



October 2025

# RISK MANAGEMENT IN NEPAL'S MSMEs

THE INSURANCE PROTECTION GAP

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**United Nations Development Programme**

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# FOREWORD

Nepal stands at a critical juncture in its development journey. As the country strives for graduation from the Least Developed Country status, the role of Micro, Small, and Medium Enterprises (MSMEs) has never been more vital. These enterprises support 84 percent of non-agricultural employment and serve as powerful engines for women's economic empowerment and social mobility. Yet, as this report reveals, these businesses remain highly exposed to growing global and local shocks.



From a development perspective, the substantial insurance protection gap identified in this study is a serious barrier to MSMEs expansion. When a smallholder farmer in Koshi loses their crop to unseasonal rain, or a homestay owner in Gandaki faces a sudden tourism downturn, the lack of formal protection often forces them into a cycle of debt and poverty. They are forced to rely on informal coping mechanisms, selling assets or borrowing from high-interest lenders, which provide only temporary relief while eroding long-term resilience.

This research highlights the need for the insurance sector to transition toward a more inclusive and climate-responsive model. This involves calibrating weather index and parametric products to local conditions, designing affordable solutions for women-led businesses, and leveraging digital tools to close last-mile service gaps. By simplifying processes and building a transparent, demand-driven system, insurance can become a key pillar of climate justice and long-term economic resilience in Nepal.

At UNDP, strengthening MSMEs resilience is central to our commitment to “Leaving No One Behind.” By integrating risk management into national development strategies and fostering a demand-driven insurance ecosystem, we can protect the livelihoods of millions.

I deeply value our partnership with the Nepal Insurance Authority (NIA) and the Institute for Integrated Development Studies (IIDS) in producing this report. Finally, I would like to express my sincere gratitude to the Government of Germany for their support to the Insurance and Risk Finance Facility (IRFF), UNDP's global flagship initiative, through which this study was carried. We hope its recommendations will contribute to advancing a more resilient and inclusive future for Nepal.

**Kyoko Yokosuka**

Resident Representative

United Nations Development Programme (UNDP) Nepal



# FOREWORD

The Nepal Insurance Authority (NIA) recognizes that the sustainability of Nepal's economy is closely tied to the financial resilience of its Micro, Small, and Medium Enterprises (MSMEs). As the regulator responsible for maintaining stability and standards in the insurance market, NIA places stronger emphasis on strengthening protection for this vital segment. MSMEs contribute significantly to national GDP and provide the majority of non-agricultural employment, yet they remain the most underserved segment of our financial system.



From a regulatory standpoint, the “*insurance protection gap*” identified in this report represents a systemic challenge requiring a multi-faceted response. While Nepal has made important progress through the Insurance Act, 2079 (2022), formal risk transfer mechanisms remain underutilized by MSMEs, despite the exposure of around 90 percent of MSMEs to significant climate and operational risks.

Addressing this gap is a strategic priority for the Authority. We are working toward a more balanced regulatory approach—one that safeguards market stability while strengthening demand-responsive frameworks and customer protection. To this end, the Authority is advancing targeted initiatives to modernize the market and rebuild trust. These include supporting innovative products such as parametric and index-based insurance, promoting InsurTech digital solutions to improve access, and strengthening market conduct and claims-settlement standards.

Furthermore, we are mandating that insurers reallocate resources in financial literacy campaigns, ensuring that insurance is understood as a fundamental tool for resilience and business continuity.

The Nepal Insurance Authority commends this study for its granular analysis across all seven provinces. The data regarding province-specific risk patterns, from floods in Madhesh to landslides in Sudurpashchim, will be instrumental decentralizing insurance services and promoting province-level risk pooling.

We acknowledge and appreciate the partnership with UNDP that made this study possible. The recommendations in this report provide a valuable roadmap for regulatory evolution. Closing the protection gap is a shared responsibility, and the NIA remains committed to fostering a more inclusive, and resilient insurance sector for Nepal's entrepreneurs.

A stylized, handwritten signature in black ink, appearing to read 'Sushil'.

**Sushil Dev Subedi**

Executive Director

Nepal Insurance Authority

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|              |                                                                        |
|--------------|------------------------------------------------------------------------|
| <b>ADB</b>   | Asian Development Bank                                                 |
| <b>CCTV</b>  | Closed-circuit television                                              |
| <b>DCGF</b>  | Deposit and Credit Guarantee Fund                                      |
| <b>DMG</b>   | Department of Mining and Geology                                       |
| <b>DOI</b>   | Department of Industry                                                 |
| <b>DRF</b>   | Disaster risk financing                                                |
| <b>ESCAP</b> | United Nations Economic and Social Commission for Asia and the Pacific |
| <b>FAO</b>   | Food and Agriculture Organization                                      |
| <b>FGD</b>   | Focus group discussions                                                |
| <b>FNCCI</b> | Federation of Nepalese Chambers of Commerce and Industry               |
| <b>FY</b>    | Fiscal year                                                            |
| <b>G2P</b>   | Government-to-person                                                   |
| <b>GDP</b>   | Gross domestic product                                                 |
| <b>GoN</b>   | Government of Nigeria                                                  |
| <b>IEDI</b>  | Industrial Enterprise Development Institute                            |
| <b>IFC</b>   | International Finance Corporation                                      |
| <b>IIDS</b>  | Institute for Integrated Development Studies                           |
| <b>IIN</b>   | Insurance Institute of Nepal                                           |
| <b>ILO</b>   | International Labour Organization                                      |
| <b>IT</b>    | Information technology                                                 |
| <b>KII</b>   | Key informant interview                                                |
| <b>MEDPA</b> | Micro Enterprise Development for Poverty Alleviation                   |
| <b>MFI</b>   | Microfinance institution                                               |
| <b>MoICS</b> | Ministry of Industry, Commerce and Supplies                            |
| <b>MSMEs</b> | Micro, small and medium-sized enterprises                              |
| <b>NEOC</b>  | National Emergency Operation Center                                    |
| <b>NIA</b>   | Nepal Insurance Authority                                              |
| <b>NLIC</b>  | Nepal Life Insurance Company                                           |
| <b>NMBA</b>  | Nepal Microfinance Bank Association                                    |
| <b>NRB</b>   | Nepal Rastra Bank                                                      |
| <b>NRRC</b>  | Nepal Risk Reduction Consortium                                        |
| <b>NSO</b>   | National Statistics Office                                             |
| <b>NTA</b>   | Nepal Telecommunications Authority                                     |
| <b>NTIS</b>  | Nepal Trade Integration Strategy                                       |
| <b>OECD</b>  | Organisation for Economic Co-operation and Development                 |

|              |                                                    |
|--------------|----------------------------------------------------|
| <b>PAMS</b>  | Public Asset Management System                     |
| <b>PSP</b>   | Payment service provider                           |
| <b>RBC</b>   | Risk based capital                                 |
| <b>SDC</b>   | Swiss Agency for Development and Cooperation       |
| <b>SSF</b>   | Social Security Fund                               |
| <b>UNCDF</b> | United Nations Capital Development Fund            |
| <b>UNDP</b>  | United Nations Development Programme               |
| <b>USAID</b> | United States Agency for International Development |
| <b>USSD</b>  | Unstructured Supplementary Service Data            |
| <b>VAT</b>   | Value-added tax                                    |
| <b>WB</b>    | The World Bank                                     |
| <b>WII</b>   | Weather index insurance                            |

# EXECUTIVE SUMMARY

**Nepal's micro-, small and medium-sized enterprises (MSMEs) are seriously exposed to risks that formal insurance has failed to adequately address.** MSMEs account for the vast majority

of employment and entrepreneurship in Nepal. But for MSMEs in Nepal, formal insurance is limited, poorly aligned with real-world risks and frequently distrusted. As a result, MSMEs rely heavily on informal strategies that provide only partial and temporary relief. Policymakers, regulators and insurers need to act to enable meaningful financial protection that can build resilience across the sector, supporting livelihoods and fostering inclusive economic growth.

**MSMEs must be involved in identifying solutions that suit their needs, so this study was conducted in consultation with Nepal's MSMEs community.** This report is based on

extensive field research, in which 134 MSMEs representatives across all seven of Nepal's provinces were consulted through surveys and focus group discussions. Key informant interviews gained insights from policymakers, regulators and insurance sector representatives, while desk research was conducted to offer a contextual background for the conclusions drawn in this study. The report identifies sectoral risks, barriers to insurance, misconceptions about insurance, MSMEs coping mechanisms and protection gaps in the crucial agriculture and tourism value chains. It presents the business case that shows improving support to MSMEs can represent a real opportunity for insurers. The report concludes with actionable recommendations for policymakers, regulators and insurers to help build an insurance sector that protects Nepal's MSMEs and promotes national development objectives.

**Agriculture and tourism are central to Nepal's national development, but they are highly vulnerable to shocks.** This study focuses on MSMEs in the agriculture and tourism value

chains, two highly significant sectors in Nepal's economic landscape. Agriculture sustains over half of the population, ensures food security and supports exports, but it operates under constant pressure from climate change, pests, diseases and fragile supply chains. Tourism generates foreign exchange, attracts investment and provides income opportunities across rural and urban regions, but it is extremely sensitive to global health crises, climate disruptions and reputational risks. For both agriculture and tourism, risks are frequent, layered and often interconnected, requiring holistic approaches to resilience.

**Insurance products do not reflect MSMEs needs – so MSMEs see insurance as costly, inaccessible and irrelevant.** In agriculture, available insurance products focus narrowly

on crops and livestock, ignoring indirect risks such as income loss, credit defaults and supply chain interruptions. Weather index insurance – designed as an innovative solution – has been undermined by poor calibration; rainfall and temperature triggers rarely match field-level losses, leaving insured farmers uncompensated. These mismatches create widespread distrust. Administrative barriers such as slow claims processing, lengthy paperwork and unclear eligibility further discourage uptake, especially among smallholder farmers with limited time and resources. In tourism, insurance largely involves vehicle and

property coverage, not covering the indirect risks that define the sector. Business continuity, liability for accidents or guest injuries, and pandemic disruptions are among the most pressing concerns for operators but are excluded from insurance coverage. Claims, even for mandatory vehicle policies, are plagued by delays, disputes and opaque procedures, leaving operators disillusioned. In both sectors, distribution networks are weak: rural and peri-urban areas lack agents, and high transaction costs discourage insurers from serving smaller clients.

**Misconceptions about insurance undermine trust and confidence.** In agriculture, many entrepreneurs mistakenly believe that insurance applies only to catastrophic events or see it as a form of savings that guarantees returns. When claims are rejected or payouts misalign with damages, these misconceptions are reinforced. Tourism MSMEs believe that insurance is meant only for large businesses. These misconceptions, born from low insurance literacy and poor communication from insurers, erode willingness to engage with formal products.

**Informal coping mechanisms provide short-term relief but weaken long-term resilience.** Farmers reduce stock, diversify crops or activities, substitute family labour for hired workers and borrow from informal lenders or community networks. Tourism operators adjust itineraries, cut staff, reduce services, delay investments or rely on family and peer borrowing to survive. The learning need is urgent: functional insurance literacy programmes must explain products in simple, sector-specific terms, show evidence of successful claims and involve local networks to rebuild trust.

**Both agriculture and tourism offer a strong business case for insurers.** In agriculture, the sheer frequency of losses and the widespread reliance on informal coping strategies point to significant latent demand for affordable, relevant coverage. Provinces such as Karnali, Koshi and Madhesh, where vulnerabilities are high but formal uptake is low, present commercially viable opportunities if products are recalibrated to local realities and distributed through trusted networks. Bundled solutions that integrate climate, livestock, continuity and credit risks would address MSMEs' actual needs while improving insurers' viability through scale. In tourism, the scale of reported financial losses, combined with the sector's contribution to employment and foreign exchange, demonstrates clear willingness-to-pay potential. Simplifying claims processes and redesigning products to address continuity and liability risks could significantly increase uptake. Bundled products tied to licensing, accreditation or association membership would ensure broad reach. Trekking, hospitality and seasonal operations offer particularly promising entry points for insurers, provided they can deliver fast-track claims and visible value.

**Systemic reform and coordinated action is needed to unlock MSMEs potential.** Policymakers, regulators and insurers must work together to transform insurance from a fragmented, supply-driven product into a trusted, demand-driven resilience tool. Policymakers must adopt a dedicated MSMEs insurance framework and ensure insurance is integrated into national and provincial development strategies. The regulator, the Nepal Insurance Authority (NIA), must lead systemic reform by driving innovation, transparency, and insurance and financial literacy. And insurers must move from supply-driven to demand-driven solutions that directly reflect sector realities. By building trust, leveraging digital innovations, embedding insurance into daily business processes and ensuring affordability, Nepal can create a participatory insurance ecosystem that enables MSMEs to withstand shocks, invest with confidence and drive inclusive growth.



# **PART 1**

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## INTRODUCTION

UNDP's expanding work in insurance and risk financing has led to the establishment of the Insurance and Risk Finance Facility (IRFF), a flagship initiative under the Sustainable Finance Hub, currently implemented in over 30 countries, including Nepal.

UNDP Nepal launched the IRFF to promote the development of innovative risk financing and insurance solutions while supporting long-term market transformation in the country. As part of this initiative, UNDP, through IRFF, commissioned this research study Risk Management in Nepal's MSMEs in partnership with the Nepal Insurance Authority (NIA).

Micro-, small and medium-sized enterprises (MSMEs)<sup>1</sup> play a central role in Nepal's economy. In 2018, of the country's more than 923,000 businesses, more than 95 percent were microenterprises (Nepal, National Planning Commission, 2020).<sup>2</sup> These businesses contributed an estimated 22–27 percent to national gross domestic product (GDP) and provided over 84 percent of all non-agricultural employment. Numbers have since declined, to an extent: the COVID-19 pandemic had a severe impact on the sector, and according to some reports, nearly 11 percent of MSMEs did not survive the crisis (Verma, 2024). Even so, MSMEs remain key drivers of inclusive growth, in part by creating employment opportunities for women and marginalized communities – an estimated 27 percent of all registered MSMEs in Nepal are women-owned (ILO, 2021).

Despite their crucial economic contribution, MSMEs continue to grapple with persistent financial and risk management challenges. Systemic barriers such as high borrowing costs, stringent collateral requirements and inadequate credit infrastructure constrain MSMEs' access to finance (Kharel and Dahal, 2020). The pervasive “missing middle” problem further deepens these constraints: small enterprises remain underserved by both microfinance institutions and formal banks (UNESCAP, 2020). Government interventions have attempted to bridge this gap by transferring credit default risks from lenders, but the coverage and scale of these initiatives are insufficient to generate broad-based impact (IIDS, 2020).

MSMEs are vulnerable to economic shocks, climate risks and operational disruptions, making risk management essential. But too few financial risk management tools, particularly insurance products, have been developed and provided.<sup>3</sup> A handful of SME-focused insurance products exist, but they tend to be narrowly designed: for example, the Youth and SME Insurance Policy is designed only for borrowers under the Youth and Small Entrepreneur Self-Development Fund (Nepal, NIA, n.d.). Overall insurance penetration among small businesses remains as low as 10 percent (Karki, 2025). This limited reach restricts

<sup>1</sup> Under the Industrial Enterprises Act, 2076 (2020), enterprises in Nepal are categorized into four types based on fixed capital, turnover, employment and energy consumption. Microenterprises have fixed capital (excluding land and building) of less than 2 million Nepalese rupees (NPR, c. \$14,080), an annual turnover below NPR 10 million (c. \$70,400), fewer than nine employees (including the owner), and energy usage of less than 20 kW. Cottage enterprises use traditional skills, local raw materials and indigenous technology, often linked to cultural heritage and handicrafts, and have energy usage of up to 50 kW. Small enterprises have fixed capital below NPR 150 million (c. \$1,056,000), excluding land and building, and are not classified as micro or cottage. Medium enterprises have fixed capital between NPR 150 million and NPR 500 million (c. \$3,520,450), excluding land and building.

<sup>2</sup> Small and medium enterprises constitute 4.2 percent and 0.24 percent, respectively, while large enterprises represent only 0.19 percent of the total (Nepal, National Planning Commission, 2020).

<sup>3</sup> According to the National Agriculture Census for 2021/22, only 4 percent of agriculture holdings reported having insurance coverage. Among those, 84 percent had insurance for livestock, 8 percent for cereal crops and 5 percent for poultry farming (Nepal, NSO, 2023b).

MSMEs' capacity to absorb shocks and invest in growth, leaving them highly vulnerable to financial volatility and external disruptions. Although access to credit has received considerable attention in both policy and academic discourse, the equally critical dimension of financial risk management, particularly through insurance, remains comparatively under-explored, pointing to a significant gap in MSMEs support frameworks.

The government has prioritized expanding insurance coverage and recognized the importance of MSMEs risk management, as reflected in the 16th Five-Year Plan (covering 2024/25–2028/29). However, progress has been modest. For instance, in agriculture, which accounts for about 5 percent of all registered MSMEs, insurance uptake has remained low despite the availability of premium subsidies.

MSMEs' access to appropriate and affordable microinsurance is constrained by hurdles to market development. Microinsurance Directive 2079, issued in 2023, requires insurers to allocate 10 percent of their portfolios to microinsurance, but structural barriers have largely prevented this from happening in practice. Insurers cite a lack of incentives, skilled personnel and technological infrastructure as key constraints in expanding non-life insurance coverage.

In distribution, microfinance institutions (MFIs) play a significant role in delivering life insurance but make little contribution to non-life insurance: only about 3 percent of non-life insurance premiums come from MFI-distributed products (IIDS, 2020). A weak distribution network has been widely cited by insurers as a major obstacle to improving access.

The lack of innovative and inclusive insurance products further compounds these challenges. Existing offerings often fail to capture the diverse risks that MSMEs face, while affordability remains a critical barrier. Many enterprises must choose between purchasing multiple policies – each covering only a fraction of their risks – or resorting to informal risk management strategies. Consequently, the majority of MSMEs operate without formal insurance protection, leaving them highly vulnerable to shocks.

Faced with diverse risks, MSMEs predominantly rely on informal coping mechanisms. These include self-financing through personal savings, family funds or small loans; cost-cutting measures such as staff layoffs, flexible staffing or family labour substitution; and diversification of products, services or markets. Enterprises also adapt operations by adjusting stock levels and using cold storage, generators or solar power to mitigate losses. Basic safety measures such as closed-circuit television (CCTV), locks, fire extinguishers and even guard dogs are used to protect against theft or fire. Community networks, associations and friends often provide additional support. Despite these efforts, many MSMEs simply absorb losses or temporarily shut down during shocks, underscoring their limited capacity and dependence on informal strategies in the absence of formal insurance.

Given these challenges, there is an urgent need for strategic reform in Nepal's insurance ecosystem to promote the development and uptake of innovative, inclusive insurance products tailored to MSMEs. This study addresses a critical gap in MSMEs literature by examining MSMEs' financial risk management practices and insurance needs and proposing actionable strategies to strengthen their resilience and long-term sustainability.

This study explores the dual reality of MSMEs in Nepal as both vulnerable economic actors and untapped drivers of inclusive growth in order to assess how financial risk management and insurance mechanisms can enhance MSMEs' resilience and unlock their developmental potential. The scope of this study is to examine the risk management practices and insurance protection gaps of Nepalese MSMEs, with a particular focus on the agriculture value chain and the tourism value chain. To achieve this, the study maps the landscape of MSMEs, including their distribution across geographies, size/categories and sectors. It then identifies specific MSMEs value chains that can constitute a viable commercial business case for insurers, as well as contribute towards national development objectives. The study explores MSMEs' exposure to financial, operational and climate-related risks, identifying both insurable and non-insurable vulnerabilities, exploring coping mechanisms currently in use and identifying gaps in protection for MSMEs risks.

The study assesses the enabling environment for insurance, including regulatory frameworks, government policies and the availability of tailored products, and documents the role of emerging technologies in risk reduction. It evaluates the level of insurance uptake and the adequacy of coverage, and examines barriers such as affordability, awareness and accessibility that contribute to the protection gap.

Based on evidence from MSMEs surveys, focus group discussions and key informant interviews with insurers, regulators and ecosystem actors, the study generates recommendations for policymakers, the regulator and insurers that can strengthen the insurance market for MSMEs and help integrate risk financing into broader national development and resilience strategies.

# **PART 2**

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## METHODOLOGY

This study used a mixed-methods research design to explore the vulnerability of MSMEs in Nepal, combining both qualitative and quantitative approaches to understand MSMEs' risk profiles, identify protection gaps and propose innovative insurance solutions. Extensive field research was conducted on the ground in seven key locations across Nepal, and a value chain approach was used to segment MSMEs and assess their risks.

## Phases of research

The methodology was structured in four key phases: preparatory phase; identification and selection of value chains; field research; and qualitative and quantitative analysis.

### I. Preparatory phase

In this phase, a literature review was carried out to map the MSMEs landscape, MSMEs risk exposure and the insurance market in Nepal. A mapping exercise of MSMEs value chains across regions and sectors helped identify MSMEs' geographic and economic distribution. Seven cities, one from each of Nepal's seven provinces, were selected for field research. These seven locations balance economic significance, provincial coverage, ecological variation and social representation, ensuring that this study reflects the diversity of Nepal's MSMEs landscape and insurance market.

- Birgunj (Madhesh Province)
- Butwal (Lumbini Province)
- Dhangadhi (Sudurpashchim Province)
- Hetauda (Bagmati Province)
- Ilam (Koshi Province)
- Pokhara (Gandaki Province)
- Surkhet (Karnali Province)

### II. Identification and selection of value chains<sup>4</sup>

MSMEs were segmented through an elimination process, beginning with the eight industry sectors<sup>5</sup> defined in the Industrial Enterprises Act, 2020 based on the nature of goods produced and services provided. A value chain approach was adopted to account for the varying risk profiles of MSMEs within these sectors, along with those of their associated value chain actors.

The following criteria guided the segmentation process:

- **Prevalence of MSMEs:** Sectors were evaluated based on the concentration of MSMEs relative to larger enterprises, and sectors with a significant MSMEs presence were prioritized.
- **Economic contribution:** Sectors with higher economic impact are more likely to engage in risk mitigation, strengthening the business case for insurance.
- **Employment contribution:** A higher contribution to employment indicates vulnerability, presenting a development challenge at the national level and emphasizing the need for effective risk management.

<sup>4</sup> Table A1 in Annex 1 provides a detailed analysis of the value chain selection process

<sup>5</sup> Agriculture and forestry, construction, energy, information technology, manufacturing, mining and quarrying, tourism and other services.

- **Export potential:** Export potential can indicate companies' propensity to allocate resources for risk management and insurance uptake.
- **Policy alignment:** To ensure strategic relevance, sectors aligned with the policy objectives of the Government of Nepal and provincial governments were prioritized.
- **Geographical spread:** Sectors prevalent across all seven provinces were prioritized to ensure the study was representative and enhance the business case for insurance providers.
- **Sectoral homogeneity:** Sectors with consistent characteristics and risk profiles across MSMEs were identified to enable generalizable recommendations for insurance providers and policymakers.
- **Climate risk vulnerability:** Sectors with high vulnerability to climate risks were prioritized, highlighting the existing coverage gap and the potential for targeted insurance interventions.

Based on this assessment, the agriculture and tourism value chains were selected for further analysis.

### III. Field research:

Field research for this study was extensive, including key informant interviews, surveys of MSMEs and focus groups to provide the broadest possible insight into the perceptions and concerns of all relevant stakeholders across seven geographically diverse locations.

**a. Key informant interviews (KIIs):** Nine KIIs were conducted with key stakeholders, including insurance providers, regulators and policymakers, industry associations and MSMEs representatives, and government officials. Semi-structured interview guides were used to gather insights on risk management, insurance market dynamics and policy issues.

**b. MSMEs surveys:** Semi-structured surveys were administered to 134 MSMEs (approximately 20 in each of the seven locations) to collect data on risk exposure, awareness and use of insurance, financial practices and barriers to insurance uptake.

**c. Focus group discussions (FGDs):** FGDs were organized in each province, each engaging 8–12 participants, including MSMEs owners, policymakers and insurance providers. These discussions focused on collective experiences, perceived risks, risk mitigation strategies and expectations from insurance products.

### IV. Qualitative and quantitative analysis phase

Data from the KIIs, MSMEs surveys and FGDs were analysed using thematic and content analysis methods to identify trends, perceptions and recurring themes. Quantitative survey data were used to support qualitative insights and assess patterns in risk exposure, insurance uptake and financial practices.



## Data and respondent profile

The analysis in this report is informed by insights gathered from interactions with over 230 participants across a diverse range of sectors, including agriculture, tourism, insurance, local government bodies, chambers of commerce and provincial offices of the Nepal Insurance Authority (NIA). The findings are primarily based on three key data sources:

1. Semi-structured interviews with 134 MSMEs owners from the agriculture and tourism value chains, conducted across seven provinces.
2. FGDs held in seven cities, one in each province, involving stakeholders from the selected value chains, insurance companies, NIA representatives and chambers of commerce.
3. KIIs with business leaders, insurance company executives, local government officials and NIA representatives.

