

Migration from Uttarakhand's Border Districts and its Strategic Implications: A Study of District Chamoli

DEEPAK SINGH DHAPOLA

SANJAY SHARMA

Pondicherry University

The movement of people towards urban areas from villages is a notable issue in Uttarakhand. Although it has historical roots, many villages in almost all hill districts of Uttarakhand are currently uninhabited. It becomes a security challenge when the bordering villages get depopulated. The state shares an international border with two countries, namely China and Nepal. This paper looks at the strategic implications of migration from the Chamoli district, which borders China. China uses the salami-slicing strategy to capture the grazing grounds in border areas. This applied exploratory research seeks to build foundational empirical knowledge from hitherto unexplored perspectives of the impacts of out-migration from Himalayan borders. The Primary data was taken from government sources, whereas secondary sources include Journals, Books, and websites. It attempts to deconstruct how out-migration from border districts of Himalayan states can become a security challenge for India.

Keywords: out-migration, border, security, Himalayan, dispute

Out-migration has become a significant concern for Uttarakhand in recent years as the region experiences a steady outflow of its population. This phenomenon has numerous socio-economic, security, and environmental implications that require immediate attention. Focusing on key areas such as employment opportunities, education, infrastructure development, and social welfare, the government can create a conducive environment that encourages individuals to stay in Uttarakhand and contribute to its growth and development. The paper provides an overview of the current situation, highlighting the factors contributing to out-migration and their security implications for the state. It then proceeds to present policy recommendations in key sectors that can help reverse the trend of out-migration and foster sustainable development in Uttarakhand.

Research Methodology

This research is applied exploratory research that primarily utilises secondary data analysis. The data used for this research is sourced from the Rural Development and Migration Prevention (RDMP) Commission, Uttarakhand. This data serves as the foundation for the base argument of the research. Secondary data from government sources is interpreted and analysed to draw inferences and conclusions. This interpretation of data aligns with the principles of theoretical analysis. Theoretical

concepts are applied to support the arguments and interpretations derived from the data. The policy recommendations are based on the interpretations and conclusions drawn from the secondary data analysis. It is important to note that no primary data was collected for this research. The entire study is based on the interpretation of data from the government source. This methodology allows for an in-depth exploration of the subject matter while providing practical policy recommendations. It is also applied research as it concludes with policy recommendations that have practical implications.

Migration as a Concept

Migration generally refers to the movement of people from one place to another to settle temporarily or permanently (Lee, 1966). The definition of a migrant, according to the International Organisation for Migration (IOM), is someone who has crossed an international border or moved within a state from their usual place of residence. This definition applies irrespective of the person's legal status, whether the move was voluntary or not, the reasons behind the move, or the duration of the stay (IOM, n.d.). There is no universally accepted definition of "migrant" at the international level (IOM, n.d.). When it comes to researching migration, Ravenstein's work has continued to be the foundation for studies in migration theory (Lee, 1966). According to Everett S. Lee's (1966) Push and Pull Theory, migration decisions are influenced by four factors: "(1) factors associated with the area of origin, (2) factors associated with the area of destination, (3) intervening obstacles, and (4) personal factors". Push factors are present at the place of origin and act as motivation for migration, like education and job opportunities. Pull factors are the same opportunities present at the destination place. Lee states that people must overcome the intervening obstacles like the distance between two locations, lack of transport facilities, inaccessibility because of topography, and restrictive immigration laws before a migration occurs. Finally, personal factors like the perception of the above factors are the influencers in the act of migration (Lee, 1966).

In his 1969 model, Michael P. Todaro gave two variables on which the decision to migrate depends. First was the differential of real income in rural and urban areas, and the second was the probability of obtaining an urban job (Todaro, 1969). The two-sector Harris-Todaro (HT) model suggests that migration from the rural to the urban sector will continue as long as there are more chances of getting an urban job and earning more than the rural job (Harris & Todaro, 1970; Petrov, 2007).

In his 'Aspirations and capability framework,' Hein de Haas has argued that the level of people's migration aspirations is influenced by their perception of how much their personal needs and desires can be satisfied within their local area. These aspirations are affected by their cultural, educational, and informational exposure. Economic growth and better living standards usually enhance people's migration capabilities by boosting their capacity to bear the expenses and uncertainties associated with migration (de Haas, 2021). In this context, it is essential not to look at migration only from the perspective of push and pull forces, making the actors look like passive subjects getting either pushed or pulled by economic forces. In some cases of out-migration from Uttarakhand, the actors could also be active participants in the migration process where they aspire to move out, including the economic capability to do so.

