BioOne COMPLETE

Depopulating the Himalayan Highlands: Education and Outmigration From Ethnically Tibetan Communities of Nepal

Authors: Childs, Geoff, Craig, Sienna, Beall, Cynthia M., and Basnyat, Buddha

Source: Mountain Research and Development, 34(2) : 85-94

Published By: International Mountain Society

URL: https://doi.org/10.1659/MRD-JOURNAL-D-14-00021.1

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

Downloaded From: https://complete.bioone.org/journals/Mountain-Research-and-Development on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

Mountain Research and Development (MRD)
An international, peer-reviewed open access journal
published by the International Mountain Society (IMS)
www.mrd-journal.org

MountainResearch
Systems knowledge

Depopulating the Himalayan Highlands: Education and Outmigration From Ethnically Tibetan Communities of Nepal

Geoff Childs[1], Sienna Craig[2], Cynthia M. Beall[3], and Buddha Basnyat[4]*

** Corresponding author: gchilds@wustl.edu*

[1] Washington University in St. Louis, Department of Anthropology, 1 Brookings Drive, St. Louis, MO 63130, USA

[2] Dartmouth College, Department of Anthropology, 6047 Silsby Hall, Hanover, NH 03755, USA

[3] Case Western Reserve University, Department of Anthropology, 11220 Bellflower Road, Cleveland, OH 44106-7125, USA

[4] Oxford University, Clinical Research Unit, Kathmandu, Nepal

Open access article: please credit the authors and the full source.

Communities that have thrived for centuries in Nepal's rugged mountain environments are facing rapid population declines caused by the outmigration of youths, both males and females in nearly equal numbers, who are sent by parents to distant boarding schools and monasteries for secular and religious education. This paper documents the magnitude of outmigration, migration destinations, migration's impact on the age–sex composition of sending communities, the effect of migration on fertility, and projected trends of population decline and aging. The authors conclude by discussing potential long-term threats to the viability of ethnically Tibetan communities in the Himalayan highlands, including outmigration's effect on agricultural production, the family-based care system for the elderly, socioeconomic inequalities, and human capital.

Keywords: *Demography; education; migration; population decline; Himalaya; Tibetans; Nepal.*

Peer-reviewed: *April 2014* ***Accepted:*** *April 2014*

Introduction

Communities that have thrived for centuries in Nepal's rugged mountain environment appear to be on the brink of precipitous population declines. Population growth in Nepal as a whole remains significant (MOHP 2011). However, as Karan (1987) points out, aggregate population data in the Himalayan region mask considerable local variation. Here we present evidence that rapid population *decline* is underway in highland valleys of Nepal populated by ethnic Tibetans. The primary driving force is the outmigration of children to monasteries and boarding schools. Although population decline in mountainous regions of the world is not a new phenomenon as it has been well documented in Europe (Viazzo 1989; Bätzing et al 1996), Japan (Okahashi 1996), and elsewhere, this is perhaps the first documented case where a major cause is parental decisions to send children away from their natal villages. The purposes of this paper are to document recent demographic trends, project their future effects on the population size and composition, and discuss potential social and economic consequences that may jeopardize the viability of Himalayan communities.

