, the mountain and valleys of Northwest Pakistan are used by local pastoral nomads with their flocks of sheep for milk, meat and wool production (Shah et al., 2012). Within this background, Kochi refugees have reconstituted some forms of livestock husbandry, which are here investigated and discussed.

Methods

Fieldwork was carried out between March and May 2021 in various locations of Mansehra District (i.e. Labar Kot, Gandhian, Baffa, Dhodial, Hafeez Bandi, Bher Kund, Nokot, Khaki and Pano Dehri; Fig. 1). Data collection involved anthropological methods such as semi-structured interviews and participant observation (Bernard, 2017) with 50 Kochi refugees and pastoralists (all men, from 20 to 80 years old, with a mean age of 42). The interviewees were first contacted to assess their willingness to take part in the study and then, upon agreement, visited in the field or at home. The interviewees' selection occurred through an exponential non-discriminative snowball sampling once the first participants, who were acquaintances of the first author, who is Kochi and resides in the area, had been identified. The criteria used for the selection included Kochi ethnic background, exile status, and engagement in livestock husbandry. The selection procedure continued until we felt we captured both the diversity of husbandry systems deployed by Kochi refugees in Mansehra and these systems' relative importance and prevalence. As snowball sampling is not a random sampling method and is thus subjected to sampling bias, during fieldwork we aimed at enhancing the sample's diversity in snowball sampling procedures – i.e. the researcher had prior personal contacts with the population of interest, began the sample with multiple and diverse seeds, and conducted face-to-face interviews (Kirchherr & Charles, 2018) – to increase the generalizability of the findings to the wider population of Kochi refugees in Mansehra. The interviews investigated Kochi pastoralism in Mansehra in terms of personal and family history, livelihood organization, livestock portfolio, livestock mobility, market engagement, access to pastures and fodder and about the opportunities and constraints for refugee pastoralism. Interviews were conducted in Pashto, recorded and transcribed. Transcripts were qualitatively analyzed through inductive thematic content analysis, and codes, concepts, and categories were generated during analysis. Participants were given an explanation of the methodology, aims, and outcomes of the study, and informed consent was obtained verbally before interviews were conducted. Throughout the field study, the ethical guidelines adopted by the American Anthropological Association (AAA, 1998) were followed.

Results and Discussion

Kochi Refugees and their Livestock

All the interviewees are Kochi men rearing livestock and representing three generations of refugees. Some 98% of the interviewees are Kochi of Pashtun ethnic background