Migration from Border Districts of Uttarakhand

Uttarakhand, situated in the central Himalayan region of India, is a federal state encompassing a land area of 53,483 square kilometres. The state extends between 28°43'N to 31°28'N latitudinally and 77°34'E to 81°03'E longitudinally (ISFR, 2021). It shares an international border with China (350 km long) in the North and northeast and Nepal in the southeast. According to the data from the Migration Commission of Uttarakhand, from 2008-2018, 3,946 village panchayats (VPs) have become uninhabited, amounting to a permanent migration of 1,18,981 people. If the three districts (Uttarkashi, Chamoli, and Pithoragarh) bordering China are taken collectively, then 868 VPs have become depopulated, with 26,899 people on permanent migration. In percentage, these three districts make up 22 per cent of total uninhabited village panchayats and 22.6 per cent of total permanent migration from the state.

Chamoli, which was established as an individual district in 1960 by dividing the previous Pauri Garhwal district, is in the central Himalayan region of Uttarakhand and covers an approximate area of 7,520 square kilometres (Chamoli, n.d.). It is surrounded by six districts on its East, West, and South. In the North, it shares a border with Tibet, China. It alone makes for 9.45 per cent of total depopulated VPs and 12 per cent of total permanent migration from the state in the 2008-2018 period.

FIGURE 1: Chamoli District



Source: Government of Uttarakhand, [Map of District](#) | [Chamoli District Website](#) | [India](#)

Indigenous Reasons for Migration

The phenomenon of out-migration is not new in Uttarakhand. Before the 11th century, the mountainous areas were probably inhabited mainly by nomadic grazing communities. The massive in-migration occurred during the 11th and 12th centuries (RDMP Commission, 2018). The British transformed the landscape of the Tarai plains with railway and road networks that helped them acquire formal control of the Kumaon division. It altered trade flows and affected agro-pastoral regimes, eventually leading to extensive out-migration towards the Tarai plains (Pande, 2021, pp. 44–45; RDMP Commission, 2019). During the 19th century, with the consolidation of British authority in India and the establishment of the Garhwal and Kumaon regiments, as well as opportunities in various government services such as the police, local youth gained access to regular employment, resulting in out-migration (RDMP Commission, 2018). In the present times, this migration trend has gained momentum, and the main reasons for migration are lack of employment, education facilities, and health infrastructure. According to a report, nearly half of the migrants from Uttarakhand have higher secondary/high school level education and 36 per cent are graduates and above. In contrast, only 8.5 per cent of non-migrants in Uttarakhand are graduates and only 30 per cent are high school/higher secondary educated (Joshi, 2022). Figure 2 below shows the leading causes of migration and their percentage in the Chamoli district.

TABLE 1: **Cause of Migration**

Cause of Migration	Percentage of People (%)
Employment	49.30
Education	19.73
Health Facilities	10.83
Lack of Infrastructure	4.93
Reduction in Agricultural Production	4.73
Agricultural Damage by Wild Animals	3.09
Influence of Friends/Relatives	2.51
Other Reasons	4.87

Source: Rural Development and Migration Commission, Uttarakhand, Pauri Garhwal-Interim Report on The Status of Migration in Gram Panchayats of Uttarakhand 2018

In addition to the three primary factors above, human-animal conflict and crop damage also force people to consider migrating from their villages (RDMP Commission, 2018). The monkeys destroy anything that grows on the ground, while the wild boars complete the damage by uprooting the agricultural fields. It is one of the causes of people's disinterest in agriculture where 47.2 per cent of VPs are dependent on agriculture as their main occupation. Large-scale animal husbandry is not feasible in hilly regions due to several factors, including small and scattered land holdings, insufficient availability of fodder throughout the year, and the risk of leopard attacks on cattle, pets, and poultry. Families who depend on subsistence farming must seek alternative sources of income, which often results in younger members

migrating to cities in search of employment. The availability of quality education for migrated children often creates insecurity among parents, prompting them to follow their relatives or friends who have already migrated. The young labour force makes up the largest part of the migrating population from the Chamoli district. 26.71 per cent of out-migrants are below 25 years of age, 43.49 per cent are people in the age group of 26 to 35 years, and the remaining 29.79 per cent constitute people of more than 35 years of age (RDMP Commission, 2018).

