

Community School Education under Threat: The Impact of Monkey and Wild Boar Infestation and Rural Out Migration in Mangalsen Municipality, Nepal

Shankar Bahadur Rawal ^{1*}

DOI: <https://doi.org/10.3126/amrj.v5i1.98039>

¹Graduate School of Education, Tribhuvan University, Kathmandu

*Corresponding Author, Email: srawal2076@gmail.com

ORCID: <https://orcid.org/0009-0005-4676-0579>

Article History: Received: Jan. 15, 2026, Revised: April 6, 2026, Accepted: July 9, 2026, Published: July 30, 2026

ABSTRACT

The problem of human–wildlife conflict has become a serious issue that affects rural livelihoods and sustainable development in hill districts of Nepal. This study aimed at assessing the effect of monkey and wild boar infestation and migration from the rural areas on community school education in Mangalsen Municipality, Achham District, Nepal. A qualitative case study design was adopted and purposive sampling technique was used to select headteachers, teachers, parents, pupils, chairpersons of the wards, agricultural technicians and municipal education officials. Data collection involved semi-structured interviews, focus group discussions, observations and document reviews, which included official migration records, Integrated Educational Management Information System (IEMIS) data and were analysed using thematic analysis. Persistent infestation by monkeys and wild boars has found to have caused low agricultural productivity, low rural livelihoods and also increased out-migration rates. Official records revealed that out-migration (169 households; 521 persons) far outweighed in-migration (13 households; 31 persons) and the IEMIS data indicated that a decrease of 1,294 students occurred from the 2081 to 2082 academic year. Other social and psychological impacts on children and rural communities were also mentioned, as well as the potential for migration to lead to a decrease in student enrolment, irregular student attendance, diminished engagement of parents, difficulties for teachers in managing the students, school consolidations, and fears about the sustainability of community schools. It was recommended that participants consider integrated wildlife management, assistance for sustaining a farmer's livelihood, planning educational programmes for migration, using technology in learning, improving teacher deployment and strengthening intergovernmental, interschool and community cooperation. The study concluded that infestation by monkey and wild boar is not only an environmental and agricultural problem but also a major educational problem which indirectly poses a threat to the community schools due to the out-migration of the rural population. It suggests policies that need to be integrated in the context of wildlife management, rural livelihoods, migration, and community school education and to improve the sustainability of community school education in Nepal's hill municipalities.

Keywords: human–wildlife conflict, monkey infestation; wild boar, rural out-migration, community school education, educational management, Mangalsen Municipality

INTRODUCTION

Human–wildlife conflict (HWC) has emerged as a significant global issue for greater biodiversity protection, agricultural production, livelihoods and sustainable development. In Asia and Africa, crop-

climate change, and habitat fragmentation, posing risks to food security and socio-economic livelihoods of farming communities (FAO, 2023; IPBES, 2022; IUCN, 2023). HWC is often seen as an environmental

and agricultural problem; however, migration, educational and rural development, are indirect impacts that have been comparatively little studied. Human–wildlife conflict has escalated in Nepal in the recent years especially in the mid-hill region where agriculture is the dominant livelihood. Rhesus monkey (*Macaca mulatta*) and wild boar (*Sus scrofa*) have emerged as significant threats to subsistence farming, leading to substantial maize, millet, wheat, vegetable, and fruit crop destruction (The Rising Nepal, 2024). The government of Nepal, realizing the escalating threat posed by the animals, declared monkeys and wild boars as agricultural pest wildlife in Rule 36 of the National Parks and Wildlife Conservation Regulations, 2074, to enable agricultural protection but also wildlife management (Kantipur National Daily, 2025). In Parliament, the issue of monkey infestation in the hill region and wild boar damage in the Terai has also been brought to the fore as being policy concerns that need long-term solutions (Onlinekhabar, 2025).

