

## Research Articles

# Moving Out or Moving In? Demographic, Ethnic, and Linguistic Impacts of Population Churn in Highland Nepal

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DOI: <https://doi.org/10.2218/himalaya.2026.12088>

## Abstract

What happens to remote, rural communities when scores of younger people leave? The authors address this question through a comparative approach to contiguous highland societies in Nepal using the lens of population churn, a demographic concept that considers how out-migration and replacement migration affect population compositions. For each of the six geographical areas under consideration, data from Nepal's 2021 National Census are used to explore population churn and the resulting composition of native versus in-migrant populations. The demographic data demonstrate that, whereas all six areas are losing residents to out-migration, some but not all are being back-filled by migrants from neighboring regions who fill economic voids left by out-migrants. The analysis then shifts to consider how current population dynamics are changing the social, linguistic, and ethnic fabric of each area, pointing to differential impacts among communities that are often assumed to be similar due to cultural, religious, and linguistic congruity. The conclusion identifies the advancement of road networks as a key variable influencing disparate levels of migration and associated demographic, ethnic, and linguistic changes.

## Keywords

migration; population churn; population composition; ethnicity; Nepal; Himalayas

## Recommended Citation

Childs, G., Craig, S. R., Ghale, T. T., Gurung, T. W., Gurung, Y. T., Hildebrandt, K., Lama, R. L., & Lama, S. (2026). Moving Out or Moving In? Demographic, Ethnic, and Linguistic Impacts of Population Churn in Highland Nepal. *HIMALAYA*, 45(1), 22–43.



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## Introduction

In lands of old civilization and dense settlement the progressive depopulation of mountainous areas, with the abandonment of fields and dwellings, is a well known phenomenon. The trend is particularly marked in the Alps, where scanty economic resources have forced the inhabitants to lead lives of hard labor and penury that are repugnant to the generation of today. (Toniolo 1937, 473)

The words penned by Italian scholar A. R. Toniolo nearly a century ago could very well have been written today to describe the exodus of young people from many Himalayan communities in Nepal. In the last decade, we have documented the scale and consequences of out-migration from highland communities where some of us were born and all of us have been conducting long-term research. Although seasonal or more long-term mobility is nothing new in Himalayan communities (e.g., Goldstein and Beall 1980; Ortner 1989; van Spengen 2000), the recent large-scale out-migration of people who remain connected with their natal communities but have little intention of returning as full-time residents is affecting every aspect of life across the region (Childs et al. 2014; Craig 2020; Saxer 2023; Kumar and Sati 2023).

The recognition that out-migration and population decline are occurring in mountainous regions of the world is not new. These processes have been documented in the Alps (Viazzo 1989; Bätzing et al. 1996), the Balkans (Mickovic 2020), the Central Caucasus (Kohler et al. 2017), Spain (Collantes and Pinilla 2004), and Japan (Okahashi 1996). However, the scale and rapidity of out-migration from Himalayan communities suggest that the traditional “slow demography” approach, which measures incremental change over generations, is not always the most appropriate framework for understanding population dynamics. As Billari argues, the customary slow demography approach assumes that “population moves

inertially, and it is exogenous to other factors.” It is characterized by a focus on two long-term, interrelated global trends: demographic transition and population aging (2022:10–11). Population change in wealthier countries with low fertility and high longevity can indeed be slow, especially if migration partially offsets natural population decline when deaths exceed births. However, the slow demography paradigm obscures important demographic shifts, which is why Billari advocates a “fast demography” approach that relies on population (or demographic) turnover to assesses changes in population composition over short time intervals using four variables: births, deaths, in-migration, and out-migration (Billari 2022; see also Bolano et al. 2023).

The purpose of this study is to use data from Nepal’s decennial censuses to evaluate recent population shifts in selected Himalayan regions and to explore how they are affecting the ethnic composition of communities. Population turnover provides a useful framework for addressing the fast demography that now characterizes this region. However, because the census lacks reliable longitudinal data on births and deaths, we focus on the migration component of the population turnover ledger, *population churn*, which only considers in-migration and out-migration. The concept is distinct from population transfer, a deliberate state-level policy aimed at reshaping population compositions by forcibly moving people in or out of specific regions (Schechla 1993; Frank 2017).<sup>1</sup> Population churn can and usually does involve voluntary movements and is associated with replacement migration, defined as, “the international migration that would be needed to offset declines in the size of population, the declines in the population of working age, as well as to offset the overall ageing of a population” (UN 2000, 1). As the definition suggests, replacement migration is primarily a concept applied to wealthy nations at the tail end of demographic transition, namely, those experiencing low fertility and population aging. Studies of population churn have focused almost exclusively on Europe and

North America, where population aging, population decline, and associated labor shortages have emerged as major academic and political issues (e.g., Billari and Dalla-Zuanna 2011; Craveiro et al. 2019) including angst over changing ethnic compositions (Coleman 2006).

Population churn links demographic processes in migration-sending and migration-receiving communities. For example, according to US Census Bureau data, the New York City borough of Queens has undergone a significant shift in its racial composition. In 1980, 61 percent of Queens' residents identified as White, 25 percent as Black, and 3 percent as Asian. By 2020 the White and Black populations had declined to 23 percent and 15 percent respectively, while the Asian component had risen to 27 percent.<sup>2</sup> Migrants from the Himalayan region have contributed to population churn in Queens; they now number in the thousands and have created thriving communities (Craig 2020; Gurung et al. 2021; Perlin 2024).

Closer to Nepal, population churn can also involve internal migration. For example, in Tibetan-inhabited areas of Qinghai Province, China, Fischer (2024) used census data to document longitudinal patterns of population turnover and changing ethnic compositions. While earlier attempts by the national government to orchestrate in-migration of majority Han individuals into minority areas of Qinghai were reversed when economic conditions deteriorated (Goodman 2004), subsequent development initiatives in the 1990s and early 2000s increased the Han proportion of populations across Tibetan territories, especially in cities (Fischer 2008, 2014). Since then, census data reveal a general trend of declining Han population in Qinghai between 2010 and 2020, resulting in an increase (or restoration) of the Tibetan share of the population in most prefectures and counties (Fischer 2024). Although Fischer did not use the term "population churn," that is precisely the process that the migration component of his analysis documented.