Strategic Importance of Village Population in the Border Districts

By employing a disciplined approach to determine overarching objectives, concepts, and resource allocation within an acceptable level of risk, a strategy aims to produce more favourable future outcomes compared to leaving the situation to chance or the control of others (Yarger, 2006, p. 5). It is not necessarily the case that a border needs to have a population nearby because the region's geography, terrain, and climate also affect people's habitation. Borders can be located in either populated or unpopulated areas. However, in some cases, like the India-China border, human settlements near a border are useful for various reasons. It can become easier to enforce and control the border, as residents can provide information and assistance to border guarding forces. It can also help prevent illegal crossings, as the presence of a local population can deter would-be smugglers, illegal immigrants, and encroachers. People act as the eyes and ears of the defence forces stationed there which helps in enhancing the safety and security of the borders. In higher altitudes, the locals are employed as porters by the forces because they are naturally acclimatized to working in the low-oxygen environment.

Additionally, having a population near a border can help to facilitate trade and economic exchange between the countries on either side of the border. Residents can serve as intermediaries or facilitators for cross-border trade and help build and maintain relationships between the countries on either side of the border. However, in the India-China border, post-1962 war, the trading activities stopped from border districts of Uttarakhand, only to be resumed in 1992 at Gunji through Lipulekh pass in Pithoragarh (Kasniyal, 2016). However, incursions and clashes along the LAC are quite frequent.

People are the most potent element of national power; their movement within the state can have significant repercussions, especially along its borders (Kullashri, 2022). In Joshimath (a border development block in Chamoli), 23 village panchayats have become empty, and from 2008-18, 449 people permanently migrated to other places. These numbers are significant, considering the small and scattered settlements in hilly regions. Some of the villages (Niti, Malari, and Mana) in this block are very close to the border with Tibet, China. The human settlements in the near vicinity play a psychological and supportive role for the border guarding forces. The socio-cultural bonding strengthens the trust between the locals and the troops. Local support is crucial for the armed forces in peace and conflict times. Some examples of that can be taken from the Battle of Rezang La in the 1962 India-China War and the Kargil War of 1999, where the local villagers played a key role in giving crucial information as well as in giving logistical support to the army (Roshangar, 2019; Wangchuk, 2020; Yadav, 2021). The first Chief of Defence Staff (CDS), General Vipin Rawat, in the year 2021, mentioned that migration from international borders was unsuitable for national security, and development activities needed to be increased in border areas

for reverse migration (TIE, 2021). The same concern was raised very recently by the present CDS General Anil Chauhan, who went a step further to talk about repopulating the unoccupied areas near the border, including popularising border tourism (Adil, 2022). The continuous presence of locals and tourists in these areas can prevent China from laying claim to uninhabited lands, including covertly occupying these areas. The communities residing in the Himalayan region have been crucial in maintaining Indian sovereignty in remote and exposed areas along the border. Frequently, the nomadic groups in these areas have been the initial informants to alert the security forces about Chinese activities (Gupta, 2022).

India-China border dispute

Although Sino-Indian border issues go back to colonial times, post-independence, the dispute arose in the late 1950s when both countries disagreed on each other's border claims. It led to war in 1962 and 1967, and the standoffs and skirmishes go on to date. Ketian Zhang has argued in his paper that unlike in the South China Sea, China uses militarised coercion on the Sino-Indian border disputes because it sees less geopolitical cost to pay in India's reaction to its military coercion (Zhang, 2022). India's approach earlier towards China was to keep the trade and border disputes separate to have cordial relations. But in recent years this approach has seen some changes, for instance, through the Doklam standoff in 2017, the Galwan clashes in 2020 with continuously matching troops deployment, and the subsequent ban on the Chinese-originated apps, India has started taking both trade and border disputes, as a whole for their relation. Although it did not affect the overall trade between both countries, with all these actions India is trying to show the possible geopolitical costs that China will pay in case of any militarised coercion along India's Northern borders.