The issue is even more severe in the hill districts of Nepal, where the repeated destruction of crops has led to a decline in agricultural productivity, making the food security of the households even more precarious and raising livelihood insecurity. A number of farming households have had to cut back or stop farming due to wildlife attacks, and out-migration from rural areas is becoming a regular livelihood option (Ghimire et al., 2026). The scale of the impact of monkey raids on crops in maize growing regions has been estimated at 20–90%, demonstrating the severity of the issue for subsistence farmers (The Rising Nepal, 2024).

The impact of migration caused by wild animals is not limited to agriculture. The communities of origin are facing the trend of low enrolment, shrinking classrooms, low parent participation and issues of teacher management and sustainability of community schools as the number of children moving to urban and semi-urban areas for better service provision and security of livelihoods (Lamichhane & Lamichhane, 2024). For farming communities such as the community schools in the Municipality of Mangalsen, the challenge to equitable educational development is increased due to the interaction between wildlife conflict, wildlife migration and educational development.

Although the infestation of monkey and wild boar is now the focus of policy attention, there is little empirical research that has considered the indirect impacts of monkey and wild boar infestation on school education via livelihood insecurity and rural out-migration. Most previous research has been carried out on the issue of crop damage, biodiversity conservation or migration alone, and limited attention has been given to their interactions on community schools, especially in the mid-hill municipalities of Nepal (Lamichhane & Lamichhane, 2024; Ghimire et al., 2026). Thus, the educational implications of wildlife-induced migrations are still poorly understood.

The purpose of this study is to understand the contribution of monkey and wild boar infestation to rural out-migration, and their impacts on school education in Mangalsen Municipality, Achham District, Nepal, to address this gap. Specifically, the study looks at how the loss of agricultural products to wildlife affects migration choices and decisions, as well as their implications for student enrolment, attendance, school management, and the sustainability of community schools. The results are expected to inform policy and planning on integrating policies that will address the needs of wildlife, protect rural livelihoods, and plan for migration-sensitive education.

The primary objective of this study is to investigate the effects of monkey and wild boar infestation and the rural out-migration on community school education in the Mangalsen Municipality, Nepal. The specific objectives are:

1. to gain insights into the impact of monkey and wild boar infestation on the livelihoods of the farmers and the out-migration of people from rural areas,
2. to investigate how the out-migration of rural residents impacts student enrolment, attendance, educational management and community schools' sustainability,
3. to find out the strategies in managing education that may reduce the negative impact of wildlife-induced migration on the educational provision made by community schools in Mangalsen Municipality.

LITERATURE REVIEW

Human–wildlife conflict is now a worldwide issue that poses threats to biodiversity, agricultural sustainability and rural livelihoods. In developing countries, habitat fragmentation, land-use change, climate change and growing human settlements have created increased human-wildlife conflict and led to significant crop losses, food insecurity, and livelihood insecurity (IPBES, 2022; IUCN, 2023; FAO, 2023). More and more, academics have become aware of the impact that HWC has beyond degrading the environment, and that it affects migration, poverty and access to basic social services such as education (UNESCO, 2024; World Bank, 2023). These socio-economic (SES) impacts are especially significant in rural areas where agriculture is the main livelihood.

Human–wildlife conflict is also a serious issue in Nepal, especially in the mid-hill regions where human subsistence is heavily reliant on agriculture. There has also been a significant rise in HWC in the country in the last decade, particularly in the mid-hill regions where the livelihoods of the people rely heavily on subsistence agriculture. The rhesus monkey (*Macaca mulatta*) and the wild boar (*Sus scrofa*) are the two predominant species of crop-raiders that have been causing significant destruction to maize, millet, wheat, vegetable and fruit crops, causing loss of agricultural productivity and putting household food security at risk (The Rising Nepal, 2024). To this, the Government of Nepal declared monkeys and wild boars as agricultural pest wildlife under Rule 36 of the National Parks and Wildlife Conservation Regulations, permitting regulated protection of crops and conserving the objectives (Kantipur National Daily, 2025). The parliamentary deliberations have also highlighted the issue of monkey menace in the hill region and that of wild animals in the Terai, which are both policy issues needing an action plan for wildlife management and livelihood protection (Onlinekhabar, 2025).