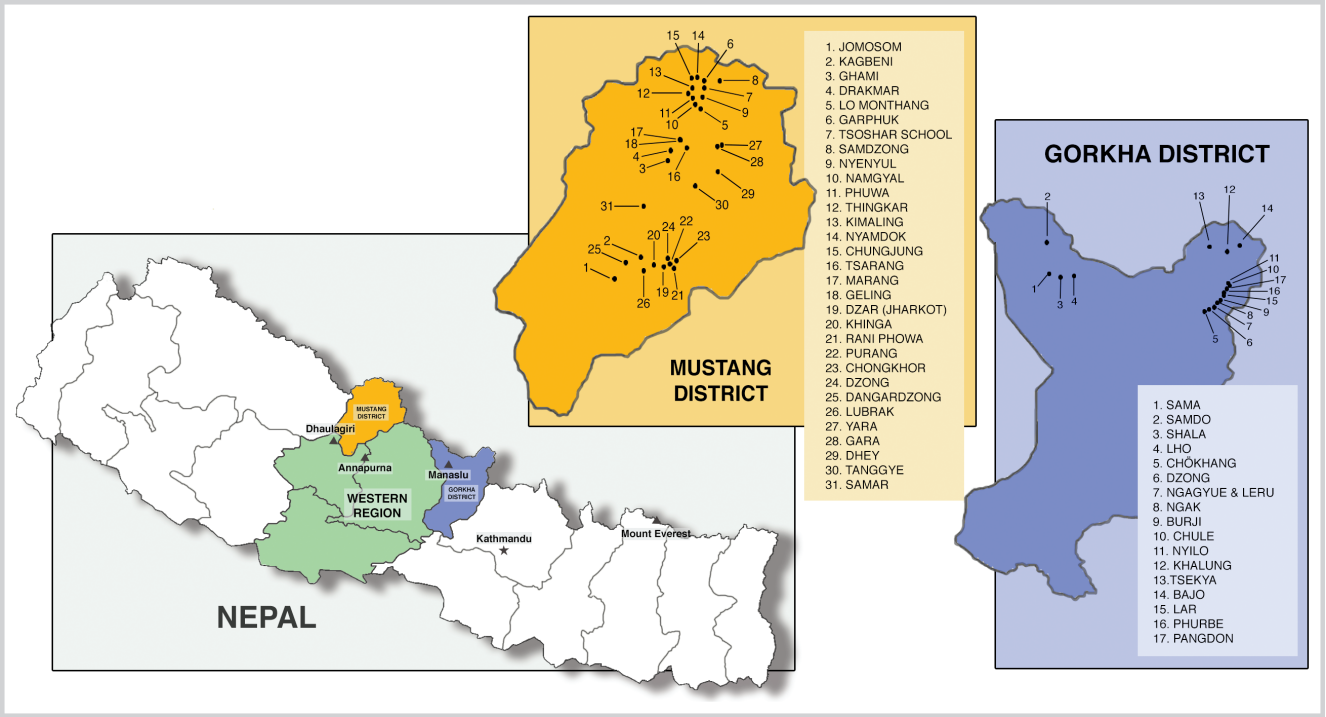
Fieldwork sites and methods

Fieldwork was conducted during the summer of 2012 at 3 sites in Nepal: Nubri and Tsum Valleys in Gorkha District, and Mustang District (Figure 1). Individuals from these regions speak Tibetan dialects, practice forms of Tibetan Buddhism, and identify with the contours of Tibetan political history as well as more locally grounded conceptions of politics and identity. Nubri and Tsum are contiguous valleys situated along Nepal's border with China's Tibet Autonomous Region. Villages ranging in altitude from 2090 to 3787 m are populated by ethnic Tibetans who settled the valleys at least 700 years ago. Nowadays they subsist on agriculture, animal husbandry, and trans-Himalayan trade. The residents of Nubri and Tsum have held low status in the Hindu caste hierarchy since the valleys were incorporated into Nepal during the 1850s; as a result, the residents have been economically and politically marginalized to the point that the national government never developed basic services such as educational and healthcare systems (Childs 2004a).

Mustang District is located between the Dhaulagiri and Annapurna ranges and also borders the Tibet Autonomous Region. Approximately 9000 of the district's 14,000 residents are ethnic Tibetans living in settlements ranging from 2727 to 4054 m. The Kali Gandaki River runs through the district and has facilitated socioeconomic exchange between the Tibetan Plateau and the southern slopes of the Himalayas for centuries. People from Mustang make a living through a combination of agriculture, animal husbandry, trade, and

Downloaded From: https://complete.bioone.org/journals/Mountain-Research-and-Development on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

FIGURE 1 Location of fieldwork sites in Nepal. (Map by Kimberly Racut, Case Western Reserve University)



wage labor, as well as involvement in the tourism industry and salaried government or nongovernmental employment. Seasonal migration for commodity trade in India, and more permanent outmigration for wage labor, are also common so that remittances play an increasingly significant role in household economies (Craig 2002, 2011). Similar to Nubri and Tsum, the culturally Tibetan enclaves of Mustang have been marginalized in the provision of basic government services (Craig et al 2010).

The primary focus of our research was human adaptation to high altitude, so we included only villages above 3000 m (9,900 ft). Every household in these villages was included in the sample, which totaled 497 households in Nubri and Tsum and 999 households in Mustang. This paper presents data from our household demographic and economic survey collected with the assistance of trained fieldwork assistants who were born in the regions under study. The questionnaire, which was administered to the head of each household (usually a man, but often a woman), elicited data on each individual's age, sex, marital status, level of education, and current whereabouts. This identified migrants, their current residence, and whether they were sent to attend schools or religious institutions.

To forecast where current demographic trends may lead, we used a program developed by demographer Rebecca Kippen titled Projections 2000 (Kippen 2002). The program calculates projected population using the cohort-component method, starting with a base population classified by age and sex, and applying projected mortality and migration by age and sex, and projected fertility by age of mother. More details on our application of this program are provided in a subsequent section of the paper.

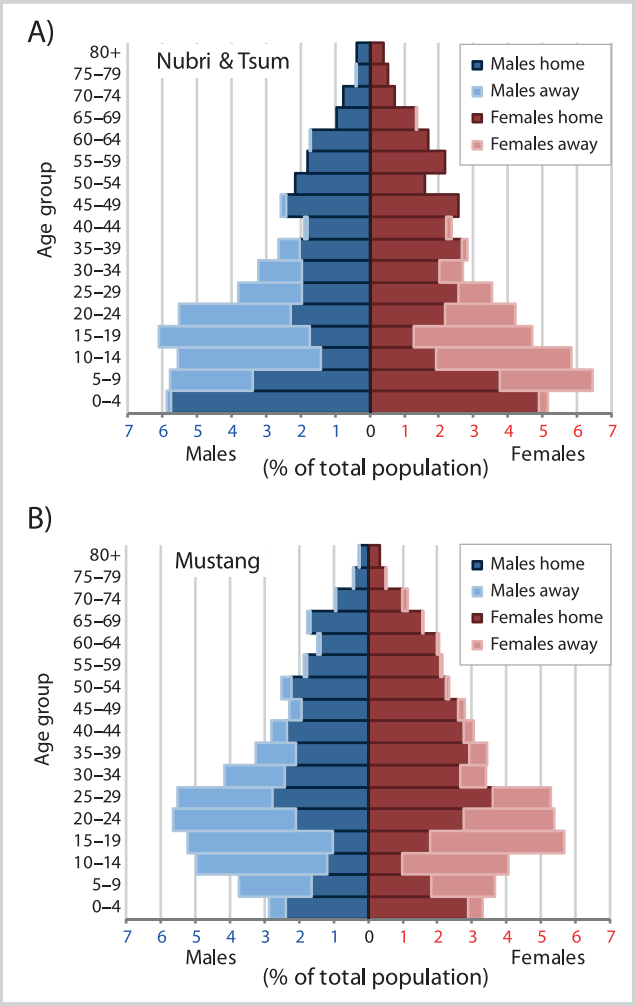
Tibetan societies in transition

Traditionally, population growth in Tibetan communities was moderated by high infant and childhood mortality in combination with relatively low fertility, the latter being a by-product of female nonmarriage stemming from religious celibacy and fraternal polyandry (Beall and Goldstein 1981; Goldstein 1981; Ross 1984; Childs 2008a, 2008b). Furthermore, for centuries Tibetans have managed their household sizes and compositions postnatally through adoption, marital migration, and monasticism (Goldstein 1978). Although no reliable figures exist, some observers claim that 15–20% of Tibet's pre-1950s population consisted of Buddhist monks (Grunfeld 1996: 251). However, the residents of Nubri and Tsum affiliate predominantly with the Nyingmapa sect of Tibetan Buddhism, which does not require celibacy among its clerics. A few celibate institutions did exist in the past, but they did not house many residents (Dobremez and Jest 1976; Snellgrove 1989). People in Mustang affiliate primarily with the Nyingma and Sakyapa sects. While at the height of the Kingdom of Lo (15th–18th century) the major monasteries of Mustang housed more than 1000 monks combined, by the late 20th century these numbers had dwindled.