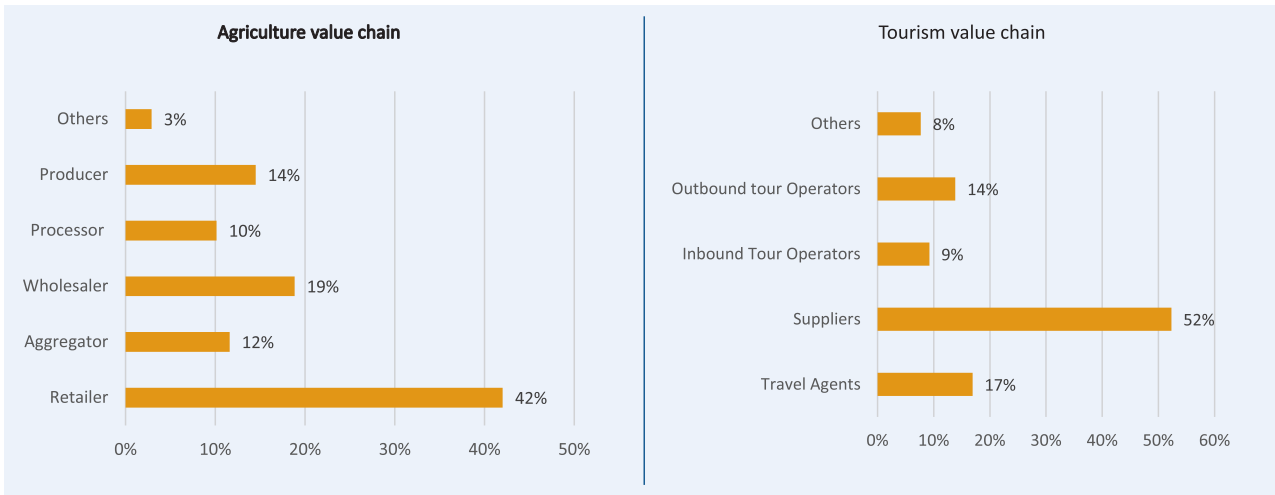
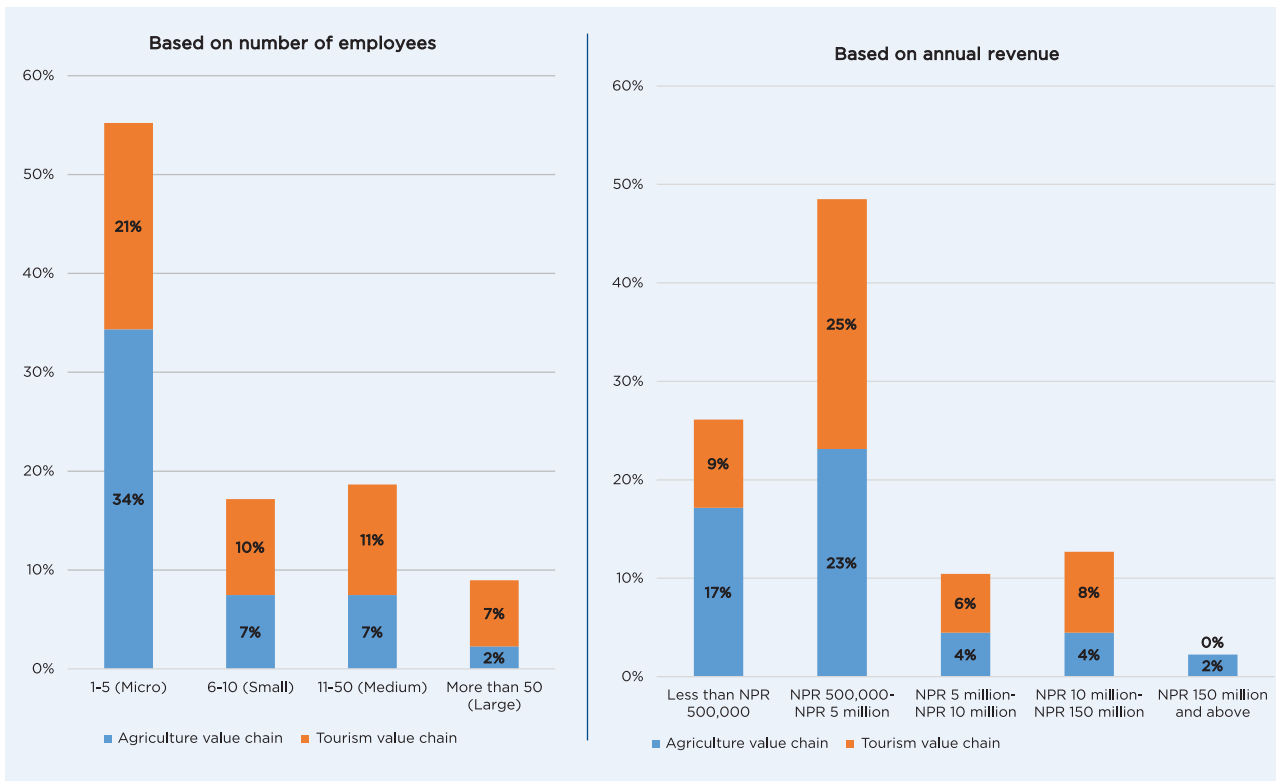
**Table 1: Number of participants in field research, by province**

|              | Province      | City               | Number of interview respondents | FGD participants | Number of KIIs |
|--------------|---------------|--------------------|---------------------------------|------------------|----------------|
| 1            | Bagmati       | Hetauda, Kathmandu | 20                              | 18               | 4              |
| 2            | Gandaki       | Pokhara            | 19                              | 8                | 1              |
| 3            | Karnali       | Surkhet            | 18                              | 7                | 1              |
| 4            | Koshi         | Ilam               | 19                              | 8                | 0              |
| 5            | Lumbini       | Butwal             | 20                              | 16               | 1              |
| 6            | Madhesh       | Birgunj            | 20                              | 17               | 1              |
| 7            | Sudurpashchim | Dhangadhi          | 18                              | 17               | 1              |
| <b>Total</b> |               |                    | <b>134</b>                      | <b>91</b>        | <b>9</b>       |

The interview respondents were mainly MSMEs owners operating within the agriculture and tourism value chains, covering a broad range of subsectors. Of the 134 interviews conducted, 51 percent of respondents were engaged in the agriculture value chain, while the remaining 49 percent represented tourism-related enterprises.

A notable gender disparity was observed across provinces: only 11 percent of respondents were women, underscoring the persistent gender gap in MSMEs ownership.

The average age of MSMEs owners across respondents was 38.6. Regionally, the lowest average was recorded in Hetauda (approximately 36), followed by Birgunj and Butwal, both with an average of around 36. Overall, the age of respondents ranged from 20 to 81.

**Figure 1:** Distribution of survey respondents across value chains**Figure 2:** Distribution of survey respondents based on number of employees and annual revenue

# PART 3

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## THE MSMEs LANDSCAPE IN NEPAL

Nepal's MSMEs are a cornerstone of the national economy. In 2018, the National Economic Census found 923,356 total business establishments across the country, where 462,605 were registered and 460,422 were unregistered. Of these, over 95 percent were classified as microenterprises, while small, medium-sized and large enterprises accounted for 4.2 percent, 0.24 percent and 0.19 percent, respectively<sup>6</sup> (Nepal, National Planning Commission, 2020). More recent official estimates from the Department of Industry put the number of registered MSMEs at around 613,487, with nearly 90 percent registered as small enterprises (Nepal, DOI, 2025). The 2024 Asian Development Bank (ADB) Asia Small and Medium-Sized Enterprise Monitor puts the number of registered MSMEs at around 590,000, contributing 22 percent to GDP and employing 3.6 million people (ADB, 2024).

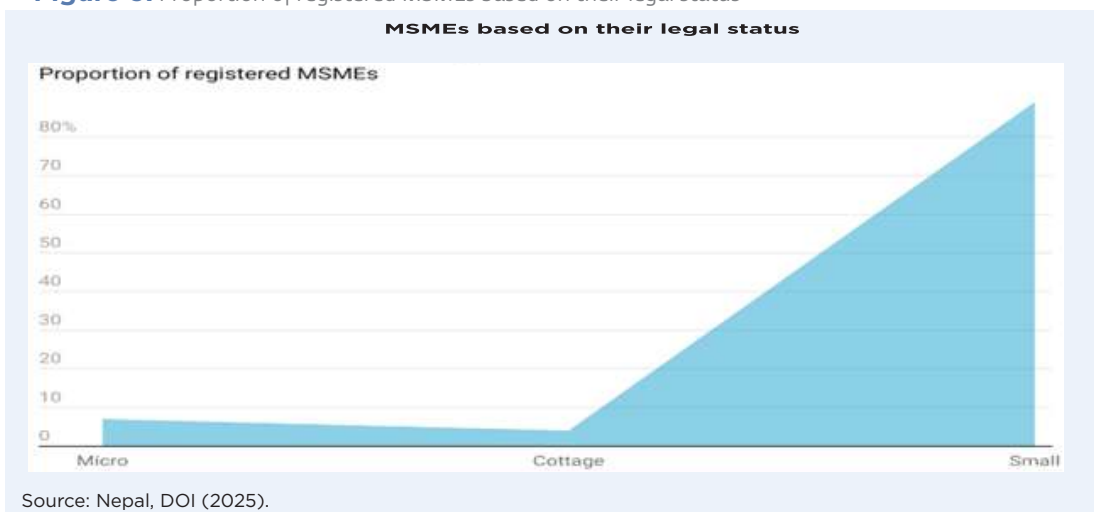
These discrepancies largely reflect differences in coverage and enterprise classification across data sources. The Economic Census captures a broad universe of enterprises, including a substantial number of informal and home-based microenterprises, which are least likely to be registered and therefore remain underrepresented in administrative data-sets. In contrast, more recent estimates rely primarily on registration-based records and updated size thresholds, which systematically exclude unregistered microenterprises and tend to reclassify formally registered firms into the “small” category. As a result, census-based data report a much higher prevalence of microenterprises, while administrative sources show a comparatively larger share of small enterprises.

Nepal continues to host a very large informal MSMEs base. Nearly half of all establishments in 2018 were unregistered, underscoring the scale of informality within the sector. The persistence of informality has major implications for productivity, access to finance, and regulatory compliance, as informal MSMEs lack legal identity, remain outside social protection systems, and face structural barriers to government credit, subsidies, insurance and compensation. Strengthening MSMEs formalization is therefore essential for improving enterprise resilience, expanding access to financial services, and enabling MSMEs to integrate into competitive value chains.

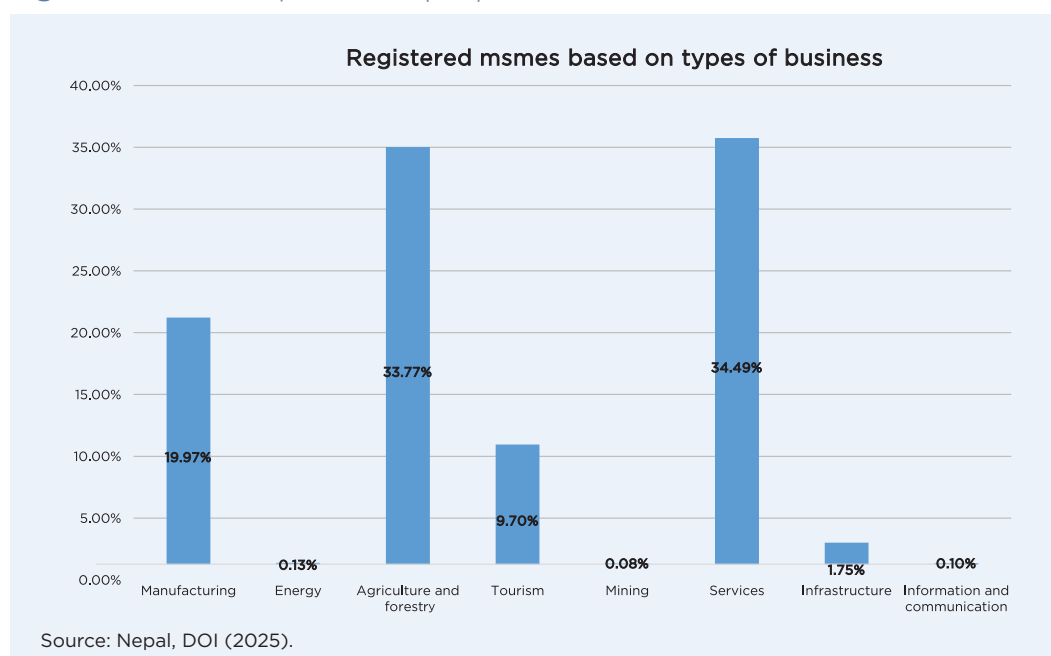
During the COVID-19 pandemic, more than half of MSMEs reported being at risk of closure without tailored financial resilience measures (World Bank, 2020a), and nearly 11 percent did not survive the pandemic (Verma, 2024). This demonstrates the vulnerability of MSMEs in the face of shocks and highlights the urgent need to embed stronger risk management practices within MSMEs operations to enhance their long-term resilience.

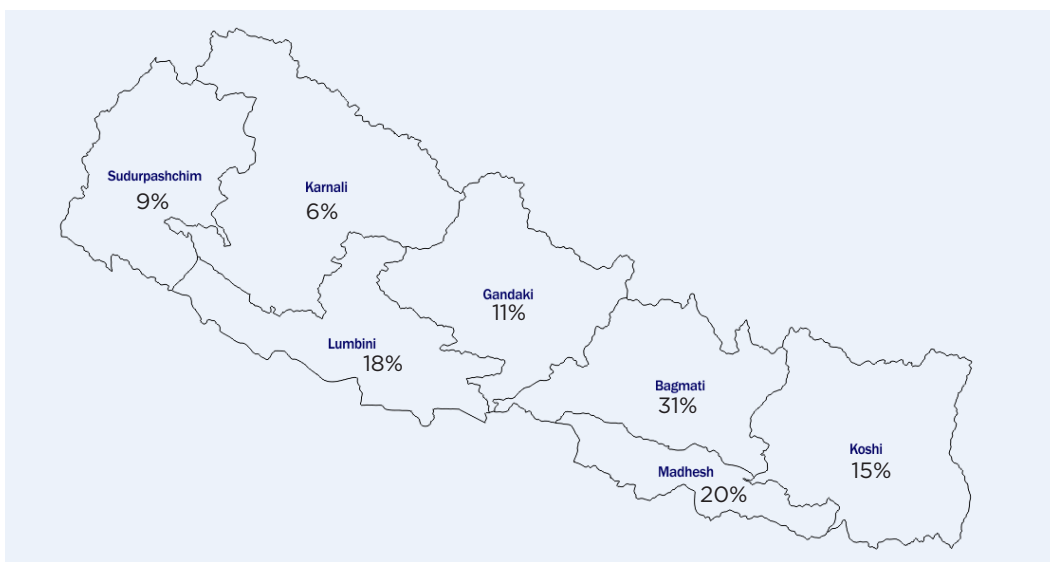
MSMEs play a vital role in mobilizing investments across Nepal's economy. According to the Department of Industry, MSMEs have cumulatively invested more than NPR 1,000 billion (c. \$7 billion) in capital across various businesses up to fiscal year (FY) 2023/24. The sector has also been a significant source of employment, generating over 380,000 jobs during the same period. In FY 2023/24 alone, MSMEs contributed more than NPR 11 billion (c. \$77 million) in new capital investments and created over 130,000 jobs (Nepal, DOI, 2025).

<sup>6</sup> Enterprise size classifications in the National Economic Census 2018 are based solely on the number of persons engaged (micro: 1–9; small: 10–49; medium: 50–99; large: 100 or more) and include both registered and unregistered establishments. More recent official statistics use legal and administrative definitions based primarily on capital investment and/or annual turnover and generally cover registered enterprises only. As a result, the number and share of “small enterprises” appear higher in recent data, reflecting differences in definitions and coverage rather than a direct structural comparison with National Economic Census 2018 results. UNDRR: <https://www.undrr.org/about-undrr/funding>

**Figure 3:** Proportion of registered MSMEs based on their legal status

More than one-third of registered MSMEs in Nepal are in the services sector. This sector encompasses a wide range of businesses, from training centres to beauty parlours, and MSMEs are active in more than 60 different business categories. Around one-third of MSMEs are in the agriculture and forestry sector, making it the second-most important sector for MSMEs. Given that over 60 percent of Nepal's population is engaged in agriculture, this sector holds immense potential and opportunities. The majority of MSMEs in agriculture are engaged in crop production (including tea plantations), animal husbandry and fish farming. Manufacturing also hosts a significant number of MSMEs, pointing to the sector's possible role in boosting economic production and increasing exports, which are currently dominated by agricultural goods. However, the spatial distribution of these manufacturing MSMEs presents a rather interesting picture, with more than one-quarter of the registered MSMEs in the Bagmati province alone. Such regional clustering may limit the ability of manufacturing MSMEs outside Kathmandu Valley to scale, reducing their potential to boost nationwide production and exports.

**Figure 4:** Distribution of MSMEs in Nepal by sector

**Figure 5:** MSMEs distribution across provinces (proportion of total registered up to 2021/22)

Source: Nepal, DOI (2025).

Due to several interlinked factors, the largest percentages of MSMEs are concentrated in Bagmati, Madhesh and Lumbini. Bagmati, home to the country's capital city, hosts 30.6 percent of MSMEs, since it is an urban and industrial hub that benefits from superior infrastructure, dense population, advanced financial and educational services and higher human development, creating a vibrant ecosystem for entrepreneurship (Acharya, 2025). According to the National Population and Housing Census 2021, Madhesh is the second most populous province in Nepal after Bagmati (Nepal, NSO, 2025). It has one of the largest customs points – Birgunj alongside the Indian border – and favourable geographical terrain for logistics and transportation have encouraged the development of MSMEs in the province. In Lumbini, robust trade links via border customs points and emerging industrial estates, along with major projects like Gautam Buddha International Airport and irrigation infrastructure, have stimulated agro-processing, manufacturing, tourism and MSMEs growth. In contrast, provinces such as Karnali and Sudurpashchim lag behind due to lower human development, limited formal financial inclusion and infrastructural deficits, reinforcing regional disparities.

These figures highlight the overwhelming dominance of small enterprises and reveal stark regional disparities, emphasizing the need for targeted policies and interventions to support MSMEs growth, particularly in underserved areas.

## Government support for MSMEs sector development

The Government of Nepal increasingly recognizes MSMEs as a key driver of inclusive growth. The Industrial Policy, 2067 (2011) emphasizes the importance of MSMEs, particularly in the agriculture, forestry and livestock value chains, in generating income, creating employment and promoting local industrialization by leveraging comparative advantages and mobilizing local resources. By linking MSMEs with research, technology transfer and modernization initiatives, the Government seeks to enhance productivity and competitiveness, positioning MSMEs as engines of sustainable economic transformation.

To strengthen MSMEs institutionally, the Government has prioritized cluster-based development through initiatives such as One Village One Product, product development centres and industrial clusters. These approaches provide MSMEs with access to markets, branding opportunities through collective trademarks and business development services that enable innovation, diversification and scaling. Local governments are tasked with identifying niche products and sectors where MSMEs can excel, embedding MSMEs promotion within the decentralized governance framework and directly linking it to regional development.

The policy framework integrates MSMEs into Nepal's financial and investment ecosystem. By promoting instruments such as equity funds and credit guarantee funds and encouraging angel and venture capital investments, the Government seeks to expand access to finance for MSMEs while fostering entrepreneurship. Business incubation centres and incubation services targeting youth, women and returnee migrants are designed to cultivate a pipeline of innovative enterprises, further consolidating the role of MSMEs in driving employment, social security and resilience.

The Industrial Policy also highlights information technology (IT) and public-private partnerships as critical enablers of MSMEs growth. IT hubs, digital platforms and value chain linkages are being promoted to help MSMEs access wider markets, reduce transaction costs and strengthen backward and forward connections. Meanwhile, collaboration with the private sector is encouraged to attract both domestic and foreign investment into MSMEs.

Several schemes have been introduced to strengthen MSMEs' financial resilience. The Deposit & Credit Guarantee Fund (DCGF) currently covers over 1.5 million borrowers with a guarantee portfolio of NPR 297 billion (c. \$2 billion), although limited capital and a narrow product range reduce its effectiveness (World Bank, 2024a). Similarly, the Micro Enterprise Development for Poverty Alleviation (MEDPA) programme provides targeted support to women and marginalized groups across all 753 local levels (Nepal, MoICS, 2020). Recent digital initiatives, such as the Digital Nepal Framework and the expansion of government-to-person (G2P) digital payments, have further improved MSMEs' access to finance and risk protection tools (IFC, 2025).

Through these strategies, the government is positioning MSMEs as an engine of growth in Nepal, not only as contributors to income and employment but also as vehicles for innovation, resilience and inclusive industrialization. By mainstreaming MSMEs into industrial policy, Nepal aims to empower small enterprises to compete, thrive and drive structural transformation in the economy.

However, while important steps have been taken to strengthen the financial ecosystem for MSMEs through credit facilities, equity funds, guarantees and incubation services – mostly available to MSMEs that are registered, and are also part of various associations, trade groups and confederations – this ecosystem remains incomplete without adequate mechanisms for risk management and risk transfer. Particularly in agriculture and related sectors, MSMEs remain highly vulnerable to climate shocks, market fluctuations and business disruptions. Access to finance alone does not guarantee sustainability if these risks remain unmanaged. Without insurance and other financial risk protection tools, investments in MSMEs are exposed to high uncertainty, limiting both their growth potential and their ability to attract private capital. Mainstreaming insurance solutions tailored to the scale and needs of MSMEs alongside existing financial instruments is therefore essential to build a comprehensive ecosystem that not only enables enterprise growth but also safeguards it against external shocks.

## **PART 4**

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### NEPAL'S INSURANCE SECTOR: THE MSMEs PERSPECTIVE



Nepal has a well-established insurance sector, with a defined regulatory framework for microinsurance, a large number of traditional products and government subsidy programmes that help extend coverage to those who need it most. However, gaps remain in both coverage and accessibility for many MSMEs.

## The insurance sector in Nepal: history, policies and gaps

The modern insurance sector in Nepal traces its origins to the 1947 establishment of the Nepal Insurance and Transport Company Ltd., a subsidiary of Nepal Bank Ltd. This marked a significant shift for the country, reducing reliance on Indian insurance providers by offering a domestic alternative. For more than two decades, the Nepal Insurance and Transport Company was the sole provider of insurance services in the country, until in 1968, the Government of Nepal founded the state-owned Rastriya Beema Sansthan under the Company Act. Later, to regulate, develop and institutionalize the insurance industry, the government established the Insurance Board through the Insurance Act, 2049 (1992).

As the sector evolved, the number of providers increased, improvements were made in products and services, regulations were reformed and new challenges emerged. In response, the Insurance Act, 2079 (2022) was enacted, transforming the Insurance Board into the Nepal Insurance Authority (NIA) with an expanded mandate and regulatory scope.

Since April 2023, NIA's Microinsurance Directive, 2079 (2022) has provided a structured framework for microinsurance that directly benefits low-income groups and small-scale entrepreneurs, including MSMEs. The Directive sets clear ceilings on coverage, up to NPR 5 million (c. \$35,000) for non-life policies (such as property, engineering and business microinsurance) and up to NPR 500,000 (c. \$3,500) for life-related policies, ensuring protection against common operational risks faced by microenterprises (Insurance Khabar, 2025b; MyRepublica, 2023). The Directive also encourages simplified, digital distribution through channels such as telecom providers and mandates rapid claim settlement within 21 days (Insurance Khabar, 2023). These measures provide MSMEs with tailored, accessible and timely financial risk protection, critical for building resilience and expanding insurance uptake among small businesses.

To complement these efforts, the Insurance Institute of Nepal (IIN), jointly established by insurers and NIA, conducts training and awareness programmes for professionals, financial institutions and the general public. Insurers themselves promote literacy through campaigns involving sports personalities, social media initiatives and corporate social responsibility activities (The Himalayan Times, 2025; NLIC, 2025). Insurance education has been made a policy priority, with NIA integrating it into school curricula, expanding outreach in rural areas through provincial programmes and organizing national campaigns such as Global Money Week in partnership with the Central Bank (BeemaPost, 2024; BeemaPost, 2025a; BeemaPost, 2025b). To guide future efforts, NIA is developing an Insurance Literacy Framework that emphasizes accessible and inclusive materials, specialized training, insurer-led literacy units and targeted programmes for underserved regions, aligning awareness initiatives with international standards (Insurance Khabar, 2025c).

The Government of Nepal has introduced several schemes to expand insurance coverage through periodic plans, annual budgets and policy instruments. These include livestock, crop and concessional credit insurance schemes designed to improve resilience among vulnerable populations. However, to date, no policy framework has been developed specifically for MSMEs.

Nepal's disaster risk financing (DRF) framework reflects the country's evolving policy architecture towards addressing both natural and anthropogenic hazards through integrated risk transfer mechanisms. The National Disaster Risk Financing Strategy 2020 outlines a multi-tiered approach involving public subsidies, insurance instruments and disaster management funds. Key provisions include an 80 percent government subsidy on agricultural and livestock insurance premiums and the roll-out of a universal health insurance programme that now covers 2.7 million citizens. The framework also highlights prearranged financial mechanisms such as catastrophe bonds, contingent credit lines and insurance-linked securities. Provincial-level initiatives, such as Karnali Province's Natural Disaster Risk Group Insurance Programme, have extended coverage to 1.7 million beneficiaries, with individual coverage limits of NPR 200,000 (c. \$1,400).

While implementation challenges persist for non-life insurers,<sup>7</sup> the DRF Strategy nevertheless strengthens MSMEs financial resilience, enabling faster recovery after disasters and reducing the need to divert scarce working capital (World Bank, 2020c). By so doing, it lays the foundational policy support needed to safeguard microenterprises and small enterprises.

Despite these policy advances, significant implementation gaps remain. Sectoral assessments reveal limited insurance uptake and uneven effectiveness across the areas and groups targeted by policies. For example, while livestock insurance covers a range of animal categories, it often excludes indirect losses such as damage caused by wild animals – risks that disproportionately affect remote and marginalized communities. Fisheries insurance frequently omits pandemic-related diseases and contamination, while beekeeping insurance excludes coverage for honey production losses and equipment damage, reducing its value for producers. Weather index insurance (WII), although innovative, suffers from mismatches between index-triggered payouts and actual field-level losses, undermining trust and discouraging uptake. Similarly, trade credit, a common financing practice among MSMEs, remains largely unaddressed by non-life insurers despite policies that could facilitate its inclusion.