This infestation of monkeys and wild boars has escalated to a critical level in Achham District including Mangalsen Municipality where agriculture is the major economic activity of the people. The continuous destruction of crops has lowered farmer productivity, economic insecurity of farmers, and lessened their interest in farming and switched to other livelihoods, leading many households to leave farming or remain away from it (Lamichhane & Lamichhane, 2024; Ghimire et al., 2026). As such, wildlife conflict

is now emerging as a key pull factor for rural out-migration, with households moving to urban areas to access stable jobs, education and living conditions. The effects of monkey and wild boar infestation are, therefore, much broader than in agriculture, and impact on rural demographics.

The changing trends in migration have great impacts on the community school education system in Mangalsen Municipality. The Local Registrar's Office reported 169 out-migration cases and 521 person's out-migration from Mangalsen Municipality (2082 B.S.) while only 13 cases and 31 persons have been in-migrated, showing a continuous decline in population. Likewise, the data from IEMIS show that the total student enrolment in Mangalsen Municipality from 2081 to 2082 has dropped by 1,294 students, from 8,678 to 7,384 (IEMIS, Mangalsen Municipality 2081–2082). The smaller numbers of students enrolled in schools impacts the funding of schools, the utilization of staff, the quality of classroom engagement, parental engagement, and the sustainability of community schools. From these local statistics, it can be strongly inferred that out-migration is an emerging challenge for education management in Mangalsen Municipality.

The theoretical perspectives used in this study are complemented each other and are three: theory of the service set, the theory of the service logic, the theory of the service proposition. According to the theory of human capital (Becker, 1993), education is an investment necessary for increasing human productivity and socio-economic development. The Sustainable Livelihood Framework (DFID, 1999) shows how environmental shocks (such as wildlife conflict) affect livelihood assets and drive households to use coping strategies, such as migration. Finally, family, community, and environmental changes can directly affect children's educational experiences, participation, and learning outcomes, as explained in Bronfenbrenner's Ecological Systems Theory (1979). These theories, when taken together, offer a holistic perspective on the effects of wildlife conflict on school education, both directly and indirectly, via livelihood disruption and migration.

While some studies have also explored human–wildlife conflict, agricultural loss, migration and education individually, there is limited research that explores the interplay of these factors on

community schools in Nepal. There are no studies that explain how the monkey and wild boar infestation affects rural out-migration, and how this in turn affects student enrolment, school attendance, education management and school sustainability in municipalities like Mangalsen (Lamichhane & Lamichhane, 2024; Ghimire et al., 2026). This study, therefore, fills an important research void by investigating the issue of agricultural loss caused by wildlife and out-migration of rural people to the city threatening the community school education in Mangalsen Municipality in Nepal. The results are anticipated to inform policy decisions based on evidence that incorporates wildlife management, protecting rural livelihoods, and planning for migration-sensitivities in education.

METHODOLOGY

The study used a qualitative case study design to explore the causes of the out-migration of the rural population due to the intrusion of monkey and wild boar in the community and how this intrusion affects the community's school education in Mangalsen Municipality, in Achham district, Nepal. The municipality was purposively selected due to a number of reasons, including the fact that it has a growing number of cases of damage to crops by wildlife, significant out-migration rates, and decreasing numbers of students attending school. The participants, headteachers, teachers, parents, students, ward chairpersons, agricultural technicians, and municipal education officials, were selected by purposive sampling, because they have the first-hand experience and knowledge of the phenomenon that was investigated in the study (Creswell & Poth, 2018; Yin, 2018). The data was gathered using semi-structured interviews, focus group discussions, observation and document review methods such as official migration records from the Office of the Local Registrar and enrolment statistics on Migration from IEMIS of Mangalsen Municipality. Multiple data sources allowed triangulation and improved the credibility of the results. Thematic analysis of the collected data guided by the framework developed by Braun and Clarke (2006) was used to uncover themes from the data on wildlife conflict, agricultural livelihood insecurity, rural out-migration, and its implications in community school education.

