

WORKSHOP IN SUSTAINABLE DEVELOPMENT PRACTICE

Supporting Mongolia's Diversified and Sustainable Economic
Development Leveraging Rural Herder Communities



SIPA Team:

Team: Dewinta Anindya, Indri Ariyani,
Ruweida Kulane, Raka Putra Paksi, Jacob
Matthew Arnstein, Marsela Limandar

Acknowledgement

This project would not have been possible without the support, insights, and guidance from our client, the United Nations Resident Coordinator's Office (UNRCO) in Mongolia, and Dr. Sangwon Lim in particular. We are equally grateful to our faculty advisors, Dr. Fumiko Sasaki and Professor Eugenia McGill, for their invaluable mentorship throughout the course of this project, and to Vida Herling for her logistics support for our field study.

We extend our sincere appreciation to Gankhulug Ganbat, Batbaatar Bayarmagnai, Munkhbolor Gungaa, Myagmarjav Serjkhoo, Uribold Bayaraa, Balchinluvsan Lkhagvasuren, B. Erkhembayar, Nyamjargal Gombo, Abel Lomax, Malte Giesenow, Sarangoo (Khanbogd Cashmere), representatives from Gobi Cashmere, Dr. Batkhishig Baival, Batchimeg Ganbaatar, Tuguldur Enkhtsetseg, Gala Davaa, Altanchimeg Zagd, Ariunzul Enkhbaatar, Jargalmaa Ochirmunkh, Bayartulga Gantumur, Khandaa Byamba, Ariunaa Battogtokh, Batmanlai (Bruce) Tsogt, Anar Amarjargal, Badamtsetseg Altantsogt, and Zorigoo for generously sharing their time, perspectives, assistance, and expertise, enriching our research and deepening our understanding of the issues at hand.

Acronyms and Abbreviations

ADB	Asian Development Bank
BOM	Bank of Mongolia
BRI	Belt and Road Initiative
FAO	Food and Agriculture Organization
GOM	Government of Mongolia
ILO	International Labor Organization
IOM	International Organization for Migration
JWP	Joint Work Plans
MED	Ministry of Economic Development
MNFPUG	Mongolian National Federation of Pasture User Groups
MOFALI	Ministry of Food, Agriculture, and Light Industry
MSCP	Mongolian Sustainable Cashmere Platform
NCWH	New Cooperative - Wealthy Herder Program
RC	Resident Coordinator
RCO	Resident Coordinator's Office
RDILI	Research and Development Institute of Light Industry
SDG	Sustainable Development Goals
SIPA	School of International and Public Affairs
TBIH	Tourism Business Incubator for Herders
UNCT	United Nations Country Team
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund

UNIDO	United Nations Industrial Development Organization
UNRCO	United Nations Resident Coordinator's Office
UNSCDF	United Nations Sustainable Development Cooperation Framework
WGI	White Gold Initiative

Table of Contents

Acknowledgement.....	i
Acronyms and Abbreviations	ii
Table of Contents.....	iv
Executive Summary	vi
Client Agency.....	ix
1. Background.....	1
1.1. Mongolia’s Rural Herder Communities	3
1.2. Vision 2050: A Path to Inclusive Growth	4
2. Objectives and Scope	5
2.1. Objectives	5
2.2. Scope	5
3. Methodology	6
3.1. Overview	6
3.2. Limitations	6
4. Cooperatives in Mongolia	8
4.1. Overview of the Cooperative Model in Mongolia.....	8
4.2. Structure, Legal Standing, and Government Support	8
4.3. Key Functions and Benefits of Cooperatives	9
5. Camel-Based Textile Opportunities for Economic Resilience.....	11
6. Proposed Policy Recommendations	14
6.1. Textile Sector	15
6.1.1. Initiative 1 (Low): Herder’s Manual.....	15
6.1.2. Initiative 2 (Medium): Digitalized Bundled Incentives for Cooperative Engagement.....	19
	iv

6.1.3. Initiative 3 (High): Establishment of Regional Cooperative Hubs.....	23
References.....	27
APPENDIX I.....	33
1. Key Functions and Benefits of Cooperatives	33
2. Pathways for Resilience.....	35
3. Challenges Facing Cooperatives	36
APPENDIX II.....	39
Initiative 1 (Low): Herder’s Manual	39
Initiative 2 (Medium): Digitalized Bundled Incentives for Cooperative Engagement.....	45
Initiative 3 (High): Establishment of Regional Cooperative Hubs	51
APPENDIX III.....	54
1. Tourism Opportunities for Economic Diversification	54
2. Proposed Policy Recommendation in Eco-Tourism Sector	59
2.1 Initiative 1 (Low): Continuous Capacity Building	59
2.2 Initiative 2 (Medium): Funding and Mentorship.....	67
2.3 Initiative 3 (High): Digital Infrastructure Development.....	74

Executive Summary

For the fourth consecutive year, the United Nations Resident Coordinator's Office (UNRCO) in Mongolia has collaborated with Columbia University's School of International and Public Affairs (SIPA) to support the Government of Mongolia in implementing its long-term development strategies, Vision 2050 and the United Nations Sustainable Development Cooperation Framework (UNSDCF) 2023 – 2027. While previous projects have explored Mongolia's potential for overall economic diversification beyond mining—such as in dairy and renewable energy – this year's workshop shifts its focus to a vital yet often-overlooked demographic: rural herders, who make up approximately one-third of the country's total population.

This report was commissioned by the UN Country Team (UNCT) to develop strategies that integrate rural herders into Mongolia's economic transformation. It outlines the project team's approach to addressing these structural challenges by analyzing the country's macroeconomic context, identifying high-potential sectors for rural development, and offering targeted policy interventions that align with Mongolia's national goals and the Sustainable Development Goals. It focuses on sectoral analysis, policy review, stakeholder consultations, and case studies, with a special emphasis on cooperatives, gender and youth inclusion, and climate adaptation as pillars of rural development.

The report is centered around the following key findings:

1. Structural Challenges Facing Herder Communities

Herder households face intersecting structural challenges, including financial literacy gaps, underemployment, limited market access, and vulnerability to climate-related shocks. These issues contribute to growing rural-urban disparities and constrain inclusive growth.

2. Cooperatives as Vehicles for Inclusion and Resilience

Well-supported and herder-run cooperatives improve market access, promote collective action, and build resilience. However, their impact varies due to gaps in governance, legal recognition, and service delivery. Nonetheless, they may serve as the key to unlocking herder economic capacity.

3. Opportunities in Textiles and Eco-Tourism

The textile (cashmere and camel wool) and eco-tourism sectors hold significant promise for rural diversification. Drawing from desk research, field visits, stakeholder consultations, and case studies, the report proposes targeted recommendations to (i) enhance productivity and value addition; (ii) strengthen herder cooperative capacity; (iii) promote gender equality and youth engagement; and (iv) foster climate-smart herding and eco-tourism.

4. Gender and Youth Inclusion Remains Limited

Despite significant contributions to herding families, women and youth remain underrepresented in herder leadership and decision-making. Enhanced representation and targeted programs are necessary for equitable development.

5. Climate-Responsive Development Models Are Emerging

Despite the high prices fetched by cashmere goats, herders are already diversifying their livestock toward less environmentally-damaging and more climate-resilient species like Bactrian camels. Introducing adaptive practices have demonstrated success in addressing environmental degradation and supporting sustainable livelihoods.

To respond to the identified challenges and seize the identified opportunities, the report proposes a three-tiered strategy for policy action:

1. Low-Impact (Foundational): Herder's Manuals

Develop and distribute regionally tailored manuals in multiple formats (print, audio, visual) to enhance herder knowledge of sustainable practices, cooperative benefits, and market literacy, especially in low-connectivity areas.

2. Medium-Impact (Scalable): Digital Bundled Incentives

Deploy an offline-capable digital platform that offers herders rewards (e.g., shearing tools, training vouchers, weather alerts) linked to cooperative engagement and sustainable practices. This will build digital literacy and strengthen cooperative participation.

3. High-Impact (Transformative): Regional Cooperative Hubs

Establish multi-functional hubs to serve as local centers for fiber processing, training, and eco-tourism coordination. These hubs will decentralize value chains, increase rural income, and foster community-owned development.

Each tier is designed to address different readiness levels among communities while supporting long-term structural transformation. Together, they create an adaptable roadmap aligned with national priorities and international goals.

In conclusion, Mongolia's herder communities possess the cultural knowledge, resilience, and motivation needed to drive sustainable, inclusive development. This report highlights how targeted investments in cooperatives, inclusive policy, and climate-smart economic strategies can unlock this potential capacity. If implemented, the recommendations can help Mongolia build a more equitable and climate-resilient economy that reflects the aspirations of Vision 2050 and contributes meaningfully to the 2030 Agenda for Sustainable Development, bridging rural-urban divides, mitigating climate risks, and positioning Mongolia as a global leader in sustainable, community-driven development.

Client Agency

The United Nations (UN), established in 1945, is an international organization comprising 193 Member States and dedicated to addressing global challenges through collective action and the Sustainable Development Goals (SDGs). Mongolia joined the UN in 1961, and their partnership has since evolved into a strong and mutually beneficial collaboration. UN agencies support Mongolia across key areas including democratic governance, human rights, gender equality, socio-economic development, climate adaptation and environmental protection.¹

The UN Resident Coordinator's Office (UNRCO) in Mongolia coordinates the work of 23 UN agencies (9 resident and 14 non-resident) reporting directly to UN Headquarters. Key resident agencies include the Food and Agriculture Organization (FAO), UN Development Programme (UNDP), and UNICEF, while non-resident agencies such as the ILO and IOM also play important roles in Mongolia's development.²

In 2016, the Mongolian government and the UN launched the UN Development Assistance Framework (UNDAF) 2017–2022 to improve collaboration and coordination across UN agencies and partners. Building on the success of UNDAF, the partnership entered a new phase with the launch of the UN Sustainable Development Cooperation Framework 2023–2027 (UNSDCF). The UNSDCF determines the configuration of UN resources required both within and beyond the country. It aligns UN contributions with Mongolia's national development priorities outlined in Vision 2050 and the country's commitments under the 2030 Agenda for Sustainable Development, serving as a roadmap for inclusive and sustainable growth in Mongolia.³

The UN system in Mongolia is led by the UN Resident Coordinator (RC) which is the highest-ranking UN development official in the country. The RC heads the UN Country team (UNCT), ensuring a unified and accountable response to Mongolia's development priorities, and is supported by the Resident Coordinator's Office (RCO), which facilitates activities like common programming, implementation of the 2030 Agenda, joint programs, and coordination of

¹ UN Mongolia, "The United Nations in Mongolia," accessed 2 December 2024, <https://mongolia.un.org/en/about/about-the-un>.