Recently, the celibate monastic option has become more popular in our study areas due in part to political

http://dx.doi.org/10.1659/MRD-JOURNAL-D-14-00021.1
Downloaded From: https://complete.bioone.org/journals/Mountain-Research-and-Development on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

FIGURE 2 Age–sex composition of populations by residence, 2012 in (A) Nubri/Tsum and (B) Mustang.



and economic processes. During China's Cultural Revolution (1966–1976) the vast majority of Tibet's monasteries were cleared of residents and destroyed. Many of the highest clerics, including the Dalai Lama, fled to Nepal and India, where they rebuilt their institutions with novel sources of patronage, especially from Buddhist supporters throughout Asia, Europe, and North America (Frechette 2004; Moran 2004). Initially the transplanted monasteries were populated by monks who had fled Tibet and by children of the roughly 100,000 Tibetan exiles. However, a rapid fertility decline combined with parents' increasing emphasis on secular education forced abbots to seek new recruiting grounds: the ethnic Tibetan highlands of Nepal and India where fertility remains high and educational opportunities are limited (Childs 2004b). By the late 20th century, two-thirds of the monks inhabiting Kathmandu's Tibetan monasteries were from high-altitude communities in Nepal (Moran 2004: 61).

Alongside the rebirth of monasteries, Tibetan exiles living in India and Nepal developed a successful school system with the backing of foreign patronage (Nowak 1984; Rigzin 2004). At first these schools only admitted the children of Tibetan exiles. However, most schools opened their doors in the late 1990s to Nepal's indigenous Tibetans, creating a pull factor for child migration. At the same time a push factor arose: identity politics associated with democratic reforms allowed culturally Tibetan people to assert a desire for their children to receive a "Tibetan" education. "Tibetanization" came to be seen as a mode of possible social and economic advancement.

Nowadays, parents in Nubri, Tsum, and Mustang can choose a secular or religious vocational pathway for a child and can select among an impressive range of institutions. Our survey identified at least 24 monasteries, 15 convents, and 35 boarding schools in Nepal and India where children from these areas currently reside. The new opportunity structure has resulted in an unprecedented outmigration of children.

Results

Age–sex compositions

Figures 2A and 2B juxtapose the *de jure* population (people born in the area who have a right to reside there, ie, the entire population represented in Figure 2A and 2B) against the *de facto* population (people who reside more or less full time in the area, ie, males home and females home). With its large portion of individuals concentrated in the younger age groups, the *de jure* population of Nubri and Tsum is typical of a young and growing population experiencing high fertility. Among women aged 45–49 in our 2012 survey the completed fertility rate was 5.4 live births per woman (n = 41, SD = 3.1), evidence that—at least until recently—fertility has remained relatively high. The slightly smaller cohort aged 0–4 compared with that aged 5–9 hints that a fertility transition may have commenced. Modern means of contraception are now available, although according to our reproductive history survey only 22.3% of women aged 40–54 had ever used birth control, and only after giving birth to an average of 4.5 children.

In contrast, the age–sex composition of Mustang's *de jure* population provides evidence that a fertility transition has been underway for some time. Cohort fertility in Mustang supports this conclusion. The average number of live births has steadily declined among each cohort: 6.1 (age 55–59, n = 108, SD + 2.9), 5.0 (age 50–54, n = 117, SD = 2.4), 4.6 (age 45–49, n = 117, SD = 2.3), and 3.7 (age 40–44, n = 121, SD = 1.9). Also, 58.2% of women aged 40–54 reported having used modern means of contraception and had given birth to 3.6 children on average before first usage. The higher level of usage, compared to Nubri and Tsum, may be owing to more access to contraception provided locally by foreign-funded clinics and hospitals in Mustang and the common occurrence of women spending winter in cities in Nepal and India where they can access contraception.

http://dx.doi.org/10.1659/MRD-JOURNAL-D-14-00021.1
Downloaded From: https://complete.bioone.org/journals/Mountain-Research-and-Development on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

TABLE 1 Persons aged 10–19 by sex and residence.

Sex	Residence	Nubri/Tsum	Mustang
Males	Living at home, N	78	126
	Living away from home, N	212	461
	% away from home	73.1%	78.5%
Females	Living at home, N	80	160
	Living away from home, N	182	399
	% away from home	69.5%	71.4%
Total	Living at home, N	158	286
	Living away from home, N	394	860
	% away from home	71.4%	75.0%

With respect to the *de facto* populations, the most striking feature is the dearth of younger people, especially in the 10–14 and 15–19 age groups. In some villages in Mustang our survey recorded *not even a single child* aged 10–14 in residence. Table 1 shows that the majority of people aged 10–19 (71.4% in Nubri and Tsum, 75.0% in Mustang) live elsewhere than their natal homes.

Longitudinal data from Nubri provide a perspective on the migration trend over time. In 1997, 39.2% of males and 11.2% of females aged 10–19 lived away from their families (Childs 2008a). The ensuing 15 years have witnessed a large increase of males (from 39% to 73%) and females (from 11% to 69%) living elsewhere, and a sharp reduction in the gender-based disparity that used to favor the sending of male children by a large margin. The lack of longitudinal data prevents the same analysis for Tsum and Mustang.