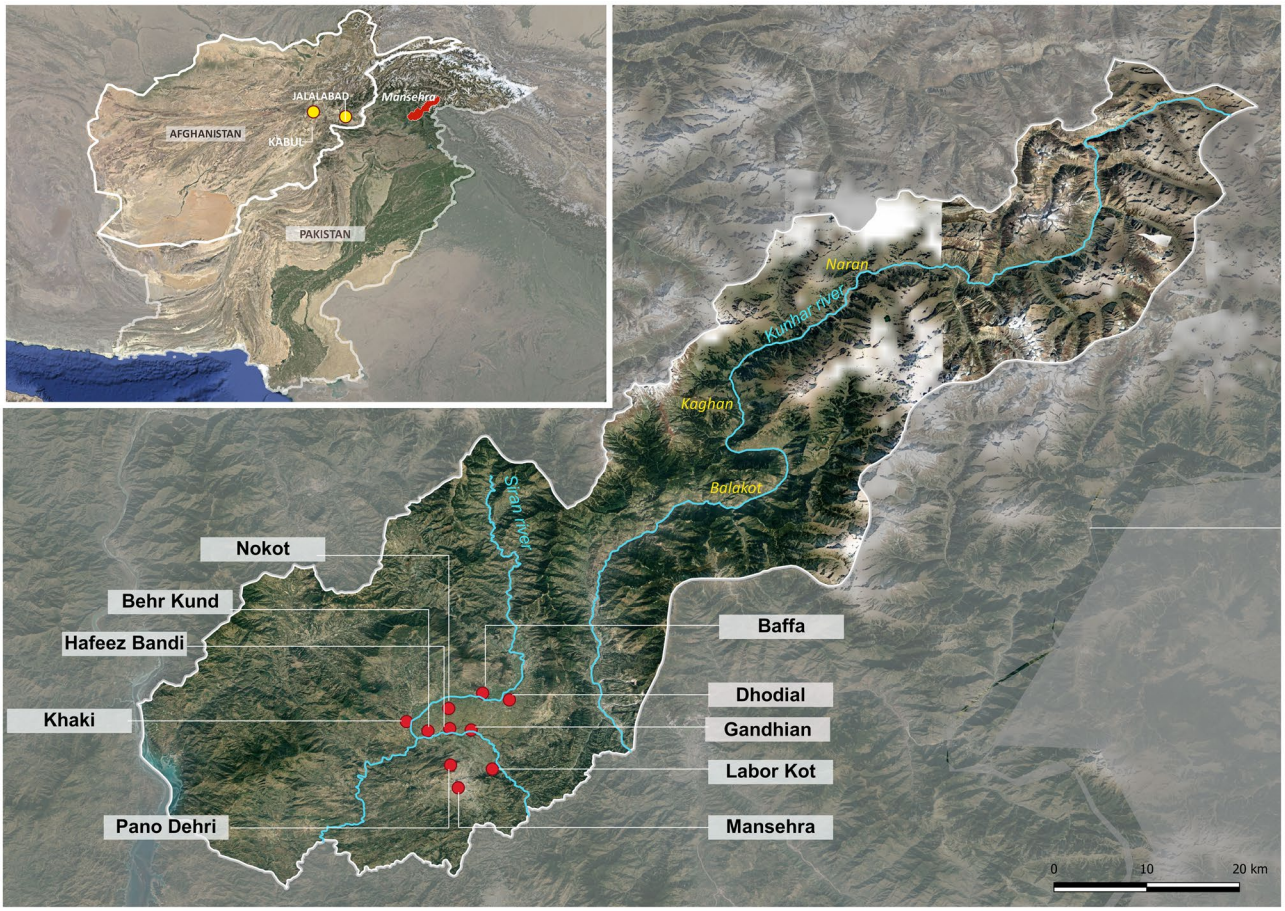

Fig. 1 Map of Mansehra District with the location of towns, villages and other geographical places mentioned in the text (Map by Graziella Pillari)

who fled to Mansehra from Eastern Afghanistan including Jalalabad, Laghman, Kunar and Paktiya, while the remaining 2% are of Uzbek and Persian ethnic background. Some 30% witnessed war and exile in person, while the remaining 70% includes second- and third-generation refugees born in Mansehra. Interviewees shared unique and sorrow stories about leaving Afghanistan, stories of bombings, loss of beloved ones and of the animals on which their lives depended, of nostalgia for a lost way of life, and of the material, cultural and spiritual link with the Afghan environment. Some recalled the fateful decision taken by Kochi leaders of crossing the Parachinar border into Pakistan; others pointed to the importance of food relief and shelter in refugee camps at the beginning of the exile, or to the following process of leaving these camps, dwelling along riverbanks and finding their ways in the host country, i.e. 'to recover a real Kochi life' based on autonomy and freedom. Few Kochi, especially those familiar with trans-border movement and with social networks on both sides, managed to reorganize their pastoral livelihoods in exile with limited losses.

Interviewees also shared stories of ingenuity, hope, and upturn in reference to the means and ways through which, across the decades of exile, they built back productive livelihoods and reconstituted flocks and herds amidst financial hardships and political uncertainties. In Mansehra, they widely sought wage jobs within the local economy as a source of living, for example in brick making, as hired croppers, mechanics or porters in markets. Often, the income provided by these jobs funded attempts at restocking, farming and trading. An old refugee proudly recalled the process in these terms: 'After leaving the refugee camp, I started working at the local market and began buying sheep one by one; I now have one hundred fat tailed sheep!' All the interviewees own livestock within diversified livelihoods including farming, trading, and wage jobs. Some 10% of the interviewees' households practice farming in complement with livestock husbandry.