RESULTS AND DISCUSSION

The findings from the data collected using semi-structured interviews, discussions in focus group, observations and document review are presented and discussed in this section. The results are presented in the six themes which are interconnected and reflect the research questions and objectives. The discussion draws on participants' experiences, official migration records and IEMIS enrolment data, and draws on relevant theories and previous empirical studies. As a whole, the findings show how the infestation of the monkey and wild boar has affected the agricultural livelihood security, increased the out-migration from rural to urban areas of the communities, and impacted on community school education in Mangalsen Municipality, Nepal and what steps can be taken to manage education in such a way that the challenges can be mitigated.

Food insecurity and agricultural livelihood insecurity due to Monkey and Wild Boar Infestation.

Monkey and wild boar infestation was the problem that was always cited by the participants as the greatest threat to agricultural livelihoods in Mangalsen Municipality. They said repeated raiding has had a huge impact on agricultural production in general, especially maize, millet, wheat, vegetables and fruit crops, which has put the food security and income of the households under threat. A significant number of participants described how farming is becoming risky given destruction of crops before harvest, leading to reduced willingness of farming families to grow their crops. One parent remarked:

No longer are we able to plant our crops with much confidence, as the monkeys and wild boars destroy our crops each season. Likewise, a farmer said, "We don't know if we will get our yield of the harvest that we plant, so a lot of families are giving up on farming and finding alternative livelihoods.

Participants also reported that they spend a lot of time protecting the fields, thus not being able to pursue other livelihood options and making it difficult to achieve economic betterment. Lack of sound wildlife management policies and institutional support also has compounded the situation, participants said. They stated that there are inadequate mechanisms in place

that local governments can use to manage wildlife populations, provide compensation to farmers for crop losses and adopt sustainable mitigation measures. A number of participants voiced concerns about insufficient coordination between wildlife agencies, agricultural agencies, and local governments to resolve conflicts with wildlife. As a result, households have increasingly seen agriculture as an insecure livelihood, which led to migration to urban centres and foreign countries. The results show that wildlife conflict is not only an environmental problem, but also a significant socio-economic problem which negatively impacts rural livelihoods and contributes to rural out-migration.

The results are in line with the previous studies where it was reported that the infestation of monkey and wild boar is also serious issue of agricultural production and food security in the hill districts of Nepal (Lamichhane & Lamichhane, 2024; Ghimire et al., 2026). Similarly, the Rising Nepal (2024) reported that the crops loss due to monkeys has reached alarming level in many community of mid-hill and on the other hand, Government of Nepal has officially declared rhesus monkey and wild boar as agricultural pest wildlife for facilitating the crop protection under regulated condition (Kantipur National Daily, 2025). In the context of Sustainable Livelihood Framework (DFID, 1999), frequent wildlife conflicts deplete natural, financial, and physical resources of livelihood and force households to implement coping strategies, including cutting back on agricultural investments and moving to other areas. Hence, the present study results show that the infestation of the monkeys and wild boars is the initial cause of chain of events starting from agricultural decline, livelihood insecurity, rural out-migration and weakening of the school education in Mangalsen Municipality.

Agricultural Crops Decline and Rural Out-Migration

The participants repeatedly stated that loss of agricultural output due to continued monkey and wild boar invasion has emerged as a significant push factor for rural people to move out of Mangalsen Municipality. They said that multiple crop destruction has severely impacted household income and food security, making agriculture an increasingly non-sustainable livelihood. As a result, numerous family

members in the economically productive age have moved to the district headquarters, urban areas of India, and other countries to find jobs and a better life. Parents also reported moving to the cities with their children in order to gain better educational opportunities. One participant said that stated:

Farming, which has been a way of life for our family for more than two generations, is no longer proving to be a viable alternative after several losses, and we have had to start migrating. One of the other participants said, "Most youths are migrating from the village because agriculture does not offer a secure future for them.