District and distant destinations

Table 2 shows the percentages of migrants aged 5–19 by destination. Some children (11.0% in Nubri and Tsum, 33.8% in Mustang) reside in boarding schools and monasteries away from their natal villages but still in the same district. Within-district migration is much more common in Mustang due to the presence of more schools and religious institutions. Nevertheless, parents in all study areas who send their children to local boarding schools often envision this as a temporary solution, hoping to eventually secure a seat in a more prestigious school located outside the district or even outside Nepal. With respect to locally resident monks and nuns, although they live near their families, they are actively discouraged from partaking in productive and procreative activities.

The majority of children live outside of their natal valleys; most reside in monasteries and boarding schools situated (Table 3) at least several days' walking distance, and as far away as Tibetan exile settlements in South India or, in the case of some families from Mustang, in New York City. Kathmandu is the most popular destination for external migrants, consistent with a high concentration of boarding schools and monasteries in the nation's capital. Mustang also takes advantage of its proximity and historical connections with Pokhara, a city in central Nepal with several boarding schools and monasteries. Thus, roughly equal numbers of Mustang's external migrants aged 5–19 live in Kathmandu, Pokhara, and India.

What does the demographic future look like?

Migration and fertility: Ironically, the dearth of development and the parental response of sending children to distant destinations for education leaves Nepal's highland communities poised to experience a demographic phenomenon that characterizes today's wealthy nations: population decline accompanied by population aging (Reher 2007; Coleman and Rowthorn

TABLE 2 Destinations of migrants aged 5–19.

Valley	Within-district migrants	Out-of-district migrants			
		Nepal, Kathmandu	Nepal, Pokhara	Nepal, elsewhere	India
Nubri/Tsum	11.0%	59.3%	4.3%	4.7%	20.6%
Mustang	33.8%	24.1%	21.2%	0.7%	20.2%

http://dx.doi.org/10.1659/MRD-JOURNAL-D-14-00021.1
Downloaded From: https://complete.bioone.org/journals/Mountain-Research-and-Development on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

TABLE 3 Residential status of migrants aged 5–19% in category.

Age	Residential status	Nubri ($n = 520$)		Mustang ($n = 1085$)	
		Males	Females	Males	Females
5–9	School	62.7	79.7	79.2	87.1
	Religious institution	37.3	20.3	20.8	12.9
10–14	School	57.6	65.2	68.5	90.6
	Religious institution	42.4	34.8	31.5	9.4
15–19	School	48.6	37.0	57.2	92.7
	Religious institution	51.4	63.0	42.8	7.3
5–19	School	55.1	60.3	66.1	90.8
	Religious institution	44.9	39.7	33.9	9.2

2011). In the case of wealthy nations the driving force is sustained low fertility, whereas in the case of Nubri, Tsum, and Mustang the driving force is the outmigration of children, a phenomenon that will subsequently impact fertility and cause population aging. Among the cohort of females that is just entering reproductive years (age 15–19), 69.2% live away from their natal village; the vast majority of them are either currently in school (70.9%) or nuns (19.9%). Because rural to urban migration strongly correlates with older age at marriage (Hertrich and Lesclingand 2012) and female education strongly correlates with lower fertility in many countries (Martín 1995), including Nepal (MOHP 2011), the educational migrants are likely to delay marriage and childbearing and have lower fertility than nonmigrants (Kulu 2005). In any event, their children will most likely be born outside of their parents' natal valleys. As for nuns, most will bear no children due to culturally sanctioned celibacy.

Regarding women aged 20–29 (Table 4), the cohort that typically has the highest age-specific fertility rate, a small percentage of migrants from both areas is currently married, a significant percentage from Nubri and Tsum (but not Mustang) are nuns, and marriage within the villages is far from universal (61.2% in Mustang and 25.4% in Nubri and Tsum are currently unmarried) resulting in a low percentage of women aged 20–29 who are married (28.6% in Mustang, 46.1% in Nubri and Tsum). Even if marital fertility were to remain relatively high in the villages, the long-term effect of removing a large percentage of young people from the rural population will lower the rural crude birth rate (births/1000 people) because, over time, reproductively active women will represent a smaller percentage of the population. A related demographic effect is population aging, which can drive upward the crude death rate (deaths/1000 people) by increasing the percentage of the population concentrated in the elderly cohorts who are at greater risk of dying.

Population decline and return migration: Taken together, the outmigration of young people, low fertility and crude birth rates, and population aging raise the specter of population decline. Table 5 documents a population decline between 1997 and 2012 in our Nubri study villages. Although the persistence of high fertility has contributed to a 15.0% increase in the *de jure* population, the villages have experienced a decrease of 7.9% in the *de facto* population as a result of outmigration. Similarly, Nepal's decennial censuses revealed a decline between 2001 and 2011 in Mustang District's population (MOHP 2012: 3).

TABLE 4 Marital status by residence among women aged 20–29% in category.

Study district	Residence	Married	Not married	Nun
Nubri and Tsum ($n = 75$)	In village	74.6	18.6	6.8
	Away from village	1.3	29.3	69.3
	Total	46.1	22.8	31.1
Mustang ($n = 118$)	In village	38.8	60.7	0.5
	Away from village	13.7	75.5	10.8
	Total	28.6	66.7	4.7

Downloaded From: https://complete.bioone.org/journals/Mountain-Research-and-Development on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

TABLE 5 Population change in Nubri, 1997–2012, N in category.