Another persistent barrier is the high upfront cost of insurance uptake. The Insurance Act, 2079 (2022) requires insurers to calculate premiums based on the NIA-determined premium rate and issue policies only after full payment, though limited provisions exist for bank deposits, government guarantees and partial payments in specific cases. Insurers must notify policyholders of unpaid premiums, while NIA regulates all aspects of premium collection. Likewise, the Microinsurance Directive, 2079 (2022) mandates full premium payment before issuing policies (with government subsidies deductible), prohibits ad-

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<sup>7</sup> For more on these challenges, see UNDP (2024).

ditional charges, fixes rates for the policy term and allows only a 5 percent discount for direct purchases without intermediaries.

## The MSMEs insurance landscape

The legal and policy framework governing MSMEs insurance in Nepal is primarily defined by the Insurance Act, 2079 (2022), Insurance Regulation, 2081 (2025), Microinsurance Directive, 2079 (2023), National Insurance Policy, 2080 (2024), the Branchless Mobile Insurance Guideline, 2076 (2019) and the Digital Insurance Policy Guideline, 2081 (2024).

The Insurance Act, 2079 designates NIA as the regulator, mandating the promotion of microinsurance for low-income groups, the creation of risk pools, and implementation at provincial level to improve access, licensing, awareness and complaints – all of which extend to MSMEs. Insurance Regulation, 2081 categorizes insurance into life and non-life services, including micro non-life insurance, and sets a minimum paid-up capital of NPR 750 million (c. \$5.25 million) for microinsurance companies, of which seven are currently in operation. Section 104 provides for the establishment of an Insurance Development Fund to enhance access through subsidies, pilot projects, promotion, research and disaster coverage (Nepal, NIA, 2025).

Microinsurance Directive, 2079 focuses on underserved and marginalized groups, allowing one-year coverage for both life and non-life products and enabling partnerships with supply chain institutions to broaden outreach, including to MSMEs (Nepal, NIA, 2024d). The National Insurance Policy, 2080 links insurance to sustainable development and poverty reduction through reducing MSMEs risks, addressing climate and disaster risks, offering targeted premium discounts and expanding coverage to vulnerable groups, small farmers and overseas Nepalis (Nepal, NIA, 2024e).

The Branchless Mobile Insurance Guideline, 2076 (Nepal, NIA, 2024c) permits insurers to deliver products directly to customers without establishing physical branches, prioritizing rural and low-income populations. Similarly, the Digital Insurance Policy Guideline, 2081 enables micro life and non-life insurers to issue their entire portfolio digitally (Nepal, NIA, 2024b).

## Government efforts to increase resilience in MSMEs

The Government of Nepal has introduced multiple policies, subsidies and institutional mechanisms to strengthen resilience and expand insurance, particularly for agriculture, livestock and MSMEs.

- **Credit and MSMEs promotion:** The DCGF insures SME loans with a 50 percent premium subsidy (Nepal, DCGF, 2025). Female entrepreneurs receive special incentives, including a 35 percent discount on industry registration fees, a 20 percent discount on industrial property registration fees and priority access to credit and land under the Industrial Enterprises Act, 2076 (2020). MSMEs also benefit from full income tax

#### PART 4. NEPAL'S INSURANCE SECTOR: THE MSMEs PERSPECTIVE

exemptions, registration fee waivers and government-backed subsidies to encourage growth and formalization. In addition, funds such as the Micro, Cottage and Small Enterprise Development Fund and the Industrial and Investment Promotion Fund support enterprise development (Nepal, DOI, 2020).

- **Agricultural and livestock insurance:** Subsidies cover up to 80 percent for policies less than NPR 5 million (c. \$35,000), 65 percent for policies between NPR 5 million and NPR 10 million (c. \$35,000–\$70,000) and 50 percent for amounts above NPR 10 million (c. \$70,000). However, delays remain a persistent issue (BeemaPost, 2024). In FY 2024/25, NPR 1.65 billion (c. \$11.5 million) was allocated for crop and livestock insurance, rising to NPR 2.30 billion (c. \$16.1 million) in FY 2025/26, alongside expanded property insurance, cybersecurity insurance and reinsurance for DCGF (Nepal, Ministry of Finance, 2025a).
- **Concessional loans and mandatory insurance:** The Integrated Procedure on Interest Subsidy 2082 (2025) mandates insurance for agricultural and livestock loans under NPR 1.5 million (c. \$10,000), with 50 percent of premiums subsidized via Nepal Rastra Bank (NRB) through its Subsidy Compensation Account (NRB, 2025).
- **Disaster risk management:** Guided by the Disaster Risk Reduction and Management Act, 2074 (2017), the National Policy for Disaster Risk Reduction, (2018) and the Government's 15th Five-Year Plan, government policies emphasize risk transfer tools such as insurance, catastrophe bonds and reinsurance, as well as compulsory insurance for infrastructure and resilience-focused funds. However, the National Disaster Risk Financing Strategy, (2020), while advancing innovative risk transfer mechanisms, does not include MSMEs-specific measures.
- **Insurance expansion:** Since its launch in 2013, agricultural insurance has expanded to include 21 crop, 7 livestock and 2 medicinal herb products. Subsidies were initially capped at 50 percent and NPR 10 million (c. \$70,000) but were later raised to 75 percent, with value-added tax (VAT) exemptions and no coverage cap (Nepal, NIA, 2024a). Relief programmes also compensate farmers for disaster-related losses (World Bank, 2020b).
- **Enterprise and institutional support:** The Government established the Micro, Cottage, and Small Enterprise Promotion Centre (2019) and the Industrial Enterprise Development Institute (IEDI) for training and research. However, the institutions' resilience and insurance components are not integrated.

For MSMEs, Nepal's broader risk management landscape reveals a striking gap between policy intentions and ground-level accessibility. Employee-focused insurance products such as workers' compensation, health coverage and key person insurance are critical for ensuring business continuity, as they protect both the workforce and the enterprise from disruptions caused by accidents, illness or the sudden loss of key personnel. Key person

insurance, in particular, protects against the financial risks associated with the unexpected loss of a founder or core manager, enabling businesses to maintain stability and access funds for succession, debt repayment or operational continuity (Nie et al., 2018).

Although national strategies highlight the importance of business continuity planning and prearranged protection measures for private sector entities, available insurance products are often designed for standardized, formal enterprises. This approach fails to accommodate the diversity and informality that characterize Nepal's MSMEs ecosystem. The tourism sector illustrates these challenges especially well: while vehicle insurance is mandated, it remains poorly understood among operators, and specialized insurance products tailored to altitude-related risks, seasonal operations and informal accommodation providers are virtually non-existent.

In conclusion, despite considerable policy development and government investment in Nepal's risk management and insurance frameworks, efforts need to be recalibrated to target those who need it most. Subsidies, mandates and disaster policies demonstrate strong government commitment, but gaps remain: timely subsidy disbursement is a problem, and there are no dedicated MSMEs-focused insurance programmes. Aligning policy ambitions with the practical needs of vulnerable sectors, particularly MSMEs, will be essential to improving resilience, increasing uptake and building a more inclusive and effective insurance ecosystem.

## **Emerging technologies in insurance**

Non-life insurers offer a wide range of products, including property, agriculture, motor, engineering and specialized risk coverage, to support key sectors such as agriculture, construction, logistics and MSMEs. These products play a critical role in cushioning financial shocks caused by disasters and business disruptions. Some companies provide subsidized agricultural and livestock insurance, while others offer innovative solutions such as microinsurance for smallholder farmers, duty loss protection (a product that compensates businesses for customs duties and import taxes they would otherwise have to pay when goods are lost or damaged before clearance, thereby functioning as a form of income and liquidity protection) and loan default coverage.

Alongside traditional insurance providers, innovative digital insurance products are emerging and transforming how coverage is delivered to MSMEs and vulnerable populations. In the Asia-Pacific region, for example, digital platforms such as fintech aggregators and mobile service providers are leveraging customer trust, data infrastructure, digital payments and distribution networks to deliver tailored MSMEs insurance solutions – such as micro-payments, business interruption and credit-life coverage – efficiently and at scale (Sahler, Brinkmann and Gray, 2022). These digital solutions aim to address the limitations of conventional insurance, including physical inaccessibility, lengthy claim processes and limited customization, by making use of mobile platforms, fintech integration, telecom infrastructure and satellite technologies.

Digital platforms typically act as digital distributors in collaboration with licensed insurers. Digital wallets such as eSewa and Khalti have started offering MSMEs-focused insurance products, allowing users to purchase policies, pay premiums and file claims directly through mobile applications. (eSewa, 2025). Telecom providers such as Ncell have introduced embedded microinsurance bundled with data packages, creating affordable and scalable distribution channels. Agri-digital platform GeoKrishi also provides weather index and livestock insurance tailored to smallholder farmers, with paperless claims processed quickly based on automated weather triggers.

These digital models represent a turning point in Nepal's risk financing ecosystem, enabling inclusive, efficient and real-time insurance services that extend far beyond the formal and urban business landscape.

**Table 2: Emerging insurance tools in Nepal**

| Initiative                                                     | Type                       | Key partners                                                     | Initiative summary                                                                                                                           |
|----------------------------------------------------------------|----------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>eSewa Micro Insurance</b>                                   | Digital wallet platform    | Swiss Agency for Development and Cooperation (SDC) Sahaj Project | Insurance for MSMEs covering property, health and business risks; fully digital policy management                                            |
| <b>Khalti Insurance Integration</b>                            | Digital wallet platform    | Nepal Life, United Nations Capital Development Fund (UNCDF)      | Premium payment integration and groundwork for MSMEs-targeted products, especially for women-led enterprises                                 |
| <b>GeoKrishi Insurance Services</b>                            | Agri-digital platform      | Shikhar, United Ajod, PlantSat                                   | Delivers WII, muzzle-ID cattle insurance, and crop-specific covers; over 10,000 farmers covered                                              |
| <b>Ncell's Data Sangai Beema</b>                               | Telecom-embedded insurance | Himalayan Everest Insurance                                      | Bundles hospital microinsurance with mobile data; accessible via app and USSD (Unstructured Supplementary Service Data) (Share Sansar, 2024) |
| <b>PlantSat Weather Index Insurance</b>                        | Parametric insurance       | Shikhar, eSewa, Co-op Federation                                 | Satellite-based weather insurance for smallholder farmers; automated payouts (Insurance Khabar, 2025a)                                       |
| <b>Shikhar Apple Farmers WII</b>                               | Parametric insurance       | UK Aid Sakcham, Shikhar Insurance                                | WII tailored for Jumla's apple farmers using climate data (Kathmandu Post, 2018))                                                            |
| <b>International Insurtech Pula + Jeevan Bikas Index Pilot</b> | Index-based crop insurance | Pula, Jeevan Bikas, Insurance Board                              | Covered \$4 million of crops for 15,000 farmers; integrated digital education and claims automation (UNCDF, 2024)                            |

Nepal's insurance market provides a strong foundation of traditional products, supported in part by government subsidies and focused on critical risks in agriculture, infrastructure and MSMEs. However, significant gaps remain in both coverage and accessibility. Digital innovations such as mobile wallet insurance, satellite-based weather index products and telecom-integrated microinsurance are helping to bridge these gaps by making insurance more affordable, accessible and user-friendly for informal and climate-vulnerable MSMEs. Together, traditional and digital insurance solutions are shaping a more inclusive risk financing ecosystem, but continued innovation and adaptation are essential to fully address local needs.

# PART 5

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## FINDINGS AND ANALYSIS: THE AGRICULTURE VALUE CHAIN

Chapters 5 and 6 examine how MSMEs in the agriculture and tourism value chains respond to shocks. They explore formal and informal coping mechanisms used to mitigate and manage risks, risk management practices adopted across various value chain segments and perceived barriers to insurance uptake. They also explore how misconceptions, especially regarding insurance, affect preparedness and recovery. By disaggregating the findings by sector, geography and value chain position, the study identifies patterns of resilience as well as gaps in support systems that contribute to long-term vulnerability.

Agriculture is central to Nepal's economy and the livelihoods of its people. According to the Economic Survey, 2081/82 (2024/25), it contributes 25.16 percent to GDP and is projected to grow by 3.28 percent in FY 2081/82 (Nepal, Ministry of Finance, 2025b). The National Census 2078 (2021) found that 57.3 percent of the population were employed in agriculture, including 50.6 percent of males and 64.8 percent of females (Nepal, NSO, 2023). Agriculture is also key to Nepal's external trade. In FY 2024/25, agriculture-based exports – such as cardamom, tea, herbs, ginger, oils, lentils and fruits – generated NPR 16.62 billion (c. US\$115.82 million), making up 6 percent of total exports. Although re-exports, particularly vegetable oil, still dominate the export basket at 43.86 percent of total exports, the Nepal Trade Integration Strategy (NTIS) 2023 identifies commodities such as cardamom, ginger, lentils, jute and tea as high-potential export products, reflecting both Nepal's comparative advantage and strong global demand (Prasain, 2025). Together, these factors show that agriculture is not only a foundation of livelihoods and food security, but also a sector with significant untapped potential to contribute to inclusive and sustainable economic transformation.

The following sections are informed by key informant interviews, surveys and focus group discussions with industry stakeholders and MSMEs owners across all seven of Nepal's provinces. The analysis sets out risk profiles, coping mechanisms and barriers to insurance for MSMEs in the agriculture value chain, and concludes with a business case for insurers that could provide improved risk protection for agriculture MSMEs, as well as a potential business opportunity for insurance companies.

### **Sector risk profile**

The agriculture value chain is characterized by a broad set of interrelated risks that undermine stability and productivity. Across all provinces, stock spoilage (driven by the perishable nature of products) and credit default risk are widespread. Disease outbreaks and biosecurity concerns are similarly prevalent. Other common risks include market volatility, infrastructure deficits, shortages of skilled labour, unreliable logistics and machinery issues. Respondents also emphasized the growing impact of climate change, particularly erratic weather patterns and temperature fluctuations, which are undermining productivity and reducing predictability within the sector.



## Climate risks

A black cardamom exporter based in Ilam (Koshi Province) explained that increasing climate variability – including prolonged droughts, unpredictable rainfall, hailstorms, unseasonal snowfall and fluctuating temperatures – has severely disrupted the production of black cardamom. These changing weather patterns have made cultivation and harvesting cycles less predictable, leading to inconsistent yields across seasons. The resulting supply instability has contributed to significant price fluctuations, making it difficult for the exporter to plan operations, honour market commitments and sustain profitability, which has ultimately led to considerable business losses.

The agriculture value chain in Nepal consists of producers, aggregators/processors, wholesalers/retailers and consumers (FAO and UNDP, 2020). Each component within this agricultural value chain is susceptible to specific risks. Farmers, as the primary producers, face risks related to climate variability, pests and crop diseases, which directly impact yields and income stability (Thapa and Shrestha, 2019). Agricultural cooperatives, while enhancing bargaining power and enabling resource pooling, are vulnerable to operational inefficiencies, governance risks and financial mismanagement, which can undermine their sustainability (Shepherd, 2018). The processing sector is exposed to risks such as equipment breakdown, contamination and supply chain disruptions, which can affect product quality and profitability (Aryal, 2022). Distribution and logistics networks face threats from transportation delays, infrastructure failures and fuel price volatility, impacting timely market access (Mohan, 2018). Wholesale and retail markets are prone to risks such as fluctuating demand, price volatility and inventory losses due to spoilage or theft (Chandrasekaran and Raghuram, 2014). Lastly, the growing reliance on digital platforms introduces cybersecurity threats, data breaches and system downtimes, posing operational and reputational risks (Nagothu and Chatrchyan, 2018).

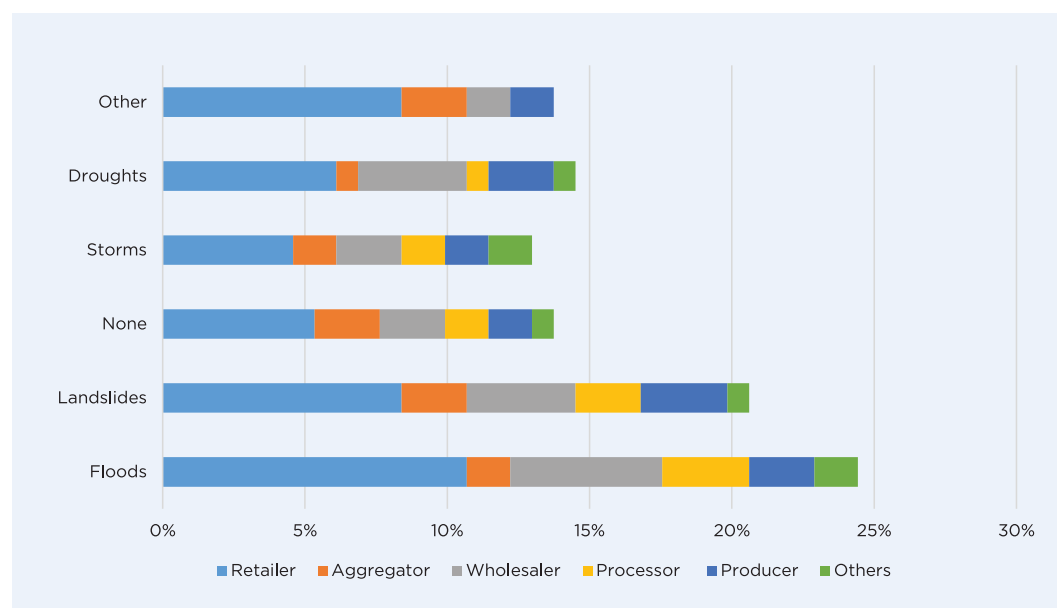
Agricultural MSMEs in Nepal are highly vulnerable to climate-driven disruptions that directly undermine production, storage and distribution systems. Unlike service-oriented sectors, where hazards primarily affect operations and mobility, agriculture is exposed to both physical losses and cascading market shocks. The most critical features of this risk profile include:

- Temperature extremes that accelerate milk spoilage, reduce fish survival rates and increase wastage of perishable goods
- Irregular rainfall and prolonged droughts that weaken crop productivity and place pressure on already limited irrigation
- Seasonal floods and river overflows that damage farmland, erode soils and cut off transport routes linking farms to markets
- Severe storms that destroy standing crops, storage structures and local trading points
- More frequent outbreaks of pests and livestock diseases, fuelled by changing weather conditions
- Market instability linked to disasters and seasonal shocks, which depress demand and reduce farmer incomes.

Taken together, these risks have steadily eroded agricultural resilience, limiting both output stability and financial security for MSMEs across provinces. The combined pressures of physical asset damage, declining yields and volatile markets are constraining the ability of Nepal's agricultural economy to adapt, grow and sustain rural livelihoods in the face of intensifying climate variability. Damage from floods and landslides alone equalled nearly 0.8 percent of GDP in FY 2024/25, highlighting the scale of vulnerability (World Bank, 2025). Together, these patterns reveal a sector under mounting pressure, as declining yields, disrupted market access and rising uncertainty steadily weaken the resilience of agriculture MSMEs.

Agriculture MSMEs operate within a climate-vulnerable context that increasingly threatens the continuity of agribusinesses, local food systems and rural livelihoods. Among the climate hazards affecting MSMEs across the agriculture value chain in seven provinces, floods are the most commonly reported (24 percent), followed by landslides (21 percent), droughts (15 percent), storms (13 percent) and other hazards (14 percent) such as extreme heatwaves and erratic weather patterns.

**Figure 6: Climate risks reported by MSMEs respondents in the agriculture value chain, 2022–2024, by most frequently cited**



## Value chain-level risk patterns

**Table 3: Value chain-level risk patterns: agriculture**

| Value chain component | Key climate risk impacts                                                                                                                                                                                                                                                                             |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Producers             | <ul style="list-style-type: none"> <li>• Direct exposure to floods, droughts, storms</li> <li>• Severe weather reducing yields and revenues</li> <li>• Vulnerability shaped by geography and weak risk management</li> </ul>                                                                         |
| Aggregators           | <ul style="list-style-type: none"> <li>• Transport disruptions during floods and landslides</li> <li>• Fluctuations in supply volume and quality</li> <li>• Procurement volatility and rising transaction costs</li> </ul>                                                                           |
| Processors            | <ul style="list-style-type: none"> <li>• Interrupted supply of raw materials</li> <li>• Infrastructure damage from floods and storms</li> <li>• Capacity underutilization, higher costs, spoilage and delays</li> </ul>                                                                              |
| Wholesalers           | <ul style="list-style-type: none"> <li>• Indirect effects from upstream disruptions</li> <li>• Inventory mismanagement during storms</li> <li>• Price volatility and reduced planning capacity</li> </ul>                                                                                            |
| Retailers             | <ul style="list-style-type: none"> <li>• Direct property damage during extreme events</li> <li>• Spoilage of perishable goods</li> <li>• Reduced customer footfall and disrupted cash flow</li> <li>• High vulnerability in the lowland plain of the Terai and other hazard-prone markets</li> </ul> |

Climate risks affect different components of the value chain in varying ways, with impacts often concentrated in specific segments depending on their role in production, aggregation or service delivery. However, the degree of vulnerability within each segment is also influenced by factors such as geographical location, the presence or absence of risk management measures and access to financial risk protection instruments.<sup>8</sup>

The upstream components of the agricultural value chain, such as production and input supply, are directly impacted by climate extremes. Producers frequently experience production losses due to severe weather events and shifting climatic patterns, resulting in inconsistent outputs and declining revenues. Meanwhile, downstream actors face more indirect spillover effects, which manifest as financial and logistical risks. Processors grapple with supply interruptions caused by upstream losses as well as infrastructure damage from floods and landslides, leading to capacity underutilization, increased costs, product spoilage and delays. Aggregators encounter transport disruptions and fluctuations in supply volume and quality, causing procurement volatility, higher transaction costs and inefficiencies in aggregation.

Wholesalers are indirectly affected by upstream disruptions, particularly logistical challenges during floods and storms, which contribute to inventory mismanagement, price volatility and reduced planning capacity. Retailers – especially those operating in vulnerable markets such as Terai towns – are directly impacted by weather events through property damage, reduced customer footfall, cash flow disruptions and losses of perishable goods.

The surveys and interviews with MSMEs conducted for this report found that retailers are group the most exposed to climate-related hazards, accounting for 44 percent of all reported climate impacts within the agriculture value chain. Wholesalers are the second most affected group (19 percent), followed by producers (12 percent), aggregators (11

<sup>8</sup> Table A3 in Annex 1 outlines the climate risk exposure across the agriculture value chain.

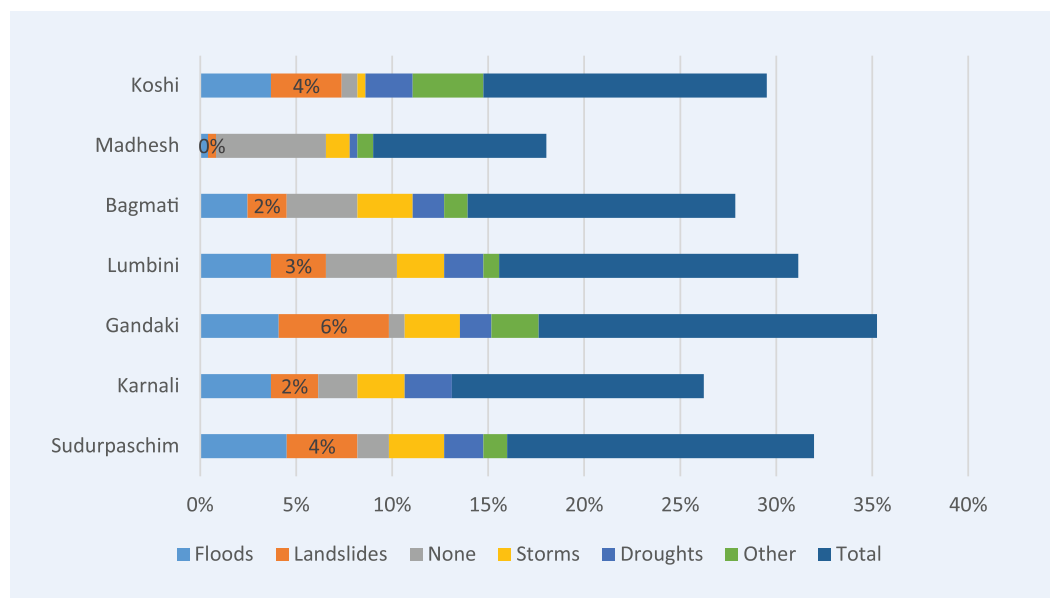
percent) and processors (9 percent). The higher exposure of retailers compared to wholesalers, producers and processors likely stems from their direct interface with consumers and their reliance on perishable goods and market access, making them more vulnerable to climate disruptions. Wholesalers and aggregators are less exposed since they can distribute risk across suppliers, while producers and processors, though affected, have more localized or specialized vulnerabilities.