They also reported that the absence of effective wildlife control, weak job opportunities and lack of government assistance have been driving the rural to urban migration rate, leaving many villages with a decreasing population and fallow land.

Official migration records of Office of the Local Registrar in Mangalsen Municipality also indicate a net out-migration from the Municipality, with 169 out-migration cases registered in the year 2082 B.S., whereas 13 cases of in-migration were registered in the same Municipality during the same period, reflecting a net out-migration of 521 persons (Office of the Local Registrar, Mangalsen Municipality, 2082 B.S.). The results also align with those of Lamichhane and Lamichhane (2024), who found that continued damage to crops by monkeys has reduced incomes of rural people and driven semi-urban migration in Nepal. Likewise, Ghimire et al. (2026) have identified that rising wildlife conflict in the hill areas of Nepal has rendered agriculture non-economic and pushed out many farm households from farming and into migration. In the Sustainable Livelihood Framework (DFID, 1999) perspective, the damage caused by wildlife to food crops impacts negatively on the assets of livelihoods, forcing households to migrate as a strategy to cope. Thus, the results showed that agricultural loss is not only an economic problem but also is an important factor of rural out-migration, which in turn has a great impact on the sustainability of school education in the rural areas of Mangalsen Municipality.

Impact of Out-migration from Rural Communities on Community School Education.

.....

All the participants agreed that the out-migration from rural areas has affected community school education to a great extent in Mangalsen Municipality. They noticed that pupils were steadily leaving the school, because, for many of the families, it would be possible to find better opportunities elsewhere in the district, in cities or overseas. Even students originally enrolled in local community schools explained that they went on to attend an urban school or stopped attending altogether after they migrated. They also pointed out that the schools in rural areas have seen a decrease in the quality of their educational environment due to factors of poor attendance, less parental engagement in their children's education and low involvement in the community. One headteacher stated:

Loss of students due to families relocating to towns or overseas each year is a problem in maintaining the school. A teacher added, "Parents who are working beyond the village do not check their children's learning, which has been detrimental in attendance and academic achievement.

The participants also voiced concern about a number of rural schools that are at risk of closure due to ongoing decreases in enrolment and/or consolidation. The perceptions are well founded in documentary evidence. According to the official records of migration 169 out migration cases of 521 migrants were registered, while 13 in migration cases of 31 migrants were registered in Mangalsen Municipality during the period of 2082 B.S. (Office of the Local Registrar, Mangalsen Municipality, 2082 B.S.). Likewise, IEMIS data indicate that the number of students dropped from 8,678 in 2081 to 7,384 in 2082, or 1,294 students. It was observed that the enrolment of children at ECD/PPC and primary level have decreased by 190 and 499 students respectively, indicating that migration has disproportionately affected the younger children (IEMIS, Mangalsen Municipality, 2081–2082).

This conclusion matches that of UNESCO (2024) who identified migration as a major obstacle to equitable access to education and sustainability of rural schools. They also corroborate the World Bank (2023) report on how migration transforms place-based education systems in terms of changing student populations and adding to inequalities between rural and urban schools. Migration challenges children's family,

school, and community contexts, which can have an impact on their involvement in school, their continuity of learning, and school sustainability in the broader sense, all from the lens of Bronfenbrenner's (1979) Ecological Systems Theory. Thus, the findings show that apart from the reduction in enrolment, the out-migration from rural areas has become a major threat to community school education in Mangalsen Municipality, which impacts on educational management, involvement of parents and the sustainability of community schools.