In the Chamoli district, Barahoti is the disputed area near the Sino-India border. The local Bhotiya tribes take their herds to these grazing grounds according to seasonal changes. There is still no agreement on the geographical location of Barahoti, as both countries locate it differently on the map (Mathur, 2019). China accuses India of stepping up border infrastructure and military deployment as the root cause of tensions (TOI, 2020). India's growing military strength is a challenge to the rise of China as a global superpower. The military standoffs might be a strategy to put pressure on or divert India's resources to the northern borders, away from the Indo-Pacific, but it does not make China less willing to use grey zone tactics to grab the land when it gets the chance to do so. The Chinese intentions can also be corroborated by its attempts at land encroachment in Nepal's border districts where China has exploited Nepal's delays in border surveys, and missing border pillars by constructing structures in those areas.

China's High Unpredictability and The Salami Slicing Strategy

The technique of salami slicing entails taking a series of gradual and small steps that do not cause a conflict on their own, but collectively result in a significant strategic shift in favour of a country over time (Chellaney, 2013). For Pakistan, infiltrations, ceasefire violations, and terrorist attacks along the border are common tactics, but in the case of China, the approach is different. China keeps borders active by creating limited-time aggression without firing a shot and then talks of confidence-building measures to control the disquiet caused by its border violations (Mahalingam, 2019).

Now making the artificial Xiaokang or moderately well-off villages and repopulating the border along the LAC is China's strategy against India. Slowly and steadily, the Chinese started grabbing the slices of disputed land or the grazing fields and started claiming it either by force or based on their long-term historical presence on the ground.

India's Policies for Border Districts

In February 2017, The Deputy Secretary to the Government of India wrote to the Chief Secretaries of 17 border states regarding the development of model villages in border areas under the Border Area Development Programme (BADP) guidelines of 2015. The need for model villages was felt based on the thinning border population, lack of connectivity, food security of the border population, electric power supply, telecommunication connectivity, civic infrastructure (health, education, water supply, and sanitation), sustainable livelihood, and employment generation. In a model village, economic opportunities and employment options are accessible to all individuals residing within the village and neighbouring areas, irrespective of their educational background, skill set, or income levels. It would be a nucleus village with a sizable population, surrounded by other small villages within five to ten kilometres.

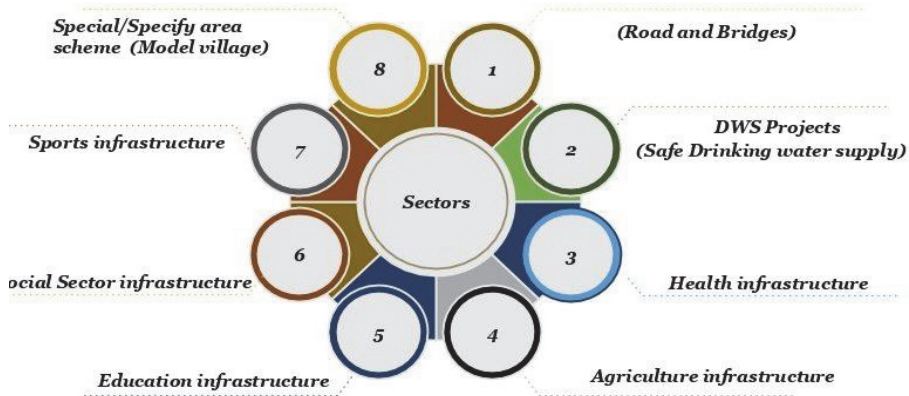
The Uttarakhand government has selected nearly 100 villages in 11 blocks bordering China and Nepal to be developed as model villages. Chamoli has got one block namely Joshimath under this plan. The government has also removed the Inner Line Permit for visiting Niti Valley to open it for tourism and developmental activities. It is worth noting that a recent study by Daquan Huang, population distribution in China's 131 border counties from 1982 to 2010 shows that in Tibet, the population of almost all border counties increased in the study period (Huang et al., 2020). China's special preferential policies, development activities, road, rail, airport connectivity, and promotion of border tourism have played a vital role in the concentration of population in those border counties. The Sixth Tibet Work Forum (TWF), held in Beijing in August 2015, was a turning point for the Tibetan plateau as it decided to tackle poverty and develop Xiaokang villages on the plateau (Ramachandran, 2022). To tackle the problem of out-migration and underdevelopment, India has also accelerated its border infrastructure projects through the Border Roads Organisation (BRO), Border Area Development Programme (BADP), and Vibrant Villages Programme (VVP).