## Province-level risk patterns

**Table 4: Province-level climate risk patterns: agriculture value chain**

| Province             | Key climate hazards                                                                                                                                                                                                    | Direct impacts                                                                                                                               | Indirect impacts                                                                                                                           |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Bagmati</b>       | <ul style="list-style-type: none"> <li>Floods</li> <li>Landslides</li> <li>High storm exposure</li> </ul>                                                                                                              | <ul style="list-style-type: none"> <li>Damage to buildings, machinery and inventory during floods and storms</li> </ul>                      | <ul style="list-style-type: none"> <li>Market access reduced by impassable roads; delays in supply chains</li> </ul>                       |
| <b>Gandaki</b>       | <ul style="list-style-type: none"> <li>Floods</li> <li>Landslides</li> <li>High storm exposure</li> </ul>                                                                                                              | <ul style="list-style-type: none"> <li>Destruction of storage and trading points from storms/landslides</li> </ul>                           | <ul style="list-style-type: none"> <li>Supply chain interruptions and reduced access to markets</li> </ul>                                 |
| <b>Karnali</b>       | <ul style="list-style-type: none"> <li>Floods</li> <li>Landslides</li> <li>Lower storm exposure</li> </ul>                                                                                                             | <ul style="list-style-type: none"> <li>Destruction of farmland and infrastructure from floods/landslides</li> </ul>                          | <ul style="list-style-type: none"> <li>Connectivity loss leading to delivery delays and reduced sales</li> </ul>                           |
| <b>Koshi</b>         | <ul style="list-style-type: none"> <li>Floods</li> <li>Landslides</li> <li>Erratic weather, rising temperatures</li> <li>Minimal storm exposure</li> </ul>                                                             | <ul style="list-style-type: none"> <li>Damage to farmland and physical assets from floods/landslides</li> </ul>                              | <ul style="list-style-type: none"> <li>Rising temperatures harming livestock and perishable goods; transport delays</li> </ul>             |
| <b>Lumbini</b>       | <ul style="list-style-type: none"> <li>Floods</li> <li>Landslides</li> <li>Lower storm exposure</li> </ul>                                                                                                             | <ul style="list-style-type: none"> <li>Damage to soils, farmland and inputs from floods/erosion</li> </ul>                                   | <ul style="list-style-type: none"> <li>Procurement and transport disruptions during seasonal shocks</li> </ul>                             |
| <b>Madhesh</b>       | <ul style="list-style-type: none"> <li>Floods (low-moderate exposure)</li> <li>Erratic weather, rising temperatures</li> <li>Minimal landslide exposure (flat Terai plains)</li> <li>Minimal storm exposure</li> </ul> | <ul style="list-style-type: none"> <li>Limited physical asset damage compared to hill/mountain regions</li> </ul>                            | <ul style="list-style-type: none"> <li>Market disruption from erratic weather and rising heat affecting storage and perishables</li> </ul> |
| <b>Sudurpashchim</b> | <ul style="list-style-type: none"> <li>Floods</li> <li>Landslides</li> <li>High storm exposure</li> <li>Rising temperatures</li> </ul>                                                                                 | <ul style="list-style-type: none"> <li>Direct damage to buildings, inventory and equipment; spoilage of stored goods (e.g., eggs)</li> </ul> | <ul style="list-style-type: none"> <li>Interrupted supply chains, blocked transport routes and reduced customer access</li> </ul>          |

Agriculture MSMEs across Nepal face geographically diverse climate hazards that disrupt production cycles, damage natural and physical assets and reduce farm-to-market connectivity. These risks threaten business continuity, weaken input and output reliability, and undermine the long-term sustainability of enterprises in climate-sensitive regions.

**Figure 7: Province-level climate risk vulnerability pattern: agriculture value chain**

Floods and landslides are the most commonly reported climate hazards impacting MSMEs across most provinces, except in Madhesh, where MSMEs report the lowest overall exposure to climate-related risks. Madhesh has comparatively lower exposure to landslides because the province lies in the flat Terai plains, characterized by low elevation and minimal slope, where landslides are rare, unlike in Nepal's more mountainous regions. In addition to floods and landslides, MSMEs in Bagmati, Gandaki and Sudurpashchim face significant exposure to storms, whereas Karnali and Lumbini report relatively lower storm-related risks. Koshi and Madhesh have minimal exposure to storms; however, MSMEs in Koshi have highlighted other weather-related challenges, such as erratic weather patterns and rising temperatures, which adversely affect their operations. Droughts were reported with relatively consistent frequency across provinces.

MSMEs face both direct and indirect impacts from climate hazards. Direct impacts refer to immediate, tangible damage caused by floods and landslides, such as destruction of buildings, machinery, inventory or other physical assets. For instance, an egg wholesaler in Sudurpashchim reported increasing losses in stored eggs due to rising temperatures. Indirect impacts are secondary effects that arise from disruptions elsewhere in the system, rather than direct damage to the business's own assets. These include interruptions in supply chains when suppliers are affected, reduced market access due to impassable roads, delays in delivery or lost sales because customers cannot reach the business. These direct and indirect risks vary substantially by province: hill and mountain provinces such as Bagmati, Gandaki, Karnali and Sudurpashchim face more frequent direct impacts from floods, landslides and storms, while Terai provinces like Madhesh and parts of Koshi experience fewer physical losses but higher indirect impacts linked to heat stress, erratic weather and prolonged transport disruptions.

Taken together, these findings show that agricultural MSMEs in Nepal face uneven climate risks shaped by geography, with each province experiencing distinct combinations of direct and indirect impacts. This diversity highlights the limitations of one-size-fits-all solutions, as businesses encounter different levels of vulnerability and disruption depending on their location.

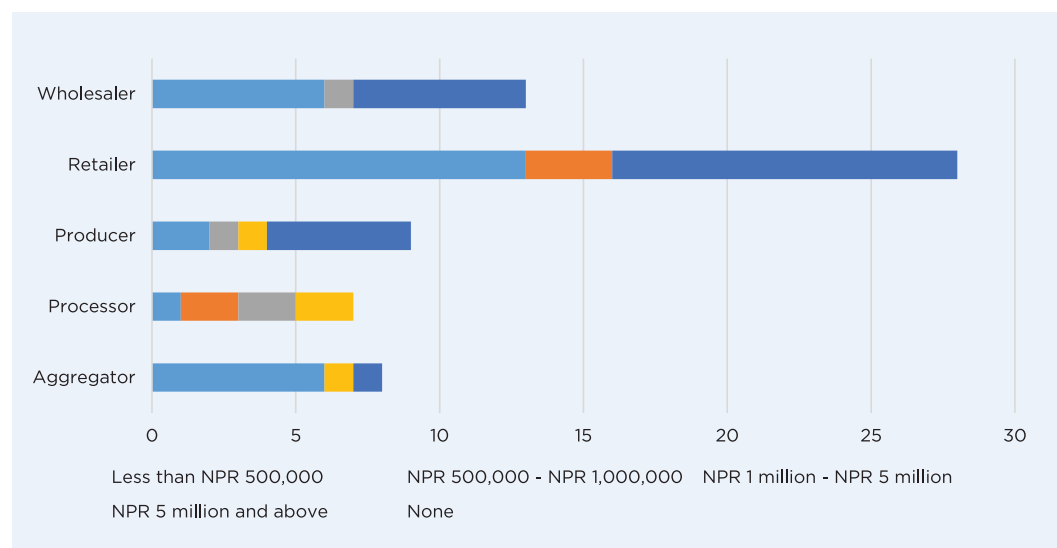
## Economic costs of climate-related disasters: agriculture

Climate-related disasters have had a significant economic impact on MSMEs across provinces, with agricultural value chains bearing the greatest burden.<sup>9</sup> While individual losses are often modest, their cumulative effect on MSMEs – many of which lack financial resilience – can be substantial, and can threaten business survival.

Disaster-related events have imposed substantial economic costs on agriculture MSMEs, with the burden varying across value chain actors. Retailers are the most heavily affected, with many reporting losses above NPR 1 million (c. \$7,000) and even in some cases exceeding NPR 5 million (c. \$35,000), reflecting the vulnerability of perishable stocks and market-facing operations. Wholesalers and producers also incur significant costs, though the distribution differs: wholesalers report more frequent but smaller losses under NPR 1 million, while producers show a mixed pattern, including some cases of very high losses above NPR 5 million due to direct damage to farms and assets. Processors and aggregators face relatively lower financial burdens, with most reporting losses below NPR 1 million, though occasional larger shocks are still present.

The three-year average of loss reported by MSMEs in the agriculture value chain due to climate-related disasters was approximately NPR 760,000 (c. \$5,300).<sup>10</sup> This level of loss suggests that nearly 26 percent<sup>11</sup> of MSMEs faced existential threats to their opera-

**Figure 8: Disaster-related losses reported across agriculture value chain, 2022–2024**



<sup>9</sup> Climate-related events in 2024 caused damage of around \$52 million in the agricultural sector (UN Nepal, 2024).

<sup>10</sup> Author's calculation based on data from surveys.

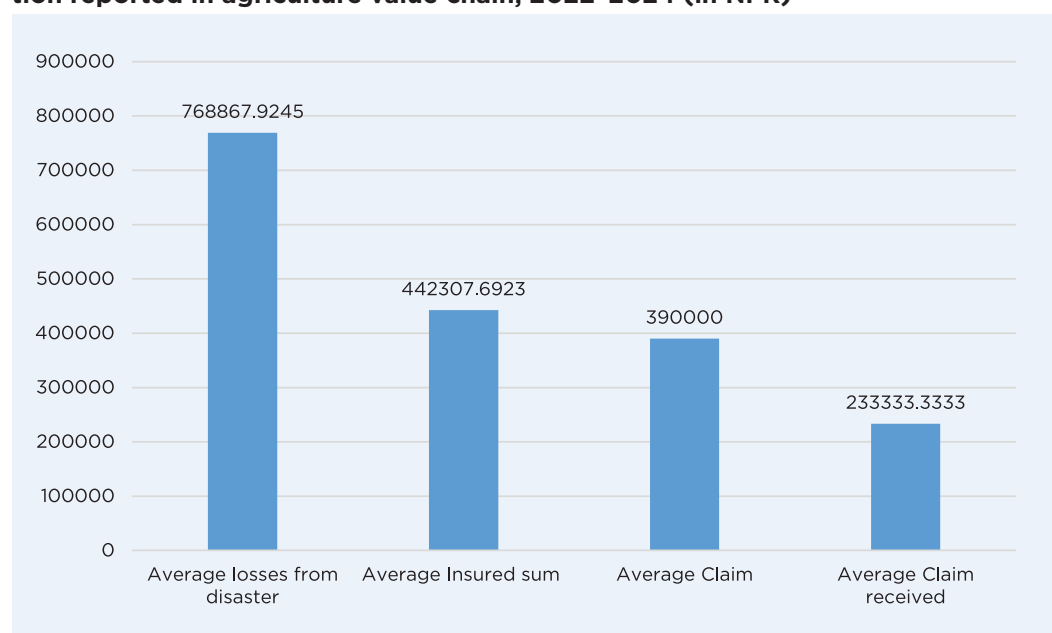
<sup>11</sup> Annual revenue of less than NPR 500,000 (c. \$3,500) was reported by 26 percent of MSMEs.

tions over the past three years. Approximately 44 percent of these enterprises reported having some form of insurance coverage that provided a degree of financial protection and helped mitigate the impact of climate-related events. However, many cited growing mistrust for insurance. A rising number of policyholders expressed a desire to discontinue coverage due to mismatches between risks and coverage, complex policy clauses and burdensome claims processes.

For example, a farmer in Karnali with insurance coverage for poultry and livestock faced significant challenges following flood-related losses. Although the insurance was supposed to cover 60 percent of the value of the deceased animals, the claims process proved cumbersome and time-consuming. The farmer spent several months traveling from office to office and ultimately received only NPR 8,000 (c. \$56) instead of the expected NPR 25,000 (c. \$175). The issue was compounded when a cheque issued as part of the claim bounced, and the farmer temporarily lost access to their Kisan Card, a digital tool used to purchase agricultural inputs and access financial services. Despite assurances from the insurer and an eventual apology after threats of going public, the farmer never received the full claim amount. This example illustrates the burdensome and unreliable nature of the insurance claim process, which can undermine the intended protective benefits for MSMEs and farmers.

Another example comes from a poultry business in Bagmati, which had insurance coverage for its livestock. When an outbreak of bird flu affected the flock, the business received no compensation, as the policy did not cover bird flu related losses. Although bird flu represented the primary risk for the operation, the mismatch between the actual risk and the coverage left the farmer without financial protection. This case underscores the importance of designing insurance products that align with the specific risks faced by farmers and MSMEs, because policies that fail to cover key vulnerabilities provide limited practical benefit.

**Figure 9: Average disaster-related losses, insurance coverage and claim realization reported in agriculture value chain, 2022-2024 (in NPR)**



Among MSMEs respondents in the agriculture value chain who experienced economic losses from climate-related disasters over the past three years, the average insurance coverage size was approximately NPR 440,000 (c. \$3,000) – about 58 percent of the reported loss. Notably, 42 percent of reported losses were ineligible for claims. Ineligibility stemmed from several factors, including lack of proper documentation at the time of filing the claim, limited understanding of what the policy actually covered, and disputes where insurers claimed that losses reported were exaggerated or false.

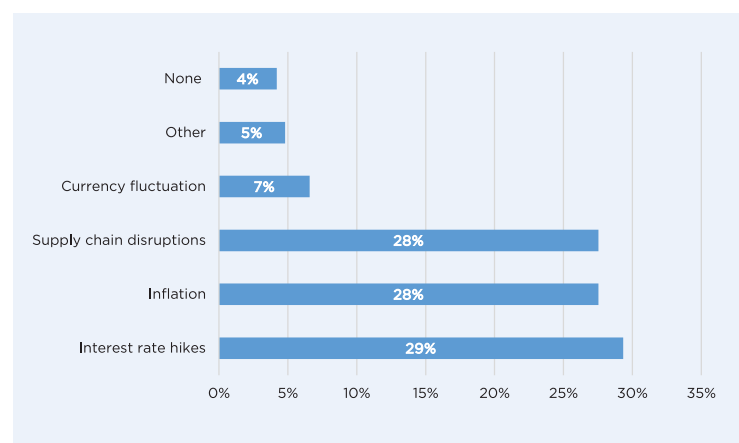
## Economic and business risks

A veterinary service provider from Madhesh highlighted a combination of supply chain disruptions, rising interest rates and inflation as major risks affecting business continuity. The provider reported frequent shortages of essential inputs, such as injections and medicines, alongside constantly increasing prices for available supplies. Together, these factors created significant operational challenges: disruptions in supply prevented timely delivery of services, increased input costs reduced profit margins, and borrowing capital to maintain operations became more difficult due to higher interest rates.

The average claim amount received by MSMEs was approximately NPR 230,000 (c. \$1,600), representing about 60 percent of the amount they initially claimed. This indicates that MSMEs often receive less compensation than their actual losses. Many respondents described the claims process as extremely cumbersome, noting that claims are rarely settled in full. These supply-side constraints contribute to making insurance less attractive and desirable for MSMEs.

Agriculture MSMEs in Nepal are increasingly constrained by overlapping macroeconomic pressures, localized shocks and sector-specific risks that weaken their resilience.

**Figure 10: Economic shocks faced by MSMEs, by frequency of reports – agriculture value chain**



The most widespread shocks come from interest rate hikes, inflation and supply chain disruptions, which nearly all respondents reported. Currency fluctuations follow as the next most significant challenge, with exchange rate volatility directly affecting MSMEs dependent on imported inputs or short-term credit. While a



small number of MSMEs reported no major economic shocks, others described one-off disruptions, such as seed dependency and sudden price ceilings, highlighting the unpredictability of localized policy risks. These varied experiences emphasize the need for flexible and customizable insurance products, such as parametric instruments or commercial package policies, that can be rapidly adapted when novel risks emerge (Andriess, 2025; OECD, 2021).

Exposure within the value chain is uneven. Input-intensive actors, such as retailers of agri-equipment, processors of fruits and poultry, and aggregators of meat and dairy, face heightened vulnerability because they rely on imports and short-term financing, making them especially sensitive to currency swings and credit tightening. Producers and smaller retailers, in contrast, struggle more with logistics challenges and fluctuations in consumer demand, which further restrict margins.

Regional constraints add another layer of risk. In remote provinces such as Karnali and Koshi, poor road connectivity raises transport costs, delays delivery and increases post-harvest losses. Inadequate storage facilities worsen spoilage risks for perishable products, while frequent electricity outages undermine production reliability (World Bank, 2019). Limited access to finance is also a major barrier. Many rural areas lack bank branches, making it difficult to open accounts or secure loans. Even where banks are present, restrictive collateral requirements and low financial literacy exclude many MSMEs from formal channels. For example, aggregators in Ilam explicitly cited a lack of banking facilities as a key obstacle to growth.

Finally, disease outbreaks are a critical economic threat. Livestock-related diseases such as lumpy skin disease, avian influenza (bird flu) and swine flu repeatedly disrupt production cycles, leading to mortality, reduced productivity and sharp revenue declines. These outbreaks not only affect producers but also depress consumer demand due to safety concerns, directly harming processors and retailers. The impacts extend beyond primary production: feed suppliers, veterinary services and transporters also experience losses. Because the recurrence of such diseases is uncertain, MSMEs hesitate to make long-term investments or borrow for expansion, further reinforcing the volatility created by inflation, currency shocks and supply chain fragility.<sup>12</sup>

## **Insurable and non-insurable risks in the agriculture value chain**

Agriculture MSMEs in Nepal face a wide range of risks, which can be divided into insurable and non-insurable categories. While insurable risks can be addressed through formal products, non-insurable risks require behavioural changes, better practices and external support.

Insurable risks include natural disasters, livestock and plant health issues, asset-related damages, stock and inventory spoilage, credit defaults, business interruptions and staff

<sup>12</sup> An overview of the primary economic and business risk signals from all seven provinces is provided in table A4 in Annex 1. Table A5 in Annex 1 breaks down the key risk signals observed across the five components of the agriculture MSMEs in Nepal.

health concerns. Natural disasters such as floods, storms, earthquakes and heavy rainfall frequently disrupt infrastructure and sales, calling for products such as weather index insurance, multi-peril crop insurance and disaster risk insurance. Health-related coverage for livestock, aquaculture and beekeeping is critical, given recurring problems like lumpy skin disease, mastitis, fish poisoning and bee diseases. Asset-related risks are equally significant: machinery breakdown, equipment loss, fire, theft and perishability caused by power outages demand solutions such as asset insurance, fire and theft coverage and refrigeration breakdown insurance. Stock management risks, including overstocking and spoilage, can be mitigated with stock, cold chain and warehouse insurance. Financial exposures, such as loan defaults and delayed payments, remain mostly uninsured due to the absence of credit guarantee schemes, while business interruption insurance is typically limited to narrowly defined causes like strikes. Staff-related risks, including illness and workplace injuries, can be addressed through group health and disability insurance. However, uptake of all these products remains low, and MSMEs express a need for bundled packages that combine multiple covers, for example pairing livestock insurance with weather index products, to match the sector's dependence on climate and seasonality.

Non-insurable risks remain deeply embedded in the sector. Market challenges include weak sales, price volatility, limited local access and competition from India, which can only be managed through cooperatives, digital platforms and product diversification. Infrastructure deficits are widespread: poor road connectivity, unreliable electricity, inadequate storage and water scarcity increase costs and losses, highlighting the need for cold storage, solar power and public investment. Governance-related challenges include regulatory barriers and difficulties in accessing subsidies, which require policy advocacy and stronger engagement with municipalities. Labour risks, such as shortages of skilled workers, youth outmigration and seasonal gaps, can be addressed through skills training, mechanization and shared equipment models. Knowledge gaps are equally pressing: limited veterinary expertise, outdated machinery and poor diagnostics demand training programmes, awareness campaigns and procurement of modern equipment. Financial challenges linked to irregular cash flows emphasize the importance of group lending and digital payment systems. Finally, cultural barriers persist, such as reliance on traditional healers and misinformation about modern practices, which need to be combated with awareness efforts delivered by local influencers and peer networks.<sup>13</sup>

## Barriers to insurance adoption across the agriculture value chain

Agriculture MSMEs face multiple barriers that prevent the widespread adoption of insurance. These challenges, related to awareness, trust, product design and distribution, overlap and reinforce each other, leaving rural producers particularly excluded from coverage despite being the most vulnerable to shocks.

Awareness and trust remain central obstacles. Farmers in rural areas often have little knowledge of insurance and consistently rate it poorly, showing the urgent need for education campaigns. Trust in the claims process and in digital accessibility is especially low. Farmers believe that claims are difficult to file, that the verification process is lengthy and

<sup>13</sup> Tables A6 and A7 in Annex 1 highlight the categories of insurable and non-insurable risks and suggested mitigation strategies.

that outcomes are uncertain. For example, Bhattarai (2024) found that farmers frequently cite as major deterrents the requirement of immediately notifying insurers after damage, undergoing multiple rounds of verification and waiting until harvest to assess yield loss. Such procedures reinforce the perception that insurance works against the farmer rather than for them.

Coverage and complexity further limit adoption. Farmers repeatedly report that existing insurance products do not match the risks they face, creating a gap between expectations and actual coverage. Even when government subsidies are available and awareness of them is relatively high, they do not offset the perception that insurance products are incomplete or ineffective. Digital tools, such as services provided through eSewa, GeoKrishi, Khalti or Ncell, have been introduced to expand access, but penetration remains uneven. For example, one study reported “poor internet connection” and “complexity in using mobile applications” as major barriers to accessing insurance and subsidy information digitally (Tiwari et al., 2024). Policies are also seen as highly complex because of their technical language, fine print and paperwork requirements, which make them difficult for smallholder farmers to interpret.

Distribution challenges present another major constraint. Insurance companies are reluctant to expand into rural areas because administrative costs are high and premiums from smallholder farmers are too low to justify local offices or field agents. Without government support (such as subsidies for outreach, reinsurance or cost-sharing arrangements), insurers face little incentive to build rural delivery networks. This leaves farmers in geographically dispersed areas without any meaningful access to insurance, even though they are the most exposed to climate shocks, natural disasters and price volatility. Key informant interviews with service providers indicated that lack of distribution channels is among the most significant barriers: it magnifies all other challenges by making coverage inaccessible at the last mile.<sup>14</sup>

## Misconceptions, learning needs and coping mechanisms

Misconceptions about insurance are common among agriculture MSMEs in Nepal. As a result, they rely on a combination of formal and informal coping mechanisms and continue to exhibit learning gaps that prevent them from fully leveraging financial risk protection.

In agriculture, misconceptions centre not on the idea of insurance itself but on its perceived accessibility and fairness. Many producers and retailers believe that insurance compensates only for total losses, not for partial or incremental damages. Others argue that claims are honoured only in fraudulent or politicized cases, taking a view that honesty is penalized while dishonesty is rewarded. Smallholder farmers often internalize the notion that they are “too small to insure”, perceiving both themselves and their businesses as outside the scope of formal coverage. Perhaps most damaging is the widespread belief that claim processes are intentionally complex, designed to exhaust claimants rather than support them. Aggregators and wholesalers frequently describe insurers as acting more like tax collectors than risk partners. To counter these perceptions, NIA has begun prior-

<sup>14</sup> Table A8 in Annex 1 highlights the common barriers to insurance that exist across the agriculture value chain.

itizing insurance literacy, aiming to show businesses how insurance actually works, what documents are required and what protections are realistically available.

Despite some progress, knowledge gaps remain a central challenge in the agriculture sector. Many MSMEs remain unclear about the types of insurance products available, the specific events that trigger payouts and the ways in which subsidies interact with coverage. Farmers often conflate livestock, crop and weather index insurance into a single idea, leading to misconceptions about eligibility and protection. A common misunderstanding is that only complete crop failure qualifies for compensation, which discourages enrolment. Even those with coverage frequently lack clarity on how to initiate claims and on the kind of supporting documentation needed. The use of technical language in policies, limited local engagement by insurers and weak communication channels reinforce suspicion and indifference. In many provinces, the insurance process is described as overly technical, disconnected from day-to-day farming and inaccessible to smallholder farmers. Stories of delayed settlements or partial payouts spread quickly within communities, deepening mistrust and perpetuating reluctance. As a result, a persistent learning divide remains, preventing MSMEs from making informed decisions about whether insurance is appropriate or beneficial for their operations.

In practice, agriculture MSMEs rely on a mix of structured and ad hoc strategies to manage shocks. Formal coping mechanisms include livestock and crop insurance, and in some cases, the adoption of collective arrangements. For instance, a group of small agricultural retailers in Gandaki province pool resources to purchase insurance through their Baazar collective, demonstrating that cooperative approaches can overcome individual barriers. However, such examples remain rare.

Informal mechanisms are far more widespread: rotating savings groups such as Dhukuti, barter systems and community-based loans allow smallholder farmers to bridge liquidity gaps when shocks occur. Cooperatives also play a crucial role, enabling members to share machinery, pool labour or collectively negotiate better input prices, as seen in Karnali, where fruit retailers reported maintaining operations during frequent power outages by sharing equipment through their cooperative. Other informal strategies include reducing stock levels to minimize spoilage, keeping only minimal inventories, reinvesting profits into business resilience, relying on family labour or adopting low-cost protective measures such as CCTV cameras, reinforced locks and in one case, dogs used as theft deterrents.

Government programmes add another layer of coping. A dairy enterprise in Lumbini reported that input subsidies were a “lifeline”, helping to offset the costs of power outages and milk spoilage during storms. Similarly, a poultry business in Bagmati benefited from a government relief scheme for losses caused by bird flu, though the bureaucratic process was described as lengthy and burdensome. These measures illustrate that while coping strategies exist, they are fragmented and unevenly distributed.<sup>15</sup>

## Gaps in policy coverage for risks faced by agriculture MSMEs

Agriculture MSMEs face persistent mismatches between the insurance products available to them and the diverse risks they encounter. For example, current coverage excludes

<sup>15</sup> Tables A10 and A11 in Annex 1 categorize the above coping mechanisms as formal and informal. Table A12 summarizes them.

common non-lethal conditions, such as reduced milk yield, leaving farmers without support for recurring productivity shocks. Losses from spoilage, expiry and inadequate storage of perishable goods such as fruits, vegetables, seeds and fertilizers are also frequent but uninsured, in spite of their importance in sustaining agricultural livelihoods.