The interviewees' livestock portfolio includes sheep, by far the most important domesticate, as well as cows, goats, and donkeys. While on average two or three cows are kept for milk and dairies and a few donkeys for transport, sheep (or seldom goats) are kept in the dozens mainly for income generation (Fig. 2). This average portfolio, however, conceals a key difference in livestock management that begets two

Fig. 2 A flock of ewes and half a dozen donkeys moving along a riverbank. On the background, Kochi dwellings (on the upper left) and, further away, Pakistani settlements

systems of sheep husbandry that characterize the pastoral practices of Kochi refugees in Mansehra: 1) A system of ram fattening in which a variable number of lambs (from few to a hundred) are bought, fattened over several months or a year, and then sold for meat, practiced by 82% of the interviewees; and 2) A system of sheep husbandry in which some fifty or more ewes are kept for milk production and for the sale of (male) lambs in markets or to other Kochi in the fattening system, practiced by 10% of the interviewees. The remaining 8% are outliers engaged in goat or buffalo husbandry for milk and meat production. A 30-year-old interviewee, for example, revealed that he bought few buffaloes from a market in Punjab and is learning to raise them for sale. The division of labour within Kochi households in relation to these forms of livestock husbandry sees women managing the animals at home, e.g. milking cows and making dairies, young boys and girls taking care of the animals grazing around the homestead in the lowlands (young girls as well prepare *ardawa*, i.e. a mix of hay and corn grains), while adult men are in charge of the transhumance, of obtaining feed, fodder and access to fields, and to organize the trade in terms of purchases and sales.

The ram fattening system, the most widespread form of livestock husbandry among the interviewees, encompasses the purchase of weaned (mostly male) lambs from local pastoralists living in the mountains of Balakot, Kaghan and Naran to the northeast of Mansehra, at Mansehra livestock markets or from other Kochi who keeps ewes for breeding purposes. These lambs are then fed via a combination of transhumance and access to post-harvest and abandoned fields and market leftovers. Most fattened rams are sold for the Eid al-Adha celebrations, when they are ritually sacrificed across the Islamic world. Refugees also sell individual animals whenever they are in need of cash, effectively keeping these rams as wealth on the hoof. After every major sale, the Kochi restock and start over again. Some refugees with few financial means to purchase lambs report to do so with cash obtained through remittances (e.g. from the Afghan diaspora in Europe and Iran) or in credit from wealthy individuals, with variable agreements regarding the sharing of the earnings from the lambs' future sale. Remittances are known to be a key agent of support of pastoral livelihoods in many contexts, whereby the cash they provide can fund restocking and the use of hired labour to manage the herds (Nori, 2019a).

Our data indicate that the ram fattening system is the defining pastoral practice of Kochi refugees in Mansehra, and the reasons for this shall be discussed. In explaining the rationale behind buying lambs for fattening purposes (rather than engaging in ewe husbandry), one young Kochi stated: 'We are happy with buying and raising lambs since we can easily manage them here in Mansehra, around our homesteads, it is less laborious then raising ewes, we don't need to take the animals to the mountains and feeding them is less expensive since we get stubbles, raw fruits and other leftovers.' Fattening is here described as a pastoral strategy that requires less financial capital (e.g. to invest in the rent of summer pastures in the mountains, to properly feed the animals in winter, for veterinary expenses) and less labour. As such, engagement in ram fattening reflects the impoverished condition of most Kochi refugees, and the report by several interviewees of a shift in the last ten years from ewe husbandry to ram fattening for many refugees signals their increasingly strained economic conditions in exile. The interviewees further explain their commitment to the fattening system as a response to the volatility of their refugee status and the uncertainties that this begets, which push them toward pastoral ways from which they can disengage and cash on as soon as drastic changes (e.g. repatriation, relocation) occur. Contrary to the ram fattening system, breeding ewes is described as complex and expensive, and hence pursued by a minority of refugees, usually the more affluent, i.e. those with capacity to rent summer pastures, purchase fodder and concentrated feeds for the winter, and hire shepherds to move with the flock.