In Nepal, population churn is an important yet understudied topic. Internal migration rates may now be peaking (Charles-Edwards et al. 2017), and the country has a high Migration Effectiveness Index (MEI) indicating asymmetrical within-country migration, that is, some places are gaining population at the expense of others (Rees et al. 2017). Although much of the movement is from rural to urban areas (Bhawana et al. 2017) and north (higher elevations) to south (lower elevations) (KC 2020), data and perspectives presented below indicate that migration patterns are complex and geographically variable. These patterns can create population voids in places experiencing sustained out-migration, thereby creating potential opportunities for within-country replacement migration—a topic that has not been systematically examined in Nepal.

A key stimulator of population churn can be the development of road networks into areas where they did not previously exist. Roads boost out-migration by reducing migration costs (e.g., Morton and Oliveira 2024) but can also stimulate in-migration and population churn in sparsely populated yet resource-rich environments, such as the Amazon region (e.g., Hecht and Cockburn 1989; Moran 1995; Perz et al. 2010; Caviglia-Harris et al. 2013). Nepal's government recognized this as early as the 1970s, when it planned roads to promote internal migration from the middle hills to the less populated southern Terai (Rankin et al. 2017). The resulting population churn radically shifted the ethnic composition of southern Nepal, as the native Tharu quickly became a minority in their traditional homeland (Guneratne 2002). In general, roads throughout Nepal have increased people's mobility while transforming social and economic relations across increasingly broad swaths of the country (Murton 2018). However, a strong cultural valuation of land is a common theme throughout the study areas where prohibitions against selling parcels to outsiders are common and can dampen population churn. With these observations in mind, one of the comparisons among

our study areas is the relationship between road development and population migration patterns.

The first part of this article presents demographic evidence that population churn and replacement migration are occurring in some, but not all, Himalayan communities. The comparative approach demonstrates that migration patterns are neither uniform nor entirely predictable in communities that are often lumped together because of presumed cultural and environmental similarities. To shed light on the consequences of these trends, the second part of the article presents observations on how population churn is impacting each research area. The topic is worthy of study because, as research elsewhere has argued, population churn can increase inter-ethnic tensions (Coleman 2006), decrease attachment to place and social cohesion (Bailey et al. 2012), affect traditional attitudes (Firebaugh 1992), and influence the speed of cultural adaptation (Dyble and Micheletti 2024). The objective is not to disparage in-migrants for weakening the social matrices of the places where they move. After all, their opportunities arose because others chose to leave. Here, we identify and explore an array of consequences that can accompany population churn.

### Data, Study Sites, and Demographic Description

Demographic data for this study are drawn from Nepal's tabulated census results, available through the Government of Nepal's National Statistics Office website under the National Population and Housing Census 2021.<sup>3</sup> The country's twelfth decennial census was carried out by the Central Bureau of Statistics in October and November 2021. Unlike the 2001 and 2011 censuses, it was an attempt at full enumeration rather than a sample survey. The census used a modified *de jure* method and specified procedures for the retrospective collection of data on migrants.<sup>4</sup>

A post-survey analysis of Nepal's 2021 census revealed an estimated 2.6 percent

undercount of the population, or roughly 772,000 individuals (NSO 2023). The undercount was highest among people aged 20–24 (3.9 percent) and 25–29 (3.8 percent), suggesting that many international labor migrants were missed. With regard to the study areas described below, a comparison of one co-author's household survey data from TsumNubri with 2011 census data revealed that the census's *de facto* population (those actually present) was quite accurate, but the *de jure* population was underestimated because most educational migrants (generally young people between the ages of 5 and 19) were missed (Childs and Choedup 2019). We also documented the same under-enumeration in Nepal's 2021 census (Childs et al. 2025). Because we are using *de facto* population figures in this study and the same data issues seem to affect the 2011 and 2021 censuses, we are guardedly confident that the general trends documented below are accurate, even if the exact numbers are not.

Administratively, Nepal is divided into seven provinces. Each province is divided into districts, and each district into rural municipalities (RM, Nepali: *gaunpalika*) and urban municipalities (Nepali: *mahanagarpalika* and *upamahanagarpalika*). In this study, we focus on contiguous rural municipalities that we know well through research and long-term social connections (Figure 1). From east to west, these are TsumNubri RM in Gorkha District, Upper Manang District (Narphu and Neshyang RMs), Lower Manang District (Chame and Nashong RMs), Upper Mustang District (Lomanthang and Dalome RMs), Lower Mustang District (Varagung, Gharpajhong, and Thasang RMs), and Eastern Dolpo (Charka Thangsong and Dolpo Buddha RMs) in Dolpa District.<sup>5</sup> Table 1 compares census data from 2001, 2011, and 2021 to provide a perspective on population change over time.

Between 2001 and 2021, Nepal and Eastern Dolpo experienced population growth, presumably because births outpaced deaths and out-migration. In contrast, TsumNubri, Upper Manang, Lower Manang, Upper



Figure 1. Map of Nepal Showing Research Area Districts

Table 1. De Facto Population Change, 2001–2021<sup>6</sup>

| Study Area           | Population |            |            | Change (percent) |           |           |
|----------------------|------------|------------|------------|------------------|-----------|-----------|
|                      | 2001       | 2011       | 2021       | 2001–2011        | 2011–2021 | 2001–2021 |
| <b>Nepal</b>         | 23,151,423 | 26,494,504 | 29,164,578 | +11.5            | +10.1     | +26.0     |
| <b>TsumNubri</b>     | 7,711      | 6,923      | 5,932      | -13.3            | -14.3     | -23.1     |
| <b>Upper Manang</b>  | 6,124      | 2,760      | 1,991      | -54.9            | -27.9     | -67.5     |
| <b>Lower Manang</b>  | 3,338      | 3,067      | 2,947      | -8.1             | -3.9      | -11.7     |
| <b>Upper Mustang</b> | 4,727      | 3,322      | 2,722      | -29.7            | -18.1     | -42.4     |
| <b>Lower Mustang</b> | 9,798      | 8,301      | 8,604      | -15.3            | +3.7      | -12.2     |
| <b>Eastern Dolpo</b> | 3,180      | 3,577      | 4,092      | +12.5            | +14.4     | +28.7     |

Sources: *National Report* Individual Table 4, NPHC 2021; Gandhaki Province/District/Local Report Individual Table 4, NPHC 2021; Nepal 2001 Census.