In aquaculture and apiculture, the problem is even more pronounced. Fish farmers report the near absence of dedicated coverage, with unclear terms on routine threats like water pollution and environmental hazards. Beekeepers face similar neglect; mobile beekeeping practices and the protection of hives, equipment and honey stocks are excluded, leaving entire investments at risk of collapse in places like Ilam. These gaps extend across equipment and infrastructure more broadly: machinery, vehicles, fridges, plant tunnels and cold storage are critical to production but remain vulnerable to accidents, theft and natural disasters without adequate insurance.

Crop insurance, too, remains narrow in scope, particularly for post-harvest and storage losses that occur frequently but are almost never covered.<sup>16</sup> Where pilot schemes exist, lengthy paperwork and technical documentation requirements discourage participation. For many farmers, the appeal lies in accessible and unified products that cover the entire operation – from stock and equipment to human capital and environmental hazards – rather than fragmented policies that address one risk at a time.

Vegetable farmers operating in greenhouses or managing highly perishable produce report that current insurance products fail to account for temperature control breakdowns or short-haul spoilage during transport, especially in hubs like Butwal and Dhangadhi. Weather index instruments can also undermine confidence, as modelled triggers rarely reflect localized realities, producing payout gaps that leave farmers uncompensated. Current offerings do not capture these interconnected risks, from climate disasters and biological outbreaks to transport and storage losses.

Equally important is the neglect of financial vulnerabilities. While physical asset losses receive some attention, risks such as trade credit defaults are overlooked, despite their centrality to agricultural markets. A Madhesh-based agro-processor explained that most of their transactions are credit-based, with frequent defaults disrupting cash flow and threatening business survival. In such contexts, the lack of coverage for delayed or failed payments represents one of the most disruptive and unaddressed threats faced by MSMEs.

These exclusions are symptomatic of a deeper structural tension. Insurers prioritize products that pool risk at scale, yet Nepal's fragmented geographies and diverse exposures demand localized solutions. The result is either generic policies that fail to provide meaningful value or niche schemes too costly to sustain. Distribution challenges exacerbate this

<sup>16</sup> One relevant experience is the pilot programme in Morang District led by UNCDF in cooperation with Jeevan Bikas Laghubitta Bittiya Sanstha and Pula, in which an area yield index insurance product was co-designed with local cooperatives, insurers and the regulator. The programme combined technical assistance, farmer training and premium subsidies to reach 15,380 smallholder farmers, primarily in rural and disaster-vulnerable areas (UNCDF, 2023). Another case is the index-based flood insurance project in western Nepal, managed by Practical Action in partnership with Shikhar Insurance and cooperatives/MFIs, which used cooperatives as institutional policyholders and distribution agents to forward payouts to households, demonstrating the role of co-creation, simplified index triggers and local cooperative involvement in claims and distribution (InsuResilience Global Partnership, 2022).

<sup>17</sup> Table A13 in Annex 1 illustrates specific product-related gaps as identified during the interaction with agriculture MSMEs, along with suggested interventions and improvements. Further risks and mitigation strategies are presented in table A2 in Annex 1.

gap, as rural farmers remain beyond the reach of traditional networks. These constraints illustrate the importance of mobile and internet-based delivery channels, which can reduce administrative costs, expand outreach and streamline claims in underserved areas.<sup>17</sup>

## Business case for insurance providers

The agricultural sector faces a diverse set of risks, many of which remain uninsured. From perishables and equipment damage to climate volatility and market shocks, current offerings fall short. This presents a strategic opportunity for insurers to deliver tailored solutions that match the realities of rural producers and agri-businesses. In designing these products, insurers should bear in mind the following points:

### 1. Demand for stock and inventory protection is strong.

Farmers and agribusinesses regularly incur losses from spoilage, expiry and poor storage of fruits, vegetables, seeds and fertilizers. Stock insurance is needed to cover both storage and shelf-life, especially during supply chain disruptions or seasonal gluts when perishables are most vulnerable.

### 2. Significant coverage gaps exist in relation to equipment and infrastructure.

Agricultural operations depend heavily on machinery, transport vehicles and cold storage, which face risks from fire, theft, accidents and natural disasters. However, coverage remains limited. Bundled products that insure equipment, vehicle transit and critical infrastructure like fridges, warehouses and plant tunnels would fill a pressing gap in the sector.

### 3. MSMEs need protection against overlapping risks in emerging and underinsured risk categories.

Agriculture is increasingly shaped by evolving risks, including:

- Climate shocks like floods, landslides and droughts
- Technological risks tied to automation and digitalization
- Biological risks such as crop disease and livestock epidemics
- Transport and storage losses, especially for perishables and live products
- Market price shocks, driven by trade policies or seasonal demand
- Trade credit default, given the reliance on credit-based transactions.

Products that address these overlapping risks – such as parametric insurance models or non-life coverage – are in growing demand.

### 4. MSMEs prefer simplified and comprehensive packages.

Producers often favour integrated solutions over fragmented policies. The ideal insurance package would combine coverage for stock, equipment, labour and environmental risks in one offering. There is also demand for products that provide real-value payouts, avoiding restrictive claims criteria that undermine trust.

### 5. Digital distribution channels need to be expanded.

Distribution remains a major barrier to rural insurance adoption. High administrative costs and low uptake discourage companies from expanding physical networks. Mobile-based platforms and internet services present a solution, enabling wider outreach, streamlined claims and cost-effective distribution across rural and semi-urban areas.

# PART 6

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## FINDINGS AND ANALYSIS: THE TOURISM VALUE CHAIN

Tourism is a vital sector for Nepal, contributing significantly to GDP, employment and investment. In FY 2022/23, it contributed 1.1 percent to GDP and generated \$548 million in earnings, with tourists spending an average of \$41 per day (Nepal, Ministry of Culture, Tourism and Civil Aviation, 2024). Tourism also accounted for 33.5 percent of total merchandise exports and 3.4 percent of foreign exchange earnings, underlining its role as a key source of foreign exchange (Nepal, Ministry of Culture, Tourism and Civil Aviation, 2024). The sector attracts substantial investment: the Investment Board of Nepal reports that, as of mid-March 2023, 21.9 percent of registered industries were tourism-related, and 33 percent of foreign direct investment (FDI) flowed into the sector (Nepal, Investment Board Nepal, 2024). Equally important is its role in job creation: tourism is Nepal's fourth-largest employer, providing work to 371,140 people (11.5 percent of the industrial workforce), of which the largest concentration of personnel (43.6 percent) is located in Bagmati Province, including the Kathmandu Valley (Prasain, 2021). With 134,832 establishments nationwide, spanning hotels, travel agencies and trekking services, tourism not only sustains livelihoods but also capitalizes on Nepal's natural beauty and cultural heritage to drive inclusive economic growth.

This chapter draws on key informant interviews, surveys and focus group discussions with industry stakeholders and MSMEs owners in the tourism value chain in all seven of Nepal's provinces. It describes key risks, coping mechanisms and barriers to insurance for MSMEs in the tourism value chain, and presents a business case for insurers that identifies business opportunities that could achieve greater financial resilience for sector actors, while furthering the country's development priorities.

### Sector risk profile

The tourism value chain faces overlapping challenges that combine climate, operational, financial and regulatory risks. Coping strategies and insurance uptake remain limited, leaving businesses vulnerable. Common risk themes include shortages of skilled labour, rising operational costs, supply chain disruptions due to inadequate infrastructure, unfavourable tourism policies and frequent accidents that negatively affect tourist perceptions. Additionally, many actors within the tourism value chain continue to feel the lingering impacts of the COVID-19 pandemic, which severely disrupted the sector by halting both international and domestic mobility and significantly impairing business operations. Climate-related risks, such as floods and landslides, also affect tourism MSMEs, particularly through indirect consequences.

The primary actors in the tourism value chain are suppliers, travel wholesalers, inbound tour operators, outbound tour operators and travel agents. Each component within the tourism value chain is susceptible to specific risks. Raw materials, which are foundational to hospitality and tourism services (for example, food, construction materials for infrastructure and cultural artifacts), face risks related to supply chain disruptions, quality degradation and price volatility (Ashley and Mitchell, 2008). The distribution and logistics sector is vulnerable to transportation delays, infrastructure failures and regulatory barriers, which can severely impact service timelines and overall tourist satisfaction (Koirala, Bhattarai and Singh, 2024). Service delivery, including customer service, food services



and accommodation, is exposed to operational risks such as health hazards, employee turnover, cybersecurity threats in booking systems and natural disasters affecting tourist activities (Suman, 2020). Lastly, waste management, which is crucial in maintaining the environmental sustainability of tourist destinations, faces risks related to regulatory compliance, waste disposal inefficiencies and environmental degradation that can deter tourism inflows (Sharma, 2024).

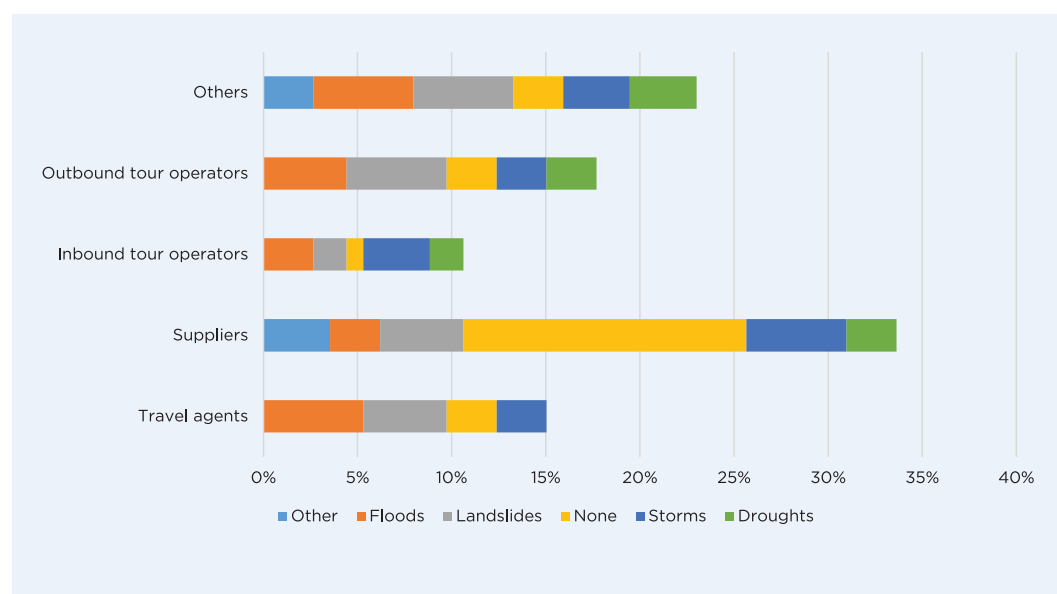
## Climate risks

A travel agency operator in Gandaki highlighted the significant impact of climate variability on tourism operations. Both domestic and international tourists have been affected by frequent flight cancellations and delays due to unpredictable weather, erratic monsoon patterns and off-season rainfall disrupting travel plans. These disruptions not only reduced immediate revenue from bookings but also damaged the agency's reputation and client trust, leading to longer-term business risks. Additionally, extreme weather events affected the demand for tourism services, such as guided treks, boating activities and accommodation facilities, further reducing revenues.

Tourism-related MSMEs in Nepal face a different impact profile from agricultural businesses, even though the primary climate hazards – floods, landslides and storms – are largely the same. For tourism, these sudden-onset events primarily disrupt mobility, service delivery and customer safety, affecting bookings, transportation and on-site activities. While agriculture suffers physical losses to crops and livestock, tourism is more vulnerable to operational interruptions and reputational damage, which can have cascading effects on revenue and client trust. Key features for this risk profile include:

- Itinerary disruptions due to weather and climate-induced access problems for tour operators.
- Logistical bottlenecks during extreme weather events for tourism suppliers in remote areas.
- Frequent cancellations of flights, tour packages and activities; reputational risks; and physical and infrastructure damage.

Over the past three years, the tourism sector has become increasingly vulnerable to climate-related hazards such as floods, landslides, storms and rising temperatures. These events have intermittently disrupted access to key tourism sites and services across multiple provinces, exposing critical weaknesses in infrastructure and transportation and reducing the seasonal flow of visitors. Although the severity of climate risks varies by region and type of business, the cumulative impact has been a decline in visitor numbers, reduced revenue stability and heightened uncertainty – ultimately limiting the capacity of tourism MSMEs to invest, adapt and grow.

**Figure 11: Climate risks reported by respondents, 2022–2024, by most frequently cited**

Within the tourism sector, floods and landslides are the most frequently reported climate-related risks. Landslides accounted for 21 percent of reported disasters, followed closely by floods at 20 percent, storms at 18 percent and droughts at 11 percent. Other risks, such as erratic weather patterns, were cited by 6 percent of respondents. Notably, 24 percent of respondents reported no risk, illustrating the geographical variations in the impact of climate change.

## Value chain-level risk patterns

A mountain biking adventure tourism provider in Gandaki noted growing challenges caused by climate-related hazards, particularly landslides triggered by intense rainfall. These events frequently block key cycling trails and access roads, forcing the operator to cancel or postpone pre-booked tour packages, often at short notice. Such disruptions not only lead to immediate revenue losses but also generate additional costs from refund requests, rescheduling logistics and compensation for affected customers.

**Table 5: Value chain-level risk patterns: tourism**

| Component               | Climate risks                                                                                   | Economic implications                                                    |
|-------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Inbound tour operators  | Event cancellations from floods, storms, landslides; reliance on infrastructure                 | Lost bookings, refunds, reputational damage, weaker international trust  |
| Outbound tour operators | Similar to risks for inbound operators; sensitive to travel advisories and global climate image | Fewer forward bookings; client shift to competitors (e.g. Bhutan, India) |

| Component                                    | Climate risks                                              | Economic implications                                                    |
|----------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------------------|
| Travel agents                                | Disruptions from weather volatility, road/airport closures | Revenue swings, staff strain, reputational pressure                      |
| Local suppliers (lodging, transport, guides) | Direct physical impacts from floods, storms, landslides    | Infrastructure damage, liquidity shortages, staff and supply constraints |
| Wholesalers                                  | Indirect exposure via partner disruptions                  | Portfolio instability, risk of contract breaches                         |

The tourism value chain faces multiple climate-related risks across different components of the value chain. Inbound tour operators are exposed to floods, storms and landslides that lead to event cancellations, lost bookings, reputational damage, legal refund obligations and diminished international trust. Outbound tour operators face similar threats, with added sensitivity to travel advisories and global perceptions of Nepal's climate risk, leading to reduced forward bookings and customer shifts to regional competitors like Bhutan and India. Travel agents are directly affected by weather disruptions to transport infrastructure, causing them to have to manage client grievances and absorb revenue volatility, staff strain and reputational pressures. Local suppliers – including accommodation providers, transport providers and guides – bear the brunt of physical disruptions, suffering infrastructure damage, cash flow shortages, staffing challenges and supply constraints. Travel wholesalers, while somewhat insulated, remain exposed to instability across their supplier networks, risking portfolio losses and breaches in service agreements.<sup>18</sup>

Within the tourism value chain, findings from MSMEs surveyed indicate that handicraft producers, agri-integrated tourism businesses and homestays are the most affected by climate risks (excluding those who reported no exposure). These segments accounted for 20 percent of all climate-related risks reported in the sample. Suppliers, including hotels and restaurants, were similar, accounting for 19 percent of reported risks. Outbound tour operators followed, at 15 percent, while travel agents and inbound tour operators made up 12 percent and 10 percent of total risks, respectively.

These proportions reflect the varying degrees of climate vulnerability across different segments of the tourism value chain. Handicraft producers, agri-integrated businesses and homestays are typically smaller, resource-constrained enterprises that depend heavily on consistent tourist flows and are less equipped to absorb disruptions from climate hazards such as floods, landslides and storms. In contrast, hotels, restaurants and larger operators often have better financial buffers and contingency plans, which partially explains their lower reported exposure, despite their economic importance. Similarly, outbound tour operators reported higher levels of climate-related risks (15%) than inbound operators (12%) and travel agents (10%). This is partly because outbound operators depend on a broader set of domestic transport links, documentation processes and customer-facing services, all of which become more vulnerable to delays, cancellations and logistical breakdowns during climate-related disruptions.

<sup>18</sup> Table A14 in Annex 1 provides a detailed collection of risks across the tourism value chain, together with their economic implications.

## Province-level risk patterns

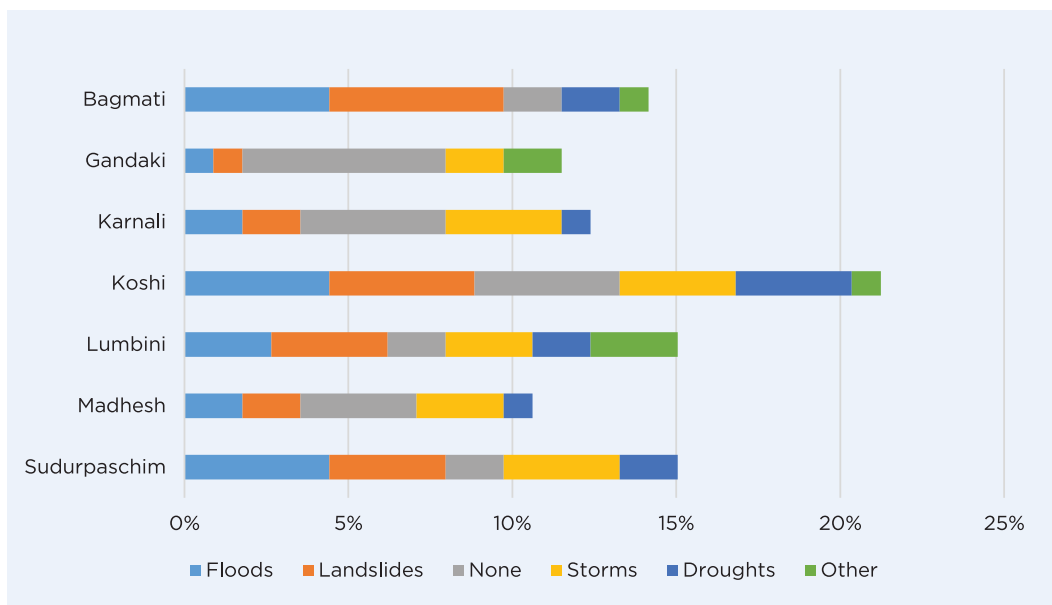
Tourism MSMEs across Nepal face geographically diverse climate hazards that affect destination safety, accessibility and the overall visitor experience. These risks threaten business continuity, compromise infrastructure reliability and undermine the long-term viability of enterprises in climate-sensitive regions.

In Lumbini (Butwal) and Sudurpashchim (Dhangadhi), frequent flooding and landslides damage transportation networks and cultural or natural attractions, leading to reduced tourist footfall. Additionally, the growing frequency of heatwaves in the lowland Terai negatively affects seasonal tourism flows. In Gandaki (Pokhara) and Karnali (Surkhet), compounding risks from floods, storms and landslides are common. Pokhara, as a major tourism hub, is especially vulnerable to reputational damage when natural disasters disrupt services or deter visitors.

Koshi (Ilam) is increasingly affected by erratic weather patterns, including both flooding and dry spells, which restrict access to scenic and ecotourism sites and reduce service reliability. In Bagmati (Hetauda), while climate risks are relatively moderate, recurring storms and floods still disrupt infrastructure, local mobility and outdoor tourism activities. Madhesh (Janakpur) experiences fewer major hazards; however, rising temperatures and periodic droughts may indirectly affect tourism by making the region less appealing during certain times of the year.

These climate-related hazards disrupt business continuity and force operators to adapt through measures such as seasonal closures, stockpiling, backup logistics and location diversification.<sup>19</sup> It is important to note that tourism MSMEs across Nepal face uneven vulnerabilities depending on their location. A uniform approach to risk management or insurance may not adequately capture these differences.

**Figure 12: Province-level climate risk pattern: tourism value chain**



<sup>19</sup> Table A14 in Annex 1 summarizes and illustrates these risks, mitigation practices and suggested insurance solutions.

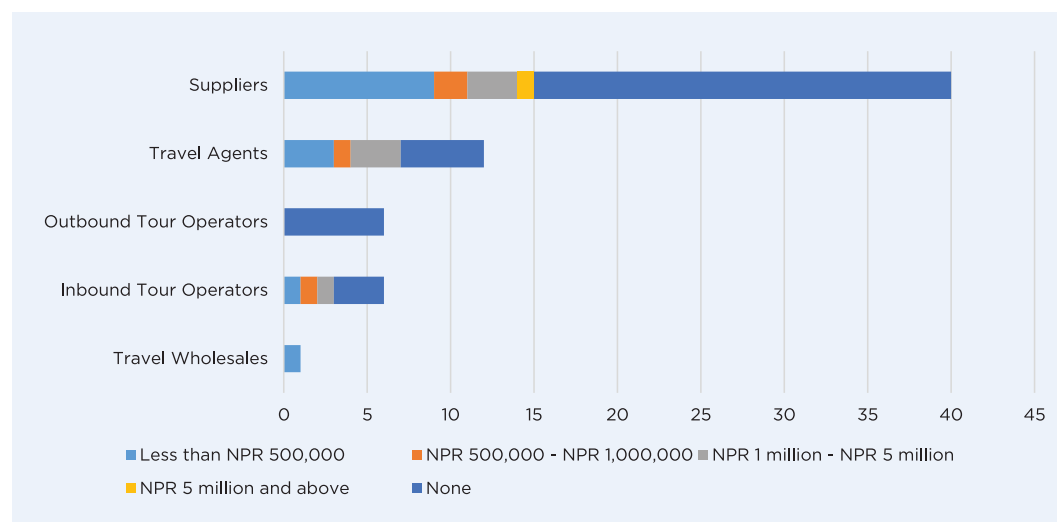
**Table 6: Risks, mitigation practices and suggested insurance solutions in the tourism value chain across provinces**

| City (province)                  | Main risks                                                                                | Current practices                                                                | Suggested insurance solutions                                                                 |
|----------------------------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Butwal (Lumbini)</b>          | Floods, storms, theft/riots, guest defaults, curfews, COVID-19 costs                      | Diversification to other cities, group discounts, customer service improvements  | Property and liability cover, theft/riot/terrorism cover, business interruption cover         |
| <b>Dhangadhi (Sudurpashchim)</b> | Floods, landslides, storms, accidents, high costs, COVID-19, cross-border permit barriers | Seasonal closures, informal coping, basic savings                                | Bundled cover: floods, fire, theft, accidents, business interruption, cross-border            |
| <b>Hetauda (Bagmati)</b>         | Floods, credit constraints, staff shortages, small market, ticketing errors               | Digital ticketing, family resources, service adjustments                         | Business interruption insurance, credit insurance, utility disruption cover                   |
| <b>Ilam (Koshi)</b>              | Staff shortages, low tourist inflow, floods, volatility, road accidents, policy limits    | Local/part-time hiring, stockpiling, backup transport, training                  | Product/infrastructure cover, accident and liability insurance, price volatility insurance    |
| <b>Janakpur (Madhesh)</b>        | Floods, drought, staff shortages, animal disease, strikes, credit defaults, curfews       | Local hiring, staff rotation, cold storage, regulation advocacy                  | Crop/livestock/dairy insurance, property and riot cover, credit default cover                 |
| <b>Pokhara (Gandaki)</b>         | Floods, storms, climate uncertainty, COVID-19, tourist illness, high rents                | Focus on domestic tourism, seasonal scaling, digital presence                    | Health/accident cover, trip cancellation cover, weather indexed business cover                |
| <b>Surkhet (Karnali)</b>         | Floods, drought, poor roads, power shortages, COVID-19, supply shocks                     | Scaling down in risky periods, staff training, family labour, personal insurance | Vehicle/transport cover, weather index (flood/drought) insurance, business interruption cover |

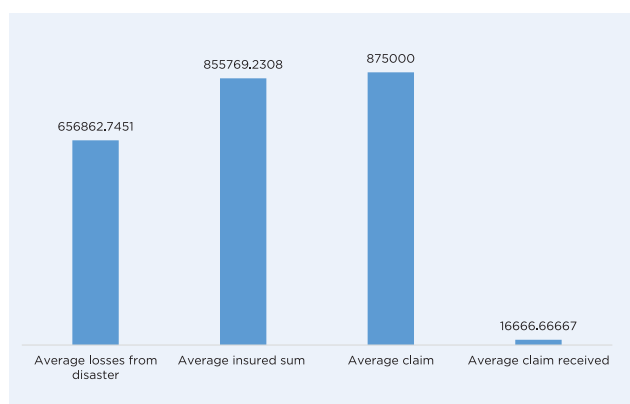
## Economic costs of climate-related disasters: tourism

The majority of tourism MSMEs (49 percent) in the sample reported no disaster-related losses, while the remaining 51 percent experienced varying degrees of financial impact, ranging from minor to severe. Among those that reported losses, the most common loss ranges were below NPR 500,000 (c. \$3,500; 24 percent) and between NPR 1 million and NPR 5 million (c. \$7,000–\$35,000; 14 percent), reflecting notable economic vulnerability within the sector. The average loss reported by MSMEs in the tourism value chain was approximately NPR 650,000 (c. \$4,550). While this figure points to moderate losses at an aggregate level, it can be inferred that smaller firms are disproportionately affected, since even relatively modest absolute losses can pose severe challenges to their survival.