Access to Pastures and Fodder

One key variable constraining livestock husbandry among Kochi refugees and tilting the balance of households' decisions toward a fattening rather than a breeding system is access to pastures and fodder, which is expensive and problematic in the farmed and tilled landscape and commodifying social environment of Mansehra. This is particularly evident in the words of older interviewees, who compare the pastoral conditions in Mansehra with the organization of the pre-exile pastoral system, recalling 'the free green pastures', with no restrictions of access, and the large flocks: 'In Afghanistan, we kept two or three hundred ewes, with enough pastures and mountains all around where to move; here we have fewer animals, Mansehra is a mountainous and green area but the pastures are not enough.' Refugees with breeding ewes largely deploy a transhumant mobility that involves spending the hottest months (i.e. June, July and August) in rented mountain pastures, and move back to the plains for the rest of the year, feeding the animals with own-produced hay and fodder, from abandoned and post-harvest fields, and sometimes with concentrated feeds. Those few fatteners who purchase lambs from local mountain pastoralists often rent from them upland pastures for the summer season, avoiding the heat of the lowlands and providing their lambs with high-quality grass.

Most Kochi involved in fattening systems, however, do not engage in transhumance and rather deploy a short-range mobility with their rams amidst the green interstices of Mansehra lowlands. Not requiring high quality feed for pregnant and milk-producing ewes, fattening systems rarely encompass mountain pastures (and only for few Kochi with hundreds of rams) but mostly rely on forms of opportunistic feeding, widely exploiting post-harvest (e.g. stubbles and crop leftovers) and abandoned fields, and grazing along roadsides and from accessible green plots of Mansehra lowlands. These practices are of utmost importance to feed rams cheaply and to lower costs of production. In order to get access to the fields, Kochi pastoralists rely on social networks that involve other members of the Kochi diaspora as well as local farmers, field owners, authorities and market sellers. Each Kochi household has a network of synergic relations with local farmers, whereby access to field leftovers is negotiated. For example, pastoralists may help farmers with harvest or post-harvest tasks and get the leftovers in exchange, as it happens when they trim the outer leaves from harvested cauliflowers, preparing them for sale and getting access to those leaves, which are transported to Kochi settlements and fed to livestock (Fig. 3).Another way of feeding sheep is to purchase fodder and grains (e.g. wheat straw, maize) and green leftovers from local markets. These are often the same markets where Kochi sell dairy products and livestock and where they have enough of a network as to exploit opportunities for the purchase of leftovers. Some interviewees reported that the process of bargaining for the purchase of market leftovers is eased by the assistance of other Kochi who work in the markets (e.g. as porters, assistant shopkeepers). Cheap feed and fodder for ewes and rams are obtained also by getting access to markets' food waste of fruits and vegetables. A 25-year-old Kochi explained the procurement of wasted fruits, vegetables and food from local markets in this way: 'Every day, early in the morning I take my donkey cart and reach farmers' green markets; I try to collect waste fruits and vegetables like apples, mangoes, bananas, water melons, potatoes, cauliflowers and tomatoes, according to season and availability. Sometimes, when the market is short of waste, I switch to restaurants and hotels to buy waste foods like raw rice, vegetables and bread' (Fig. 4). Similarly, another interviewee explained that 'rams get strength and mass from fruits and vegetables from markets; with this, I don't have to take my herds to the mountains in summer,' highlighting the consistency of the strategy across the year.

Fig. 3 Cauliflower leaves obtained by Kochi refugees from local Pakistani farmers in exchange for the refugees' help with the harvest and the following removal of the outer leaves from the cauliflower. These outer leaves are brought to Kochi dwellings along riverbanks to be used as fodder for fattening rams

Fig. 4 A donkey cart is used to transport cauliflower leaves from a local market to flocks along riverbanks

Interviewees concur that landscape navigation and access to fields are increasingly difficult in the lowlands of Mansehra, as competition for ever scarcer grazing areas and economic opportunities heightens, generating tensions among land users. The relations between mobile pastoralists and farmers, spanning from cooperation to conflict, have been the subject of several studies (Axelby, 2007; Moritz, 2010). In many areas, the last decades have witnessed increasing tensions between farmers and mobile herders because of expansion of agricultural fields into pastoral rangelands, or because of invasions of herds into cultivated fields (Axelby, 2007; Walwa, 2020). Our interviewees lament that the Mansehra landscape is being increasingly privatized and converted into agricultural fields, thus reducing the area accessible for grazing and triggering tensions with locals. Conflicts arise when animals stray into cultivated fields and private properties while moving through narrow rural paths or along roads leading to riverbanks, where many Kochi dwell. Incidents often are solved with the payment of a fine, but in some occasions they turn violent.