² UN Mongolia, "UNSDCF 2023–2027: Mongolia," accessed 2 December 2024, https://unsdg.un.org/sites/default/files/2022-06/Mongolia_Cooperation_Framework_%202023-2027.pdf.

³ *Ibid.*

development efforts. All initiatives are designed to align closely with Mongolia's national priorities and the mandates of respective UN agencies.⁴

⁴ UN Mongolia, "The UN Resident Coordinator Office," accessed 2 December 2024, <https://mongolia.un.org/en/about/about-the-resident-coordinator-office>.

1. Background

Mongolia, the world's second-largest landlocked country, has a population of 3.55 million, growing at an annual rate of 1.4% as of 2024.⁵ Approximately half of the population resides in Ulaanbaatar, while the remainder is dispersed across a vast and sparsely populated territory, resulting in a low population density of just 2.2 people per square kilometer. In 2023, Mongolia ranked 96th out of 193 countries on the Human Development Index (HDI), with a score of 0.741—reflecting a 28% improvement since 1990. However, this progress has plateaued in recent years, with HDI scores struggling to rebound from decline that began in 2016.⁶ Poverty remains a persistent challenge, with an estimated 27.1% of the population living below the national poverty line as of 2022.⁷

Mongolia's geography and demography play a central role in shaping its development trajectory. Despite targeted investments, critical infrastructure remains underdeveloped—particularly in rural provinces. Sparse and poorly maintained road networks, combined with inadequate energy and water systems, significantly hinder service delivery and raise the cost of living in remote areas. These logistical barriers, coupled with vast distances and high transportation costs, exacerbate spatial inequality and limit economic opportunities for rural populations.⁸ As a result, internal migration toward urban centers has intensified. From 2010 to 2016, over 100,000 people relocated to Ulaanbaatar and now live in informal *ger* districts, which make up over 60% of the city's population. These areas are marginal and their residents are excluded from necessary social services.⁹

Economic activity and trade are concentrated in and around Ulaanbaatar, which dominates the country's industrial and service sectors, while rural livelihoods remain heavily reliant on livestock. About 98% of herder income is derived from animal husbandry, primarily wool, cashmere (62%), and live animals (29%). However, nearly 85% of herder households own fewer than 200 animals, and 63% own fewer than 100—placing around 338,000 herders in the category

⁵ International Monetary Fund Datamapper, "Population," accessed 2 December 2024, <https://www.imf.org/external/datamapper/LP@WEO/MNG>.

⁶ UNDP Mongolia, "National Human Development Paper 2024: A Just Energy Transition for Human Development in Mongolia," accessed 2 December 2024, https://www.undp.org/sites/g/files/zskgke326/files/2024-11/nhdp_full_mongolia_final.pdf.

⁷ Asian Development Bank, "Basic Statistics 2024," accessed 3 December 2024. <http://dx.doi.org/10.22617/ARM240241-2>.

⁸ Bertelsmann Stiftung, *BTI 2024 Country Report — Mongolia* (Gütersloh: Bertelsmann Stiftung, 2024), accessed 2 December 2024. <https://bti-project.org/en/reports/country-report/MNG>.

⁹ United Nations International Organization for Migration (IOM), "Mongolia internal Migration Drives Urbanization, De-population of Rural Areas: IOM," 23 October 2018, <https://www.iom.int/news/mongolia-internal-migration-drives-urbanization-de-population-rural-areas-iom>.

of "hidden unemployment." This term refers to individuals engaged in work, such as herding, whose income and productivity are insufficient to maintain a basic standard of living.¹⁰

Limited access to local markets further deepens rural economic vulnerability. Many herders rely on itinerant traders or absorb high transportation costs to reach urban buyers, diminishing their already slim profit margins. This dynamic exacerbates the rural-urban divide, which is evident in Mongolia's rapid urbanization—increasing from 40% in 1963 to 68% in 2017.¹¹ These conditions underscore the need for inclusive development policies that address geographic, economic, and social disparities.

Mongolia's economic growth has been largely fueled by its mineral wealth, with mining contributing 28% of GDP and over 90% of exports as of 2023.¹² However, the sector employs only 5% of the labor force and leaves the economy highly exposed to global commodity price fluctuations.¹³ Mongolia's landlocked geography and reliance on neighboring China and Russia for trade and energy further heighten its vulnerability, while efforts to build "third neighbor" partnerships have yet to substantially diversify the economy.¹⁴ Regional disparities persist, with rural households earning over 30% less than urban ones and unemployment in some provinces reaching triple the national average.¹⁵

Beyond mining, agriculture remains vital, contributing 10% of GDP and employing over a fifth of the workforce. Livestock husbandry forms the core of rural livelihoods, yet logistical challenges limit value addition. Despite having one of the highest livestock-to-population ratios, Mongolia imports dairy products¹⁶ and processes only a fraction of its vast cashmere production domestically.¹⁷ Informal supply chains dominated by foreign middlemen and the lack of local processing facilities restrict the country's ability to capture higher value, reinforcing economic vulnerabilities in rural areas.¹⁸

¹⁰ *Ibid.*

¹¹ *Ibid.*

¹² Asian Development Bank, "Asian Development Outlook April 2024: Mongolia," accessed 3 December 2024, <https://www.adb.org/sites/default/files/publication/957856/mon-ado-april-2024.pdf>.

¹³ UNDP Mongolia, "National Human Development Paper 2024."

¹⁴ Mendee Jargalsaikhan, "Mongolia's Dilemma: A Politically Linked, Economically Isolated Small Power," *The Asian Forum*, 23 October 2014, <https://theasianforum.org/mongolias-dilemma-a-politically-linked-economically-isolated-small-power/>.

¹⁵ UNDP Mongolia, National Human Development Paper 2024.

¹⁶ U.S. Department of State, "2024 Investment Climate Statements: Mongolia," accessed 14 April 2025, <https://www.state.gov/reports/2024-investment-climate-statements/mongolia/>.

¹⁷ Mariana Simões, "How Sustainable Cashmere Is Reversing Land Degradation in Mongolia," United Nations Development Programme, 15 December 2021, <https://www.undp.org/blog/how-sustainable-cashmere-reversing-land-degradation-mongolia>.

¹⁸ Myagmarjav Serjkhuu (Mongolian Sustainable Cashmere Platform Manager, UNDP), interview by author, 17 March 2025.

Structural issues such as elite entrenchment and governance concerns continue to deter investment and inhibit inclusive growth.¹⁹ Gender disparities also remain a challenge; although women surpass men in educational attainment, they face lower labor force participation, a persistent wage gap, and underrepresentation in leadership roles.²⁰ Addressing these barriers will be critical for Mongolia to fully leverage its human capital and move toward more equitable and sustainable development.

1.1. Mongolia's Rural Herder Communities

Pastoralism remains the main livelihood for about 61% of rural households in Mongolia, yet herder incomes are highly volatile and dependent on market access and environmental conditions.²¹ Milk sales account for a significant portion of earnings, but logistical challenges often force herders to sell livestock during crises, eroding their financial stability and driving migration to urban areas.²² Recurring climate shocks like dzud events—harsh winters that kill livestock—have intensified due to climate change, devastating rural economies and accelerating urban migration.²³

Environmental pressures have also shifted herding practices, with many moving toward more drought-resilient species like camels and horses, though even these are increasingly vulnerable.²⁴ Structural barriers such as limited access to technology, veterinary services, and financial systems compound herders' hardships. Although cooperative programs and soft loans exist, they remain insufficient.²⁵ Despite these challenges, herding remains deeply tied to Mongolian cultural identity, making the threats to this way of life particularly acute.²⁶

Gender disparities further complicate rural development. Women make up around 41% of the herder population but bear a disproportionate share of unpaid labor and have limited livestock ownership.²⁷ Climate change exacerbates these gender inequalities, deepening rural women's economic vulnerabilities. Meanwhile, rising rural-to-urban migration, driven by livelihood collapse,

¹⁹ U.S. Department of State, "2024 Investment Climate Statements: Mongolia," accessed 14 April 2025, <https://www.state.gov/reports/2024-investment-climate-statements/mongolia/>.

²⁰ World Bank Group, "Gender Data Portal: Mongolia," accessed 15 December 2024, <https://genderdata.worldbank.org/en/economies/mongolia>.

²¹ UNDP Mongolia, National Human Development Paper 2024.

²² *Ibid.*

²³ Antoine Clément Marinot, "Mongolia: Dzuds," ACAPS, 15 January 2021. <https://coilink.org/20.500.12592/5ngxp3>.

²⁴ Khandaa Byamba, (Herder and Advocate, Dundgovi Province), interview by author, 17 March 2025.

²⁵ *Ibid.*

²⁶ Sustainable Fibre Alliance, "What Does Decent Work Mean to Women Herders in Rural Mongolia?," accessed 15 December 2024, <https://sustainablefibre.org/what-does-decent-work-mean-to-women-herders-in-rural-mongolia/>.