In the tourism value chain, 57 percent of MSMEs reported having some form of business insurance. Interestingly, the average insured sum among tourism MSMEs was NPR 850,000 (c. \$5,950) – higher than the average reported loss. This discrepancy may re-

**Figure 13: Disaster-related losses in the tourism value chain, 2022–2024**

flect overreporting of coverage by respondents or, alternatively, could suggest that tourism MSMEs tend to insure more than just fixed business assets. In many cases, coverage

**Figure 14: Average disaster-related losses, insurance coverage and claim realization reported in tourism value chain, 2022–2024 (in NPR)**

may also include staff health, vehicles and other operational risks, contributing to a higher overall insured value.

The average claim success rate among actors in the tourism value chain was notably low. Insurance companies reported that many claims were made on insurance products that did not actually cover the type of loss incurred. Limited awareness of policy terms and conditions, combined with complex or lengthy claims procedures and a lack of proper documentation

further contributed to unsuccessful outcomes. As a result, even when firms held insurance, the protection it offered in practice was minimal.

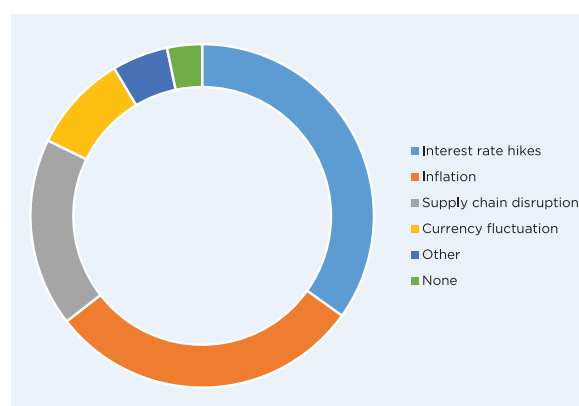
## Economic and business risks

When the COVID-19 pandemic forced Nepal into lockdown, the flow of visitors to Ilam came to a halt. For Tima Hotel and Ilam Koseli Ghar, a family-run souvenir shop, this meant an immediate drop in customers. Their business, which depended largely on travellers purchasing local crafts and tea, was disrupted almost overnight. With hotel rooms vacant and souvenirs unsold, the family had to rely on personal savings and occasional support from relatives to get through the shutdown, while waiting for tourism to slowly recover.

Tourism MSMEs in Nepal operate under persistent financial strain caused by revenue volatility, rising costs and external shocks, with risks compounded by the sector's dependence on services and cross-border flows.

The most common pressures stem from inflation, rising interest rates and currency fluctuations. Even small operators such as travel agents are vulnerable to debt burdens through microfinance loans or informal borrowing. For hotels and food suppliers, inflation is particularly damaging: rising input costs are difficult to pass on because of rigid pricing expectations shaped by tourist contracts or demand sensitivity. In some cases, MSMEs reported no risks; however, this often reflects informality and lack of financial tracking rather than true immunity to shocks.

**Figure 15: Economic shocks faced by MSMEs, by frequency of reports – tourism value chain**

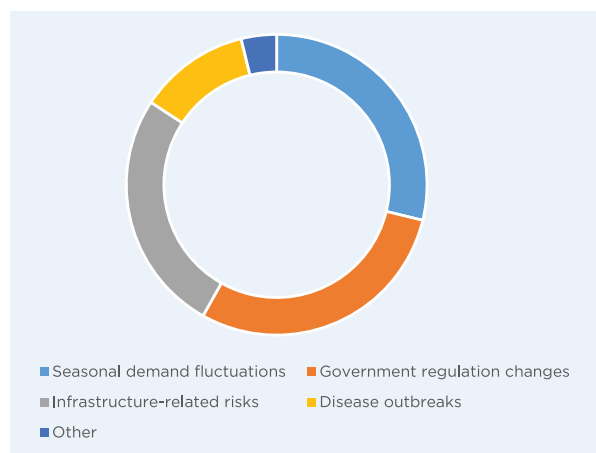


Different value chain actors in the tourism sector face different pressures. Hotels and wholesalers report financing challenges and exchange rate volatility. Tour operators and travel agents are exposed to sharp fluctuations in demand, often triggered by international shocks. Local suppliers, including accommodation providers, transport services and guides, are especially affected by disruptions such as floods, road closures and political unrest. For instance, in 2024/25, floods and landslides blocked the Prithvi Highway – Nepal's main route to Pokhara – during peak tourist season, causing cancellations and reducing both domestic and international arrivals (MyRepublica, 2025). Similarly, political unrest has at times restricted mobility at the Birgunj-Raxaul and Sonauli border crossings, disrupting travel and forcing hotels and tour operators to cancel bookings (Times of India, 2025).

Provincial variations mirror these patterns. In Bagmati, hotel and food services are squeezed by input price hikes and shifting consumer demand. In Gandaki, international suppliers and operators report severe impacts from financing costs and currency swings. In Karnali, hotels face rising interest rates and inflation, while operators highlight infrastructure breakdowns. In Koshi, hotel suppliers and vehicle rental services face overlapping challenges from currency volatility, infrastructure weaknesses and operational breakdowns. In Lumbini, handicraft producers and hotel suppliers emphasize inflation and borrowing costs. In Madhesh, hotels and travel services feel the pinch of interest rate hikes, though many risks remain underreported due to informality. In Sudurpashchim, travel agents and tour operators struggle with inflation and currency risks.

Sector fragility is further highlighted by systemic shocks. The COVID-19 pandemic abruptly halted activity, leaving hotels, guides, transport providers and souvenir shops without customers for extended periods. Revenues collapsed overnight, exposing the lack of fi-

**Figure 16: Risks in the tourism value chain, by percentage of respondents reporting**



financial buffers and formal safety nets in a sector dependent on seasonal tourist flows. Another shock came with the closure of United States Agency for International Development (USAID) projects in Nepal, which had indirectly sustained parts of the hospitality and transport value chains. Many hotels had relied on workshops, trainings and programmes funded by USAID, while transport services benefited from associated travel. The sudden termination of

these projects eliminated a significant client base almost instantly, underscoring the risks of dependence on a single institutional stream of demand.<sup>20</sup>

## Insurable and non-insurable risks in the tourism value chain

The tourism sector faces a wide range of risks that are, in principle, largely insurable through existing and emerging insurance solutions. Business continuity exposures, such as pandemics, market downturns and credit defaults, can be protected through business interruption, pandemic and credit insurance. Accident, liability and security risks, including theft, tourist harassment, legal liabilities, riots and terrorism, can be covered by comprehensive liability and accident insurance. International operators also face political and cross-border risks arising from regulatory changes or geopolitical instability; these can be insurable through political risk and cross-border commercial policies. Infrastructure disruptions such as power cuts, facility damage and water shortages can be covered by infrastructure and utility failure insurance, while IT and booking system vulnerabilities are increasingly addressed through cyber or IT system support insurance. Human resource risks, such as employee injury, health issues or staff replacement, can be partially insured through employee benefit and replacement insurance products.

However, in the absence of appropriate risk transfer mechanisms, MSMEs in the tourism sector remain highly exposed. Contributing factors include limited awareness, gaps in coverage tailored to MSMEs needs, affordability constraints and administrative complexity, which together push enterprises to absorb risks directly rather than transfer them through insurance.<sup>21</sup>

<sup>20</sup> Table A14 in Annex 1 describes the key risks in the tourism value chain. Table A16 and A17 break down the key risk signals in the tourism sector across provinces and value chain components.

<sup>21</sup> Tables A18 and A19 in Annex 1 explore non-insurable and insurable risks and describe mitigation strategies.



**Table 7: Insurable risks and mitigation strategies – tourism value chain**

| Category                               | Specific risks                                                                                                                      | Mitigation strategies (insurance solutions)                            |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| Business continuity and economic risks | Economic crises, pandemics, market downturns, credit defaults                                                                       | Business interruption insurance, pandemic cover, credit insurance      |
| Accident, liability and security       | Accidents, legal liabilities, theft, riots, terrorism, harassment of tourists                                                       | Accident insurance, liability cover, riot/terrorism insurance          |
| Policy, regulatory and cross-border    | Political instability, legal gaps, cross-border trade limits                                                                        | Political risk insurance, liability cover, cross-border risk insurance |
| Infrastructure and utility             | Power outages (when they cause financial loss or damage), water shortages, supply chain disruptions (when causing claimable losses) | Utility failure insurance, infrastructure damage insurance             |
| Human resource                         | Staff shortages, inability to retain skilled workers, employee health/replacement risks                                             | Employee insurance, staff replacement insurance                        |
| IT and booking systems                 | Online ticketing failures, digital system breakdowns                                                                                | IT/system support insurance                                            |

Non-insurable risks shape the daily functioning of tourism MSMEs and cannot be transferred through formal insurance instruments. These include operational and cost management pressures such as high operating expenses, staff layoffs and low wage capacity, to which MSMEs respond with staff rotation, training and the use of family labour. Policy and regulatory risks, including heavy taxes, administrative hurdles and inconsistent enforcement, require advocacy, arbitration and association engagement rather than insurance. Market and demand risks, such as seasonality, toxic competition and fluctuating tourist inflows, are mitigated through domestic market diversification and customer relationship management. Certain aspects of business continuity, such as donor programme closures or accident costs not covered by insurance, are absorbed through savings, diversification and safety measures. Chronic infrastructure issues such as frequent power shortages and supply bottlenecks are managed with backup generators, controlled stockpiling and quality assurance processes. Finally, security and legal uncertainties, including unclear property rights or harassment incidents, are addressed through relocation strategies, stronger internal safety protocols and collective advocacy.

**Table 8: Non-insurable risks and mitigation strategies – tourism value chain**

| Category                        | Specific risks                                                                  | Mitigation strategies                                                         |
|---------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| Operational and cost management | High operating costs, staff layoffs, low salary capacity                        | Staff training, rotation, cost-cutting, diversification, use of family labour |
| Policy and regulatory           | Policy uncertainty, government restrictions, heavy taxes, documentation hurdles | Advocacy, lobbying, hotel association participation, arbitration mechanisms   |

| Category                                       | Specific risks                                                                                                                  | Mitigation strategies                                                 |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Market and demand                              | Low tourist inflows, seasonality, toxic competition, market erosion                                                             | Customer relationship management, diversification of services/markets |
| Business continuity (not covered by insurance) | Donor programme shutdowns, accident costs borne directly                                                                        | Self-funding reserves, diversification, CCTV/safety training          |
| Infrastructure and supply                      | Power shortages (when routine or no insurable event), supply chain breakdowns (when chronic or systemic), stockpiling pressures | Backup generators, controlled stockpiling, quality assurance          |
| Security and legal                             | Eviction from rented properties, legal gaps                                                                                     | Location diversification, arbitration, stronger advocacy              |

## Barriers to insurance adoption across the tourism value chain

MSMEs in the tourism value chain face different barriers to insurance adoption than those faced by their counterparts in the agriculture value chain. In agriculture, awareness and trust are the biggest barrier, but tourism businesses demonstrate relatively higher familiarity with insurance products, have stronger digital access and describe somewhat more trust in the claims process. However, complexity, distribution challenges and lack of subsidies remain persistent obstacles that discourage wider uptake.

**Table 9: Barriers to insurance across the tourism value chain**

| Value chain component   | Most common insurance barrier | Least common insurance barrier |
|-------------------------|-------------------------------|--------------------------------|
| Travel agents           | Trust issues                  | Subsidy access                 |
| Inbound tour operators  | Complexity                    | Digital access                 |
| Outbound tour operators | Claim process difficulties    | Subsidy access                 |
| Suppliers               | High cost                     | Coverage gaps                  |

Awareness of and trust in insurance are generally greater among tourism MSMEs. Owners often have higher education levels, better access to information and more engagement with the formal financial system than do smallholder farmers. This results in greater understanding of insurance and, in some cases, more positive experiences with claims. Digital access is also stronger, making online platforms effective for expanding outreach. At the same time, respondents consistently called for more comprehensive coverage, given tourism's exposure to climate risks, political unrest and global economic fluctuations.

The complexity of the claims process is the single most important barrier in this sector. Tour operators and wholesalers, in particular, reported difficulties navigating claims, which discouraged them from purchasing insurance at all. Remote operators, such as trekking guides, adventure companies and small hotels in high-altitude areas, face even greater challenges, since accessing an agent or insurance office requires significant travel. Even when businesses are aware of insurance and willing to purchase it, the long and uncertain claims process undermines adoption.

Inadequacies in distribution and subsidies also shape tourism MSMEs' access to insurance. Distribution remains limited outside urban hubs, leaving rural operators without coverage. For example, small hotels and trekking providers in remote areas cannot easily access insurers because business volumes are too low to justify service points. Without supportive frameworks or incentives for insurers, these businesses remain underserved. In addition, unlike in the agriculture value chain, government subsidies are minimal in tourism. The support that does exist is directed mainly toward broader financing needs rather than insurance. Only niche segments, such as ecotourism and agri-tourism, receive targeted support, leaving most of the sector reliant on private insurance.

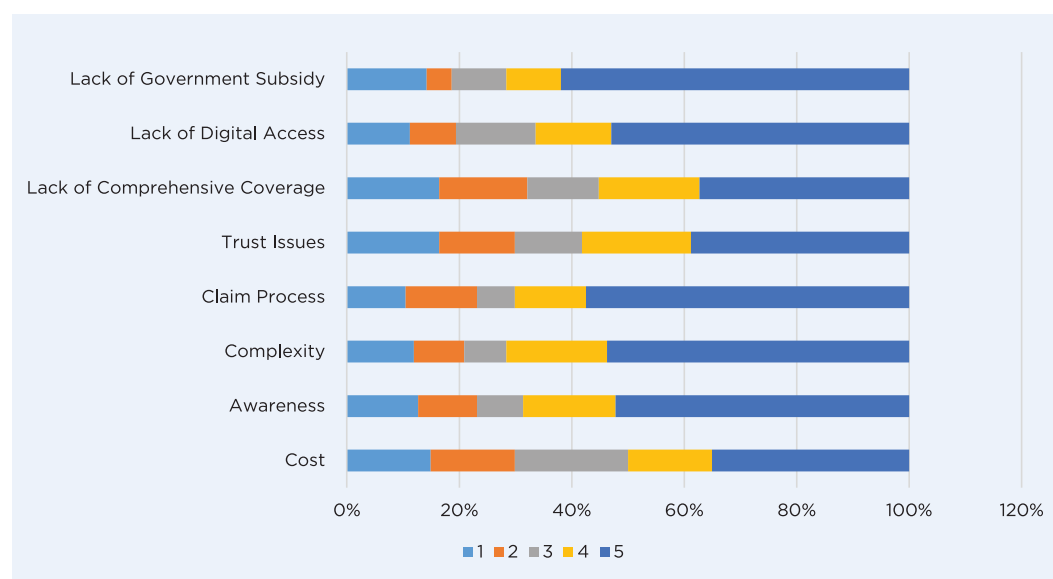
Cost barriers exist, but are less significant than complexity and distribution. For most tourism MSMEs, the decisive factor is not the price of premiums but rather whether claims will be honoured and whether coverage is available in their location. Overall, the main barriers – claims complexity, weak distribution in remote areas and limited subsidies – combine to restrict adoption even in a sector with relatively higher awareness and trust.<sup>22</sup>

### Misconceptions, learning needs and coping mechanisms

Tourism MSMEs in Nepal are sceptical about insurance, with learning gaps driven by confusion, distrust and inconsistent information. Their coping mechanisms in the face of risk balance formal and informal approaches.

In tourism, insurance is often perceived as something that exists for larger businesses, institutions or vehicle fleets rather than for small, family-run firms. Travel agents and

**Figure 17: Ranking of barriers to insurance adoption in the tourism value chain**  
(1 = least significant; 5 = most significant)



<sup>22</sup> Table A20 in Annex 1 lists the most common barriers to insurance in the tourism value chain.

suppliers frequently describe insurance as “not necessary” for their scale of operation. MSMEs’ misconceptions include that claims rarely materialize, that payouts are always delayed or mired in paperwork and that coverage is vague, leaving operators uncertain whether insurance applies to cancellations, guest accidents or property losses. Some respondents went further, suggesting that bribes are needed to process claims and that the system is rigged. This distrust is compounded by stories of overpromising by insurance agents and under-delivery during claims cycles. In cities such as Birgunj, Ilam and Surkhet, scepticism is particularly pronounced – not because of lack of awareness, but because operators have heard numerous second-hand accounts of denied claims. Across the sector, a clear misalignment emerges: the promise of insurance does not match its perceived delivery, and as a result, many treat it as a last resort rather than a proactive risk management tool.

The main barrier to insurance uptake in tourism is not complete unawareness, but confusion and inconsistency. Many MSMEs struggle to differentiate between insurance products or to identify which risks – cancellations, liability or natural disasters – are actually covered. Even those with prior exposure to insurance describe the claims process as opaque, slow or biased against smaller operators. Distrust is reinforced by conflicting accounts from peers, leading to significant variation in perceptions across the value chain. In places like Birgunj and Surkhet, scepticism comes not from ignorance but from a steady stream of negative stories. This confusion leaves many MSMEs unable to assess whether insurance is relevant, reliable or intended for businesses of their size. Consequently, insurance is often perceived as abstract and disconnected from daily operational decisions, treated more as a bureaucratic formality than as a practical mechanism for managing shocks.

Despite low insurance uptake, tourism MSMEs deploy a wide array of coping strategies. On the formal side, some businesses maintain accident, liability or utility coverage. However, to survive downturns, most rely more heavily on contingency reserves and self-funding. Diversification, by expanding into new products, markets or even geographic regions, acts as a hedge against seasonality or local disruptions. Regulatory advocacy and arbitration help address policy shocks, while training, certification and backup systems like generators and stockpiles reduce vulnerability to staff shortages or supply chain breakdowns. Partnerships with government agencies also provide crucial support. In Pokhara and the Annapurna region, for example, local governments working with the Nepal Tourism Board introduced trekking route risk assessments, early-warning signage, bridge reinforcements and fire-safety checks for lodges, directly reducing safety risks for operators (Harvard Humanitarian Initiative, 2023). Similarly, initiatives under the Nepal Risk Reduction Consortium (NRRC) have supported disaster preparedness in touristic districts by forming disaster response committees, conducting community drills and raising awareness on flash floods and landslides (Mosa-Basha et al., 2019). Informal mechanisms remain equally important. In Bagmati and Koshi, operators rely on freelancers and personal networks to scale labour capacity during peak seasons. In Gandaki and Karnali, homestay providers and youth groups pool resources to cover shortages or seasonal surges. In Lumbini, pilgrimage-based tourism businesses expand rapidly during peak religious events and contract afterward to minimize idle costs. At the household level, businesses lean on

personal savings or substitute family labour during downturns to reduce expenses. Informal communication systems – phone chains and messenger groups – also help fill gaps when formal booking platforms fail.<sup>23</sup>

## Gaps in policy coverage for risks faced by tourism MSMEs

Tourism MSMEs report significant gaps in the relevance and scope of available insurance products. General tourism products, such as trekking insurance, are very limited, covering only high-altitude illness, while ignoring common risks such as food poisoning, road accidents or cancellations. This narrow scope leaves guides, transporters and lodges without meaningful coverage in day-to-day operations, precisely where risks to both staff and guests are most frequent. For a sector that relies on customer-facing interactions, the lack of protection against guest accidents, cancellations or refund obligations makes it difficult to manage liability and maintain trust, especially when these incidents quickly damage reputation.

Sentiment from FGDs suggested that available products are often perceived as private profiteering schemes rather than credible safety nets, largely because they fail to address systemic shocks. The COVID-19 pandemic exemplified this shortfall: tourism businesses were left without support when occupancy collapsed, cancellations surged and liquidity dried up. The absence of profit-and-loss protection, shutdown coverage or reimbursement mechanisms has reinforced the perception that insurance does not provide meaningful crisis support. Similar concerns extend to preparedness for natural disasters and health emergencies, which remain excluded despite being among the most disruptive risks to business continuity.

The persistence of these product gaps reflects the same structural trade-off as in agriculture. Nepal's diverse provincial risk profiles, ranging from trekking hazards in mountainous areas to property vulnerabilities in urban hotels, demand localized products, yet scale pressures have produced generic schemes. This mismatch leaves operators without coverage that reflects their realities. Operators increasingly seek tailored policies that address overlapping risks, such as guest safety, staff injuries, business continuity, cancellations and even fraud or currency fluctuations, as they contend with financial volatility and rising digitization in the sector. The growing exposure to financial risks, such as trade credit defaults, online fraud and intellectual property breaches, further underscores the inadequacy of existing products.

Across all these dimensions, frustration with complex claims and slow payouts has eroded confidence in insurance. Operators emphasize the need for clear terms, timely settlements and flexible coverage that reflects specific exposures, rather than rigid, one-size-fits-all packages. MSMEs' experiences with these opaque and inaccessible products has created a demand for modular approaches, in which businesses can insure select assets, operations or guest-related liabilities.<sup>24</sup>

<sup>23</sup> Table A21 in Annex 1 outlines the common misconceptions and learning needs for firms across the tourism value chain. Tables A22 and A23 explore formal and informal coping mechanisms, and table A24 summarizes tourism value chain coping mechanisms.

<sup>24</sup> Table A25 in Annex 1 illustrates specific product related gaps as identified during the interaction with tourism MSMEs, along with suggested interventions and improvements.

## Business case for insurance providers

The tourism sector is highly dynamic, but it is exposed to a wide range of risks that remain underinsured. While some coverage exists, particularly for vehicles and assets, critical gaps persist in pandemic response, business continuity and liability. This creates a strong incentive for insurers to design targeted solutions. In designing these products, insurers should bear in mind the following points:

### 1. Demand for business continuity and profit-loss coverage is high

Tourism operators increasingly seek insurance to cushion revenue fluctuations during low occupancy periods, cancellations or broader economic shocks. Products covering profit and loss, shutdown periods and loss-sharing arrangements are especially attractive in light of global crises like the COVID-19 pandemic, which demonstrated how vulnerable this industry is to abrupt shutdowns.

### 2. MSMEs have a pressing need for asset and inventory protection

Tourism is heavily dependent on fixed infrastructure: hotels, lodges, offices, transport fleets and equipment. Risks from fire, theft, cold storage failures and electrical damage are recurring issues. Comprehensive coverage of assets and seasonal stock, with options accounting for demand fluctuations, would reduce these operational uncertainties and protect core investments.

### 3. Pandemic and disaster preparedness is urgently required

The COVID-19 pandemic revealed a lack of systemic coverage for widespread crises. Market potential exists for insurance that addresses disease outbreaks, pandemics and natural disasters. These could include shutdown reimbursements, guest cancellation policies or even government-supported risk pools that help maintain liquidity during systemic shocks.

### 4. Demand exists for tailored staff, guest and operational coverage

Because tourism is both labour-intensive and customer-facing, there is strong demand for specialized protections. These include insurance for employees and frontline staff, accident policies for guests (including alcohol-related incidents), guest-specific products linked to ticketing or occupancy and ticketing error or refund protection in cases like airline shutdowns. Such measures can not only manage liability but also strengthen customer trust.

### 5. Fraud, intellectual property and financial safeguards are increasingly important

As the industry digitizes, risks tied to fraud, intellectual property breaches and currency fluctuations are gaining prominence. Credit and fraud protection, trademark insurance and currency fluctuation coverage are especially relevant for operators in dollar-pegged markets, providing stability and credibility in high-risk financial environments.

**6. Operators have a clear preference for simplified and timely payouts**

Tourism businesses consistently express frustration with complex claims processes. They prefer transparent policies, cost-effective premiums and timely payouts. Modular insurance – in which operators insure specific items or activities rather than rigid packages – resonates strongly, because it reduces confusion and thus builds confidence.

# PART 7

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## CONCLUSION AND RECOMMENDATIONS



MSMEs are foundational to Nepal's economy, accounting for over 90 percent of enterprises, but they remain structurally vulnerable to multiple, overlapping risks. Their resilience is undermined by exposure to climate shocks, economic volatility and operational disruptions, combined with limited access to effective financial risk management tools. The absence of comprehensive, affordable and accessible insurance solutions magnifies these vulnerabilities, leaving MSMEs dependent on informal coping mechanisms that weaken long-term growth prospects.

Agriculture MSMEs face acute climate-, disease- and credit-related risks that are not adequately addressed by current insurance products. Tourism MSMEs, meanwhile, remain fragile after COVID-19 and are disproportionately exposed to indirect risks with limited insurance coverage. Systemic weaknesses across awareness, trust, distribution and regulation compound sectoral risks. Insurance literacy remains low, particularly in rural areas, where there are widespread misconceptions that policies only compensate for catastrophic events. Trust is eroded by opaque claims processes ending in delayed or denied claims, while high administrative costs discourage insurers from reaching remote MSMEs. Digital platforms offer opportunities but risk exclusion without parallel investments in digital infrastructure and literacy. Regulatory rigidities, such as inflexible premium payment schedules and the absence of a framework for trade credit insurance, constrain product innovation. The limited mandate of the Nepal Insurance Authority further restricts proactive market facilitation, reinforcing a supply-driven, fragmented ecosystem.

Transforming MSMEs resilience requires coordinated reforms that bridge regulatory frameworks, product design and delivery. Policy reforms should legalize trade credit insurance, allow flexible premium rules and establish regulatory sandboxes to encourage innovation. Insurers should develop modular, bundled products tailored to provincial and sector-specific risks, covering climate hazards, equipment damage, livestock losses, trade credit defaults and business interruption. Transparency and efficiency could be enhanced by digitizing the entire insurance lifecycle, from enrolment to claims settlement, through low-bandwidth, mobile-friendly platforms. Outreach must be expanded through partnerships with cooperatives, women's groups and microfinance institutions, supported by incentivized agent networks and seasonal premium structures.