Interviewees describe the Mansehra lowlands as a patchwork of private fields, estates and construction sites increasingly enclosed by fences, which compel shepherds to use the road infrastructure to access sparse grazing grounds. The importance of roads and green roadsides as pastoral corridors in crowded landscapes has been recently understood as a feature of pastoral systems in engulfed rangelands (Galaty, 2021; Mattalia et al., 2018). However, this is also another source of conflict with locals (Figs. 5 and 6), as it is not uncommon for flocks to cause traffic jams and accidents and for verbal clashes to occur between Kochi shepherds and drivers. Some interviewees report skirmishes with locals when the latter try to block Kochi pastoralists from using the paths bordering their fields. 'I feel ashamed and embarrassed when they [locals] scream at us because they don't want us to use the path, telling us to take the animals away

Fig. 5 A flock of sheep is narrowly moving along a busy road in a local town

Fig. 6 A flock is moving along a road in the fenced and cultivated landscape of Mansehra

as they are dirty and spread diseases', reported a young shepherd. Here, the potential tensions inherent to the relationships between farmers and pastoralists are exacerbated by the multiple lines of division between the groups (i.e. different ethnic and social background, different political status), which reinforce a process of stereotypization of the other, hindering communication and cooperation. Local pastoralists occupy with their herds much of the district's accessible rangelands, and they have done increasingly so as the entity of their herds and flocks have increased to keep up with an increasing cost of life. The competition between local and Kochi pastoralists for decreasing pastures may manifest in instances of tensions, as related by an interviewee: 'Once we were moving to a field with our animals, and on the way few of our ewes crossed into the private field of a local pastoralist, who saw everything and decided to keep our ewes as a fine. An hour later one of us approached the pastoralist to ask for the ewes back, and the man's refusal triggered a confrontation that resulted in the death of one Kochi.' To compound these difficulties, the interviewees report that further limitations to livestock mobility (and to dwelling along riverbanks) are stemming from the Pakistani Government's reforestation campaign to plant 'billions trees' all across the country (Fig. 7). Since grazing animals tend to break young trees and seedlings, livestock is banned from every swath of land targeted for reforestation purposes.

Other Pastoral Changes in Exile

The recovery of livestock husbandry among Kochi refugees, unfolding as described along specific trajectories of livestock management and relations with the Mansehra landscape, has encompassed multiple discontinuities with the pre-exile pastoral system. Every pastoral system materializes in a range of pastoral produce for subsistence and sale, and these products and the associated gastronomy change with changing conditions of production. The traditional food practices of the Kochi witnessed deep changes across almost half a century of exile. The specialization into a fattening system reverberated into Kochi gastronomy, notably with the loss of ewe milk and dairy productions such as *harpeen* (a by-product of yogurt, dried and consumed with green tea, in broth or fried with vegetables) and *potsa* (a traditional raw milk cheese). The production of these dairies by women for

Fig. 7 A flock is wading along the river to avoid the riverbanks, which are planted with young trees for reforestation purposes

home consumption was discontinued with exile, and almost collapsed in connection with the widespread engagement of Kochi refugees with the ram fattening system, which presupposes no milk production at all. Most Kochi households keep few cows for milk, but home production of dairies from cow milk (e.g. butter, cheese, yogurt and *quroot*, a dry fresh cheese) has also declined and replaced by widespread production of *chaka* (strained yogurt) for sale at local markets. As pastoralists adapt the composition of livestock species and breeds in household herds to the transformation of the social and environmental settings in which their livelihoods are embedded, changes in pastoral systems encompass also shifting livestock portfolios (Homann et al., 2008; Volpato & King, 2019). In their recovered pastoralism in Mansehra, Kochi refugees have abandoned dromedary camel husbandry, as camels are too expensive and unfit for the local climate, and as camel-based caravans and long-range transhumance have become a memory of the past. Similarly, goats are seldom raised by Kochi refugees in Mansehra, because of the loss of relevance of their hair, which was highly prized and woven into black goat-hair tents (whose fabrication and use have been discontinued), and to avoid interfering with the livelihoods of local Gujjar pastoralists, whose prerogative is goat husbandry. Goats are further described by the interviewees as 'not listening to the voices of the shepherds', 'creating problems when moving along roadsides and fields' and being 'very smelly when wet [during the rainy season]', all attributes that declass goats (versus sheep) in the pastoral context of Mansehra. Another important change in the Kochi pastoral system in Mansehra concerns the loss of social and economic value of wool and the associated modifications in the sheep breeds used and breeding system. In Afghanistan, the most common sheep breeds were Baluchi and Afghan Arabi, big animals with enormous fat tails and good wool producers. The profound changes that the Kochi witnessed with war and exile have transformed the conditions of production and hence the characteristics of the breeds used, which in Mansehra are producing less wool and of lower quality. The sale of rugs spun from the wool from the Kochi's customary breeds, selected over generations for wool quality, has nearly disappeared as a cultural tradition and a form of income generation, in connection with a progressive worsening of the quality of their sheep's wool after moving to Pakistan. The interviewees attributes this quality loss to a continuous interbreeding of Kochi sheep with local Pakistani breeds, which are rather selected for milk and meat production. The problem is compounded by the fact that, operating prevalently in a fattening system, the Kochi do not have control over breeding and selection criteria. The low-quality wool produced is thus nowadays largely sold locally for pillows and mattresses.