²⁷ Asian Development Bank, *Mongolia: Enhancing Gender Equality for Rural Women and Girls Through Climate-Resilient and Gender-Responsive Policies*, accessed 15 December 2024, <https://www.adb.org/sites/default/files/project-documents/57135/57135-001-tar-en.pdf>.

has swelled Ulaanbaatar’s population, straining infrastructure and services in informal ger districts where many migrants face continued poverty and marginalization.²⁸

1.2. Vision 2050: A Path to Inclusive Growth

In response to these interlocking challenges, the government of Mongolia (GOM)—working in partnership with the United Nations—has introduced Vision 2050, a comprehensive long-term strategy aimed at positioning Mongolia as a leading Asian country in terms of social development, economic growth, and quality of life.²⁹ The strategy’s core pillars emphasize environmental stewardship, inclusive growth, and a transition toward a self-sufficient economy that delivers equitable benefits for all citizens.³⁰

Vision 2050 outlines a roadmap to shift Mongolia’s economy away from its heavy dependence on the mining sector toward a more diversified base, with a strong emphasis on manufacturing, transportation, and heavy industry. Notably, the strategy prioritizes the development of the dairy and meat sectors as key drivers of rural economic transformation.³¹ The plan also underscores the importance of inclusive policies to reduce socioeconomic disparities, strengthen resilience to economic and climate-related shocks, and empower marginalized populations—particularly rural herder communities.³²

²⁸ UNDP Mongolia, “National Human Development Paper 2024.”

²⁹ Government of Mongolia, “Vision 2050,” accessed 2 December 2024, <https://www.vision2050.gov.mn/eng/index.html>.

³⁰ *Ibid.*

³¹ *Ibid.*

³² *Ibid.*

2. Objectives and Scope

This report aims to support the operationalization of the United Nations Sustainable Development Cooperation Framework (UNSDCF) 2023–2027 for Mongolia, with a specific focus on Outcome 2: promoting the diversification of the Mongolian economy to make it more innovative, inclusive, green, and geographically balanced.

2.1. Objectives

The report has two primary objectives:

1. To identify high-potential economic sectors and sub-sectors that can drive Mongolia's transition from a resource-dependent economy to one that is diversified, sustainable, and resilient.
2. To provide targeted, practical, and inclusive policy recommendations for the UN Resident Coordinator's Office (UNRCO) Mongolia, with a particular emphasis on advancing decent livelihoods, enhancing the economic participation of women and youth, and supporting low-carbon development pathways.

2.2. Scope

The scope of the report includes:

1. Analyzing Mongolia's current economic structure, with a focus on the country's reliance on the mining sector and the associated vulnerabilities.
2. Identifying promising sectors for diversification through both quantitative and qualitative assessment.
3. Prioritizing high-impact sub-sectors—textiles and eco-tourism—for deeper analysis, with a particular focus on the supply chain bottlenecks, infrastructure gaps, and value addition opportunities.
4. Proposing initiatives aimed at enhancing productivity, inclusivity, and sustainability within the selected sub-sectors.

3. Methodology

3.1. Overview

To ensure a context-specific and evidence-based analysis, the research team employed a mixed-methods approach, integrating both secondary and primary data sources:

A. Desk Research

A comprehensive literature review was conducted, drawing on several academic studies, national development plans, policy papers, and reports from international organizations. This provided a foundational understanding of Mongolia's current macroeconomic trends, structural challenges, and sectoral opportunities.

B. Stakeholder Consultations and Interviews

More than 15 semi-structured interviews were conducted both in person and virtually with key stakeholders, including representatives from government entities, development partners, private sector actors, and local communities. These engagements helped validate the sector selection, surface implementation challenges, and identify untapped opportunities within the sub-sectors.

C. Site Visits

The research team conducted a study visit to Mongolia, including site visits to camel herder communities and textile manufacturing facilities. These site visits offered firsthand insights into the geographical, logistical, and infrastructural constraints facing Mongolian herders, as well as their resilience and innovation potential.

D. Comparative Case Studies

To enrich the analysis, the report draws on lessons from comparable countries and regions that have successfully pursued economic diversification—particularly in sectors such as textiles and eco-tourism. These case studies provide valuable insights on enabling policies, institutional frameworks, and models for inclusive value chain development.

3.2. Limitations

The research team faced several limitations in carrying out this project.

A. Timeframe

First, the timeframe of the project, particularly the field study visit, was quite short. This meant that stakeholder engagement was limited to those who were accessible via email, and while the

team was able to gain some introductions to other potentially helpful sources involved in relevant industries and value chains, more time in-country would have allowed the research team to gain a deeper understanding of some of the less visible and well-studied aspects of the herder community.

B. Data

Many of the initiatives that the GOM has implemented are very new, and there is little to no available data on their effectiveness. This makes it very difficult to accurately assess the policy environment and understand if and how the situation has changed. While the research team was able to find a wealth of background information, much of the stakeholder engagement consisted of anecdotes or expert opinions, and while helpful, these are still subject to potential bias.

C. Interaction with Herders

Initially, the research team proposed a series of interviews and focus groups with the herder community, but scrapped the idea because it would have necessitated review by an Internal Review Board (IRB). While the team did ultimately engage with multiple Mongolians involved in herding, these were individuals providing information and insights to the team in their capacity as advocates for the community and operators in the tourism industry, not as human subjects. With more time and resources, a subsequent project on this topic could have ethically and responsibly conducted more in-depth research on herder families and cooperatives.

4. Cooperatives in Mongolia

4.1. Overview of the Cooperative Model in Mongolia

In Mongolia's vast and sparsely populated rangelands, cooperatives serve as a vital mechanism to improve the livelihoods of small-scale herders. By addressing longstanding market failures—particularly limited access to formal markets and financial services—cooperatives help herders overcome barriers associated with the country's geographic dispersion and the dominance of informal middlemen. As Asian Development Bank notes, service cooperatives are instrumental in “correcting market failures by allowing alternative access to markets without relying on private intermediaries.” In the Mongolian context, this translates to helping herders bypass informal, often China-affiliated, middlemen by directly linking them with domestic processors in the textile, meat, and dairy sectors. This disintermediation enables herders to capture greater value from their products, negotiate better prices, and strengthen local supply chains.³³

Beyond improving market access, cooperatives perform significant socio-economic functions that address the unique challenges of Mongolia's geographic dispersion and social fragmentation. They foster collective action among herders by facilitating knowledge exchange, mutual aid during extreme weather events such as dzud, shared labor, and communal responses to livestock loss. These roles enhance the resilience of rural communities to climate shocks and support more coordinated approaches to pastureland and animal health management.³⁴

From an economic standpoint, cooperatives play a vital role in streamlining the early stages of the livestock value chain. By aggregating supply, they serve as single points of contact for larger procurement orders, significantly reducing transaction costs and logistical burdens for processors. Leading cashmere companies like Gobi and Khanbogd source from approximately 20 cooperatives—each comprising around 50 herders—underscoring the efficiency gains of engaging with these cooperatives rather than individual herders.³⁵

4.2. Structure, Legal Standing, and Government Support

Modern cooperatives in Mongolia emerged following the dissolution of state-owned cooperatives after the country's transition to a market economy in 1992.³⁶ Since then, the legal and regulatory

³³ Shingo Kimura, David Sedik, and Enkh-Amgalan Ayurzana, *Strengthening Cooperative Institutions to Support Sustainable Livestock Production in Mongolia*, Asian Development Bank Briefs no. 226 (November 2022), <http://dx.doi.org/10.22617/BRF220418-2>.

³⁴ *Ibid.*

³⁵ Gobi Cashmere and Khanbogd Cashmere, interview by author, 17 March 2025.

³⁶ Gankhulug Ganbat (Value Chain Specialist, FAO), interview by author, 20 March 2025.

framework has undergone continuous reform. The first cooperative law was passed in 1989, but it was short-lived due to political changes to reflect changing economic conditions. Under the current framework, Article 36.4 of the Mongolian Civil Code defines a cooperative as “a legal person, established jointly on a voluntary basis by several persons to carry out activities aimed at satisfying common economic and social needs of its members, based on assets with corporate governance and control over joint assets.”³⁷ Cooperatives in Mongolia must have a minimum of nine members,³⁸ with some cooperatives now comprising over 50 herders. Despite their growing presence—over 4,000 herder cooperatives exist in 2025 according to the FAO—organizational capacity and effectiveness vary widely.³⁹

To promote cooperative development and herder participation, the Mongolian government has introduced a range of incentives. These include soft loans of up to MNT 50 million per member, specifically earmarked for investments in equipment and processing infrastructure. Importantly, these loans cannot be used to increase livestock numbers, ensuring that financing supports the productivity and value chain integration rather than herd expansion. These loans are disbursed through commercial banks and are subject to rigorous oversight to promote transparency and financial responsibility.⁴⁰

In parallel, the government has launched nationwide awareness campaigns—primarily through traditional media—to highlight the benefits of cooperative membership and inform herders about eligibility criteria. While cooperatives maintain autonomy in their internal governance, including the ability to define their own rules and management structures,⁴¹ this integrated package of legal, financial, and informational support underscores the state’s recognition of cooperatives as a key driver of rural development and economic diversification in Mongolia.

4.3. Key Functions and Benefits of Cooperatives

In Mongolia’s vast and ecologically fragile rangelands, cooperatives serve as critical institutional mechanisms for addressing structural barriers faced by herder communities—particularly small-scale herders who remain marginalized from formal markets and essential services. Beyond their role as economic entities, cooperatives serve as corrective instruments to long-standing market failures and governance gaps, delivering a range of environmental, social, and fiscal benefits. As

³⁷ Mongolia, *Civil Code of Mongolia*, art. 36.4, adopted 10 January, 2002 (Ulaanbaatar: Government of Mongolia, 2002).

³⁸ B. Erkhembayar (Light Industry Policy Implementation Specialist, MOFALI), interview by author, 21 March 2025.

³⁹ Ganbat, interview by author, 27 February 2025.

⁴⁰ Erkhembayar, interview by author, 21 March 2025.