Villages in Nubri	Population	1997	2012	% change
Sama	*De jure*	554	604	9.0
	De facto	499	470	−5.8
	No. living elsewhere	55	134	143.6
Samdo	*De jure*	120	174	45.0
	De facto	103	95	−7.8
	No. living elsewhere	17	79	364.7
Lho	*De jure*	461	527	14.3
	De facto	395	353	−10.6
	No. living elsewhere	66	174	163.6
Total	*De jure*	1135	1305	15.0
	De facto	997	918	−7.9
	No. living elsewhere	138	387	180.4

Population decline can be counteracted by return migration. However, based on our survey results and personal observations, it is probable that a small percentage of migrants will return as full-time residents after being raised and becoming socially accustomed to life in an urban setting. The lack of employment opportunities for educated individuals is one disincentive to moving back home. In addition, a permanent return to the village can be stigmatized among those in their 20s as it is considered a failure to parlay education into a successful career. For example, one man from Nubri who received a 12th-grade education and then returned home as a teacher was nearly hounded out of the village by relatives who constantly derided him for not working abroad. A man from Mustang who is trying to create income-generating opportunities in his homeland commented,

> *These days "going for education" is very important, even if we don't think a lot about where this will lead us. If young people can go to Kathmandu or Pokhara, they do—if they can get good sponsorship or have enough resources in their family to do this. Then after graduation from class 10 or 12, they don't go back to the village. Why? If they go to the village they don't have enough* amdani *[lit: Nepali for material wealth or sources of wealth/cash income]. Therefore, the main issue is to create sources of income in the village. I have so much land, but no real* amdani. *This is one of the reasons I've sent my children to school and now they are abroad. It used to be enough to stay in the village. But the days of planting barley and drinking* chang *[barley beer], planting buckwheat and eating* dhiro *[a coarse, mush-like staple common in non-rice growing communities] are over now."*

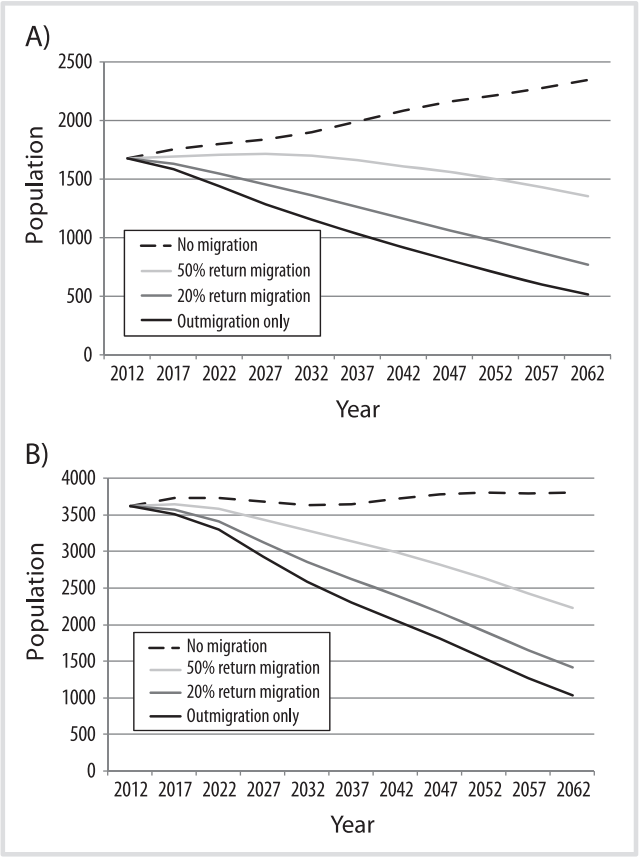
On the other hand, a few middle-aged householders actually did return to Mustang after living in the United States. They used their new wealth to invest in various village-based enterprises, such as cash crop cultivation (apples, medicinal plants), tourist lodges, and transportation. In their cases this is considered a reasonable semi-retirement strategy. But these stories are much rarer than permanent outmigration, particularly for those who were initially sent out of the villages for education.

Demographic projections: Figures 3A and 3B project what is likely to occur to the populations in the near future. The projections begin with the 2012 *de facto* populations and then make the following assumptions. For Nubri and Tsum the total fertility rate starts at 5.0 births per woman and then reduces by 0.5 births per woman each 5-year interval before stabilizing at 3.0 births per woman, life expectancy for males and females starts at 50 years then rises 2.5 years each 5-year interval before stabilizing at 65, migration occurs only in the 5–9, 10–14, and 15–19 age groups, and net outmigration is 15%, 7.5%, and 2.5% of individuals per year for these age groups, respectively. For Mustang the total fertility rate starts at 3.0 births per woman and quickly stabilizes at 2.5 births per woman, life expectancy for males and females starts at 55 years, then rises 2.5 years each 5-year interval before stabilizing at 65, migration occurs only in the 5–9, 10–14, and 15–19 age groups, and net outmigration is 15%, 7.5%, and 2.5% of individuals per year for these age groups, respectively.

We based the starting points for fertility and mortality on previous demographic analyses in the region (Childs 2008a) and hypothesized that these would decline due to the increasing availability of contraception and improvements in the health care system, and that the declines would impact Mustang earlier than Nubri and

http://dx.doi.org/10.1659/MRD-JOURNAL-D-14-00021.1
Downloaded From: https://complete.bioone.org/journals/Mountain-Research-and-Development on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

FIGURE 3 Fifty-year projection of *de facto* population in (A) Nubri and Tsum and (B) Mustang.



Tsum because the former area has already been more exposed to development. We chose to estimate what would happen if only people aged 5–19 migrated, whereas in reality many adults leave both areas as well, especially Mustang. Because the sending of children tends to happen at younger ages when they are eligible to attend boarding school or enter a monastery, the percentages for outmigration start higher among 5–9-year-olds and then decline with age as opportunities diminish. Based on the household survey we estimated that roughly 15% of 5–9-year-olds are sent away each year. We then ran the projections under different migration conditions: (1) there is no migration whatsoever, (2) 50% of outmigrants return to their natal villages when aged 20–24, (3) 20% of outmigrants return to their natal villages when aged 20–24, and (4) there is only outmigration, no return migration.