Note: Population figures do not include institutional residents because they were enumerated only at the district level, so it is impossible to determine how many lived in each RM.

Mustang, and Lower Mustang experienced population decline, mainly due to out-migration (Childs et al. 2014). Of these, Upper Manang and Upper Mustang lost the highest percentages of population, followed by TsumNubri. Lower Manang and Lower Mustang lost comparatively less population, suggesting that in-migration may have partially countered out-migration in those areas.

To provide a perspective on population churn, Table 2 presents 2021 census data quantifying how many people moved into each area. By definition, “moving in” refers to a person shifting their primary place of residence from one municipality (rural or urban) to another.

In Nepal as a whole, 32 percent of the population had migrated at some point in

Table 2. Population That Moved In and Did Not Move, 2021

| Study Area    | Gender  | Total Population | Did Not Move | Moved In  | Percent of Population Moved In |
|---------------|---------|------------------|--------------|-----------|--------------------------------|
| Nepal         | total   | 29,164,578       | 19,823,170   | 9,341,408 | 32.0                           |
|               | males   | 14,253,551       | 10,968,413   | 3,285,138 | 23.0                           |
|               | females | 14,911,027       | 8,854,757    | 6,056,270 | 40.6                           |
| TsumNubri     | total   | 5,932            | 5,805        | 127       | 2.1                            |
|               | males   | 2,845            | 2,777        | 68        | 2.4                            |
|               | females | 3,087            | 3,028        | 59        | 1.9                            |
| Upper Manang  | total   | 1,991            | 1,229        | 762       | 38.3                           |
|               | males   | 993              | 539          | 454       | 45.7                           |
|               | females | 998              | 690          | 308       | 30.9                           |
| Lower Manang  | total   | 2,947            | 1,549        | 1,398     | 47.4                           |
|               | males   | 1,558            | 839          | 719       | 46.1                           |
|               | females | 1,389            | 710          | 679       | 48.9                           |
| Upper Mustang | total   | 2,722            | 2,573        | 149       | 5.5                            |
|               | males   | 1,252            | 1,192        | 60        | 4.8                            |
|               | females | 1,470            | 1,381        | 89        | 6.1                            |
| Lower Mustang | total   | 8,604            | 5,225        | 3,379     | 39.3                           |
|               | males   | 4,412            | 2,725        | 1,687     | 38.2                           |
|               | females | 4,192            | 2,500        | 1,692     | 40.4                           |
| Eastern Dolpo | total   | 4,092            | 4,019        | 23        | 0.6                            |
|               | males   | 1,967            | 1,933        | 18        | 0.9                            |
|               | females | 2,125            | 2,086        | 5         | 0.2                            |

Sources: Province/District/Local Report, Individual Table 25, Population residing in enumerated area by former place of residence preceding the census, sex and age group, NPHC 2021.

their lives to their current residence. The percentage for females was nearly double that for males, a difference attributed to the patrilocal marital norm (KC 2020). Yet among the highland research sites, two distinct patterns emerge. The populations of Upper Manang, Lower Manang, and Lower Mustang all have high percentages of in-migrants, in contrast to TsumNubri, Upper Mustang, and Eastern Dolpo.<sup>7</sup> Unlike the national trend, and with the exception of Upper Manang, roughly the same number of males and females are in-migrants. One explanation, explored below, is that people are moving into these

areas as couples or families rather than as individuals.

Table 3 summarizes people's stated reasons for moving to their current residence. Here, we aggregated data from Upper Manang, Lower Manang, and Lower Mustang to highlight differences between these highland communities and national trends. Because in-migrants constitute only small percentages of the populations in TsumNubri, Upper Mustang, and Eastern Dolpo, these areas are not included in Table 3.

Table 3. Reasons for In-Migration by Sex: Highland Areas Compared with Nepal

| Study Area                                           | Gender | Employment/<br>Business | Study/<br>Training | Marriage | Dependent | Return<br>Home | Other |
|------------------------------------------------------|--------|-------------------------|--------------------|----------|-----------|----------------|-------|
| Upper Manang,<br>Lower Manang,<br>& Lower<br>Mustang | Total  | 51.6                    | 3.1                | 17.2     | 15.6      | 7.3            | 5.2   |
|                                                      | Male   | 69.4                    | 3.3                | 1.2      | 13.0      | 7.9            | 5.2   |
|                                                      | Female | 32.8                    | 3.0                | 34.0     | 18.3      | 6.7            | 5.1   |
| Nepal                                                | Total  | 17.9                    | 7.8                | 38.2     | 19.5      | 4.1            | 12.4  |
|                                                      | Male   | 35.7                    | 12.4               | 1.3      | 24.2      | 8.2            | 18.2  |
|                                                      | Female | 8.3                     | 5.4                | 58.2     | 17        | 1.8            | 9.3   |
| Difference                                           | Total  | 33.7                    | -4.7               | -21.0    | -3.9      | 3.2            | -7.2  |
|                                                      | Male   | 33.7                    | -9.1               | -0.1     | -11.2     | -0.3           | -13.0 |
|                                                      | Female | 24.5                    | -2.4               | -24.2    | 1.3       | 4.9            | -4.2  |

Source: Province/District/Local Report, Individual Table 29, Population whose former place of residence preceding the census was other than the current enumerated place within country by main reason of migration, NPHC 2021.

Compared with Nepal as a whole, the two most notable differences are the high percentages of both males and females who moved to these areas for employment or business and the lower percentage of women who moved there for marriage. This suggests that people are drawn to the highlands for economic opportunities and that many come as couples or families rather than as individual migrants. Moving for employment or business reasons points to the possibility that in-migrants are filling economic voids left by out-migrants.