Challenges in Managing Community Schools amid Rural Out-Migration

Rural out-migration has led to lower numbers of students in community schools in Mangalsen Municipality, which has posed serious educational management issues for these schools, as reported by the participants. They stated that many schools are in operation with only a small number of students, which is creating greater challenges for effective deployment and allocation of resources. There were a number of participants who commented that there was the risk of teacher redistribution, multi-grade teaching, school mergers and even school closure in a declining school. In addition, they pointed out the lack of teaching and learning materials, poor educational infrastructure and insufficient funding by the government to enhance the quality of community schools. The participants further highlighted that the use of information and communication technology (ICT) in teaching and learning is still not adequate due to inadequate infrastructure, training and financial resources. Further, many parents were believed to have more confidence in the urban and institutional schools than in the community schools and that this was a reason for their children's transfer, even at the expense of extra cost. One headteacher stated:

If enrollment is decreasing, then it can be argued that the same number of teachers and educational efforts are not justified. Another respondent added, "Parents feel that schools in the cities offer quality education, so they are interested in sending their children anywhere, even though they have to relocate.

The results are corroborated by data from IEMIS, which show a decrease of 1294 students between 2081 and 2082 in Mangalsen Municipality, an impact that

would influence school planning, teacher allocation and resource management within the Municipality of Mangalsen (IEMIS, Mangalsen Municipality, 2081-2082). The results align with the focus of UNESCO (2024) on the challenges of declining enrolment and demographic change for educational equity, teacher management, and sustainability of rural schools. Likewise, the World Bank (2023) suggests that migration also transforms education systems, as it focuses educational resources and students in urban areas, while diminishing educational provision in rural areas. These findings also confirm Bronfenbrenner's (1979) Ecological Systems Theory that states that families and communities affect the child's educational experience and the functioning of the school. Overall, the results demonstrated that the out-migration of wildlife has created multifaceted and complex educational management challenges that demand migration-sensitive planning, equitable teacher deployment, more investment in community schools, and enhanced use of technology to ensure quality education in rural areas.

Social and psychological impacts on children and rural communities.

Participants indicated that the out-migration from rural communities has had wide-ranging social and psychological impacts on children, families and rural communities. Many children who migrate with their parents or are left behind by their parents to be raised by relatives have emotional problems, feelings of loneliness, and struggle with adjusting to their new school environment, they explained. They also noted interruptions in children's learning continuity, decreased motivation to learn and irregular attendance at school in children affected by migration. Moreover, they pointed out, the role of parents in children's education had been reduced due to the increasing number of employed and foreign parents. A few participants noted that migration has been eroding the presence of communities in school activities, destroying rural communities and shifting to reliance on foreign employment as a major means of living. One participant stated:

Young families are leaving many villages for the city, leaving elderly people in the villages. Another member commented: "When parents are away, children lack emotional support and regular guidance in education.

The implications of these findings are that the impact of migration is not limited to demographic effects and access to education, but also on children's psychosocial health and community integration. These are aligned with UNESCO (2024), which highlights that migration can impact children's learning contexts, family dynamics, and learning experiences. In the same way, the World Bank (2023) points out the impact that migration has on family structures and on the lives of communities, generating new educational and social inequalities between rural and urban regions. Bronfenbrenner's (1979) Ecological Systems Theory also suggests that modifications in the family, community and broader social systems have a direct impact on the emotional experiences, educational engagement, and educational outcomes of children. The results thus show that wildlife-induced rural out-migration poses a challenge to the sustainability of community schools, but also poses challenges to the social cohesion of rural communities and the overall development of children; highlighting the need for integrated school, social and community support interventions.