Border Area Development Programme (BADP)

The Department of Border Management implements the BADP under the Ministry of Home Affairs. The program was launched during the 1986-87 period by the Central Government to be a crucial intervention aimed at promoting development in border areas. It aimed to bridge gaps in socio-economic infrastructure and enhance security in these regions by providing additional funding alongside State Plan Funds. "The Government of India is implementing the BADP through the State Governments/ Union Territories Administrations in habitations located within 0-10 km. from the first habitation at the international border in 457 border blocks of 117 border districts in 16 States and 2 Union Territories adjacent to the international boundary" (BADP, n.d.). Previously it had primarily worked as a 'stand-alone' vehicle for project financing, but after BADP guidelines of 2020, it has been converted to a programme

that seeks comprehensive development (GOI, 2020). The Programme covers 9 Blocks of 5 districts in Uttarakhand (Singh et al., 2022). In Chamoli district, covers the Joshimath block, which borders China. It is to be noted that the BADP has done a lot in developing border areas, but there still are challenges faced by this programme. The gaps between the allocated funds and the actual funds released, delays in fund allocation, the inadequacy of released funds, and terrain and climate difficulties affect the effective implementation of the BADP targets (Manoharan et al., 2019).

FIGURE 2: Thematic areas of Border Area Development Programme



Source :Thematic areas of Border Area Development Programme. From Department of Rural Development, Government of Uttarakhand (https://ukrdd.uk.gov.in/?page_id=4082)

Vibrant Villages Programme (VVP)

In her budget speech for 2022-23, the finance minister mentioned the new Vibrant Villages Programme. The project will involve building infrastructure in villages, such as houses, tourist centres, and roads, as well as providing decentralized renewable energy and access to educational channels including Doordarshan. Additionally, the project will support livelihood generation (Budget, 2022, p. 10). The budgetary allocation for the VVP was approved in February 2023 from 2022-23 to 2025-26 (PIB, 2023). It covers 2967 villages in 46 border blocks of 19 districts in 4 States and 01 Union Territory, bordering Tibet, China. Among the 2967 villages mentioned, 662 villages have been designated as a priority for coverage. In Uttarakhand, 51 villages have been selected on a priority basis.

Border Roads Organisation (BRO)

The BRO was formed in May 1960 as the Border Roads Development Board to develop road networks in the North and North-East regions of India. Initially, the Prime Minister acted as its chairman and the defence minister as its Deputy Chairman. Later, it was turned into a department under the Ministry of Defence, with the Home Minister acting as the chairman of the BRO. The organisation has 18 projects of strategic importance covering the entire of India and has a presence in friendly countries like Bhutan and Tajikistan. In the last six decades, BRO has constructed 60,000 Km of roads, 693 bridges, and 19 airfields. Currently, it is involved in building

6,000 Km of roads, 257 bridges, two airfields, and four tunnels (BRO, 2021).

BRO is involved in keeping open the snow-covered roads and passes like Rimkhim, Niti, and Naga pass in Uttarakhand year-round, which has reduced the winter migration of people who otherwise shift to lower areas for food accessibility. In Uttarakhand, the organisation is involved in the 249.79 Km length of the Char Dham project (total length is approximately 900 Km). BRO works under project Shivalik in Uttarakhand, which was started in 2009. The area of responsibility extends from the greater Himalayan ranges in the North to Rishikesh in the south and nearly 735 Km of road construction as of 2017 (Project Shivalik, 2017).

Recommendations

Promoting entrepreneurship and skill development programmes and providing financial incentives to encourage locals to start their businesses would generate employment opportunities. The diversification of industries beyond agriculture and tourism to technology and service sectors would create broader opportunities for people. Investing in rural development schemes, including education, connectivity, electricity, water supply, healthcare facilities, and telecommunication networks, to enhance the quality of life and create opportunities in rural and, especially in border areas, can reduce the out-migration of people from those areas. Promoting, preserving, and celebrating the unique cultural heritage in these border districts and fostering a sense of pride and identity among the local population can attract tourism and economic opportunities.