Are the in-migrants people of different ethnic and linguistic backgrounds than the native populations in these areas? Unfortunately, using census data to investigate ethnic change is complicated by the fact that the shifting classification of identity categories in Nepal renders longitudinal comparisons challenging (Fisher 2001).<sup>8</sup> Table 4 can only provide a cross-sectional look at the ethnic compositions of the study areas' populations. Here, we use the term "native population" to refer to the ethnic groups that have ancestral ties to a region and are generally considered to be its original or long-time inhabitants.<sup>9</sup> The reason for using "native population" rather than "Indigenous population" is that the latter

term can lead to confusion. Members of officially designated Indigenous Nationalities (Nepali: *Adivasi Janajati*) can be in-migrants to the highland study areas without being long-term inhabitants with roots stretching back generations (e.g., Tamangs and Magars).<sup>10</sup>

Table 4. Caste and Ethnicity by Study Area (%), 2021

| Unit of Analysis | Native<br>Population | Other |
|------------------|----------------------|-------|
| TsumNubri RM     | 98.3                 | 1.7   |
| Upper Manang     | 78.8                 | 21.2  |
| Lower Manang     | 76.4                 | 23.6  |
| Upper Mustang    | 97.2                 | 2.8   |
| Lower Mustang    | 59.6                 | 40.4  |
| Eastern Dolpo    | 99.0                 | 1.0   |

Source: National Population and Housing Census (NPHC) 2021, *Caste/Ethnicity Report*, Individual Table 1, "Population by Caste/Ethnicity and Sex."

TsumNubri, Upper Mustang, and Eastern Dolpo all have high proportions of people native to their respective areas, indicating

minimal in-migration. In contrast, 40.4 percent of Lower Mustang's, 23.6 percent of Lower Manang's, and 21.2 percent of Upper Manang's residents do not belong to one of the groups considered native. The fact that these proportions are roughly equal to or lower than the percentages of people classified as in-migrants (Table 2) supports the conclusion that the outflow of population has been partially backfilled by people of different ethnic backgrounds.

Next, we turn to on-site observations to discuss the significance and potential consequences of the varying demographic dynamics presented above. The following perspectives do not emerge from a common research design but draw on long-term engagements with the study areas. All of our research—spanning decades in most cases—has been ethnographic in focus, featuring a combination of participant observation and interviewing supplemented by household socioeconomic and linguistic surveys. One of us (Hildebrandt) is a linguist whose methodology is rooted in language documentation fieldwork. Language documentation is an ethnographically informed approach that relies on participant observation and interviewing to capture the cultural content of speech as it is embedded in daily life, traditions, and practices of communities (Harrison 2005). Through collaboration on past projects, we have found that disciplinary differences do not hinder but rather enhance our comparative approach (e.g., Hildebrandt et al. 2018; Childs et al. 2021).

For this article, after circulating the theoretical framework and demographic analysis, we gave each set of authors latitude to describe how population churn is affecting the communities that they know through research or as residents. The observations are not anecdotal; they are based on a combination of lived experiences for those who are native to these areas and long-term studies by all co-authors. One downside is that the following sections may not entirely harmonize. On the positive side, the open-ended approach allowed themes to emerge organically, notably the impact of roads.

## TsumNubri

Our current project on migration, aging, and familial support is the latest in a series of research endeavors dating back to 1995 that investigate the interplay of demographic trends and social changes in TsumNubri. Through a combination of household surveys and ethnographic methods, we have documented the impacts of longitudinal declines in fertility and infant mortality, and a dramatic increase in out-migration in response to demands for education and employment.

TsumNubri has experienced very little in-migration—the census documented only 127 out of 5,932 residents as having moved there from elsewhere. In Tsum (the eastern part of TsumNubri RM), most internal migration occurs within the RM, specifically between wards and among people with shared cultural and linguistic backgrounds. For example, people move seasonally from lower to higher wards to act as “house guardians,” protecting assets and tending cattle during winter when many residents are away for pilgrimage and trade. House guardians also find seasonal work in May and June when most people in the highest villages travel to mountain pastures in search of *yartsa gunbu* (*Ophiocordyceps sinensis*), a valuable trade commodity used for health and medicinal purposes. Although house guardians fulfill a valued service, their movements are internal to the RM and temporary.

During the thriving spring and autumn tourist seasons, some monasteries and residents of TsumNubri employ outsiders for construction projects and trekking lodge labor. These seasonal migrants do not settle permanently and therefore would not be enumerated by the census. Previously, outsiders with capital and a desire to gain a foothold in the tourism industry could lease land or an existing lodge in Nubri (the western part of TsumNubri RM). However, villages have strict environmental protection regulations (*shagya*, sealing decrees) that include bans against slaughtering animals (Plachta 2018). One ward terminated all existing and future leases when

locals discovered renters killing yaks to provision their kitchens. Other villages followed suit out of concern that similar violations would occur on their territory (Bennike 2020). Only one outside family has been granted permission to remain in Nubri's upper wards and run a lodge. Their enterprise started long ago, allowing them time to become respected community members who participate in and contribute to all aspects of village life.

In summary, in-migration to TsumNubri is greatly restricted because residents are taking measures to protect their economic and cultural interests. The result is that, until now and despite significant out-migration, the vast majority of inhabitants are native to the area. The situation may change once a road under construction reaches these highland communities. As of 2026, it is within one-day walking distance of Nubri, where it is slated to connect with a road from Tibet that has already reached the northern border.

### Upper and Lower Manang

Since 1998, we have studied population movement in Upper Manang through the lens of language documentation, language contact, multilingualism, language endangerment, and language preservation. Our methods have included sociolinguistic interviews, in which we ask a series of questions about language practices and language attitudes from lifelong residents of communities in Manang.<sup>11</sup>

One observation pertaining to population churn is that most interviewees in Nar and Phu villages and in Gyalsumdo villages (Upper Manang) report that village populations are slowly declining.<sup>12</sup> During visits to Upper Manang in the late 1990s, houses were almost all inhabited by their owners—Manange-speaking village residents. However, beginning in the early 2000s, we noticed the presence of renters from Dolpo, another highland region of Nepal where the residents speak a different language. These people rented the houses and farmed the land in a “sharecropping” arrangement, whereby the Manange owners received a

portion of the profit from the produce. The number of people from Dolpo (and others from far western Nepal) has increased over time, particularly in villages like Tengki, Ghyaaru, and Ngawal. During our visits to the communities between 2012 and 2015, we confirmed this drop-off in the number of occupied houses and the increase in houses sublet to families from Dolpo. Conversely, we have also witnessed a smaller degree of return migration, particularly to villages like Manang and Braagaa. These are younger Manange adults, born and raised in Kathmandu, whose families own land in these villages. They return to build trekking lodges suited to western tourist tastes, including with solar hot showers in en-suite bathrooms, bakeries, and even pubs. These younger entrepreneurs are culturally Manange, but they often do not speak their ancestral language. In addition, they usually only stay during the trekking high season (April through October) and return to Kathmandu during the winter, when the trekking routes are impassable.