Educational Management Strategies for Sustainable Schools in Communities

The participants suggest different educational management and policy interventions to reduce the negative impact of the infestation of monkeys and wild boars and out-migration of the people from rural areas in the community schools of Mangalsen Municipality. They highlighted the importance of changing wildlife management policies, enforce legal measures to protect farmers' crops from animals raiding their crops, and offer compensation (without interest) and livelihood assistance in the form of loans for affected farmers to prevent migration. The participants also suggested that they should plan to create jobs in the local community by organizing skills-based and income-generating courses, and run the "Back to Village" campaign to encourage rural resettlement on abandoned farmland and on used-up agricultural land. In the education sector, they emphasized the need to ensure the continuity of migration records, incorporate migration information into education planning, assign teachers based on the number of migrant students, improve technology-enhanced teaching and learning, and improve cooperation between schools, parents, local governments, and communities. One participant stated:

When farming is profitable, and schools are improved, family members will not have as many reasons to get out of the village. Another said, "Education planning should include migration information in order to enable children to keep learning regardless of their move.

These recommendations underscore the importance to develop comprehensive policies, aiming at wildlife conflict, rural livelihoods, migration and educational management at the same time. The findings are consistent with the Sustainable Livelihood Framework (1999) of DFID which focuses on improving livelihood assets and institutional support in order to diminish vulnerability and increase the resilience of households. They also align with the UNESCO (2024) recommendations on context-responsive educational planning, as well as building partnership between governments, schools and communities for equitable and inclusive education. Similarly, the World Bank (2023) states that policies that affect migration are crucial to ensure continuity of education and minimize inequalities between rural and urban schools.

In addition, the recent recommendations by the Nepal Parliament suggest coordinated wildlife management, better support for farmers and better coordination between local governments and forest authorities and communities to address the underlying causes of wildlife-induced migration (Onlinekhabar, 2025). Together, these results indicate that the continuity of community school education in Mangalsen Municipality can be achieved through an integrated approach, integrating the fields of wildlife management, rural economic development, migration responsive educational planning and participation of the community.

Findings

The study revealed that the infestation of monkey and wild boar has become a serious problem to agricultural livelihood in Mangalsen Municipality. The ongoing losses have led to a drop in agricultural productivity, low household incomes, and food insecurity, causing a large number of rural households to relocate to urban areas, or abroad, for other livelihoods. Official migration data showed that there is a lot of out-migration compared to in-migration, and IEMIS data showed a sharp drop in enrolment of students in community schools. The results also showed that out-

migration from rural communities has had a negative impact on community school education, including lower enrollments, higher numbers of students attending school irregularly, diminished parental involvement, teacher management difficulties and the future viability of rural schools. Participants also noted that there are other social implications such as emotional issues with children, reduced involvement in community, smaller rural populations and greater reliance on foreign employment. In response to these challenges, the participants suggested the following intervention strategies: integrated wildlife management; farmer livelihood enhancement; the development of migration-appropriate education plans; the application of technology in education; and inter-school, community, and government agency collaboration.

CONCLUSION

This study finds that not only is infestation by the monkey and wild boar an agricultural or environmental issue but also an educational problem that has a negative indirect impact on the community schools via rural out-migration. The effect of the loss of agricultural output due to wildlife has hampered the socioeconomic viability of agriculture and thus affected household mobility out of the Municipality as well as school enrolment and educational inequalities within the Municipality of Mangalsen. Thus, better community school education needs to be supported by policies that focus on the improvement of community wildlife management, community livelihoods, community migration management, and educational planning and implementation.

The results indicate that there is a need for coordinated and evidence-based policies on education, agriculture, migration and wildlife management. Migration data at the local level needs to be incorporated into educational planning for enhanced school forecasting and deployment of teachers. A farmer compensation scheme, preventive measures and livelihood protection should be introduced in wildlife management policies to alleviate migration pressures. The improvement of technology-supported learning, migration sensitive school management, and the distribution of resources should be made a priority in education policies to support the sustainability of community schools in rural municipalities.