In the case of Nubri and Tsum (Figure 3A), the population would continue to grow in the absence of migration but would decline if today's trend of sending children away were to continue. Even if 20% returned, the population would still decline by 53.8%. In Mustang (Figure 3B), the population would stabilize in the absence of migration, but would decline under the other scenarios. If 20% returned, the population would drop by 60.9%.

Youth migration and a declining birth rate have the potential to rapidly age the populations. According to the projections, if 20% of outmigrants return then the percentage of the population aged 0–14 will drop from 31.4% to 12.3% in Nubri and Tsum, and from 17.3% to 10.3% in Mustang. The villages of the future will have a noticeable dearth of young people. Furthermore, a convergence of the elderly population (65+) with the working age population (15–64) will occur—especially in Mustang, where, if nobody returns, then those aged 15–64 and 65+ will comprise roughly equal percentages of the population. If 20% return, a higher proportion will be in the working ages (54.0%) than the elderly ages (35.7%), but the ratio of 1.5/1 will certainly strain the family-based care system for the elderly.

Discussion

Population decline in mountainous regions of the world is not a new phenomenon, having commenced in Europe during the 1800s and subsequently affecting alpine regions of Italy (Toniolo 1937; Viazzo 1989; Romano 1995), Switzerland (Netting 1981; Bätzing et al 1996), Spain (Collantes and Pinilla 2004), France (André 1998), Japan (Okahashi 1996), South America (Grau and Alde 2007), and Mexico (Bezaury 2007). Both historically and in the present, outmigration from mountainous regions is generally driven by young people seeking higher education, employment, or military service. In the Himalayan region, Sherpa labor migration in response to British colonialism started over a century ago (Ortner 1999), and by the 1970s labor migration to India depleted the adult male population in some communities (Goldstein and Beall 1982). In recent years, labor migration has expanded dramatically to include Gulf State and Southeast Asian destinations, which has impacted economic production and social reproduction in Nepali villages (Thieme and Wyss 2005). Labor migration is also affecting Himalayan communities in India (Bose 2000) and Pakistan (MacDonald 1996).

The high percentage of very young outmigrants distinguishes the demographic situation in Nubri, Tsum, and Mustang from patterns found elsewhere in the world. To our knowledge, the practice of sending such a high percentage of children outside of their natal homes is unprecedented except under conditions of coercion with a goal of forced assimilation, as happened to Native American children in the late 1800s and early 1900s (Trennert 1988; Adams 1995) and Aboriginal Australian children during the 20th century (van Krieken 1999). Perhaps the most analogous situation is the widespread practice of fostering in many African societies, where up to 50% of children are raised outside of their natal homes (Isiugo-Abanihe 1985; Bledsoe et al 1988).

Our analysis and projections foreshadow obstacles to the long-term viability of Nepal's ethnically Tibetan

Downloaded From: https://complete.bioone.org/journals/Mountain-Research-and-Development on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

highland communities. How will households maintain an adequate labor force to ensure agricultural production? Agricultural practices are already changing. For example, in some villages of Nubri outlying fields are now being left fallow due to the dearth of youths who are tasked with guarding crops against marauding bears and langurs. On the other hand, the recent rise in incomes through the gathering and selling of *yartsa gunbu* (*Ophiocordyceps sinensis*, also known as "caterpillar fungus") in Nubri and Tsum and remittances in Mustang allow households that are cash rich but labor poor to pay others to help with agricultural chores. Labor exchange between households, the traditional means to temporarily supplement one's labor force, is now being replaced by outright payments for labor, a practice that was rare 15 years ago.

How will outmigration affect the family-based care system for the elderly? People in the highlands of Nepal do not have a government support system to rely on in old age. Rather, they become dependent on adult family members, typically a coresident son and daughter-in-law or an unmarried daughter. In Nubri we encountered several households consisting of elderly residents living alone who not only lamented their onerous work burden, but also that they could not convince any of their children to return to the village. People in Mustang recognize the demographic trend and have taken some action by bringing elderly to urban centers in the winter and establishing one nascent retirement home in conjunction with a Kathmandu-based monastery, which may contribute to further outmigration.

Does the pattern of outmigration affect social and economic inequities in these Himalayan communities? Our preliminary analysis in Nubri and Tsum indicates that households that have children who receive sponsorships to attend boarding schools have higher mean incomes and more land on average than those who are unable to send their children to boarding schools. The quantitative evidence supports local claims that the wealthier households have the resources and social connections to facilitate sponsorships, and as a result children from poorer families remain in the village in disproportionately high numbers. Conversely some outmigration is facilitating new forms of socioeconomic mobility for those of lower social strata, for example, the children of outcaste groups such as blacksmiths, who were traditionally marginalized.

What effect will the migration pattern have on human capital? To date, very few educated youths have returned full-time. Lacking skills as farmers, local language fluency after a childhood spent in environments where Nepali and English are dominant, and facing a scarcity of salaried job opportunities, educated youths have little incentive to reside in their natal villages. The shortage of educated individuals, especially women, is striking. Among females aged 20–29 living in Mustang (n = 366) and Nubri and Tsum (n = 118), only 28 (7.7%) in the former and 3 (2.5%) in the latter have achieved a 10th-grade education. For males aged 20–29 in Mustang (n = 279) and Nubri and Tsum (n = 106) the numbers are somewhat higher: 55 (19.7%) and 14 (13.2%), respectively. Some educated males were compelled home because they are the household successor and thereby responsible for maintaining the continuity of the family. Women do not face similar pressures to return. In any event, at a time of unprecedented educational opportunities only a minority are returning home back to apply their skills and knowledge locally.