The demographic trends are also evident in shifting school attendance. Each RM has one primary school, and, in the 1990s and early 2000s, they all had robust attendance. But as people in Upper Manang achieved more socio-economic mobility, they began to send their children to boarding schools. In contrast, Lower Manang schools are still full but now populated by the children of people who are not traditionally from Manang District. Linking these observations to research on language attitudes and practices, our research shows that, although residents maintain positive attitudes about the perceived value of their languages for local traditions and practices, at least some Manang languages are losing speakers, and their speech communities are shrinking over time (Hildebrandt and Hu 2017). Residents are aware of the dangers these demographic shifts present to the preservation of local languages. Several interview participants recognize the connection between language maintenance and remaining local. In response to the interview question, “What can (or should)

people do to keep their mother tongue spoken (in future generations)?”, a Manange woman said, “At this time, children should remain locally so they can be taught/use the language as much as possible. When my life has finished (without our community), the language could be finished, too.” A speaker of Gyalsumdo from Upper Manang said, “At this time, if Gyalsumdo children remain here, they must speak Gyalsumdo, even if they are not perfectly fluent. If they leave, they will speak whatever language they like, English or Nepali...”

Language endangerment is directly associated with population churn. When we asked interviewees their opinions about the likelihood of future speakers of their respective mother tongues, less than 50 percent of those sampled in any language community were unequivocally optimistic that there will be future speakers. All interviewees view locality as an important factor in the survival of their languages; if children continue leaving the villages in large numbers for education, work, or an easier way of life in Kathmandu, then the languages will become increasingly threatened. When asked what advice they might give to promote the survival of their mother tongue, the majority of responses involve making greater use of the local schools. But many interviewees also see the ultimate responsibility as belonging to the family and the community itself. However, the role of the community becomes compromised when the community structure is fractured across generations in a scenario of out-migration (Hildebrandt and Hu 2017).

Currently, the Gyalsumdo and Nar-Phu languages in Upper Manang are in the most imminent danger of extinction over the next couple of generations. In contrast, Gurung is the most viable of the four Manang languages because the villages show higher populations across age groups, children practice the language daily, and many local teachers are Manang-Gurung mother-tongue speakers. Manange occupies a somewhat precarious middle ground scenario, with a larger number of overall

speakers but similar issues of out-migration and lack of language practice in younger generations. We have observed additional trends over the years during language documentation collaboration with community members that further bolster these predictions. The first of these is changes in who inhabits houses in Manange villages.

Our research has also focused on the intersection of the emergent motor road that cuts through Manang into Mustang and language practices at work (Hildebrandt and Hu 2017). Lifelong residents who live and work near the motor road report more Nepali-only, mixed language, or other non-local (e.g., Hindi, English) use at work, while those who live and work further away report more mother tongue-only, or more mixed language use in comparison to Nepali or non-local languages. We hypothesize that as time passes and as the road becomes a more reliable, stable presence, other reported practices and attitudes will show similar correlations. In other words, non-local languages that are clustered along the road, where new businesses have sprung up, will become seen as increasingly important and more widely used in Manang communities. The road as a phenomenon in Manang is about one generation old. Those respondents who are now raising their own young children were themselves children when road construction began. As these residents have matured, they have witnessed change in terms of socio-economic activities, community movement, and physical changes to their local landscapes. These changes will inevitably correlate with shifting practices and opinions about language.

In summary, population churn generated by youth out-migration and idiosyncratic in-migration and return migration—responses to socio-economic changes associated with road construction and other developments—is transforming linguistic practices in ways that may, in the not-so-distant future, result in language extinction and/or the replacement of local languages with those of in-migrants.

## Upper and Lower Mustang

Our ongoing ethnographic research in the Baragaon and Lo regions of Mustang, as well as among Mustangis living in urban Nepal and the United States, focuses on migration, aging, and networks of care. This work builds on ethnographic research that began in 1995 and has focused by turns on the social ecologies of Himalayan medicine, health, and illness; women's reproductive histories; and kinship, identity, and belonging in the context of migration and rapid socioeconomic change.

Both Upper and Lower Mustang have experienced significant population change through seasonal and permanent out-migration, as well as through in-migration of Nepalis from other regions of the country, especially to Lower Mustang. These shifting dynamics are woven into the land, into the empty houses, and into the rhythms of work that no longer happen the way they once did.

Decades ago, Baragaon was the seasonal hub of Lower Mustang. During the farming season, one could see people from Upper Mustang and nearby Dolpo walking down with packs on their backs to help with planting, harvesting, and everything in between. Baragaon's economy was relatively stronger than either Upper Mustang or Dolpo at that time. Those from Upper Mustang who came to work were paid with flour, wheat, and sometimes cash. This kind of seasonal migration wasn't solely economic. It was deeply relational. It brought people from different villages into contact, creating stories, friendships, and even kinship ties. The movements reflected an older Himalayan rhythm, one where mobility was normal, even necessary, and tied to the seasons. As one example, a prominent Thakuri (noble) household from the village of Jharkot in Baragaon would regularly employ up to eight seasonal workers from Upper Mustang. Upon completion of this agriculturally driven internal migration cycle, many would migrate south again at the start of winter, often with domestic animals in tow, to spend the coldest months in temperate climates, engaging in petty

commodity trade in Pokhara or the clothing trade in India.

This pattern has shifted significantly since the early 1990s. The combination of declining fertility and a rise in education-driven out-migration of young people altered the previous dynamics of internal migration. Opportunities in the U.S., Japan, and later other parts of the world created new pathways. Young people left for education or work, and many did not return. Families who once relied on seasonal labor began receiving remittances instead.