⁴¹ *Ibid.*

Mongolia shifts its livestock sector from quantity-driven expansion toward sustainability and quality-based growth, the cooperative model emerges as a vital platform for inclusive, resilient, and productive rural development. According to the Asian Development Bank, cooperative serve several functions, such as a tool to overcome the “Curse of Smallness”, expand access to services and market infrastructure, advancing environmental sustainability and pasture management, strengthening economic resilience and risk mitigation, fostering inclusive and participatory governance, and promoting livelihood diversification through tourism and cultural exchange.⁴² For further explanation of each function, please refer to Appendix I.

⁴² Kimura, Sedik, and Ayurzana, *Strengthening Cooperative Institutions*.

5. Camel-Based Textile Opportunities for Economic Resilience

A. Strategic Importance of Textile Sector

Mongolia's textile industry—particularly cashmere and wool—plays a central role in the national economy. As the world's second-largest producer of raw cashmere, Mongolia supplies around 40% of the world's raw cashmere. The sector is deeply embedded in the country's nomadic herding traditions, with nearly 190,000 herder households managing a livestock population that includes around 27 million goats. However, the industry remains heavily dependent on the export of raw materials, with limited domestic capacity for value-added processing.⁴³

While the sector employs about 10,000 people—90% of whom are women—most processing infrastructure is concentrated in and around Ulaanbaatar. This limits opportunities for employment and rural value creation in herder-dominated provinces. Despite its scale, the textile sector's contribution to economic growth remains constrained by supply chain inefficiencies, overreliance on exports, and unsustainable practices.⁴⁴

B. Structural and Sustainability Challenges

1. Geographic Fragmentation

Mongolia's vast territory and sparse population density pose major logistical challenges to textile production. Although the country is administratively divided into 21 provinces and 330 *soums* (municipalities), most processing facilities are located in and around Ulaanbaatar. The geographic dispersion of herders, combined with limited rural infrastructure, creates a disjointed and expensive value chain.⁴⁵

2. Middlemen and Informal Trade Dynamics

The textile supply chain is dominated by middlemen who purchase raw materials from herders and export them to China for processing, where they are converted into finished goods and often re-imported into Mongolia at significantly higher prices.⁴⁶ This means that herders, as well as the Mongolian economy writ large, lose a significant amount of value from their

⁴³ Anton Usov, "EBRD supports sustainable cashmere production in Mongolia," *EBRD*, 26 October 2023, <https://www.ebrd.com/home/news-and-events/news/2023/ebird-supports-sustainable-cashmere-production-in-mongolia.html#>.

⁴⁴ *Ibid.*

⁴⁵ *Ibid.*

⁴⁶ *Ibid.*

products. Decoupling from these middlemen is difficult for herders because many of them have family connections.⁴⁷

3. Seasonality and Financial Vulnerability

Cashmere production is highly seasonal, with shearing occurring between March and July.⁴⁸ In order to supplement income and purchase fodder for their herds to survive the harsh Mongolian winters, herders are often forced to take out loans with exorbitant interest rates of more than 30%, placing them in even more financial precariousness.⁴⁹

4. Environmental Sustainability

The price of raw cashmere wool is far higher than other textile products, having increased over 12% during the 2024 season as climate change-induced weather disasters led to supply shock.⁵⁰ Unlike other animal products, cashmere is also exempt from import controls in China, Mongolia's biggest trading partner.⁵¹ As a result of this, along with growing demand for cashmere products worldwide and poor value-added processing capacity, herd sizes have increased dramatically in recent years, which places tremendous stress on pasture lands as cashmere goats destroy soils through their sharp hooves and deeper grazing behavior.⁵² The absence of a coherent and enforced pastureland management system exacerbates land degradation, undermining the long-term sustainability of the sector.⁵³ While stakeholders have initiated efforts to promote sustainable practices, current production models remain ecologically unsustainable.

C. Diversification Opportunity: Camel-Based Livestock Production

As the environmental toll of cashmere goats becomes increasingly apparent, many herders, particularly in the Gobi region, are beginning to diversify their herds by increasing their Bactrian camels.⁵⁴ While Bactrian camels still make up a comparatively minute percentage of the overall livestock population in Mongolia, their population has increased dramatically from virtual

⁴⁷ Herder (Bulgan Province), interview by author, 19 March 2025.

⁴⁸ *Ibid.*

⁴⁹ Sarah Trent and Khaliun Bayartsogt, "Mongolian nomads create shared funds and financial security," *Devex*, 2 October 2019, <https://www.devex.com/news/mongolian-nomads-create-shared-funds-and-financial-security-95673>.

⁵⁰ Tamir Bud, "Climate Disaster Impact on Mongolian Cashmere Supply | 2024 Market Overview," *Sustainable Fibre Alliance*, 24 September 2024, <https://sustainablefibre.org/climate-disaster-impact-on-mongolian-cashmere-supply-2024-market-overview/>.

⁵¹ Rob Schmitz, "How Your Cashmere Sweater Is Decimating Mongolia's Grasslands," *NPR*, 9 December 2016, <https://www.npr.org/sections/parallels/2016/12/09/504118819/how-your-cashmere-sweater-is-decimating-mongolias-grasslands>.

⁵² *Ibid.*

⁵³ Herder, interview by author, 19 March 2025.

⁵⁴ *Ibid.*

extinction since the end of communism to nearly half a million head today.⁵⁵ There are key reasons for this shift:

1. Environmental Resilience

Bactrian camels are more environmentally sustainable than cashmere goats. Their flat feet cause less soil compaction, and they graze without uprooting plants, reducing damage to already fragile ecosystems.⁵⁶ They are also more tolerant of extreme weather, less susceptible to predators like wolves due to their large size, and require less intensive care, making them well-suited to climate-resilient pastoralism.⁵⁷

2. Income Potential from Camel Milk

Camel milk, which can be harvested year-round, offers a unique nutritional profile with potential health benefits for people with allergies, diabetes, or cardiovascular conditions.⁵⁸ Due to growing demand—even for unprocessed milk—camel milk can contribute up to 80% of a herding household's income.⁵⁹ Moreover, camels have a significantly higher market value compared to cashmere goats, often selling for 10 to 15 times more. This positions camel husbandry as a promising pathway for income diversification and greater economic resilience among herder communities.⁶⁰

3. Baby Camel Wool as a Cashmere Alternative

The wool shorn from baby camels (under one year old) is extremely fine and is considered to be virtually equivalent to cashmere in quality.⁶¹ While demand for camel wool in export markets is still far lower than that of cashmere, it has been increasing in recent years among consumers who value sustainable fashion.⁶² Camel herders have accordingly been able to obtain considerably higher prices for their wool products in recent years, although awareness of overseas market demand remains poor.⁶³

⁵⁵ Uranchimeg Tsogkhuu, "Camel Milk? Mongolia Is All In," *Global Press Journal*, 14 November 2023, <https://globalpressjournal.com/asia/mongolia/camel-milk-mongolia/>.

⁵⁶ Linda Tija and Guanle Lim, "Camel wool can weave economic resilience in Mongolia," *East Asia Forum*, 12 September 2024, <https://eastasiaforum.org/2024/09/12/camel-wool-can-weave-economic-resilience-in-mongolia/>.

⁵⁷ Herder, interview by author, 19 March 2025.

⁵⁸ Razan S. Almasri et al., "Benefits of Camel Milk over Cow and Goat Milk for Infant and Adult Health in Fighting Chronic Diseases: A Review," *Nutrients* 2024 vol. 16, no. 3848 (10 November 2024), 2. <https://pmc.ncbi.nlm.nih.gov/articles/PMC11597306/>.

⁵⁹ Byamba, interview by author, 17 March 2025.

⁶⁰ Herder interview by author, 19 March 2025.

⁶¹ Batbaatar Bayarmagnai (CEO and Coordinator, Dairy Asia), interview by author, 3 March 2025.

⁶² Malte Giesenow (Managing Director, Steppenstrolch), interview by author, 26 February 2025.

⁶³ Herder, interview by author, 19 March 2025.

6. Proposed Policy Recommendations

A. Overview of Three-Tiered Method

To unlock the full economic, social, and environmental potential of Mongolia’s textile and tourism sectors, this unified three-tiered policy strategy provides a roadmap for empowering rural herder communities through the strengthening of cooperative systems. Building on the realities observed during field research and stakeholder consultations, the strategy aims to support the goals of Mongolia’s Vision 2050 and UNSDCF 2023–2027, which call for inclusive economic diversification, rural resilience, and climate-adaptive development.

The framework addresses persistent challenges such as fragmented supply chains, limited rural infrastructure, weak cooperative capacity, and the marginalization of women and youth in the herding economy. By promoting a phased approach to intervention, the strategy facilitates the alignment of short-term service delivery with long-term structural transformation.

At its core, the approach brings together a wide range of actors—herders, government agencies, development partners, civil society, and private sector stakeholders—to coordinate efforts, pool resources, and scale successful models. It also recognizes that different communities require different levels of support and readiness, and thus proposes differentiated policy instruments based on scope, cost, and catalytic potential.

B. Three-Tier Categorization:

1. Low Impact (Foundational)

These interventions focus on providing immediate, low-cost solutions to targeted groups—such as older, offline herders or cooperatives in the early stages of formation. They aim to fill basic knowledge gaps, improve access to information, and build trust. While not transformative on their own, they lay the groundwork for deeper engagement.

2. Medium Impact (Scalable)

These initiatives are designed to deliver tangible benefits in the short to medium term—such as improved productivity, service access, or incentive structures—while also nudging behavioral shifts among herders. With coordinated support and effective governance, these interventions can be scaled up and replicated, increasing cooperative participation and local economic integration.

3. High Impact (Transformative)

These interventions require higher investment, multi-stakeholder coordination as well as systemic planning but offer the potential to reshape Mongolia’s rural economy. By tackling root constraints such as infrastructure gaps, market dependency, youth migration, and climate vulnerability, these initiatives aim to institutionalize long-term resilience and value creation across the textile and tourism sectors.