Conclusion

Migration is generally the movement of people from one place to another. Everett S. Lee has defined this process according to the push and pull model of economic forces. On the other hand, Hein de Haas has used the aspiration and capability framework to show the conscious voluntary aspects of people in migration. The Harris-Todaro model helps in explaining the migration pattern because nearly half the respondents in the Chamoli district were migrating for good employment opportunities. Uttarakhand's lack of essential health, education, employment, and infrastructure facilities is the primary cause of out-migration. Although out-migration is not a new phenomenon, over some time, it has resulted in the depopulation of many villages to single-digits or empty villages in bordering districts. While a border does not need to have a population nearby, it cannot be overlooked that having a population near a border is highly useful for various reasons, including border control, trade facilitation, and economic development. These settlements act as pockets of resistance to any kind of encroachment or aggression from the other side. In the case of China, border control is of primary concern for India. Strategically it is a challenge for India considering the Chinese attempts to control strategic locations and successful repopulation on their side of the border. Through BADP, VVP, and BRO, the Indian government is trying to ensure the road connectivity and development needs of the bordering districts of India. The creation of economic opportunities in the hill districts and the availability of basic facilities like health and education will impact reducing the out-migration, including from the Chamoli district of Uttarakhand. Through an integrated approach that combines security measures with socio-economic development, the government can ensure the well-being of its border communities and strengthen its border security.

Funding

This study was conducted without any dedicated financial support from governmental, private, or non-profit entities.

Declaration

The author affirms no conflicts of interest, financial or otherwise, influenced the outcome or interpretation of the data in this study.

References

- Adil, M. (2022, December 17). Need to repopulate unoccupied areas near border: CDS General Anil Chauhan. *Times Now*. <https://www.timesnownews.com/india/need-to-repopulate-unoccupied-areas-near-border-cds-general-anil-chauhan-article-96297632>
- BADP. (n.d.). *BADP- MHA*. Retrieved December 20, 2022, from <https://badp.mha.gov.in/>
- BRO. (2021). *BRO Movie*. <https://bro.gov.in/movie.asp>
- Budget. (2022). *India Budget | Ministry of Finance | Government of India 2022-23*. <https://www.indiabudget.gov.in/bspeech.php>
- Chamoli. (n.d.). *Geography | Chamoli District Website | India*. Retrieved March 19, 2023, from <https://chamoli.gov.in/geography/>
- Chellaney, B. (2013, July 26). *China's salami-slice strategy | Stagecraft and Statecraft*. <https://chellaney.net/2013/07/26/chinas-salami-slice-strategy/>
- Definition of Migration and Migrant | IOM, UN Migration*. (n.d.). Retrieved November 20, 2022, from <https://www.iom.int/about-migration>
- GOI. (2020). *BADP Guidelines 2020*.
- Gupta, P. (2022). *defence/explained-vibrant-villages-programme-for-the-northern-border-with-china-and-what-India-wants-to-achieve-with-it*. <https://swarajyamag.com/defence/explained-vibrant-villages-programme-for-the-northern-border-with-china-and-what-india-wants-to-achieve-with-it>
- Harris, J. R., & Todaro, M. P. (1970). Migration, Unemployment and Development: A Two-Sector Analysis. *The American Economic Review*, 60(1), 126–142. <http://www.jstor.org/stable/1807860>
- Huang, D., Lang, Y., & Liu, T. (2020). Evolving population distribution in China's border regions: Spatial differences, driving forces and policy implications. *PLoS ONE*, 15(10 October). <https://doi.org/10.1371/journal.pone.0240592>
- ISFR. (2021). *Forest Survey of India-ISFR 2021*. <https://fsi.nic.in/isfr-2021/chapter-13.pdf>
- Joshi, Y. (2022, June 5). Calling children back: Is it possible to initiate reverse migration in Uttarakhand? *Firstpost*. <https://www.firstpost.com/opinion/calling-children-back-is-it-possible-to-initiate-reverse-migration-in-uttarakhand-10760411.html>
- Kasniyal, B. (2016, May 23). Tibet border trade lifeline of tribal economy. *The Tribune*.
- Kullashri, V. (2022, January 12). *Migration a Challenge to National Security: An Assessment of Harsil, Mana-Malari and Tawaghat Sector of Uttarakhand – Center For Land Warfare Studies (CLAWS)*. Centre For Land Warfare Studies. <https://www.claws.in/publication/migration-a-challenge-to-national-security-an-assessment-of-harsil-mana-malari-and-tawaghat-sector-of-uttarakhand/>
- Lee, E. S. (1966). A Theory of Migration. In *Source: Demography* (Vol. 3, Issue 1).
- Mahalingam, V. (2019, July). *What are the Chinese up to on the Other Side of the Indian Borders in Tibet and the Implications?* Vivekananda International Foundation. https://www.vifindia.org/sites/default/files/what-are-the-chinese-up-to-on-the-other-side-of-the-indian-borders-in-tibet_o.pdf