The first type of in-migration began in the early 2000s, following road development and a construction boom. Roads brought change. New forms of labor around tourism and other industries created a demand for workers; many came from other districts in Nepal, such as Rolpa, Rukum, and Myagdi Districts. At first, most were seasonal workers, arriving in the warmer months during the construction season and leaving during the harsh winter. But over time, and especially in Lower Mustang, some of these migrants stayed. They moved beyond wage labor, starting small businesses like meat shops, carpentry services, or contract work. Some brought their spouses with them; others met their partners in Mustang. Slowly, they settled into the community. They rented houses, many of which belonged to families who had gone abroad and preferred to rent them rather than letting them sit empty. In some cases, these newcomers were hired to take care of livestock, manage homes, or do seasonal chores like planting, harvesting, or shoveling snow. Some also managed the care of domestic livestock as hired shepherds in exchange for a salary plus food and lodging (Carlson 2021). Some of these in-migrants see this work as a safer and more financially secure option than going abroad to places like the Middle East.

In a more recent development, some migrants from historically poorer regions have accumulated sufficient wealth through hired labor to manage hotels. Since the completion of a motor road to Muktinath, an important temple complex, Lower

Mustang has witnessed an exponential rise in hotels and restaurants targeting domestic and Indian tourists. While such initial in-migration was usually dependent on one or two individuals (often unmarried men), now entire households from lowland Nepal have begun to relocate to Lower Mustang, extending kinship networks and resources to re-create family and community in vastly different cultural and geographic regions of the country than those from which they hail. The trend is likely to continue with the approval, announced in June 2025, for a major cable car project to link Kaski, Myagdi, and Mustang Districts, with the Muktinath temple complex envisioned as the end of the line.

The second type of in-migration stems from a desire for Lower Mustang households to retain their homes, fields, pastures, and attendant civic and religious community stewardship duties despite having moved elsewhere. They needed caretakers, and found such people in neighboring Dolpo, a region to the west that is culturally consonant with Mustang but generally considered a harsher, more unforgiving environment with fewer modern facilities. Beginning about two decades ago, families from Dolpo began settling in Lower Mustang, taking over household duties in exchange for a share of the harvest and use of all perishable produce from domestic livestock (dairy products, fertilizer, etc.). These domestic arrangements have gone through economic changes over time. While rent was not initially charged, formal lease agreements are now in place in some villages. As out-migration of Lower Mustang natives reached its apex and demand for caretaker labor increased, some households even began to provide Dolpo settlers with salaries as well as a portion of the harvest in exchange for being their proxy in collective, community-based duties and taking care of individual estates. In some villages cash salaries have been supplanted by the greater income that these families can now make from renting out local horses as “taxis” to ferry primarily Indian and lowland Nepali pilgrim-tourists to and from the sacred shrines at Muktinath.

In a new development, we have recently seen the *first complete sale and transfer of household estates* (homes, agricultural fields, grazing rights, attendant civic and religious duties) from Lower Mustang to Dolpo families. It is likely that this trend will continue. In addition, Dolpo migrants are beginning to organize politically. In Kagbeni, they have now registered their own community organization to gain “minority” recognition and secure attendant voting rights. Dolpopa are also becoming increasingly involved in the shape of religious culture in Lower Mustang, both through the presence of young monks in Mustang monastic institutions and through the incorporation of Dolpo material and intangible culture into “Mustangi” spaces—from weaving traditions to song and dance practices. Language, too, continues to shift, with some Dolpo migrants having developed fluency in Lower Mustang dialects of Tibetan, having their children educated in Nepali in local schools, and maintaining Dolpo dialects within their households. As such, what “local” culture is and means in these places continues to shift.

Meanwhile, in Upper Mustang, most hotels are still owned and operated by native residents, although many have hired service industry workers from elsewhere in Nepal. Internal migration within Upper Mustang primarily involves people from smaller, and further-flung villages choosing to relocate to the relatively “cosmopolitan” centers along the road (e.g., Lo Monthang, Tsarang, and Ghami) where they sometimes engage in wage labor or serve as caretakers for families that have out-migrated, similar to the Dolpo–Lower Mustang relationships.

The third type of in-migration involves an increasing presence of government employees in Upper Mustang in response to policy changes that give local governments greater administrative roles. These individuals are mostly from outside Mustang and are rotated in and out on assignment. Even though they may reside in Mustang for years, they tend to view their residence in Mustang as a “stepping stone” toward wealth accumulation and

futures elsewhere. While their numbers are significant and their presence can create the illusion of a thriving population, they are not permanent residents and, based on the data presented in Tables 2 and 4, were not counted as Upper Mustang residents in the census. Regardless, in-migration to Upper Mustang pales in comparison to that in Lower Mustang, contributing to the rapid population decline documented in Table 1.

## Eastern Dolpo

Multiple factors may account for the limited out-migration observed among Dolpo's population. The integral connection between the Dolpo people and their lands represents a primary explanatory factor. During a two-year ethnographic research project (2021–2023) examining the relationship between ongoing road construction and land tenure systems in Dolpo, community participants consistently identified land as a fundamental component of their ancestral, economic, ecological, and political frameworks. Agricultural and communal pasturelands serve not merely as sources of food security but also as mechanisms for maintaining and perpetuating community relationships, thereby demonstrating how land functions as a foundational element of life for the Dolpopa community (Ghale 2025).

At the same time, Nepal's failure to identify and address the needs of marginalized populations is contributing to the out-migration of some Dolpo residents to neighboring Mustang and Manang (see discussion above). Push factors include a lack of incentives for cultivating barley, as well as inadequate health and educational services provided by the federal government (Ghale-Dolpo 2014; Gurung and Bauer 2022). In addition to being attracted to communities sharing similar cultural characteristics, pull factors include more fertile lands, access to seeds in market towns, and consistent sources of income for migrants from Dolpo who, as noted above, typically begin by serving as caretakers. The aggregation of working-class Dolpo inhabitants within the same area creates a support system for

economic activities, thereby reinforcing community relations and potentially incentivizing further migration.

Meanwhile, despite expectations of increased in-migration following administrative changes and encroaching road construction, population movement into Dolpo remains limited. Following the institutionalization of federalism in 2015, government officials—predominantly non-Dolpo men and women—have increased their presence in the region. With Dolpo's administrative division into three rural municipalities, government officials are concentrated primarily in the respective administrative centers: Dho in Dolpo Buddha RM and Kagkot in Chharka Tangshyong RM (Choekhortshang 2017). However, the extremely small number of people the census enumerated as having moved in suggests that most non-local government officials were not counted as residents in the census.