A further change often reported by the interviewees concerns pastoral labour and mobility. The loss of long-range mobility intersects with the Kochi's economic inability to hire shepherds to lead the flocks to transhumance. In the pre-exile pastoral system, *chopan* was the term used to refer to hired shepherds, who were widely used to conduct herds to upland pastures and to manage livestock across the year. The *chopan* were themselves Kochi (perhaps impoverished or from poor families) and were selected on the base of trust and experience. In Mansehra, hired shepherds are not employed, family members carry out the work around livestock, and the same term *chopan* has fallen in disuse. An interviewee recalled: 'In Afghanistan, we were relaxed since we had *chopan* to manage the animals, while here in Pakistan all family members are involved in managing only a hundred sheep!' The critical importance of labour allocation and hired shepherds, or lack thereof, in pastoral systems has been addressed in a number of studies (Scoones, 2021; Turner, 1999) and has been recently discussed by Malhotra et al. (2022) in their study about *puhals*, the hired shepherds of the Gaddi pastoralists of Himalaya. While, for the Gaddi, hired shepherds are increasingly a crucial adaptation for the resilience of the pastoral system under external pressures and a solution to family labour shortages, among the Kochi this strategy, albeit part of the traditional pastoral system, is not pursued: their poverty prevents them from hiring labour, and rather push them to sell their labor to wealthier livestock owners and in the non-pastoral sector, in a downward spiral of proletarianization.

Pastoral Niches and Interstitial Pastoralism

The Kochi refugees in Mansehra have recovered livestock husbandry in exile, and have done so specializing in ram fattening amidst deep changes in their pastoral practices. We understand this process as a case of occupation of a *pastoral niche* by an immigrant and refugee population in a condition of impoverishment. A niche is generally understood as a relational concept describing 'the place of a group in the total environment, its relations to resources and competitors' (Barth, 1956) or as the total sum of relations that an organism or a group has with all the biotic and abiotic components of its surroundings (Spengler, 2014). Humans occupy and build niches that are at the same time environmental, social and economic, and which change with the dynamics of the relations that constitute them. The notion that pastoralists occupy, alter, and create niches has been adopted by a number of scholars (Rao, 1986; Spengler, 2014). The one of the Kochi refugees in Mansehra can be understood as a pastoral niche occupied by an immigrant group within a 'mosaic' co-residence where ethnic segmentation and economic interdependence combine, as discussed by Barth (1956) in his seminal paper on ecological relationships among ethnic groups in Swat, North Pakistan. In these co-residencies, 'the "environment" of any one ethnic group is not only defined