Taken together, the three tiers form a cohesive policy continuum—from foundational enablers to structural transformation—that allows for tailored, locally relevant approaches that can evolve over time. By sequencing investments based on the community capacity, economic geography, and development priorities, this strategy enables Mongolia to build a more equitable, sustainable, and future-ready rural economy led by its herder communities.

6.1. Textile Sector

Mongolian herders form the foundation of the country’s high-value animal textile industry, yet they often remain marginalized in the value chain due to fragmented markets, limited processing infrastructure, and weak cooperative engagement. This section presents three targeted initiatives to strengthen herder participation across the textile supply chain, from foundational knowledge building through accessible resources called the “Herder’s Manual” to incentivizing cooperative membership and engagement through an interactive digital platform that fosters real-time collaboration. By addressing the critical gaps in skills, infrastructure, and collective bargaining power, these interventions aim to elevate herders from passive raw animal fiber material suppliers to empowered, value-adding participants in a more equitable, climate-resilient, and sustainable textile economy.

6.1.1. Initiative 1 (Low): Herder’s Manual

A. Overview

This initiative proposes the development and wide-scale distribution of a regionally tailored “Herder’s Manual,” designed as a practical, user-friendly resource for Mongolia’s rural herding communities. Created in close collaboration with herder communities, cooperatives, technical specialists, and local agricultural extension officers, the manual will provide step-by-step guidance on key topics such as climate-resilient herding practices, cooperative membership benefits, value chain participation and basic market literacy, veterinary care and animal welfare, financial planning, and dzud preparedness.

To ensure maximum inclusivity and reach, materials will be made available in multiple formats, including printed booklets, audio CDs, illustrated guides, and downloadable audio files. The design will prioritize accessibility for low-literacy populations and offline households through the use of visual storytelling, infographics, and culturally relevant examples.

B. Rationale

Despite Mongolia's expanding digital infrastructure, many herder households, particularly those in remote municipalities, continue to face significant barriers to digital engagement. These include unreliable connectivity, limited device access, and low digital literacy, especially among older herders. Consequently, government programs and market access tools that rely on digital platforms often bypass those most in need of support.

By offering regionally customized, low-tech educational materials, this initiative fills a critical knowledge gap. It aims to empower herders to make informed decisions about animal health, cooperative engagement, and financial planning to lay the groundwork for broader participation in cooperative systems and value-added economic activities. In doing so, it also helps counter misconceptions or mistrust surrounding cooperatives by clearly communicating their role, benefits, and success stories in a relatable format.

This foundational intervention is not designed to create systemic change on its own, but rather to establish a more equitable entry point for deeper engagement, particularly for herders who are not yet reached by digital or formal institutional networks.

C. Expected outcomes

The distribution of regionally-tailored herder manuals is expected to improve rural livelihoods by bridging critical knowledge gaps in climate resilience, cooperative engagement, and market participation. Designed for accessibility, these low-tech materials using visuals, audio, and simple language will empower herders with practical guidance on sustainable grazing, animal health, and financial planning, particularly benefiting remote, low-literacy, and elderly populations.

By clarifying cooperative benefits and value chain opportunities, the manuals will encourage broader membership. Early adoption is likely to enhance herders' ability to mitigate risks like dzud and market shocks while ensuring that marginalized herders are included in Mongolia's economic diversification efforts. Success would be measured by increased cooperative sign-ups, improved herd management, and stronger engagement with extension services.

D. Key Features of Herder's Manual

1. Collaborative and Locally Customized Content

The Herder's Manual will be co-created with herders, cooperative leaders, veterinarians, and local agricultural advisors to ensure technical accuracy, cultural relevance, and strong community ownership. To maximize practical value across Mongolia's diverse ecological zones, the manual will include region-specific inserts tailored to the unique conditions of desert, steppe, and mountain regions. Content will address localized challenges such as grazing calendars, dzud preparedness, fiber quality, and animal health, ensuring that guidance is both community-informed and context-specific.

2. Multi-Format and Inclusive Design

Recognizing the barriers posed by low literacy and digital exclusion, the manual will be produced in multiple accessible formats, including printed booklets, audio CDs and illustrated guides. The design will prioritize visual storytelling, infographics, and local idioms to support understanding among elderly, low-literate, and nomadic populations.

3. Seasonal and Dynamic Updates

Content will be reviewed and updated annually in partnership with local extension services to reflect emerging risks, price trends, and best practices. Seasonal inserts, such as dzud preparedness checklists, fiber grading tips, and veterinary care schedules, will ensure that the manual remains a living, relevant resource for year-round planning.

4. Community-Centered Distribution and Learning

Distribution will be done within local engagement efforts, including livestock fairs, cooperative meetings, training sessions, and public readings at district and municipal centers. Manual material will also be integrated into rural radio programming and used as a basis for interactive learning activities, encouraging group discussion and reinforcing key messages.

5. Practical Skills and Knowledge Enhancement

The manual is designed not only as an informational tool but also as a capacity-building resource. It will break down complex concepts into actionable steps, supporting herders in developing practical skills in areas such as sustainable grazing, animal first aid, shearing

techniques, fiber sorting, and financial planning. Each section will be paired with real-life scenarios, checklists, and locally relevant tips to reinforce learning and enable herders to apply new knowledge immediately within their daily routines.

E. Financing

The estimated cost of implementation will vary depending on population density, geographic scope, and logistical needs. The funding can be sourced through a combination of:

- National rural development and education budgets
- Donor-supported climate resilience or livelihood enhancement programs
- Cooperative development funds administered by international partners

To ensure sustainability and promote local ownership, a cost-sharing model is recommended, bringing together government institutions such as MOFALI, BOM, UN development agencies, and key development partners such as ADB. This blended model allows for flexible resource mobilization, enhances long-term viability, and reinforces the alignment of the manual with broader national development goals.

F. Implementation

1. Year 1 (Development and Pilot Distribution)

In **Q1**, stakeholders will co-develop training manuals, including modules on fiber grading, shearing, and washing, with simplified versions for women herders. Next, program in **Q2** will focus on pre-testing drafts through regional focus groups, followed by revisions. In **Q3**, materials will be finalized and printed. By **Q4**, manuals will be distributed through local channels, and cooperative leaders and extension workers will be trained to lead community sessions.

2. Year 2 (Expansion and Reinforcement)

In **Q1**, distribution and training will expand to new soums. Following the distribution, in **Q2** the stakeholders will focus on field monitoring and feedback collection. In **Q3**, local radio campaigns will be initiated to reinforce key messages, especially in nomadic areas. Eventually, a midline evaluation to assess uptake and adjust materials will be commenced in **Q4**.

3. Year 3 (Institutionalization and Sustainability)

In **Q1** to **Q2**, manuals will be integrated into extension curricula and cooperative onboarding. During this time, subsidized printing and continued dissemination will be secured. In the last quarters (**Q3** to **Q4**), the initiative will maintain media outreach, explore SMS reminders, and conclude with a stakeholder review to ensure long-term adoption.

6.1.2. Initiative 2 (Medium): Digitalized Bundled Incentives for Cooperative Engagement

A. Overview

This initiative proposes a hybrid approach that bundles financial and non-financial incentives with progressive digital engagement to encourage herders, particularly in the camel wool sector to join and participate in cooperatives. Incentives may include animal nutrition supplements, veterinary service vouchers, modern shearing tools, hands-on shearing training, and access to breeding support programs, including shared winter shelters. The information about these benefits will be disseminated through a digital platform, accessible via an app or website, that allows herders to track their progress, access services, and unlock bonuses by meeting clearly defined participation milestones such as regular fiber contributions, training attendance, or involvement in cooperative governance. To ensure inclusivity and ease of adoption, the platform will incorporate offline-capable tools like SMS-based weather alerts, fiber price notifications, and community bulletin features. Additional incentives will be offered for digital engagement, for example, bonuses for herders who locate their cooperative online or attend in person training, creating a feedback loop in which the more herders participate, the more they benefit both digitally and physically.

B. Rationale

Although awareness of cooperatives is growing in Mongolia through various government policies like the WGI, many herders remain disengaged due to unclear benefits, low trust, and limited exposure to practical value. International models of cooperatives demonstrate that bundled, performance-based incentives can successfully shift behavior among livestock producers. By tying these productivity-enhancing interventions to cooperative participation and digitized reward systems, the initiative transforms cooperatives from abstract institutions into tangible sources of economic and climate resilience. Importantly, the digital component gradually builds digital literacy and trust through low-barrier tools, introducing herders to broader platforms for knowledge, services, and market access. Together, this hybrid approach bridges the gap between traditional

herding practices and modern cooperative structures, positioning herders not just as beneficiaries, but as active stakeholders in a more inclusive and sustainable rural economy.

C. Expected Outcome

This initiative is expected to drive a range of transformative outcomes across Mongolia's pastoral and textile sectors, contributing meaningfully to rural development, economic diversification, and climate resilience. By bundling tangible incentives with digital tools and linking them to cooperative participation, the program will increase membership and sustained engagement, particularly in underrepresented regions such as Gobi desert and among camel herders. Through training in shearing, washing, and yarn spinning, herders will develop practical fiber processing skills that allow them to move up the value chain from low-profit raw exports to higher-value, semi-processed and finished products. This will enhance digital access through offline-capable platforms, SMS alerts, and online incentive tracking will promote digital literacy and connect herders to price information, weather forecasts, and markets, expanding their resilience and autonomy. Climate-smart practices, including rotational grazing and sustainable resource management through Resource User Agreements (RUAs), aim to reduce pasture degradation by promoting cooperative land stewardship, building on lessons from UNDP's Green Gold Project, which established herder groups and incentivized sustainable practices in Mongolia.⁶⁴

The integrated approach builds not just individual skills but community-level capacity, fostering trust, social cohesion, and participatory governance. It lays the groundwork for broader initiatives such as savings groups, insurance schemes, and digital market platforms, while de-risking infrastructure costs through partnerships with development banks and leveraging fair-trade certification and e-commerce to overcome market barriers. Ultimately, this initiative offers a scalable, inclusive blueprint for reducing dependence on mining, revitalizing rural economies, and positioning Mongolia as a global leader in sustainable wool and cashmere production.