Incentives to return may develop as Nubri and Tsum become more popular tourism destinations. Qualitative observations from Mustang—a popular tourist destination since the 1980s—indicate that this is sometimes the case, particularly in villages along popular trekking routes. However, such returns are constrained to high tourist seasons and include hiring wage laborers from elsewhere in Nepal to perform service sector work: cooking and cleaning, driving jeeps, portering, etc. As a comparative example, in Nepal's Solu-Khumbu region many Sherpas have capitalized on the proximity of Mt. Everest by guiding mountaineering expeditions, running trekking operations, and opening lodges. Although outmigration of youths from Solu-Khumbu is common, many Sherpas return at least seasonally because they can make a living from tourism (Stevens 1993). Similarly, tourism has helped some mountain valleys in the European Alps retain their populations. Viazzo found that in those communities where the topography limited the development of tourist resorts, people either endeavored to make a meager existence based on marginal farming or migrated. The migration of so many young people created "remnant communities" characterized by aging populations dependent on state pensions for sustenance. In contrast, economically vibrant tourist communities not only retained their populations but also attracted new migrants (Viazzo 1989: 65–99; see also Bätzing et al 1996). However, Viazzo points out that demographic stability masks a considerable turnover in the composition of the population when long-term residents move out and are replaced by newcomers. The numbers may remain the same, but the social fabric based on kinship ties and unique forms of social organization can change dramatically. A similar process has started in Mustang where householders have begun leasing their agricultural land to culturally Tibetan people from neighboring regions.

In summary, we have presented data to show contemporary migration trends from some highland valleys of Nepal, and have projected where this may lead in the future. There is evidence that the trends documented in this paper are occurring throughout the ethnically Tibetan highlands of Nepal. For example, the district of Manang, situated between Nubri and Mustang, saw the greatest intercensus population decline (−31.8%) in all of Nepal between 2001 and 2011 (MOHP 2012).

Downloaded From: https://complete.bioone.org/journals/Mountain-Research-and-Development on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

Although migration from highland valleys is a common trend throughout the world, to our knowledge Nubri, Tsum, and Mustang present the first documented case of population decline driven by the outmigration of youths for secular and religious education, a pattern that presents a unique set of challenges. It is obvious that educational migration will have enormous impacts across the Himalayan highlands; what remains to be studied is how people will adapt to the emerging social and demographic circumstances.

ACKNOWLEDGMENTS

Most of the data presented in this paper was gathered in the summer of 2012 during a project titled Genes and the Fertility of Tibetan Women at High Altitude in Nepal, which was sponsored by the National Science Foundation (Grant No. BCS-1153911). The Institutional Review Boards of Case Western Reserve University, Washington University, Dartmouth College, Oxtrec, and the Nepal Health Research Council approved the research protocol. We would like to thank our fieldwork assistants for their hard work and dedication to the project: for Nubri and Tsum, Ang Tsering, Jangchuk Sangmo, Tinley Tsering, Tsechu Dolma, and Tsering Buti; for Mustang, Kunzom Thakuri, Karma Chödron, "Apu" Karma Chödron, Diki Dolkar Gurung, Yangjin Bista, Karchung Gurung, and Tashi Bista. We also thank the study communities and volunteers for their hospitality and participation, Rebecca Kippen for comments on an earlier draft of this paper that led to substantial improvements, and *MRD*'s anonymous reviewers for constructive feedback.