by natural conditions, but also by the presence and activities of the other ethnic groups on which it depends' (Barth, 1956; 1079). By applying the concept of niche to groups' distribution in societies, Barth (1956) argued that different ethnic groups exploiting different niches in the same area can establish symbiotic economic relations, that these relations are partly defined by each group's relative power, and that specialization (e.g. the use of marginal environments, dependent economic strategies) may occur when two groups compete for the same niche. Applying the concept to the Kochi case, we argue that Kochi refugees in Mansehra reconstituted their pastoral system by adapting it to the local social and environmental milieu and thus forging and occupying a specific niche, the one of ram fattening. This specialization must be understood within the context of a ewe-breeding niche largely occupied by local Pakistani pastoralists (and by few wealthier Kochi refugees). The fattening niche is economical as well as social, signaling refugees' marginality in the regional economic system and condition of dependence from local pastoralists for the procurement of lambs, and from local farmers and their fields to feed these lambs. This merging of economic niche with social status and ethnicity is exemplary of the pastoral niche as understood by Barth (1956). The niche is also defined by the uncertain and vulnerable political status of Kochi refugees, as explained by a 65-year-old interviewee: 'Few years back, when the news circulated that Afghans would be repatriated, we sold our ewes to local pastoralists, but when the news revealed itself a rumor, buying them back was not possible for us. We decided to raise rams instead.' This passage is important in revealing the links between fattening rams and the uncertain character of Kochi pastoral livelihoods. The occupation of the fattening niche, to several interviewees, is the result of losing or selling their breeding ewes or of not having the economic means to engage in sheep husbandry and its higher management costs. Being an annual economic endeavor, fattening (versus breeding) reduces the risk of losing capital in conditions of deep uncertainty about the same possibility of staying in Pakistan vis-à-vis the looming risk of relocation and repatriation (Khan, 2017).

The Kochi refugees occupy the fattening niche in a context of impoverished livelihoods by deploying strategies that are constitutive of *interstitial pastoralism* (Mattalia et al., 2018): they make widespread and opportunistic use of low-quality pastures, post-harvest and abandoned fields, roadsides and agricultural and market leftovers; they deploy short-range livestock mobility within the interstices of a landscape crowded by other land use priorities; they exercise their agency from a position of widespread uncertainty and concurrent integration into commercial chains for livestock and meat. Indeed, as recognized by Gertel and Le Heron (2011) and Hauck and Rubenstein (2017), among other scholars, pastoral systems are being embedded in a myriad ways into global and national markets, witnessing processes of commodification and proletarianization (Galaty, 2021; Namgay et al., 2014; Nori, 2019b; Scoones, 2021). In these circumstances, many proletarianizing pastoralists occupy marginal economic niches under the frugality and expediency of interstitial pastoralism. For example, within the diversity of husbandry systems identified by Alarcon et al. (2017) in Nairobi, Kenya, there are Maasai beef fatteners and calves producers who purchase male calves at weaning from dairy farmers and rear them for sale by grazing them in common pastures, private and cultivated fields, roadsides and riverbanks. In West Africa, some agro-pastoralists specialize in buying immature bulls from pastoral communities, fatten the animals through roadside grazing, and sell them for urban consumption (Amanor, 1995).

In all these cases, two strategies – the occupation of pastoral niches in commodifying environments and the deployment of interstitial pastoralism in engulfed landscapes – intersect. The combination of the livelihood-oriented concept of pastoral niche with the landscape-oriented notion of interstitial pastoralism has allowed us to capture the salient features of Kochi refugees' pastoralism as co-constituted by refugees' agency and by the pressures and constraints imposed by the structure of the hosting milieu and its specificities. Although fattening systems do not necessarily indicate poverty and economic vulnerability, among the Kochi and in connection with interstitial practices they become telltale signs of impoverished pastoral livelihoods. This interpretation is supported also by the observations, in studies in Kenya and Ethiopia, that poorest pastoral households sell a higher percentage of their herds annually than the wealthiest do (Little et al., 2006, 2014). The Kochi fattening system could be interpreted as an extreme point of this trend, where the entire herd is sold (and rebought) every year as a way to deal with low capital and high uncertainty. Indeed, interviewees consistently report an impoverishment of their livelihoods in exile, lamenting increasing price for fodder, heightened competition for pastures, and increasing fears around losing their refugee status.