D. Financing

A hybrid financing model is recommended to ensure long-term sustainability, foster shared ownership, and leverage complementary strengths across sectors.

⁶⁴ Mohammad Alatoon and Bolormaa Purevjav, "Interim evaluation of UNDP/GCF 'Improving adaptive capacity and risk management of rural communities in Mongolia' project: Final report," *UNDP and Green Climate Fund*, July-September 2024, 10.

1. Public Sector:

The Mongolian government, particularly through MOFALI, BOM, and local municipalities, can provide targeted subsidies for essential physical infrastructure such as fencing, winter shelters, and storage units. Public investment should also support rural distribution logistics and digital infrastructure, aligning with Vision 2050 and the UNSDCF.

2. Donor Co-financing

Multilateral and bilateral agencies like the ADB can co-finance operational costs and technical assistance under their climate adaptation, disaster resilience, food security, and rural livelihoods portfolios. Donors can also fund the development of the digital incentive platform and capacity-building efforts, including gender-responsive training, cooperative governance, and financial literacy.

3. Private Sector Contributions

Strategic partnerships with domestic and international fiber processors, textile brands, and ethical fashion initiatives can help mobilize private capital. These partners can offer performance-based incentives such as equipment discounts, quality premiums, co-branding opportunities, or preferential contracting for cooperatives that meet traceability and sustainability standards. In the long term, private sector engagement can also support export market access, innovation pilots, and ESG-aligned impact investment.

4. Digital Innovation Funds and Accelerator Programs

Mongolia's digital transition agenda opens the door for collaboration with innovation arms such as UNDP Digital X,⁶⁵ the World Bank's Digital Development Partnership,⁶⁶ and other regional digital innovation funds. These programs can offer catalytic grants, technical mentorship, and sandbox environments to test platform prototypes and scale digital services for herders in low-connectivity settings.

⁶⁵ UNDP, "Digital X," accessed 16 April 2025, <https://digitalx.undp.org/>.

⁶⁶ World Bank Group, *2023 DDP Annual Review Transitioning Towards Scale* (Washington, DC: World Bank, 2023), <https://documents1.worldbank.org/curated/en/099810207152431146/pdf/IDU-94eca757-54e9-4a64-990d-339bfc9b1e2c.pdf>.

This diversified financing structure not only reduces dependency on any single source but also reinforces stakeholder accountability, encourages co-investment in shared outcomes, and creates a scalable model for inclusive rural development.

E. Implementation

1. Year 1 (Pilot Design and Co-Development)

In **Q1**, pilot sites in dzud-prone provinces like Arkhangai and Dundgovi will be selected. **Q2** will focus on participatory workshops to co-design bundled incentives, such as nutritional supplement kits, and define cooperative milestones. Input will also guide the development of a digital platform modeled after Kenya's iCow, with SMS alerts and offline access. By **Q3**, the platform will be developed with tools for tracking fiber delivery, training attendance, and incentive eligibility. In **Q4**, a beta rollout will begin, alongside training for cooperative leaders and digital ambassadors to support onboarding

2. Year 2 (Implementation and Technical Incentives Rollout)

In **Q1** to **Q2**, bundled rewards such as electric shearing tools and training will be introduced based on milestone completion. Hybrid breeding services will also be piloted in select cooperatives, reflecting Kazakhstan's model for improving wool yield. By **Q3** to **Q4**, real-time platform monitoring will track engagement and equity of access. Feedback will be gathered to refine the platform and incentives for broader relevance.

3. Year 3 (Monitoring, Evaluation, and Refinement)

Throughout **Q1** to **Q2**, data from the digital platform and community oversight committees will be analyzed to evaluate progress, equity of access, and tool uptake. Midline feedback from herders will inform adjustments to bundle design, delivery channels, and platform features. iCow-inspired SMS tools will be enhanced based on user needs, including Kalenda-style alerts to remind herders of vaccinations, shearing cycles, and incentive eligibility windows. In **Q3**, targeted campaigns will highlight successful herders and cooperative stories through both radio and mobile platforms. In **Q4**, the revised incentive packages and digital system will be consolidated into a scalable model.

4. Year 4 (Scale-Up and Policy Integration)

In **Q1** to **Q2**, refined bundles and digital tools will be rolled out to new provinces with support from trained ambassadors and cooperative mentors. Partnership-building will be prioritized with agencies such as the Mongolian Sustainable Cashmere Platform (MSCP) and digital innovation funds to secure long-term support and integration. In **Q3** to **Q4**, a national scale-up strategy will be launched. Data insights will be shared with government partners to embed the platform within cooperative development frameworks, ensuring sustainability and continued innovation

6.1.3. Initiative 3 (High): Establishment of Regional Cooperative Hubs

A. Overview

This high-impact initiative proposes the development of cluster-based regional cooperative hubs that serve multiple municipalities, particularly in sparsely populated and infrastructure-deficient regions such as Gobi Desert. These hubs will act as one-stop centers for value-added textile processing, training and capacity building, market integration, and cooperative service delivery. Designed in partnership with local herders, cooperatives, and development institutions, the hubs aim to overcome distance-related market barriers, boost rural incomes, reduce youth outmigration, and promote sustainable pastoral livelihoods.

B. Rationale

Mongolia's herder communities face a range of systemic challenges, including limited access to fiber processing facilities, inadequate rural infrastructure, and fragmented market engagement—that constrain income generation and weaken resilience. These barriers not only reduce the value that herders can capture from their livestock but also discourage participation in cooperatives and contribute to rising rural-urban migration, particularly among youth. The establishment of regional cooperative hubs provides a targeted solution by consolidating essential services in strategic locations, enabling localized value addition, and fostering more integrated, transparent supply chains. In doing so, these hubs lay the foundation for community-owned economic ecosystems that support innovation, inclusive leadership, and climate-adaptive practices.

C. Expected Outcomes

The digital bundled incentives initiative is poised to reshape Mongolia's textile sector by fostering deeper engagement between herders and cooperatives. By integrating financial and non-financial

rewards, such as access to veterinary services, modern shearing tools, and training programs into a user-friendly digital platform, the initiative will incentivize cooperative participation and strengthen collective action. Herders, particularly in remote regions like the Gobi Desert, will gain visibility into market opportunities and resource access, reducing reliance on informal intermediaries and enhancing their bargaining power.

The initiative will drive improvements in fiber quality through targeted incentives linked to sustainable practices, such as rotational grazing and herd diversification. Cooperatives will emerge as hubs for knowledge exchange, where herders adopt climate resilient techniques and share innovations in animal husbandry. This shift will not only elevate the value of Mongolia's wool and cashmere in global markets but also promote environmental stewardship, ensuring the long-term health of pasture lands.

By bridging the digital divide, the platform will empower herders with essential skills for navigating modern value chains, fostering a culture of transparency and collaboration. Youth engagement will flourish as younger generations leverage digital tools to innovate within the sector, blending traditional herding knowledge with entrepreneurial ventures. Over time, this dynamic will curb rural out migration, anchoring communities to their cultural heritage while building a sustainable, cooperative-led textile economy.

Ultimately, the initiative will catalyze a structural transformation, from raw material extraction to localized value addition, positioning Mongolia's herders as key stakeholders in an inclusive, climate-smart future.

D. Financing

The initiative requires a blended financing approach to ensure long-term sustainability and multi-stakeholder ownership. Sources include:

- Donor Funding: Grants and concessional financing for capital investments, training, and initial operations.
- Public Investment: Government funding for land allocation, basic infrastructure, and hub construction under national rural development or climate adaptation frameworks.
- Private Sector Contributions: Investment from fiber processors and textile companies in machinery, logistics, and off-take arrangements, particularly in exchange for certified clean fiber.

- Cooperative Equity and Revenue: In-kind contributions or membership-based revolving funds to support local ownership and operational sustainability.

E. Implementation

1. Year 1 (Mapping, Pilot Design, and Initial Setup)

In **Q1** to **Q2**, the Geographic Information System (GIS) tools and mobility mapping will identify 3–4 strategic hub locations near livestock-dense areas with infrastructure access. Selected hubs will undergo regional assessments to define the service that they need. By **Q3** to **Q4**, construction will begin alongside the establishment of basic services, including weighing, grading, and storage systems. Inspired by Japan’s JA-Zenchu, these small starting Mongolia’s hubs will lay the groundwork for federated coordination by standardizing services and building trust in shared infrastructure.

2. Year 2 (Program Rollout and Capacity Development)

In **Q1** to **Q2**, core services will launch, including cooperative-led fiber processing, youth fellowships, climate-smart herding training, and hospitality preparation for eco-tourism. Transparent pricing committees will begin publishing fiber benchmarks to reduce price asymmetries. Digital kiosks will provide herders with timely updates on prices, weather, and market opportunities. Informed by the South Korea’s National Agricultural Cooperative Federation (NACF)’s experience, targeted training programs will begin for cooperative members and leaders. Plans for a national training center—co-located with a pilot hub—will be initiated in **Q3** to **Q4**, with visiting experts and domestic institutions developing leadership and governance curricula.

3. Year 3 (Institutionalization and Federated Linkages)

In **Q1** to **Q2**, Mongolia will pilot a federated model linking regional hubs for collective purchasing and marketing, echoing JA-Zenchu’s ZEN-NOH structure. Hubs will coordinate shared logistics and buyer negotiations to improve scale and pricing power. At the same time, the youth program will evolve into a mentorship pipeline feeding into cooperative governance roles. In **Q3** to **Q4**, direct-to-market digital sales tools will launch, and certification systems will help participating cooperatives meet traceability and quality standards for global buyers. Hub services will begin extending to bundled offerings such

as microloans, veterinary care, and climate resilience tools, based on cooperative participation.