A paradigm shift is essential to reposition insurance as a cornerstone of inclusive development rather than a marginal support tool. The current system of fragmented, generic products must give way to demand-driven, participatory ecosystems that deliver accessible, trustworthy and context-specific solutions. By embedding MSMEs insurance within Nepal's broader economic and resilience strategies, insurance can evolve from a fragmented safety net into a daily enabler of enterprise stability, innovation and growth. Without such systemic change, MSMEs will continue to absorb disproportionate risks, undermining not only individual livelihoods but also Nepal's long-term development trajectory.

With this in mind, the following recommendations are proposed for policymakers, for the regulator and for insurers.

## Recommendations for policymakers

Policymakers have a crucial role to play in creating an enabling environment for MSMEs resilience. Policy reforms need to focus on reducing structural barriers, incentivizing innovation and embedding MSMEs insurance within national development strategies. This requires coordination across ministries, alignment with provincial governments and the integration of insurance into MSMEs support programmes.

### **1. A whole-of-government approach is needed to ensure policies align with local realities and meet local needs.**

Building the case for insurance needs to begin with government, at federal, provincial and local levels. All three tiers of government need to coordinate to harmonize their risk management policies and to integrate insurance into local development planning.

Imported, one-size-fits-all models are dominant in the insurance sector, and as a result, coverage does not meet the specific needs of actors in Nepal's value chains. So, policymakers need to support the design and scaling of insurance products that reflect actual provincial and sectoral risks, and that are tailored to the needs of local businesses.

A cross-governmental taskforce on MSMEs insurance should be established to align subsidy use and regulatory mandates and to develop outreach strategies to better make the case for insurance among sceptical small business owners.

### **2. Subsidy frameworks need to be reformed, and incentives for insurers should be developed and implemented.**

The impact of current subsidy programmes is weakened by the lack of a coherent MSMEs insurance policy framework and by frequent delays in disbursement of subsidies. Delivery needs to be improved, and new mechanisms need to be developed so that incentive frameworks serve their purpose: that is, ensuring that people actually receive the financial protection they need.

Subsidies are of little value if access to insurance is unavailable. So, part of the premium subsidy budget could be reallocated to build long-term distribution infrastructure, particularly in rural and low-volume areas. Meanwhile, insurers could be incentivized to serve high-risk or underserved segments through shared risk mechanisms or performance-based support.

### **3. Financial and insurance awareness and literacy needs to be expanded, at population level and for MSMEs in particular.**

Awareness and trust are major barriers to insurance uptake. To help lower these barriers, awareness and education campaigns are needed across the country. The idea of insurance needs to be normalized, which can be achieved by promoting stories of successful insurance use and demystifying the claims process. Existing government and non-governmental organization (NGO) outreach programmes could be used to run grassroots awareness campaigns, especially for first-time policyholders.

School- and cooperative-level insurance education programmes could be conducted to raise financial and insurance literacy at population level. And for MSMEs in particular, risk transfer and insurance literacy could be integrated into existing programmes led by cooperatives, agriculture extension offices and tourism boards.

#### **4. Legal reforms are needed to enable product innovation.**

In spite of the implementation of Microinsurance Directive, 2079 (2022), current insurance products do not meet the needs of Nepal's MSMEs. Legislation needs to be amended to enable the development of innovative products that match local realities and provide MSMEs with the coverage they need.

Laws should be amended to allow flexible premium payments for MSMEs with seasonal or unpredictable incomes, as well as loss-based valuation models in agriculture to improve fairness and trust. A legal framework should be created to enable the development of trade credit insurance, which could address liquidity shocks and informal credit dependence among MSMEs.

Alongside products that better match their needs, MSMEs may need a push to avail of these options. Therefore, semi-mandatory insurance schemes should be promoted in high-risk zones, especially for MSMEs accessing subsidized finance or public support.

### **Recommendations for the Nepal Insurance Authority**

NIA has already laid important foundations for inclusive insurance through its recent reforms and directives. Building on this progress, NIA can guide the next phase of innovation, coordination and accountability in the MSMEs insurance space. Through its unique role as regulator and facilitator, NIA can help ensure that MSMEs-focused insurance solutions are not only technically sound but also widely accessible, trusted and embedded in Nepal's broader resilience agenda.

#### **1. A National MSMEs Insurance Strategy should be developed.**

The first step towards ensuring that insurance cover is accessible and appropriate to meet the needs of Nepal's MSMEs should be to formulate a sector-wide strategy and road map, aligned with MSMEs risks and priorities.

As part of this strategy, NIA could consider establishing a dedicated MSMEs insurance pool. This would de-risk private participation and allow for premium subsidies in priority segments.

#### **2. Action should be taken to accelerate innovation and speed up approvals for promising products.**

Existing products are not adequate to meet the needs of Nepal's MSMEs. So, NIA should encourage insurers to innovate in product development, so that new kinds of products with different levels of coverage and modes of distribution enter the market rapidly.

A regulatory sandbox could be established to enable insurers to test bundled, modular or digital-first insurance products under relaxed compliance rules. Approval procedures for localized and innovative models should be streamlined, especially in the agriculture and tourism value chains.

### **3. Data systems and risk intelligence should be streamlined and improved.**

Insurers need data on target markets and risk levels to better understand the business case for offering tailored products. Meanwhile, products such as index insurance rely on the availability of data to function. NIA has an important role to play in building an evidence base that can enable insurers to improve delivery.

To do this, NIA should co-invest in provincial-level risk assessments and MSMEs registries. And, in partnership with donor agencies, NIA should build digital infrastructure that aids underwriting, targeting and fraud detection.

### **4. NIA should promote transparency and simplification in the claims process.**

The claims process is among the biggest pain points for MSMEs, and improving trust and outcomes here would go a long way towards improving attitudes towards insurance.

So, NIA should standardize and monitor claims service benchmarks across the industry. To ensure fairness in claims acceptance and denial and build trust in the process, NIA should support the establishment of an independent, rapid and accessible grievance redress mechanism. And to enable easier access to the process, NIA should encourage digitization of the claims process, reducing paperwork and time-to-settlement.

### **5. Distribution networks should be expanded, sustainably.**

Rural and remote MSMEs have trouble accessing insurance because of the distance they need to travel to reach a representative of the insurer. However, mandating rural offices in unviable locations could cause sustainability problems for insurers.

Instead, to increase accessibility, NIA should incentivize agent and partner models (e.g., distributing insurance through cooperatives or local entrepreneurs). To encourage smaller actors or agents to operate in micro markets, NIA could build a tiered licensing system, allowing lighter compliance requirements for these smaller operators.

### **6. Insurance literacy programmes should be embedded in existing channels.**

MSMEs need insurance education to improve awareness and trust. NIA can help by working with ministries and local governments to embed insurance awareness in ongoing financial literacy programmes. NIA can also contribute by training municipal and ward-level officials on basic insurance concepts, so they can support MSMEs and households locally.

### **7. Legal and structural reforms should be promoted.**

Policymakers are responsible for changing legislation to foster better insurance outcomes, but NIA can help by advocating for enabling legislation to support trade credit insurance and seasonally-adjusted premiums. NIA can also share its expertise with the Ministry of

Industry and with Parliament to enable the introduction of structured reforms, without diluting regulatory safeguards.

## **Recommendations for insurance companies**

Insurance companies are at the front line of risk transfer for MSMEs, and they urgently need to adapt their products and delivery systems to better reflect the realities of small enterprises. Many of the current challenges – low uptake, distrust and poor claim experiences – stem from product design and communication gaps. Addressing these issues requires insurers to shift from supply-driven, standardized products toward innovative, modular and bundled solutions that reflect provincial risk profiles and sectoral differences. Strengthening outreach, simplifying claims and leveraging technology can help build trust and expand the market in a commercially viable way.

### **1. Insurers need to design localized and bundled products.**

MSMEs need products tailored to their specific needs, which vary widely according to sector and locality. To meet these needs, insurers should develop bundled insurance solutions that are tailored to provincial risk profiles, covering climate events, livestock loss, equipment damage, business interruption and credit defaults.

Weather index and parametric products should be calibrated to reflect localized triggers (e.g., milk production drops or tour cancellations) as well as indirect losses. Cross-border and liability coverage should be introduced for tourism MSMEs operating in high-risk adventure zones and regional corridors with China and India. Insurers can also consider instalment-based premiums to improve affordability and align with seasonal cash flow.

### **2. Policy communication should be simplified and localized.**

Better communication about policies could dispel some doubts, and increase trust by ensuring that policyholders understand ahead of time their level of protection against risks. So, insurers should translate policies into local languages, and use visual tools to explain core terms: what is covered, what is not, and how claims are processed.

To reduce the risk of mis-selling and of shocks at the claims stage, agents should be obliged to explain policies in simple terms before selling. And to counter scepticism, insurers should actively promote real-life stories of successful claim settlements.

### **3. Policy and claims management should be digitized and rural distribution channels should be built.**

Accessibility is an issue throughout product life cycles – from enrolment to claims processing – as MSMEs in remote areas face a heavy burden in providing documentation and making claims. To improve accessibility, insurers should digitize the entire policy lifecycle – enrolment, premium payment, claims initiation and status tracking – through accessible mobile apps. They can also reduce the documentation burden by integrating digital verification systems and using geotagged photos or satellite data for claim substantiation.

To physically reach remote MSMEs, insurers can partner with cooperatives, MFIs, local businesses and women-led groups. They should focus on incentives and non-monetary recognition (e.g., training, awards) to motivate agent performance in these remote areas.

### **4. Insurers need to adopt long-term, inclusive business models.**

Providing innovative, flexible products that meet the needs of Nepal's MSMEs has the potential to increase profitability and business sustainability for insurers. But in order to reap these rewards, insurers need to look to the long term.

Insurers should prioritize behavioural change and trust-building over immediate returns, especially in first-time MSMEs markets. To ensure relevance and buy-in, they should seek to co-design products with MSMEs associations or cooperatives. And they should ensure their internal performance indicators reflect outreach and retention, not just short-term revenue gains.

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# ANNEXES

## Annex 1: Value chain data

**Table A1: Assessment of value chains across sectors**

|    | Prevalence of MSMEs      | Economic contribution | Employment contribution | Export potential | Policy alignment | Geographical spread | Sector homogeneity | Climate risk vulnerability |        |
|----|--------------------------|-----------------------|-------------------------|------------------|------------------|---------------------|--------------------|----------------------------|--------|
| A. | Manufacturing            | High                  | High                    | High             | Medium           | Medium              | High               | Low                        | Medium |
| B. | Energy                   | Low                   | Low                     | Low              | High             | High                | Low                | High                       | High   |
| C. | Agriculture and forestry | High                  | High                    | High             | Medium           | High                | High               | Medium                     | High   |
| D. | Tourism                  | High                  | Medium                  | High             | High             | High                | High               | High                       | High   |
| E. | Mining and quarrying     | Low                   | Low                     | Low              | High             | Medium              | Medium             | High                       | High   |
| F. | Other services           | High                  | High                    | High             | Medium           | Medium              | High               | Low                        | Medium |
| G. | Construction             | High                  | High                    | High             | Low              | Medium              | High               | High                       | Low    |
| H. | Information technology   | Medium                | Medium                  | Low              | High             | Medium              | Low                | High                       | Low    |

Assessment conducted using secondary data, literature review and authors' analysis. Classifications are based on the Industrial Enterprise Act, 2020, on the basis of nature of goods and services produced.

**Table A2: Risks, mitigation practices and suggested insurance solutions for MSMEs across provinces: agriculture value chain**

| City           | Main risks identified                                                                                                                                                                                                                                                                                                                                                                                                                                  | Current management practices                                                                                                                                                                                                                     | Suggested insurance solutions                                                      |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| <b>Birgunj</b> | <ul style="list-style-type: none"> <li>- Product perishability and decay due to poor storage</li> <li>- Unregulated border trade exposing local businesses to price undercutting</li> <li>- Lack of veterinary knowledge and technical capacity</li> <li>- Policy vacuum and governance failure in agri-support</li> <li>- Frequent credit defaults and unreliable buyers</li> <li>- Natural disasters and earthquakes impacting operations</li> </ul> | <ul style="list-style-type: none"> <li>- Spray and fire extinguishers (minimal response)</li> <li>- Public awareness, but limited action</li> <li>- Bringing in technical experts</li> <li>- No concrete action taken for many issues</li> </ul> | <p>Livestock disease coverage, political risk insurance, agri-credit insurance</p> |

| City             | Main risks identified                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Current management practices                                                                                                                                                                                                                                                                                                                   | Suggested insurance solutions                                                         |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Butwal</b>    | <ul style="list-style-type: none"> <li>- Energy shortfalls affecting dairy and fruit supply chains</li> <li>- Cross-border competition and smuggling driving down prices</li> <li>- Financial pressure from credit defaults and low-income levels</li> <li>- Product perishability and poor infrastructure for storage and transport</li> <li>- Legal/registration barriers for agri-machinery and vehicle operations</li> <li>- Limited government procurement support despite tax compliance</li> </ul>                                                                 | <ul style="list-style-type: none"> <li>- Stock reduction during hot seasons</li> <li>- Use of solar power in mills</li> <li>- Awareness creation among clients</li> <li>- Demand-based ordering</li> <li>- Biological asset safety protocols</li> <li>- Gradual fund collection for business continuity</li> </ul>                             | Crop spoilage insurance, credit default insurance                                     |
| <b>Dhangadhi</b> | <ul style="list-style-type: none"> <li>- Product spoilage and inventory loss (milk, fruits, medicines) due to poor storage and supply chain delays</li> <li>- Market volatility and price uncertainty in poultry due to smuggling and lack of pricing controls</li> <li>- Logistics disruptions (cold chain gaps, transport delays)</li> <li>- Low-quality inputs (feed, equipment) affecting productivity</li> <li>- Financial risk from customer defaults and unreliable payments</li> <li>- Dependence on self-investment due to limited government support</li> </ul> | <ul style="list-style-type: none"> <li>- Cold storage, product diversification (e.g., churpi, cheese)</li> <li>- Vaccine use for poultry disease</li> <li>- Field visits before supplying goods</li> <li>- Seeking government subsidies</li> <li>- Self-investment and low stock strategy</li> <li>- Lock system for fruit security</li> </ul> | Livestock insurance, price guarantee schemes, equipment breakdown insurance           |
| <b>Hetauda</b>   | <ul style="list-style-type: none"> <li>- Administrative and regulatory barriers (permits, bans on roadside sales)</li> <li>- Climate-exacerbated risks (flooding, equipment damage)</li> <li>- Disease outbreaks in bees and crops with poor veterinary access</li> <li>- Technology adoption challenges for smallholder farmers</li> <li>- Staffing and mechanical skill shortages</li> </ul>                                                                                                                                                                            | <ul style="list-style-type: none"> <li>- Peer support (friends), technology for theft prevention</li> <li>- Pay premium to retain old staff</li> <li>- Temporary shutdown during heavy rains</li> <li>- Use of protective tech for stock and machinery</li> </ul>                                                                              | Parametric flood insurance, pest and disease insurance, business interruption cover   |
| <b>Ilam</b>      | <ul style="list-style-type: none"> <li>- Cross-border trade imbalances and preferential treatment of Indian goods</li> <li>- Rumour-driven disruptions and disease scares (e.g., lumpy skin disease)</li> <li>- Infrastructure deficits (bad roads, poor market access)</li> <li>- Lack of government procurement despite taxation</li> <li>- Labour shortages for field operations and no commercial-scale farming</li> <li>- Price volatility and financial fragility in farming households</li> </ul>                                                                  | <ul style="list-style-type: none"> <li>- Insurance, part-time staffing</li> <li>- Diversifying into dairy to manage inventory</li> <li>- Managing business space more efficiently</li> <li>- Self-funded operations, no external support</li> </ul>                                                                                            | Price volatility insurance, product liability or surplus loss cover                   |
| <b>Pokhara</b>   | <ul style="list-style-type: none"> <li>- Wildlife and human-induced sabotage risks (monkey raids, fish poisoning, theft)</li> <li>- Market unpredictability due to inflation and tourist-driven demand drops</li> <li>- Labour shortages and high employment costs</li> <li>- Price and supply instability (inefficient supply chain, seasonal waste)</li> <li>- Climate-related spoilage and infrastructure stress (e.g. summer heat, landslides)</li> </ul>                                                                                                             | <ul style="list-style-type: none"> <li>- CCTV, barricading land, walls against landslide</li> <li>- Wholesale sales, staff monitoring for theft</li> <li>- Cold storage, alternate power supplies</li> <li>- Technology adoption for fire protection</li> </ul>                                                                                | Livestock/poultry theft insurance, agri-output insurance, fire and disaster insurance |

| City    | Main risks identified                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Current management practices                                                                                                                                                                                                                                                                           | Suggested insurance solutions                                                |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Surkhet | <ul style="list-style-type: none"> <li>- Infrastructure and utility risks (frequent power cuts damaging produce/machinery)</li> <li>- Agro-climatic risks (insect infestations, disease outbreaks, irrigation failures)</li> <li>- Unrealistic regulatory standards</li> <li>- Customer defaults and limited finance options leading to credit exposure</li> <li>- Skill shortages (e.g. fertilizer application, machine maintenance)</li> <li>- Livestock health risks (e.g. mastitis in cows/ buffalo)</li> </ul> | <ul style="list-style-type: none"> <li>- Insurance (limited coverage for fire/theft)</li> <li>- Pet dog for theft control</li> <li>- Stockpiling based on forecasted demand</li> <li>- Risk management demos and cold storage</li> <li>- Diversification into buffalo milk/fertilizer sales</li> </ul> | Weather index insurance, credit guarantee schemes, trade disruption coverage |

**Table A3: Climate risk profile of the agriculture value chain**

| Component   | Climate risk profile                                                                                                | Economic implications                                                               |
|-------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Producers   | Prone to production losses due to extreme weather events and changing weather patterns                              | Inconsistent outputs leading to lower revenues                                      |
| Processors  | Face supply interruptions due to upstream production losses and infrastructure damage (e.g. floods, landslides)     | Underutilization of capacity, input cost spikes, product spoilage, delays           |
| Aggregators | Vulnerable to transport disruptions from flooded roads or landslides, as well as fluctuations in volume and quality | Procurement volatility, rising transaction costs, reduced efficiency in aggregation |
| Wholesalers | Indirectly affected by upstream climate risks; logistics hit hardest during floods and storms                       | Inventory mismanagement, price volatility, constrained ability to plan or scale     |
| Retailers   | Often located in vulnerable market areas (especially Terai towns); face direct damage from weather events           | Property damage, lower footfall, cash flow disruptions, loss of perishable goods    |

**Table A4: Province-level economic and business risk signals – agriculture value chain**

| Province      | Agriculture – Key risk signals                                                                                        |
|---------------|-----------------------------------------------------------------------------------------------------------------------|
| Bagmati       | Across the chain: interest rate hikes, logistics issues and cost inflation reported by both producers and processors. |
| Gandaki       | Risk exposure is more diverse: processors report supply chain issues, while producers are less affected.              |
| Karnali       | Heavy input price burden on retailers and aggregators; credit access constraints also reported.                       |
| Koshi         | Aggregators flag banking inaccessibility; processors and retailers hit by high-cost base.                             |
| Lumbini       | Geopolitical and policy shocks affect processors and wholesalers. Strikes mentioned by agri-aggregators.              |
| Madhesh       | Retailers mention currency fluctuations and inflation; aggregators are exposed to input financing constraints.        |
| Sudurpashchim | Inflation, interest rate hikes and strikes. Agri-machinery and veterinary services hit by input cost surges.          |



**Table A5: Key risk signals across value chain components – agriculture**

| Component          | Key risk signals                                                                                                                                     |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Producers</b>   | Inflation-driven cost increases for machinery and inputs. Increased vulnerability to weather extremes, impacting yield and production levels.        |
| <b>Processors</b>  | Supply chain issues due to disruptions in production; input price increases. Geopolitical instability affects processing capacity and cost.          |
| <b>Aggregators</b> | Exposure to inflationary pressures on transport and input costs. Strain on procurement due to infrastructure damage (floods, landslides).            |
| <b>Wholesalers</b> | Logistics issues due to weather disruptions; inventory mismanagement due to erratic supply. Currency fluctuations affecting pricing and demand.      |
| <b>Retailers</b>   | Increased costs for products due to transport and supply chain issues. Exposure to reduced customer demand due to inflation and interest rate hikes. |

**Table A6: Insurable risks and suggested mitigation strategies – agriculture value chain**

| Category of insurable risks    | Specific risks                                                                                     | Suggested mitigation strategies                                                                 |
|--------------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <b>Natural disasters</b>       | Floods, storms, earthquakes, heavy rainfall affecting infrastructure and sales                     | Weather index insurance, multi-peril crop insurance, disaster risk insurance                    |
| <b>Animal and plant health</b> | Lumpy skin disease, mastitis in cows/buffalos, fish poisoning, bee disease                         | Livestock insurance, aquaculture insurance, beekeeping insurance                                |
| <b>Asset-related risks</b>     | Machinery damage, equipment loss, damage from fire/theft, stock perishability due to power outages | Asset insurance (machinery, tools), fire and theft insurance, cover for refrigeration breakdown |
| <b>Stock and inventory</b>     | Milk, fruits, medicines, insecticides spoilage, overstocking                                       | Stock insurance, cold chain and warehouse insurance                                             |
| <b>Credit and payments</b>     | Credit default                                                                                     | Credit guarantee/ trade credit insurance (currently not available)                              |
| <b>Business interruption</b>   | COVID-19 lockdowns, economic crisis, operations disruptions, market closure                        | Business interruption insurance (currently available only for strikes, vandalism)               |
| <b>Staff health-related</b>    | Staff health issues (affecting operations)                                                         | Group health insurance for workers, disability insurance for owners                             |

**Table A7: Non-insurable risks and suggested mitigation strategies – agriculture value chain**

| Category of non-insurable risks | Specific risks                                                                                                          | Suggested mitigation strategies                                                                                                                             |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Market-related risks            | Lack of sales, price fluctuation, competition from India, poor market access, overstocking/ inventory spoilage          | Market linkage programmes, cooperatives or digital platforms for collective sales, diversification of product offerings (currently practised by many MSMEs) |
| Infrastructure and logistics    | Poor road conditions, transport shocks, power cuts, lack of storage facilities, water shortages, unreliable electricity | Invest in cold storage and solar energy, advocate for public investment in infrastructure, develop local storage units                                      |
| Governance/ regulatory issues   | Government red tape, difficulty accessing subsidies, unrealistic standards, registration delays                         | Policy advocacy, engagement with local governments, community-based monitoring                                                                              |
| Labour and capacity gaps        | Staff shortages, skill shortages, dependency on old, part-time workers                                                  | Agriculture skills development training, youth and women engagement, mechanization and sharing of tools                                                     |

| Category of non-insurable risks    | Specific risks                                                                                                   | Suggested mitigation strategies                                                                                            |
|------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| <b>Knowledge/technology gaps</b>   | Lack of veterinary knowledge, difficulty diagnosing disease, outdated or faulty imported machinery, low tech use | Promote farmer field schools, awareness and demonstration campaigns, proper pre-purchase inspection of machinery and tools |
| <b>Credit and cash flow</b>        | Decreasing income, inconsistent cash flow, financial strain                                                      | Explore group lending models through microfinance and cooperatives, adopt digital/ mobile payment                          |
| <b>Cultural and social factors</b> | Preference of shamans over veterinarians, rumours/ misinformation (disease panic), distrust in formal systems    | Use of local influencers in spreading awareness, farmer-to farmer communication                                            |

**Table A8: Barriers to insurance across the agriculture value chain**

| Value chain component | Most common insurance barrier | Least common insurance barrier |
|-----------------------|-------------------------------|--------------------------------|
| <b>Retailer</b>       | High cost                     | Subsidy access                 |
| <b>Wholesaler</b>     | Complexity                    | Digital access                 |
| <b>Producer</b>       | Claim processing difficulties | Trust in insurers              |
| <b>Processor</b>      | Coverage gaps                 | Awareness                      |
| <b>Aggregator</b>     | High cost                     | Subsidy access                 |

**Table A9: Misconceptions across the agriculture value chain**

| Value chain component | Common misconceptions                                                                              |
|-----------------------|----------------------------------------------------------------------------------------------------|
| Producer              | Insurance is for big players only; honest claims do not get processed; policy terms are unclear    |
| Processor             | Policies are biased; owners use insurance for false claims; ward-level approval is a barrier       |
| Aggregator            | Claims are not fully paid; nepotism affects decisions; claims paperwork is intentionally difficult |
| Wholesaler            | Premiums are collected, but claims are rejected; insurance only helps after visible damage         |
| Retailer              | Too costly; does not apply to stock; belief that investing profits is safer than insurance         |

**Table A10: Coping mechanisms in the agriculture value chain through formal channels, by province**

| Province       | Mechanism                                                                                                                                                                                              |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Bagmati</b> | Agriculture businesses, especially in peri-urban belts, are better networked with urban markets and agri-fintech services. Business registration and formal training uptake is high.                   |
| <b>Gandaki</b> | Agriculture remains semi-formal, with formal mechanisms limited to processors and export-oriented producers. Many upstream actors rely on donor-linked initiatives rather than state infrastructure.   |
| <b>Karnali</b> | Agricultural producers struggle with access to structured markets. Formal coping mechanisms are donor-driven, such as small-scale irrigation schemes or microinsurance pilots.                         |
| <b>Koshi</b>   | Agricultural actors in Ilam benefit from value-chain integration with cooperative tea markets. Formal coping is patchy, but insurance uptake is higher than average due to better financial inclusion. |

| Province      | Mechanism                                                                                                                                                          |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lumbini       | Agri-cooperatives in the Terai belt offer access to subsidized inputs and marketing platforms. Formal financial services remain underpenetrated in hill districts. |
| Sudurpashchim | Similar to Karnali, agriculture remains informal with a few cooperatives offering risk-sharing options. Limited access to structured markets.                      |