Recommendations

In order to address the interconnected issues outlined in this study, the local government must develop an integrated policy approach that connects wildlife management, rural migration, agriculture and education. The school administrative system and teaching staff deployment could be enhanced by keeping records of recent migration and incorporating it into local education planning. Local governments should also compensate, have a local climate smart and modern agriculture, provide local job opportunities and increase community participation in school improvement programmes to reduce migration pressures.

The provincial government should assist municipalities in conflict-driven out-migration of residents from rural areas by offering specific financial and technical support for dealing with wildlife conflicts that are severe. More investments in skill development, youth entrepreneurship and the rural livelihood programmes would ease migration and improve coordination between the education, agriculture and forest sectors for policy integration and implementation.

The Ministry of Education and Sports is expected to create educational policies which are flexible and respond to changing student population and demography. The Ministry needs to better allocate teachers in schools according to the number of students, provide more flexibility and space for migrant children to learn to use ICTs, increase investment in community schools, and build the capacity of school leaders in institutional leadership and management, so as to enhance the quality and sustainability of education.

Wildlife management policies need to be updated by the Ministry of Forests and Environment to effectively, humanely and sustainably manage crop-raiding monkeys and wild boars. Greater emphasis must be placed on developing community-based wildlife management programmes, electric fencing, wildlife compensation schemes and preventive measures, and improving cooperation between local governments, agricultural agencies and communities to bolster the livelihoods of rural communities. Finally, the School Management Committees (SMCs) need to enhance the cooperation between schools,

parents, the local government and the community to deliver better educational outcomes. SMCs need to keep a regular check on student attendance, support children who are impacted by migration, engage parents in greater learning, and develop an education improvement plan that considers the impact of migration, demographic change, and school declines. These coordinated efforts will help ensure high quality community school education in rural municipalities.

Funding: This study received no specific financial support.

Competing Interests: The author declares that she has no competing interests.

REFERENCES

- Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis, with special reference to education* (3rd ed.). University of Chicago Press.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage Publications.
- Department for International Development. (1999). *Sustainable livelihoods guidance sheets*. Department for International Development.
- Food and Agriculture Organization of the United Nations. (2023). *Human–wildlife conflict and food security*. FAO.
- Ghimire, B., Aryal, M., Maharjan, B., & Baral, P. (2026, May 21). Crop-raiding monkeys are leaving hill farmers nothing to live on. *Kathmandu Post*.
- Integrated Educational Management Information System. (2082 B.S.). *Educational statistics report (Academic Years 2081–2082): Mangalsen Municipality*. Ministry of Education, Science and Technology, Government of Nepal.
- Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. (2022). *Assessment report on the sustainable use of wild species*. IPBES Secretariat.
- International Organization for Migration. (2024). *World migration report 2024*. International Organization for Migration.

- International Union for Conservation of Nature. (2023). *Human–wildlife conflict*. IUCN.
- Kantipur National Daily. (2025, January 27). *Monkey and wild boar declared agricultural pest wildlife; farmers exempt from legal action if animals die while protecting crops*.
- Lamichhane, B., & Lamichhane, B. (2024). A story of farmer–monkey interactions towards their effects on semi-urban migration and livelihood. *Journal of Population and Development*, 5(1), 18–31. <https://doi.org/10.3126/jpd.v5i1.67532>
- Office of the Local Registrar, Mangalsen Municipality. (2082 B.S.). *Official migration records of Mangalsen Municipality*. Mangalsen Municipality Office, Achham, Nepal.
- Onlinekhabar. (2025, February 24). *Parliament seeks long-term solutions to monkey and wild boar infestation in rural Nepal*.
- Patton, M. Q. (2015). *Qualitative research & evaluation methods* (4th ed.). Sage Publications.
- The Rising Nepal. (2024, July 26). *Protecting crops from monkeys in Nepal's mid-hills*.
- UNESCO. (2024). *Global education monitoring report 2024: Leadership in education*. UNESCO.
- World Bank. (2023). *World development report 2023: Migrants, refugees, and societies*. World Bank.
- Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). Sage Publications.