4. Year 4 (Training Center Expansion and Community Integration)

By **Q1** to **Q2**, the first full cohort will graduate from the cooperative training center, with youth leaders and cooperative managers taking on new responsibilities. NACF-inspired models of multifunctional hubs—combining fiber services with education, finance, and social programming—will be piloted in select areas. **Q3** to **Q4** will focus on testing innovations like cooperative-run retail outlets (similar to Korea’s Hanaromarts), integrated eco-tourism packages, and remote service provision through mobile platforms and satellite branches.

5. Year 5 (Scale-Up and National Policy Integration)

In the final phase, the refined hub model will be scaled nationally with support from government and donor partners. Hubs will be formalized as apex institutions for cooperative coordination—representing herder interests in policy, finance, and trade. Lessons from Korea’s “I Love Farm Campaign” will inform urban-rural partnership models, connecting city consumers with rural producers through marketing and cultural exchange. A unified cooperative network—built on phased service expansion, federated governance, and continuous training—will strengthen Mongolia’s textile economy, rural resilience, and national self-reliance.

Finally, Appendix II provides further analysis of stakeholders, risks, and mitigations, and relevant case studies.

The project team also applied the same 3-tiered model to the eco-tourism sector, having found that it could contribute to the sustainable diversification of rural herder income in Mongolia. The proposed policies are outlined in Appendix III.

References

- Agricultural Cooperative University. "About the University." Accessed 10 April 2025. http://nonghyup.ac.kr/e_sub01/sub01/sub01.asp.
- Akhmetsadykova, Shynar H., Gaukhar Konuspayeva, and Nurlan Akhmetsadykov. "Camel Breeding in Kazakhstan and Future Perspectives." *Animal Frontiers* vol. 12, no. 4 (August 2022): 71–77. <https://doi.org/10.1093/af/vfac048>.
- Alatoom, Mohammad and Bolormaa Purevjav. "Interim evaluation of UNDP/GCF 'Improving adaptive capacity and risk management of rural communities in Mongolia' project: Final report." *UNDP and Green Climate Fund*. July-September 2024.
- Almasri, Razan S., Alaa S. Bedir., Yazan K. Ranneh, Khaled A. El-Tarabily, and Seham M. Al Raish. "Benefits of Camel Milk over Cow and Goat Milk for Infant and Adult Health in Fighting Chronic Diseases: A Review." *Nutrients* vol. 16, no. 3848 (10 November 2024). <https://pmc.ncbi.nlm.nih.gov/articles/PMC11597306/>.
- Asia-Pacific Rural and Agricultural Credit Association (APRACA). "Members List – NACF." Accessed 28 February 2025. <https://www.apraca.org/members-list-nacf/>.
- Asian Development Bank. *Asian Development Outlook April 2024: Mongolia*. Accessed 3 December 2024. <https://www.adb.org/sites/default/files/publication/957856/mon-ado-april-2024.pdf>.
- Asian Development Bank. *Basic Statistics 2024*. Accessed 3 December 2024. <http://dx.doi.org/10.22617/ARM240241-2>.
- Asian Development Bank. *Mongolia: Enhancing Gender Equality for Rural Women and Girls Through Climate-Resilient and Gender-Responsive Policies*. Accessed 15 December 2024. <https://www.adb.org/sites/default/files/project-documents/57135/57135-001-tar-en.pdf>.
- Baival, Batkhishig. Interview by author. 15 March 2025.
- Bayarmagnai, Batbaatar. Interview by author. 3 March 2025.
- Bayartsogt, Khaliun, and Sarah Trent. "Mongolian Nomads Create Shared Funds and Financial Security." *Devex*. 2 October 2019. <https://www.devex.com/news/mongolian-nomads-create-shared-funds-and-financial-security-95673>.
- Bertelsmann Stiftung. *BTI 2024 Country Report — Mongolia* (Gütersloh: Bertelsmann Stiftung, 2024). <https://bti-project.org/en/reports/country-report/MNG>.
- Brajcich, Kaitlyn. "10 Ways Tourism Advances Peace." *Sustainable Travel International*. 19 September 2024. <https://sustainabletravel.org/how-tourism-advances-peace/>.
- Bud, T. "Climate Disaster Impact on Mongolian Cashmere Supply | 2024 Market Overview." *Sustainable Fibre Alliance*. 24 September 2024. <https://sustainablefibre.org/climate-disaster-impact-on-mongolian-cashmere-supply-2024-market-overview/>.
- Byamba, Khandaa. Interview by author. 17 March 2025.
- D'Anieri, T. "Understanding the Mongolian Tourism Supply Chain: Advantages, Challenges and Improvements." Independent Study Project (ISP) Collection 2989 (Fall 2018).
- De Heus. "Nutrition for Increased Fleece Production." Accessed 16 April 2025. <https://www.deheus.co.za/explore-and-learn/insights/nutrition-for-increased-fleece-production>.

Delgerjargal, Zaya. "In Mongolia, a Killer Winter Is Ravaging Herds and a Way of Life." *Yale Environment* 360. 6 March 2024. <https://e360.yale.edu/features/mongolia-dzud-climate-change>.

Development Impact Evaluation (DIME) and Global Agriculture & Food Security Program (GAFSP). *Mongolia Livestock and Agricultural Marketing Project (LAMP): Baseline Household Survey Report*. December 2013. <https://gafspfund.org/sites/default/files/inline-files/LAMP%20Baseline%20Report%20final.pdf>.

Erkhembayar, B. Interview by author. 21 March 2025.

Fieldus, A. (Arabiannights). (2014, August 31). Moving to a new location with the whole ger (yurt) packed on camels [Cover Photo Photograph]. Flickr. <https://www.flickr.com/photos/arabiannights/14905494947/>

Feng, Yali, Yu Sun, Hongwei Deng, and Yuyan Cong. "Promotion of Cashmere Growth by Sulfur Supplements in Cashmere Goats." *Revista Brasileira de Zootecnia* vol. 42, no. 11 (2013): 792–797.

Fernández-Gimenez, Maria E., Batbuyan Batjav, and Batkhishig Baival. "Lessons from the Dzud: Adaptation and Resilience in Mongolian Pastoral Social-Ecological Systems." *Colorado State University & The Center for Nomadic Pastoralism Studies*. June 2012. <https://documents1.worldbank.org/curated/en/986161468053662281/pdf/718440WP0P12770201208-01-120revised.pdf>.

Ganbat, Gankhulug. Interview by author. 27 February 2025.

Ganbat, Gankhulug. Interview by author. 20 March 2025.

Ger to Ger Mongolia. "Ger to Ger Mongolia Team." Accessed 17 April 2025. <https://gertoger.org/ger-to-ger-mongolia-team/>.

Giesenow, Malte. Interview by author. 26 February 2025.

Gobi Cashmere. Interview by author. 17 March 2025.

Government of Mongolia. "Vision 2050." Accessed 2 December 2024. <https://www.vision2050.gov.mn/eng/index.html>.

Grameen Bank. "About Grameen Bank." Accessed 19 April 2025. <https://grameenbank.org.bd/about/introduction>.

Grameen Foundation and Grameen Trust. *Guidelines for Establishing and Operating Grameen-Style Microcredit Programs: Based on the Practices of Grameen Bank and the Experiences of Grameen Trust and Grameen Foundation Partners*. 16 July 2015. <https://grameenfoundation.org/documents/GrameenGuidelines.pdf>.

Herder, Bulgan Province. Interview by author. 19 March 2025.

Horseback Mongolia. "Stay with a Family of Yaks Herders' Cooperative." Accessed 16 April 2025. <https://www.mongolia-trips.com/guide-mongolia/activity/stay-family-yaks-herder-cooperative>.

iCow. "Home." Accessed 19 April 2025. <https://icow.co.ke/>.

International Monetary Fund. "Population." *IMF DataMapper*. Accessed 2 December 2024. <https://www.imf.org/external/datamapper/LP@WEO/MNG>.

International Organization for Migration (IOM). "Mongolia Internal Migration Drives Urbanization, Depopulation of Rural Areas." Press release. 23 October 2018. <https://www.iom.int/news/mongolia-internal-migration-drives-urbanization-de-population-rural-areas-iom>.

International University of Japan. *Japan Agricultural Cooperatives: Its Roles and Challenges*. Tokyo: Japan International Cooperation Agency. 2022. https://www.jica.go.jp/Resource/jica-ri/research/jica-dsp/l75nbg000019c4qr-att/case_iuj_05.pdf.

Jargalsaikhan, Mendee. "Mongolia's Dilemma: A Politically Linked, Economically Isolated Small Power." *The Asan Forum*. 23 October 2014. <https://theasanforum.org/mongolias-dilemma-a-politically-linked-economically-isolated-small-power/>.

Jenish, Nazgul. "Tourism Sector in Kyrgyzstan: Trends and Challenges." *University of Central Asia – Institute of Public Policy and Administration (IPPA) Working Paper No. 42* (15 January 2018). <https://www.ucentralasia.org/media/bytfagur/uca-ippa-wp42tourismeng.pdf>.

Jing, Lian, Peter J. Stauvermann, and Ronald Ravinesh Kumar. "How the Tourism Industry Can Help Resolve Mongolia's Environmental Problems." *Economies* vol. 13, no. (27 February 2025): 64. <https://www.mdpi.com/2227-7099/13/3/64>.

Khanbogd Cashmere. Interview by author. 18 March 2025.

Kimura, Shingo, David Sedik, and Enkh-Amgalan Ayurzana. "Strengthening Cooperative Institutions to Support Sustainable Livestock Production in Mongolia." ADB Briefs no. 226 (Manila: Asian Development Bank, November 2022). <http://dx.doi.org/10.22617/BRF220418-2>.