The most significant influx of non-Dolpo residents occurs seasonally during the *yartsa gunbu* (*Ophiocordyceps sinensis*) harvesting period (Gurung 2023). Despite their large numbers and visibility during the collecting season, these temporary visitors are not enumerated in the census. Importantly, the seasonal nature of this valuable herb trade does not incentivize permanent settlement in this region. Dolpo residents also employ non-local workers for construction projects who maintain family households in lowland areas of Nepal, including Dunai, Jumla, Surkhet, and Nepalgunj. These workers likewise do not become long-term residents.

The reluctance of non-Dolpo people to establish permanent residence in the region can partly be attributed to Nepal's state-building processes and prevailing perceptions of non-Hindu Himalayan communities. Development programs, particularly following the global structural adjustment programs of the 1980s, were implemented predominantly through top-down approaches that perpetuated existing Hindu legal codes and reinforced hierarchical social categorizations that

positioned Brahmin groups as superior to other ethnic communities, including Dolpo (Höffer 1979; Aahuti 2014). These hierarchies may have discouraged permanent settlement by some higher-caste groups in areas inhabited predominantly by communities that have historically been accorded lower status within Nepal's social order.

Furthermore, an examination of infrastructure deficits in rural Dolpo, specifically the absence of adequate higher-secondary educational facilities, healthcare institutions, and agricultural impetuses, reveals the intersection of neoliberal practices with Hindu socio-political structures (Gurung and Bauer 2022). Even infrastructure expansion, such as the ongoing state-led road building in Dolpo, has resulted in the systematic economic devaluation of high-altitude lands. Increasing state presence in rural Dolpo has, paradoxically, strengthened rural residents' dependence on their lands for both economic sustenance and community cohesion. Consequently, Dolpo communities have generated social frameworks that discourage land sales to external parties. These ground-level dynamics have significantly influenced whether non-Dolpo individuals choose to purchase land, effectively limiting external settlement and maintaining the ethnic composition of Dolpo.

## Conclusion

As the above case studies suggest, Billari's concept of fast demography and the associated notion of population churn are valuable frameworks for making sense of the substantial changes occurring in Nepal's highland communities today. Although these communities have always been mobile through transhumance and trade, today's population movements are arguably more rapid and transformative than at any time in the past. In some but not all communities, residents whose ancestries stretch back centuries are vacating their homelands to seek opportunities elsewhere, thereby opening niches for in-migrants from other areas of Nepal. This study suggests that population churn is a generative topic of inquiry because of its potential to highlight

ethnic and linguistic transformations, not just in wealthy countries where the concept has been most extensively deployed, but across the globe in today's age of migration.

To summarize the findings, three of our study areas are experiencing considerable population churn (Upper and Lower Manang and Lower Mustang), while three are not (TsumNubri, Upper Mustang, and Eastern Dolpo). In Eastern Dolpo, despite some movement, mainly to neighboring Manang and Mustang, and minimal in-migration, population growth is apparently still occurring as births outpace deaths. Conversely, out-migration and a lack of in-migration are driving population decline in TsumNubri and Upper Mustang. Meanwhile, in-migration in Upper and Lower Manang and Lower Mustang is counteracting population decline while also contributing to a level of population churn that is altering their ethnic and linguistic compositions.

A key difference between areas experiencing higher rather than lower population churn, with Upper Mustang being an exception, is the status of road construction projects. Manang and Mustang have been connected to Nepal's national road network for over a decade, whereas road construction has not yet fully penetrated TsumNubri and Eastern Dolpo. The analysis presented above suggests that the road to Manang opened economic opportunities for in-migrants from other parts of Nepal who speak non-local languages, as well as for return migrants who moved away for education, were raised in urban settings, and are now more comfortable speaking Nepali than their mother tongues. Similarly, the road connecting Mustang with areas to the south initially brought people seeking seasonal construction jobs, especially in Lower Mustang. Over time, many became full-time residents, gaining upward mobility by taking on skilled labor positions or establishing businesses. In a related trend, some outmigrants hired people from elsewhere as caretakers to maintain their homes and fields. The recent transfer of a household estate from a Mustang family to

a caretaker family suggests that a transition from temporary to permanent migration may already be underway among those moving in and out. In contrast, Dolpo and TsumNubri, where motorable roads are only now reaching many communities, have experienced less population churn. If the completion of roads to these areas spurs further out-migration, time will tell whether community members choose to enable in-migration by relaxing prohibitions on selling land and houses to outsiders.

A peer reviewer asked whether the areas we chose are representative of trends across Nepal's northern border. To address this question, we used Nepal's 2021 census data to conduct the same analysis for an additional seven borderland RMs.<sup>13</sup> Not surprisingly, the RMs with well-developed road networks had relatively high percentages of in-migrants. For example, 18.2 percent of the population of Gosaikunda RM had moved there from elsewhere. Gosaikunda RM sits astride an old trade route connecting Kyirong in Tibet with Kathmandu. The completion of the Rasuwagadhi road corridor connecting Nepal with China in 2012 was accompanied by the development of a dry port on the Nepal side of the border (Cowen 2013; Murton 2021). This transformed a temporary farming and herding settlement into a burgeoning town of 3,000 people populated by business entrepreneurs and wage laborers from across the country (Paudel and Le Billon 2018). The fact that almost 80 percent of the in-migrants reported in the census that they had moved for economic opportunities or as marital partners and dependents suggests that entire families made the move. The dry port also provides wage-earning incentives for local border dwellers to remain in place rather than migrate elsewhere (Murton and Lord 2020), which would effectively dampen the magnitude of population churn. At the other end of the spectrum, the two RMs in far-western Nepal experienced very little in-migration: only 2.8 percent of the population of Mugu Karmarong and 1.7 percent of the population of Namkha had moved in from elsewhere, comparable to TsumNubri and

Eastern Dolpo. A very rudimentary road has only recently reached Mugu Karmarong, while a rough road through Namkha to Tibet is only seasonally passable. The lack of well-developed road networks and associated economic opportunities seems to be a disincentive for outsiders to move into these highland areas.