Fattening systems, interstitial grazing, periurban livestock husbandry and occupation of dependent economic niches are all features of impoverished pastoral livelihoods (af Ornäs, 1990; Alarcon et al., 2017). The conditions of impoverishment and proletarianization of the Kochi in Mansehra are common across the world's rangelands, with pastoralists facing heightened vulnerability and hindered mobility by hillsides privatization, tree planting campaigns, agricultural encroachment upon lowland and upland pastures and expanding economic frontiers (German et al., 2017; Nori & Scoones, 2019; Shah et al., 2012). In these circumstances, as claimed by Lind et al. (2020) for pastoralists of Eastern Africa, 'sustaining a mobile way of life in the rangelands is becoming increasingly difficult as land is fenced off, privatised and fragmented,' all changes that are 'complicating

pathways out of poverty, with opportunities diminishing for building herds and finding grazing' (20). It is amidst these challenges that the lure of urban life, wage job and emigration are eroding the material and cultural role of livestock among the Kochi of Mansehra. As a result, younger generations of Kochi refugees are distancing from livestock altogether ('I am too old and my sons are not interested in keeping animals' in the words on one interviewee). A 30-year-old refugee stated: 'I prefer to work as porter at the local market rather than herding animals in the fields; it feels embarrassing.' The reticence of next generations to take up herding has been described in countless contexts of pastoral transitions, in connection with outmigration, formal education, and wage jobs, among other factors (Blench, 2001; Namgay et al., 2014; Nori, 2019b). Turning their back to pastoralism, young Kochi further hope to leave behind the stigma associated with being Kochi, being poor, and being refugees, and to find life opportunities through emigration and urbanization (Foschini, 2011).

Conclusions

Over three generations of exile in Mansehra, Northwest Pakistan, a majority of Afghan Kochi refugees have managed, mainly through wage labor and remittances, to accumulate the financial resources to purchase livestock and restart a pastoral life. However, the specific conditions of the place of exile, namely the densely populated district adjacent to Pakistani communities and other ethnic groups of farmers and pastoralists, have accommodated the Kochi and their livestock only partially. Amidst cultural loss, uncertainty, and impoverishment, these refugees have occupied a ram fattening niche within the social and productive matrix of the host country, and have made an interstitial use of the fodder and pastures available in an otherwise privatized and fenced environment. Rather than taking up ewe husbandry, poverty and competition with local pastoralists pushed Kochi refugees to open a loop in the system by purchasing lambs from these pastoralists and fattening them for sale. It is an economically dependent niche, but one that also allows increased flexibility (i.e. of cashing in before being relocated) in the political uncertainties surrounding the Kochi's status in Pakistan.

This occupation of a fattening niche has taken place within a context of interstitial pastoralism, whereby refugees move their livestock in the green interstices of a crowded landscape while transforming into peripheral actors within commercial chains for livestock and meat. Interstitial pastoralism has also a relational nature in the widespread and multiform networks that herders and shepherds need to establish and maintain to obtain access to abandoned and cultivated fields, riverbanks, paths and roadsides, as well as to markets. This relationality manifests both with synergies (e.g. between pastoralists and farmers for access to post-harvest stubbles) and with conflict (e.g. over the use of paths and roads, over livestock invading private fields), the latter being exacerbated by compounded ethnic and social lines of separations.

Pastoral systems are in a state of profound transition across the world's rangelands, and their analysis might benefit from conceptual tools able to encompass and capture the complexity of these changes. In this study, we contribute to the literature on pastoral transitions through the articulation of two concepts – *pastoral niche* and *interstitial pastoralism* – that might prove useful in the investigation of pastoral systems that are urban and periurban, economically specialized, maintained in engulfing landscapes and relying on livestock mobility to access sparse grazing land. This use of marginal resources – entailing both the extensive use of periurban landscapes through fine-grained mobility and the use of leftovers and stubbles to feed livestock – could be supported with initiatives aiming at relieving some of the hurdles faced by Kochi pastoralists, for example by working, at local level, on the constitution of synergic relations between the Kochi and local farmers for access to fields, and, at multiple political levels, to reduce these refugees' uncertainties about their future and restore their capacity for long-term agency over their livelihoods.

Acknowledgements We are very thankful to all the Kochi shepherds and their families for their patience and kindness during the interviews. We also thank Prof. Andrea Pieroni for the support and the insights on a first draft of the manuscript.

Authors' Contributions A.M. and G.V. designed the study, analyzed the data and wrote the paper. A.M. conducted fieldwork.

Availability of Data and Materials Not applicable.

Declarations

Ethical Approval Informed consent was verbally obtained from all the study participants; the field study was conducted following the ethical guidelines adopted by the American Anthropological Association (AAA, 1998).

Competing Interests The authors declare that they have no competing interests.

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