**Table A11: Coping mechanisms in the agriculture value chain through informal channels, by province**

| Province      | Mechanism                                                                                                                                                                                  |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bagmati       | Many peri-urban farmers rely on informal aggregators and unregistered wholesalers. Despite formal advantages, informal systems persist.                                                    |
| Gandaki       | Informal systems are robust in rural areas. Farmers and homestay operators self-organize around local festivals and trekking seasons, relying on kin-based credit and local knowledge.     |
| Karnali       | Most agricultural producers rely on communal irrigation, grain storage and shared inputs. Informal systems are crucial in managing resources and risks.                                    |
| Koshi         | Informal practices are deeply embedded, especially in the hills. Seasonal labour-sharing, informal lending circles and barter networks help buffer against market and climatic volatility. |
| Lumbini       | Informal savings groups, religious community ties and family-based remittance pooling help absorb shocks. Farmers often rely on kin and community support networks.                        |
| Sudurpashchim | Informal labour exchanges, rotating savings schemes and extended family networks provide essential coping mechanisms in the absence of formal safety nets.                                 |

**Table A12: Summary of coping mechanisms across the agriculture value chain**

| Channel  | Value chain component | Coping mechanisms                                                                      |
|----------|-----------------------|----------------------------------------------------------------------------------------|
| Formal   | Retailer, wholesaler  | Government support, risk mitigation (insurance), market regulation, storage management |
| Informal | Producer, retailer    | Cooperatives, community networks, informal markets, self-investment, risk sharing      |

**Table A13: Breakdown of gaps in the agriculture value chain and potential interventions to fill them**

| Insurance category  | Observations                                                              | Gaps identified by respondents                                                                 | Suggested improvements                                                                                   | Insights from interaction with MSMEs                                                                             |
|---------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Livestock insurance | Some awareness exists; tagging is a policy requirement.                   | Low awareness of tagging procedures; claim failures due to lack of evidence or staff turnover. | Step-by-step claims guidance; photo-based evidence training; local vet coordination for verification.    | Ilam vet noted insurance does not cover non-lethal conditions like reduced milk production, discouraging uptake. |
| Fish insurance      | Not mentioned directly; overlaps with water pollution risks.              | Low awareness; unclear exclusions for environmental hazards.                                   | Aquaculture-specific insurance; inclusion of water quality risks; simplified documentation requirements. | No direct mention but fits wider pattern of policies not reflecting specific local risks.                        |
| Bee insurance       | Referenced through environmental unpredictability and pesticide concerns. | Exclusion of equipment, honey loss; nomadic practices not considered.                          | Mobile-friendly policies; coverage for tools, hives and finished products; awareness on claim steps.     | Beekeeper from Ilam lost entire investment to insect infestation – not covered due to narrow policy focus.       |

| Insurance category              | Observations                                                                   | Gaps identified by respondents                                                                                 | Suggested improvements                                                                                             | Insights from interaction with MSMEs                                                                                                           |
|---------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Crop insurance (general)</b> | Stakeholders highlight supply chain loss and uninsurable disruptions.          | Post-harvest loss, storage and spoilage not covered; paperwork is burdensome.                                  | Policy co-design with cooperatives; streamlined claim forms; bundled crop and cold chain insurance.                | Farmers in Dhangadhi and Butwal reported losses from spoilage during transit and temperature shifts being excluded.                            |
| <b>Vegetable crop insurance</b> | Mentions of spoilage and perishables point to vegetable farmers.               | Greenhouse farming not addressed; spoilage during transport excluded.                                          | Specific coverage for greenhouse tech and local market linkages; awareness campaigns on perishable insurance.      | Butwal and Lumbini farmers cited routine loss of goods from short-distance food transport being excluded.                                      |
| <b>Weather index insurance</b>  | Claims complexity and lack of damage correlation reduce trust.                 | People do not understand triggers; mistrust due to payout gaps.                                                | Combine physical assessments with index payouts; local-level education on weather models and policy logic.         | Reflects broader mistrust of insurance as “unfair” and confusing; narratives cite rejection due to triggers not matching real-world loss.      |
| <b>General (all types)</b>      | Government support for microinsurance exists, but digital access is a barrier. | Lack of smartphones/ internet hampers digital schemes; poor policy comprehension; mistrust in claim integrity. | Low-tech claim channels (phone-based or cooperative-driven); in-person policy literacy sessions; fraud mitigation. | FGDs noted frustration over claims delays and bureaucracy; many lacked access or awareness of digital tools like photo-based claims platforms. |

**Table A14: Risks, mitigation practices and suggested insurance solutions across provinces: tourism value chain**

| Province (city)          | Main risks                                                                                                                                                                                                                                                                                                          | Current risk mitigation practices                                                                                                                                                                                                                                                                                  | Suggested insurance solutions                                                                                                                                                      |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Bagmati (Hetauda)</b> | <ul style="list-style-type: none"> <li>Floods, landslides, storms</li> <li>Economic slowdown, credit constraints</li> <li>Staff shortages</li> <li>Small market size</li> <li>Air-ticketing errors</li> </ul>                                                                                                       | <ul style="list-style-type: none"> <li>Digitalization of ticket issuance</li> <li>Use of personal and family resources</li> <li>Relying on experience and adjusting services accordingly</li> </ul>                                                                                                                | <ul style="list-style-type: none"> <li>Business interruption and liability insurance</li> <li>Credit insurance cover</li> <li>Utility disruption insurance</li> </ul>              |
| <b>Gandaki (Pokhara)</b> | <ul style="list-style-type: none"> <li>Floods, landslides, drought, storms</li> <li>COVID-19 impacts</li> <li>Climate/weather uncertainty</li> <li>Illness of tourists, staff shortages, guest defaults</li> <li>High rent, expensive airline for foreigners, limited trekking trails</li> </ul>                    | <ul style="list-style-type: none"> <li>Shift to domestic tourism</li> <li>Seasonal scaling</li> <li>Creating digital presence</li> </ul>                                                                                                                                                                           | <ul style="list-style-type: none"> <li>Personal accident and health cover</li> <li>Trip cancellation/ interruption insurance</li> <li>Weather indexed business cover</li> </ul>    |
| <b>Karnali (Surkhet)</b> | <ul style="list-style-type: none"> <li>Floods, landslides, storms, drought</li> <li>Accidents and poor road conditions</li> <li>Electricity shortages, lack of manpower</li> <li>COVID-19 and economic downturn</li> <li>Boat failure due to low water level</li> <li>Interest hike, supply chain shocks</li> </ul> | <ul style="list-style-type: none"> <li>Reducing operations in peak risk periods</li> <li>Informal risk handling</li> <li>Staff training and customer negotiation</li> <li>Identifying and training backup staff</li> <li>Investment despite downturns</li> <li>Use of family labour, personal insurance</li> </ul> | <ul style="list-style-type: none"> <li>Vehicle and transport insurance</li> <li>Weather index (drought/flood) parametric cover</li> <li>Business interruption insurance</li> </ul> |

| Province (city)                  | Main risks                                                                                                                                                                                                                                                                                        | Current risk mitigation practices                                                                                                                                                                                                      | Suggested insurance solutions                                                                                                                                                    |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Koshi (Ilam)</b>              | <ul style="list-style-type: none"> <li>Staff shortages, tourist scarcity, infrastructure issues</li> <li>Floods, market fluctuations, lockdowns</li> <li>Road accidents, raw material shortages</li> <li>Policy restrictions (e.g., opening hours)</li> </ul>                                     | <ul style="list-style-type: none"> <li>Working with locals and part-time workers</li> <li>Stockpiling, vehicle insurance, backup transport</li> <li>Training, emergency preparedness Cost-sharing and profit-sharing models</li> </ul> | <ul style="list-style-type: none"> <li>Product and infrastructure insurance</li> <li>Accident and liability coverage</li> <li>Price stabilization or volatility cover</li> </ul> |
| <b>Lumbini (Butwal)</b>          | <ul style="list-style-type: none"> <li>Floods, landslides, storms, drought</li> <li>Theft/riots/terrorism</li> <li>Credit defaults (guests not paying)</li> <li>Regulatory shutdowns (10 pm curfews)</li> <li>COVID-19 mandates, tax and VAT pressures, and property rental insecurity</li> </ul> | <ul style="list-style-type: none"> <li>Group discounts</li> <li>Closing when unprofitable.</li> <li>Diversifying locations (e.g., expanding to Pokhara)</li> <li>Enhancing customer service</li> </ul>                                 | <ul style="list-style-type: none"> <li>Property and guest liability insurance</li> <li>Theft, riot and business interruption cover</li> </ul>                                    |
| <b>Madhesh (Janakpur)</b>        | <ul style="list-style-type: none"> <li>Floods, storms, drought</li> <li>Staff shortage</li> <li>Animal diseases; storage problems (food/dairy)</li> <li>Security threats; bandhas/ strikes</li> <li>Credit defaults</li> <li>Premature curfews (9 pm closure)</li> </ul>                          | <ul style="list-style-type: none"> <li>Staff rotation and hiring locals</li> <li>Cold storage infrastructure</li> <li>Local regulation advocacy</li> </ul>                                                                             | <ul style="list-style-type: none"> <li>Crop/livestock and dairy product insurance</li> <li>Property damage and riot cover</li> <li>Credit default insurance</li> </ul>           |
| <b>Sudurpashchim (Dhangadhi)</b> | <ul style="list-style-type: none"> <li>Floods, landslides, storms accidents</li> <li>Accidents</li> <li>High operation costs; lack of skilled staff;</li> <li>COVID-19 slowdowns; card payment failures, and power outages</li> <li>Legal barriers – cross-border permits for vehicles</li> </ul> | <ul style="list-style-type: none"> <li>Informal operations; seasonal closures</li> <li>Limited insurance</li> <li>Basic risk mitigation (e.g., dogs, savings)</li> </ul>                                                               | <ul style="list-style-type: none"> <li>Bundle insurance policy covering floods, fire, theft, business interruption, accidents, and cross-border coverage</li> </ul>              |

**Table A 15: Climate risk profile of the tourism value chain**

| Component                                          | Climate risk profile                                                                                             | Economic implications                                                                         |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Inbound tour operators                             | Vulnerable to event cancellations from floods, storms or landslides; rely heavily on infrastructure reliability. | Lost bookings, reputational damage, legal obligations (refunds), reduced international trust. |
| Outbound tour operators                            | Similar to inbound operators; more sensitive to travel advisory changes and global image of climate exposure.    | Decline in forward bookings, customer loss to competitors (especially Bhutan, India).         |
| Travel agents                                      | Disrupted by weather volatility and road/ airport closures; often first to handle client grievances.             | Revenue volatility, strain on staff, reputational pressure.                                   |
| Local suppliers (accommodation, transport, guides) | Most exposed to physical impacts – floods, landslides and storms disrupt daily operations.                       | Infrastructure damage, cash shortages, supply-side constraints, staffing issues.              |
| Travel wholesalers                                 | More insulated, but vulnerable to supply chain disarray across partners.                                         | Portfolio instability, risk of breach in service agreements.                                  |

**Table A16: Province-level economic and business risk signals – tourism value chain**

| Province      | Tourism – Key risk signals                                                                                     |
|---------------|----------------------------------------------------------------------------------------------------------------|
| Bagmati       | Food and hotel services stressed by input price inflation and demand-side unpredictability.                    |
| Gandaki       | Currency fluctuations and interest rates dominate for international operators and suppliers.                   |
| Karnali       | Hotels cite inflation and interest rates; tour operators feel infrastructure-related disruptions.              |
| Koshi         | Currency fluctuations and infrastructure risks prevalent in hotel suppliers; vehicle rental actors vulnerable. |
| Lumbini       | Handicrafts and hotel suppliers highlight inflation and interest rates as core concerns.                       |
| Madhesh       | Hotel and travel services burdened by interest hikes; some segments under-report risks due to informality.     |
| Sudurpashchim | Travel agents and tour operators exposed to inflation and currency volatility.                                 |

**Table A17: Key risks across value chain components – tourism**

| Component                                          | Key tourism risk signals                                                                                                                                   |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inbound tour operators                             | High exposure to disruptions from extreme weather events (storms, floods) impacting client itineraries. Currency volatility affecting bookings and demand. |
| Outbound tour operators                            | Currency fluctuations and rising costs due to inflation and interest rates, leading to price hikes and loss of competitiveness.                            |
| Travel agents                                      | Increased demand-side unpredictability due to travel disruptions; exposure to currency volatility and inflationary pressures.                              |
| Local suppliers (accommodation, transport, guides) | Infrastructure damage from climate hazards (floods, landslides). Rising input costs for food, fuel and labour; logistical challenges in remote areas.      |
| Travel wholesalers                                 | Risk of service agreement breaches due to upstream disruptions; currency fluctuations affecting costs and pricing.                                         |

**Table A18: Non-insurable risks and mitigation strategies – tourism value chain**

| Category of non-insurable risks       | Specific risks                                                                            | Mitigation strategies                                                           |
|---------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Operational and cost management risks | High operational costs, staff layoffs, inability to pay high salaries, cost reduction     | Staff training, rotation, cost cutting, diversification, family labour          |
| Policy and regulatory challenges      | Policy uncertainty, government restrictions, tax burdens, documentation issues            | Advocacy, government lobbying, participation in hotel associations, arbitration |
| Market and demand risks               | Low tourist flow, seasonality, toxic competition, market erosion                          | Customer relationship management, business diversification                      |
| Business continuity without Insurance | Shutdown of donor programmes, tourism downturn, bearing accident costs without mitigation | Self-funding, business diversification, installation of CCTV, safety training   |
| Infrastructure and supply challenges  | Power shortages, stockpiling, generator usage, supply chain disruptions                   | Backup generators, stockpiling, quality control                                 |
| Security and legal risks              | Risk of eviction from rented properties, legal gaps                                       | Diversification of locations, arbitration, government advocacy                  |

**Table A19: Insurable risks and suggested mitigation strategies – tourism value chain**

| Category of insurable risks               | Specific risks                                                                           | Suggested mitigation strategies                                            |
|-------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Business continuity and economic risks    | Economic crises, pandemic interruptions, market downturns, credit defaults               | Business interruption insurance, pandemic cover, credit insurance          |
| Accident, liability and security risks    | Accidents, legal liabilities, theft, riots, terrorism, harassment of tourists            | Accident insurance, liability insurance, riot and terrorism insurance      |
| Policy, regulatory and cross-border risks | Political risk, legal gaps, cross-border trade limitations                               | Political risk insurance, liability coverage, cross-border commercial risk |
| Infrastructure and utility risks          | Power outages, electricity/ water shortages, supply chain disruptions                    | Utility failure insurance, infrastructure damage insurance                 |
| Human resource risks                      | Staff shortages, inability to pay skilled workers, employee health and replacement risks | Employee insurance, staff replacement insurance                            |
| IT and booking system risks               | Online ticketing issues, system failures                                                 | IT/system support insurance                                                |

**Table A20: Barriers to insurance across the tourism value chain**

| Value chain component   | Most common insurance barrier | Least common insurance barrier |
|-------------------------|-------------------------------|--------------------------------|
| Travel agents           | Trust issues                  | Subsidy access                 |
| Inbound tour operators  | Complexity                    | Digital access                 |
| Outbound tour operators | Claims process difficulties   | Subsidy access                 |
| Suppliers               | High cost                     | Coverage gaps                  |

**Table A21: Misconceptions and learning needs across the tourism value chain**

| Value chain component   | Common misconceptions                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------------|
| Suppliers               | Insurance is only for big hotels or car fleets; insurance companies avoid responsibility; delayed payouts |
| Travel agents           | Bribes needed; policy language is misleading; unaware of what is covered                                  |
| Inbound tour operators  | Complicated documentation; hard to coordinate claims                                                      |
| Outbound tour operators | Limited returns; not worth the premium; only large-scale risk is insurable                                |

**Table A22: Coping mechanisms in the tourism value chain through formal channels, by province**

| Province      | Mechanism                                                                                                                              |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Bagmati       | Tourism firms tap into international certification schemes. Kathmandu anchors institutional density and formal services.               |
| Gandaki       | High-end tourism businesses in Pokhara are well-integrated into formal mechanisms, including licensing and insurance.                  |
| Karnali       | Limited tourism operates without regulatory oversight or institutional support. The sector is largely informal.                        |
| Koshi         | Tourism enterprises, particularly those focused on eco-tourism, engage with structured training programs and branding efforts.         |
| Lumbini       | Religious tourism around the Buddha's birthplace has catalysed investment in hospitality and safety standards.                         |
| Sudurpashchim | Tourism remains informal, and formal credit or insurance systems are largely absent. Border trade and remittance flows add complexity. |

**Table A23: Coping mechanisms in the tourism value chain through informal channels, by province**

| Province      | Mechanism                                                                                                                                                          |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bagmati       | Tourism's informal sector, including freelancers, porters, and vehicle operators, plays a vital role in service delivery, often operating outside regulatory view. |
| Gandaki       | Homestay operators and other tourism providers self-organize around local events, sharing resources without external coordination.                                 |
| Karnali       | Informal tourism collaborations, often between local youth groups and guides, are common. Informality is an adaptation rather than an oversight.                   |
| Koshi         | In tourism, interpersonal networks are the main recruitment and referral mechanism, particularly for guides and transporters.                                      |
| Lumbini       | Informal operators thrive during pilgrimage seasons, adapting quickly without the burden – or benefit – of regulatory frameworks.                                  |
| Sudurpashchim | Tourism businesses, particularly near Khaptad, are highly informal, adapting quickly but remaining structurally vulnerable without formal support.                 |

**Table A24: Summary of coping mechanisms across the tourism value chain**

| Channel  | Value chain component    | Coping mechanisms                                                                               |
|----------|--------------------------|-------------------------------------------------------------------------------------------------|
| Formal   | Travel agents, suppliers | Government engagement, insurance, staff training and certification, safety standards            |
| Informal | Travel agents, suppliers | Community engagement, self-investment, word-of-mouth marketing, informal contractual agreements |



**Table A25: Breakdown of gaps in the tourism value chain and potential interventions to fill them**

| Insurance category            | Observations                                                             | Gaps identified by respondents                                                                            | Suggested improvements                                                                                              | Supporting insights                                                                                                                                    |
|-------------------------------|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vehicle insurance             | Critical for tour operators; compulsory yet misunderstood.               | Operators unsure what is covered; claim rejections due to misinterpretation of terms.                     | Clear pre-sale explanation of coverage; in-person onboarding with example scenarios; regional claims support desks. | Butwal tourism stakeholders cited previous conflict-era claims (e.g., Maoist period) being only partially honoured, breeding long-term mistrust.       |
| Property insurance            | Mentioned in relation to offices, hotels and gear.                       | Cottage industries lack registration documents, leading to claim denials; long and complex processes.     | Local documentation support; relaxed criteria for microenterprises; simplified SME-tailored fire/theft policies.    | HAN Ilam noted that hotels taxed as industries lack access to risk-mitigation tools, unlike agriculture and manufacturing sectors.                     |
| Life/health insurance         | Viewed as useful but claims are slow or denied.                          | Bad past experiences erode trust; no sector-specific health schemes.                                      | Fast-track health claims for tour workers; small-group life insurance schemes; enforce insurer accountability.      | Koshi hotel owners and HAN Ilam flagged that promises to extend health insurance to hotel workers remain unfulfilled.                                  |
| General tourism insurance     | Few sector-specific products exist (e.g., trip cancellation, liability). | Operators unclear about eligibility; confusion around incidents (e.g., crowd-related damage not covered). | Sector-customized insurance (guides, transporters, lodges); bundled coverage with training and licensing.           | Stakeholders noted that trekking insurance often only covers high altitudes, ignoring common illnesses below 3000m.                                    |
| Government-linked insurance   | Minimal public visibility despite national schemes.                      | Tour operators unaware of public offerings.                                                               | Co-branding of public policies with local governments; promotion via tourism boards and associations.               | General sentiment from FGDs is that insurance is seen as a “private profiteering” scheme, with public insurers too invisible to be trusted or chosen.  |
| Claims experience (all types) | Distrust from tourism entrepreneurs; long delays and rejections common.  | Perception of harassment by agents; financial strain from low reimbursements.                             | Transparent and bilingual claims documents; fixed claim timelines; grievance redressal body for tourism MSMEs.      | Descriptions of agents as “harassing” and “unethical” in Butwal and Ilam show how negative perception severely limits buy-in among tourism businesses. |

## Annex 2: Additional information supporting the assessment of value chains (table A1)

The following data provide a baseline for the High-Medium-Low categorization in table A2. The data were also considered alongside a literature review as well as the authors' own analysis and observations to finalize the categorization in table A2.

### 1. Prevalence of MSMEs

**Table A26: Number of industries registered, by category and scale, FY 2080/81 (2023/24)**

|                            | Small | Medium | Large |
|----------------------------|-------|--------|-------|
| Manufacturing              | 65    | 30     | 12    |
| Energy                     | 0     | 3      | 19    |
| Agriculture and forestry   | 16    | 0      | 0     |
| Tourism                    | 116   | 10     | 11    |
| Mining and quarrying       | 4     | 0      | 0     |
| Other services             | 104   | 8      | 6     |
| Construction               | 8     | 0      | 1     |
| Information and technology | 20    | 1      | 0     |

Source: Nepal, DOI (2024).

**Table A27: Micro, cottage and small industry registration, by category, FY 2051/52 (1994/95) to FY 2079/80 (2022/23)**

|                            | Number of Registrations |
|----------------------------|-------------------------|
| Manufacturing              | 92,008                  |
| Energy                     | 1,282                   |
| Agriculture and forestry   | 8,697                   |
| Tourism                    | 17,869                  |
| Mining and quarrying       | 1,084                   |
| Other services             | 74,890                  |
| Construction               | 8,762                   |
| Information and technology | 0                       |

Source: Nepal, DOI (2024).

**Table A28: Licensing details (mining sector)**

| Sub-sector         | Licensing details                                                                                                                          |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Iron ores          | 13 prospecting licences and 3 mining licences for iron to private/public companies in FY 2015/16.                                          |
| Copper ores        | 14 prospecting licences for copper exploration had been issued by the Department of Mining and Geology (DMG) by 2015/16                    |
| Zinc and Lead Ores | 4 exploration licences for lead and zinc have been issued by DMG                                                                           |
| Uranium            | No licences issued yet by DMG                                                                                                              |
| Gold               | DMG has issued 45 prospecting licences for gold to date                                                                                    |
| Limestone ores     | According to DMG record (FY 2015/16) 44 mining licenses and 172 prospecting licences for limestone have been issued to the private sector. |
| Dolomite           | DMG has issued 10 prospecting licences for dolomite.                                                                                       |
| Magnesite          | DMG has issued 1 mining licence for magnesite.                                                                                             |

Source: Nepal, Investment Board Nepal (2017).

## 2. Contribution to economy

**Table A29: Contribution to GDP, by sector**

|                                                                                                                                                                                                       | Composition of GDP<br>(2021/22) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| [A] Agriculture, forestry and fishing                                                                                                                                                                 | 23.9                            |
| [B] Mining and quarrying                                                                                                                                                                              | 0.6                             |
| [C] Manufacturing                                                                                                                                                                                     | 5.6                             |
| [D] Electricity, gas, steam and air conditioning supply                                                                                                                                               | 1.4                             |
| [E] Water supply, sewerage, waste management and remediation activities                                                                                                                               | 0.5                             |
| [F] Construction                                                                                                                                                                                      | 6.2                             |
| [G] Wholesale and retail trade, repair of motor vehicles and motorcycles                                                                                                                              | 16.4                            |
| [H] Transportation and storage                                                                                                                                                                        | 6                               |
| [I] Accommodation and food service activities                                                                                                                                                         | 1.7                             |
| [J] Information and communication                                                                                                                                                                     | 2.1                             |
| [K] Financial and insurance activities                                                                                                                                                                | 6.9                             |
| [L] Real estate activities                                                                                                                                                                            | 8.8                             |
| [M] Professional, scientific and technical activities                                                                                                                                                 | 1                               |
| [N] Administrative and support service activities                                                                                                                                                     | 0.8                             |
| [O] Public administration and defence, compulsory social security                                                                                                                                     | 7.7                             |
| [P] Education                                                                                                                                                                                         | 8.1                             |
| [Q] Human health and social work activities, other service activities and                                                                                                                             | 1.8                             |
| [R_S_T_U] Arts entertainment and recreation, Other service activities, and activities of households as employers, undifferentiated goods and services, producing activities of households for own use | 0.6                             |
| Total                                                                                                                                                                                                 | 100                             |

Source: Nepal, NSO (2024).

### 3. Contribution to employment

**Table A30: Employment, by sector**

| Sector                     | Total employment |
|----------------------------|------------------|
| Manufacturing              | 366,016          |
| Energy                     | 8,238            |
| Agriculture and forestry   | 40,574           |
| Tourism                    | 90,543           |
| Mining and quarrying       | 7,675            |
| Other services             | 145,785          |
| Construction               | 42,325           |
| Information and technology | 4,722            |

Source: Nepal, DOI (2024).

### 4. Sector homogeneity

**Table A31: Economic sectors, by number of different sub-sectors**

| Sector                     | Total sub-sectors |
|----------------------------|-------------------|
| Manufacturing              | 133               |
| Energy                     | 5                 |
| Agriculture and forestry   | 28                |
| Tourism                    | 4                 |
| Mining and quarrying       | 2                 |
| Other services             | 61                |
| Construction               | 3                 |
| Information and technology | 2                 |

Source: Nepal, DOI (2024).