However, the RM with the highest percentage of in-migrants, Khumbu Pasanglhamu, does not have a road by design to protect the lucrative tourism industry associated with its prime asset, Mt. Everest. In the 2021 census, 29.4 percent of residents reported moving in from elsewhere, 88 percent of whom came for economic opportunities or as marital partners and dependents. Only 59 percent of the population identified as Sherpa in the census. The high percentage of in-migrants demonstrates that road connectivity is not the only pull factor; as Sherpas shifted to other occupations or migrated elsewhere, employment opportunities in the tourism industry and agriculture attracted migrants to the region.

In summary, the expansion of the analysis to other border areas confirms the trend identified in our initial comparisons. Areas with reliable road connectivity experience far more in-migration than areas lacking road access. The exceptions are Khumbu Pasanglhamu (no road access but high population churn) and Upper Mustang (road connectivity but very little in-migration).

The intersecting patterns of people leaving, arriving, and shifting residence are transforming Nepal's highlands in both visible and invisible ways. Empty homes with padlocked doors sit alongside new teahouses run by outsiders. Old irrigation channels fall into disrepair while new roads cut through once-isolated valleys. Farming fields lie fallow while imported goods fill village shops. And yet, amidst all this change, people continue to adapt. Migration is not just a story of loss; it is also a story of creativity, resilience, and making do. It is a response to changing economies, to climate, to geopolitics, to dreams of a better life. Highland communities are losing

people but also gaining new forms of social life and community configurations. The old rhythms may be fading, but new ones are taking their place in ways that are tentative, improvised, and deeply human.

## Acknowledgements

Ongoing research on migration and aging in TsumNubri and Mustang is supported by the National Science Foundation (Award Number 2343417). The authors would like to thank Thinley Tsering and Ward 4 Chairman Pema Gyalpo for information on TsumNubri; Kunjon Thakuri for her input on the Mustang section of the article; and Bentsang and Bharbhong community members for their valuable insights and collaboration during the community-oriented research in Dolpo. The lead author would also like to thank Milan Shrestha, President of the Association for Nepal and Himalayan Studies, for inviting him to present a keynote lecture at the organization's annual meeting in 2024. Feedback from audience members at that lecture contributed to the framing of this study. The lead author would also like to thank Andrew Fischer. Insights gained through discussions about Fischer's work on population dynamics in Tibet were a major inspiration for pursuing the research that led to this article.

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## Endnotes

1. Prominent examples in history include the US government's removal of Native Americans from their lands under the administration of US President Andrew Jackson (Wolfe 2011), India's post-Partition "great displacement" (Khan 2007), and various forced migrations in Europe during the first half of the twentieth century (Frank 2017).
2. <https://www.census.gov>. Accessed March 2025.
3. <https://censusnepal.cbs.gov.np/results>. Accessed August 2024.

4. The national report explains the method as follows: "Using this method, a person was counted at his/her usual place of residence. Usual place of residence is defined as a place where a person has been living or intends to live usually. If in any case a person cannot specify his/her usual place of residence, then the criterion of at least six months residence is considered" (NSO 2023, 9). Regarding migrants, the report states, "A person who is absent from usual place for a short period for the purpose of treatment or pilgrimage or employment or similar reasons is treated as present in the usual place of residence. Persons away or absent from birthplace or usual place for employment or study or business purpose for longer than six months' period is considered absent population and thus, not counted as present population" (NSO 2023, 9).

5. We prefer the spelling TsumNubri over Nepal's official rendering of Chumnubri because it more closely resembles the local pronunciation of the names of the contiguous Tsum and Nubri valleys.

6. Prior to the 2017 political reorganization, Nepal was divided into Village Development Committees (VDCs). In 2017, these became wards that were grouped into Rural Municipalities (RMs). We were able to identify and aggregate the VDCs to ensure that the 2001 and 2021 population figures represented the same geographical areas.

7. The data for Lower Manang are consistent with a previous finding that Manang District was the only district in the hill and mountain regions of Nepal to have positive net migration from 2006 to 2011 (KC 2020).

8. For example, comparing 2011 and 2021 census data for TsumNubri, someone unfamiliar with the area could get the impression that Tamangs (56% in the 2011 census alongside 39% Gurungs) were displaced by newcomers who identify as Tsumpas and Nubriwas (58% in the 2021 census alongside 38% Gurungs). People who identify as Gurungs do inhabit the lower parts of the area, yet there were no Tamang full-time residents in TsumNubri in the past. Meanwhile, Tsumpa and Nubriwa are the long-term residents of Tsum and Nubri, respectively, yet neither was officially recognized as an ethnic group until the mid-2010s. Lacking a recognized category, the

2011 enumerators erroneously classified the majority of the area's residents as Tamang. Similar phenomena occurred in Manang, Mustang, and Dolpo.

9. These include Tsumpa, Nubriwa, Gurung, and Ghale (TsumNubri); Gurung, Ghale, Bhote, and Bishwokarma (Upper Manang); Gurung, Ghale, Bhote, and Bishwokarma (Lower Manang); Lhopa, Gurung, Bishwokarma, and Thakuri (Upper Mustang); Thakali, Gurung, Bishwokarma, and Thakuri (Lower Mustang); and Dolpo (Eastern Dolpo).

10. Indigenous Nationalities are defined in the 2002 National Foundation for Development of Indigenous Nationalities Act as "a tribe or community as mentioned in the schedule having its own mother tongue and traditional rites and customs, distinct cultural identity, distinct social structure and written or unwritten history" (NFDIN 2003, cited in Onta 2006).

11. The study was conducted by Hildebrandt and Hu, with assistance from co-author Ritar Lhakpa Lama.

12. In addition to the data presented in Table 1, this observation is supported by CBS 2012 and NSO 2025 reports of population loss in Manang.

13. Phaktanlung RM in Taplajung District, Koshi Province; Makalu RM in Sankhuwasabha District, Koshi Province; Khumbu Pasanglhamu RM in Solukhumbu District, Koshi Province, Bhotekoshi RM in Sindupalchok District, Bagmati Province; Gosaikunda RM in Rasuwa District, Bagmati Province; Mugu Karmarong RM in Mugu District, Karnali Province; and Namkha RM in Humla District, Karnali Province.

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