REFERENCES

Adams DW. 1995. *Education for Extinction: American Indians and the Boarding School Experience, 1875–1928*. Lawrence, KS: University of Kansas Press.
André MF. 1998. Depopulation, land-use change and landscape transformation in the French Massif Central. *Ambio* 27(4):351–353.
Bätzing W, Perlik M, Dekleva M. 1996. Urbanization and depopulation in the Alps. *Mountain Research and Development* 16(4):335–350.
Beall CM, Goldstein MC. 1981. Tibetan fraternal polyandry: A test of sociobiological theory. *American Anthropologist* 83(1):5–12.
Bezaury JA. 2007. Organized coffee producers: Mitigating negative impacts of outmigration in Oaxaca, Mexico. *Mountain Research and Development* 27(2): 109–113.
Blaikie P, Cameron J, Seddon D. 1980. *Nepal in Crisis: Growth and Stagnation at the Periphery*. Gloucestershire, United Kingdom: Clarendon Press.
Bledsoe CH, Ewbank DC, Isiugo-Abanihe UC. 1988. The effect of child fostering on feeding practices and access to health services in rural Sierra Leone. *Social Science and Medicine* 27(6):627–636.
Bose A. 2000. Demography of Himalayan villages: Missing men and lonely women. *Economic and Political Weekly* 35(27):2361–2363.
Childs G. 2004a. *Tibetan Diary: From Birth to Death and Beyond in a Himalayan Valley of Nepal*. Berkeley, CA: University of California Press.
Childs G. 2004b. Culture change in the name of cultural preservation. *Himalaya* 24(1–2):31–42.
Childs G. 2008a. *Tibetan Transitions: Historical and Contemporary Perspectives on Fertility, Family Planning, and Demographic Change*. Leiden: Brill.
Childs G. 2008b. Tibetan fertility transitions: Comparisons with Europe, China, and India. *Journal of the International Association of Tibetan Studies* 4:1–21.
Coleman D, Rowthorn R. 2011. Who's afraid of population decline? A critical examination of its consequences. *Population and Development Review* 37: 217–248.
Collantes F, Pinilla V. 2004. Extreme depopulation in the Spanish rural mountain areas: A case study of Aragon in the nineteenth and twentieth centuries. *Rural History* 15(2):149–166.
Craig S. 2002. Place, work, and identity between Mustang, Nepal and New York City. *Studies in Nepali History and Society* 7(2):355–403.
Craig S. 2011. Migration, social change, health, and the realm of the possible: Women's stories from Nepal to New York. *Anthropology and Humanism* 36(2): 193–214.
Craig S, Liana C, Norbu Lama T. 2010. Taking the MINI to Mustang, Nepal: Methodological and epistemological translations of illness narrative interviews. *Anthropology and Medicine* 17(1):1–26.
Dobremez JF, Jest C. 1976. *Manaslu: Hommes et milieux des vallées du Nepal central*. Paris, France: C.N.R.S.
Frechette A. 2004. *Tibetans in Nepal: The Dynamics of International Assistance Among a Community in Exile*. New York, NY: Berghahn Books.
Goldstein MC. 1978. Adjudication and partition in the Tibetan stem family. *In:* Buxbaum D, editor. *Chinese Family Law and Social Change*. Seattle: University of Washington Press, pp 204–214.
Goldstein MC. 1981. New perspectives on Tibetan fertility and population decline. *American Ethnologist* 8(4):721–738.
Goldstein MC, Beall CM. 1982. Indirect modernization and the status of the elderly in a rural third world setting. *Journal of Gerontology* 37(6):743–748.
Grau HR, Alde TM. 2007. Are rural-urban migration and sustainable development compatible in mountain systems? *Mountain Research and Development* 27(2):119–123.
Grunfeld T. 1996. *The Making of Modern Tibet*. Armonk, NY: M. E. Sharpe.
Hertrich V, Lesclingand M. 2012. Adolescent migration and the 1990s nuptiality transition in Mali. *Population Studies* 66(2):147–166.
Isiugo-Abanihe UC. 1985. Child fosterage in West Africa. *Population and Development Review* 11(1):53–73.
Karan PP. 1987. Population characteristics of the Himalayan region. *Mountain Research and Development* 7(3):271–274.
Kippen R. 2002. *Projections 2000* (Excel-based population-projection program). Canberra, Australia: Australian National University.
Kulu H. 2005. Migration and fertility: competing hypotheses re-examined. *European Journal of Population* 21(1):51–87.
MacDonald KI. 1996. Population change in the upper Braldu Valley, Baltistan, 1900–1990: All is not as it seems. *Mountain Research and Development* 16(4):351–366.
Martín TC. 1995. Women's education and fertility: Results from 26 Demographic and Health Surveys. *Studies in Family Planning* 26(4): 187–202.
MOHP [Ministry of Health and Population (Nepal)], New ERA, and ICF International Inc. 2012. *Nepal Demographic and Health Survey 2011*. Kathmandu, Nepal: Ministry of Health and Population, New ERA, and ICF International, Calverton, Maryland.
Moran P. 2004. *Buddhism Observed: Travelers, Exiles and Tibetan Dharma in Kathmandu*. London: Routledge Curzon.
Netting RMcC. 1981. *Balancing on an Alp: Ecological Change and Continuity in a Swiss Mountain Community*. Cambridge, United Kingdom: Cambridge University Press.
Nowak M. 1984. *Tibetan Refugees: Youth and the New Generation of Meaning*. New Brunswick, NJ: Rutgers University Press.
Okahashi H. 1996. Development of mountain village studies in postwar Japan: Depopulation, peripheralization and village renaissance. *Geographical Review of Japan Series B* 69(1):60–69.
Ortner SB. 1999. *Life and Death on Mt Everest: Sherpas and Himalayan Mountaineering*. Princeton, NJ: Princeton University Press.
Ramble C. 2008. *The Navel of the Demoness: Tibetan Buddhism and Civil Religion in Highland Nepal*. Oxford, United Kingdom: Oxford University Press.
Reher DS. 2007. Towards long-term population decline: A discussion of relevant issues. *European Journal of Population* 23(2):189–207.
Rigzin T. 2004. The Tibetan schools in the diaspora. *In:* Bernstorff D, von Welck H, editors. *Exile as Challenge: The Tibetan Diaspora*. New Delhi, India: Orient Longman, pp. 266–278.
Romano B. 1995. National parks policy and mountain depopulation: A case study in the Abruzzo Region of the Central Apennines, Italy. *Mountain Research and Development* 15(2):121–132.
Ross JL. 1984. Culture and fertility in the Nepal Himalayas: A test of a hypothesis. *Human Ecology* 12(2):163–181.
Snellgrove DL. 1989[1958]. *Himalayan Pilgrimage*. Boston, MA: Shambhala.
Stevens SF. 1993. Tourism, change, and continuity in the Mount Everest Region, Nepal. *Geographical Review* 83(4):410–427.
Thieme S, Wyss S. 2005. Migration patterns and remittance transfer in Nepal: A case study of Sainik Basti in Western Nepal. *International Migration* 43(5): 59–98.

Downloaded From: https://complete.bioone.org/journals/Mountain-Research-and-Development on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use

Thompson M, Warburton M. 1985. Uncertainty on a Himalayan scale. *Mountain Research and Development* 5(2):115–135.
Toniolo AR. 1937. Studies of depopulation in the mountains of Italy. *Geographical Review* 27(3):473–477.
Trennert RA. 1988. *The Phoenix Indian School: Forced Assimilation in Arizona, 1891–1935*. Norman, OK: University of Oklahoma Press.
Van Krieken R. 1999. The 'stolen generation' and cultural genocide: The forced removal of Australian indigenous children from their families and its implications for the sociology of childhood. *Childhood* 6(3):297–311.
Viazzo PP. 1989. *Upland Communities: Environment, Population and Social Structure in the Alps since the Sixteenth Century*. Cambridge, United Kingdom: Cambridge University Press.

http://dx.doi.org/10.1659/MRD-JOURNAL-D-14-00021.1
Downloaded From: https://complete.bioone.org/journals/Mountain-Research-and-Development on 28 Mar 2024
Terms of Use: https://complete.bioone.org/terms-of-use