- Manoharan, N., Saravanan, D., Saini, V., & Karnataka, S. (2019). Secure Through Development: Evaluation of India's Border Area Development Programme. *Https://Doi.Org/10.1080/09700161.2020.1699993*, 44(1), 1–14. <https://doi.org/10.1080/09700161.2020.1699993>
- Mathur, N. (2019, April 1). *Incursion*. <https://www.societyandspace.org/articles/incursion>
- Migration | United Nations*. (n.d.). Retrieved November 20, 2022, from <https://www.un.org/en/global-issues/migration>
- Pande, V. (2021). *Borders in the Age of Empire and Nation-States The Honeycomb of Borderlands- Kumaun, Western Tibet and Far Western Nepal*. <https://www.cambridge.org/us/universitypress/subjects/politics-international-relations/south-asian-government-politics-and-policy/south-asian-borderlands-mobility-history-affect?format=HB&isbn=9781108844512>
- Petrov, A. N. (2007). REVISING THE HARRIS-TODARO FRAMEWORK TO MODEL LABOUR MIGRATION FROM THE CANADIAN NORTHERN FRONTIER. *Journal of Population Research*, 24(2), 185–206. <http://www.jstor.org/stable/41110888>
- PIB. (2023, March 29). *Press Information Bureau*. <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1911880>
- Project Shivalik. (2017). (39) *Project Shivalik of Border Roads Organisation celebrates its 9th Raising Day on 25 Feb 2017 - YouTube*. <https://www.youtube.com/watch?v=VoZh1x8cJtA>
- Ramachandran, S. (2022, November 15). *claude-arpi-on-chinas-interest-in-arunachal-pradesh. The Diplomat*. <https://thediplomat.com/2022/11/claude-arpi-on-chinas-interest-in-arunachal-pradesh/>
- RDMP Commission. (2019). *Rural Development and Migration Prevention Commission*. <http://www.uttarakhandpalayanayog.com/notices.aspx>
- Roshangar, R. A. (2019, July 22). *Kargil War: Meet the shepherd who warned the Army - India Today*. <https://www.indiatoday.in/india/story/kargil-war-meet-shepherd-warned-army-1572296-2019-07-22>
- Singh, D., Kamlesh, •, Joshi, C., Prasad, •, Mayank, Shiwani, •, & Semwal, • M M. (2022). *Border Tourism and National Security in India: A Study of the Border Tourism with Special Reference to Uttarakhand State*. 17(2), 307–319. <https://doi.org/10.51220/jmr.v17i2.36>
- TIE. (2021, April 21). *Development activities will have to be enhanced in border areas for reverse migration: CDS | India News, The Indian Express*. The Indian Express. <https://indianexpress.com/article/india/development-activities-will-have-to-be-enhanced-in-border-areas-for-reverse-migration-cds-7282241/>
- Todaro, M. P. (1969). A Model of Labor Migration and Urban Unemployment in Less Developed Countries. *The American Economic Review*, 59(1), 138–148. <http://www.jstor.org/stable/1811100>
- TOI. (2020, October 14). *India China news: India's border infra root cause of tension, says China | India News - Times of India*. Times of India. <https://timesofindia.indiatimes.com/india/indias-border-infra-root-cause-of-tension-china/articleshow/78649986.cms>
- Wangchuk, R. N. (2020, July 26). *Ladakhi Woman Kept AIR Station Running, Despite Enemy Shelling!* <https://www.thebetterindia.com/233771/ladakh-kargil-diwis-hero-all-india-radio-tsering-angmo-shunu-bravery-india-nor41/>
- Yadav, K. (2021, November 18). *When A Ladakhi Shepherd Visited Rezang La Months After The 1962 India-China War*. <https://swarajyamag.com/books/when-a-ladakhi-shepherd-visited-rezang-la-months-after-the-1962-india-china-war>

Yarger, H. R. (Harry R. (2006). *Strategic theory for the 21st century/ : the little book on big strategy*. Strategic Studies Institute, U.S. Army War College.

Zhang, K. (2022). Explaining Chinese Military Coercion in Sino-Indian Border Disputes. <https://doi.org/10.1080/10670564.2022.2090081>. <https://doi.org/10.1080/10670564.2022.2090081>