KPMG. *Mongolia Tax Newsletter*. 30 April 2024. <https://kpmg.com/mn/en/home/insights/2024/04/kpmg-mongolia-tax-newsletter.html>.

Land Grant Impacts. "Sheep Producers in Texas and Beyond Empowered by Knowledge Gained at Shearing School." Accessed 18 April 2025. <https://landgrantimpacts.org/sheep-producers-in-texas-and-beyond-empowered-by-knowledge-gained-at-shearing-school/>.

Laratta, Rosario, and Ghyes Kamal. "The Grameen Bank Micro-Credit Programme for 'Struggling Members' in Bangladesh: Empowerment to Tackle Social Exclusion." 2014. Accessed 3 April 2025. <https://www.govint.org/our-resources/case-studies/case-study/the-grameen-bank-micro-credit-programme-for-struggling-members-in-bangladesh-empowerment-to-tackle-social-exclusion>.

Marinot, Antoine Clément. "Mongolia: Dzuds." ACAPS. 15 January 2021. <https://coilink.org/20.500.12592/5ngxp3>.

Mercy Corps. *The Legacy of Mercy Corps Mongolia*. May 2021. <https://www.mercycorps.org/sites/default/files/2021-05/LegacyofMCMongolia22YearReport-ENG.pdf>.

Meurs, Mieke. "Women's Role and Bargaining Power in Mongolian Herding Households." *NYU Jordan Center*. 15 February 2023. <https://jordanrussiacycenter.org/blog/women-herders-womens-role-and-bargaining-power-in-mongolian-herding-households>.

Möller, Peter. "Young Adult Transition in a Tourism Dominated Rural Area," *Tourism Planning & Development* vol. 9, no. 4 (12 October 2012): 429-440. doi:10.1080/21568316.2012.726260.

Mongolia. *Civil Code of Mongolia*. Adopted January 10, 2002. Ulaanbaatar: Government of Mongolia, 2002.

Mongolian National Co-operative Association. "What Is a Co-operative?" Accessed 7 April 2025. <https://www.mongolia.coop/en/cooperative>.

Nadtochii, Liudmila, Ayan Orazov, Mariam Muradova, Kazybay Bozymov, Assel Japarova, and Denis Baranenko. "Comparison of the Energy Efficiency of Production of Camel's and Cow's Milk Resources." *Energy Procedia* 147 (2018): 510-517. Accessed April 20, 2025. <https://doi.org/10.1016/j.egypro.2018.07.064>.

National Agricultural Cooperative Federation. "U.S. 165(d) Reduced Resolution Plan: Public Section." *Board of Governors of the Federal Reserve System*. July 2022. <https://www.federalreserve.gov/supervisionreg/resolution-plans/nat-agricultural-coop-feder-3g-20220701.pdf>.

National Statistics Office of Mongolia. "News Release: Jan–Dec/2023." 16 January 2024. https://downloads.1212.mn/lbNgWBVXUkO8fDY-FPc8mzP_A-_TW_6J_-E8H_sq.pdf.

Orazov, Ayan, Liudmila Nadtochii, Kazybay Bozymov, Mariam Muradova and Araigul Zhumayeva. "Role of Camel Husbandry in Food Security of the Republic of Kazakhstan." *Agriculture* vol. 11, no. 7: 614. <https://doi.org/10.3390/agriculture11070614>

Orellana, Selene. "A Journey Through The Maasai Clean Cookstove Project and Luxor's Funtasia Center." *Planeterra*. 24 March 2025, <https://planeterra.org/category/communities/>.

Palmer, Nicola J. "Economic Transition and the Struggle for Local Control in Ecotourism Development: The Case of Kyrgyzstan." *Journal of Ecotourism* vol. 5, no. 1 (August 2006): 40-61. https://www.researchgate.net/publication/249025634_Economic_Transition_and_the_Struggle_for_Local_Control_in_Ecotourism_Development_The_Case_of_Kyrgyzstan.

Qi, K., F.N. Owens, and C.D. Lu. "Effects of Sulfur Deficiency on Performance of Fiber-Producing Sheep and Goats: A Review." *Small Ruminant Research* vol. 14, no. 2 (August 1994): 122–130. <https://www.sciencedirect.com/science/article/pii/0921448894901015>.

Raketsky, Vitaly Anatolevich, Askar Myrzakhmetovich Nametov, Vasily Arkadyevich Sozinov, and Abdrakhman Abdybekuly Baisakalov. "Increasing the Efficiency of the Herd Reproduction System by Introducing Innovative Technologies into Dairy Farming in Northern Kazakhstan." *Veterinary World* vol. 14, no. 11 (2021): 3028–3037. <https://pmc.ncbi.nlm.nih.gov/articles/PMC8743781/pdf/Vetworld-14-3028.pdf>.

Sambuunjam, M. "New Cooperative – Wealthy Herder Program to Be Intensified." *Mongolian National News Agency*. 11 September 2024. <https://montsame.mn/en/read/351132>.

Schmitz, Rob. "How Your Cashmere Sweater Is Decimating Mongolia's Grasslands." *NPR*. 9 December 2016. <https://www.npr.org/sections/parallels/2016/12/09/504118819/how-your-cashmere-sweater-is-decimating-mongolias-grasslands>.

Serjkhoo, Myagmarjav. "Cashmere Initiatives Working Together to Improve the Value Chain." *United Nations Development Programme*. 1 July 2021. <https://www.undp.org/mongolia/blog/cashmere-initiatives-working-together-improve-value-chain>

Serjkhoo, Myagmarjav. Interview by author. 17 March 2025.

Simões, Mariana. "How Sustainable Cashmere Is Reversing Land Degradation in Mongolia." *United Nations Development Programme*. 15 December 2021. <https://www.undp.org/blog/how-sustainable-cashmere-reversing-land-degradation-mongolia>.

Sustainable Fibre Alliance. "Sustainable Cashmere of Mongolia PGI." Accessed 8 February 2025. <https://sustainablecashmere.ngo/>.

Sustainable Fibre Alliance. "What Does Decent Work Mean to Women Herders in Rural Mongolia?" Accessed 15 December 2024. <https://sustainablefibre.org/what-does-decent-work-mean-to-women-herders-in-rural-mongolia/>.

Tija, Linda, and Guanlie Lim. "Camel Wool Can Weave Economic Resilience in Mongolia." *East Asia Forum*. 12 September 2024. <https://eastasiaforum.org/2024/09/12/camel-wool-can-weave-economic-resilience-in-mongolia/>.

Trent, Sarah. "Post-Soviet Co-ops: Mongolian Herders Borrow a Tool From the Recent Past." *YES! Magazine*. 16 August 2019. <https://www.yesmagazine.org/issue/death/2019/08/16/mongolia-herding-cooperatives-rural-communities-survival>.

Tsogkhuu, Uranchimeg. "Camel Milk? Mongolia Is All In." *Global Press Journal*. 14 November 2023. <https://globalpressjournal.com/asia/mongolia/camel-milk-mongolia/>.

Usov, Anton. "EBRD supports sustainable cashmere production in Mongolia." *EBRD*. 26 October 2023. <https://www.ebrd.com/home/news-and-events/news/2023/ebrd-supports-sustainable-cashmere-production-in-mongolia.html#>.

U.S. Department of State. "2024 Investment Climate Statements: Mongolia." Accessed 14 April 2025. <https://www.state.gov/reports/2024-investment-climate-statements/mongolia/>.

UN Mongolia. "The UN Resident Coordinator Office." Accessed 2 December 2024. <https://mongolia.un.org/en/about/about-the-resident-coordinator-office>.

UN Mongolia. "The United Nations in Mongolia." Accessed 2 December 2024. <https://mongolia.un.org/en/about/about-the-un>.

UN Mongolia. "UNSDCF 2023–2027: Mongolia." Accessed 2 December 2024. https://unsdg.un.org/sites/default/files/2022-06/Mongolia_Cooperation_Framework_%202023-2027.pdf.

UNDP. "Mongolian Herder's Rise to Globally Acknowledged Wool Shearer." 30 July 2024. <https://www.undp.org/mongolia/stories/mongolian-herders-rise-globally-acknowledged-wool-shearer>.

UNDP. "Ministry of Food, Agriculture, and Light Industry and UNDP Launch White Gold Initiative Platform to Transform Livestock-Based Industries in Mongolia." Press release. 24 March 2025. <https://www.undp.org/mongolia/press-releases/ministry-food-agriculture-and-light-industry-and-undp-launch-white-gold-initiative-platform-transform-livestock-based>.

UNDP. "Mongolian Sustainable Cashmere Platform." Accessed 8 April 2025. <https://www.undp.org/mongolia/projects/mongolian-sustainable-cashmere-platform>.

UNDP Global Environment Facility Small Grants Programme. "Nature Protection and Community Based Tourism Development." Accessed 17 April 2025. <https://www.sgp.undp.org/spacial-itemid-projects-landing-page/spacial-itemid-project-search-results/spacial-itemid-project-detailpage?id=6563&view=projectdetail>.

UNDP Mongolia. "National Human Development Paper 2024: A Just Energy Transition for Human Development in Mongolia." Accessed 2 December 2024. https://www.undp.org/sites/g/files/zskgke326/files/2024-11/nhdp_full_mongolia_final.pdf.

UNESCO. "Promoting Sustainable Tourism in Mongolia: Insights from the Multi-stakeholder Validation Meeting." 19 March 2025. <https://www.unesco.org/en/articles/promoting-sustainable-tourism-mongolia-insights-multi-stakeholder-validation-meeting>.

UNESCO. "UNESCO Gathers Diverse Voices to Shape Sustainable Tourism in South Gobi, Mongolia." 19 September 2024. <https://www.unesco.org/en/articles/unesco-gathers-diverse-voices-shape-sustainable-tourism-south-gobi-mongolia>.

UNESCO. "UNESCO – Rio Tinto Partnership Spearheads Sustainable Tourism in Mongolia." 19 September 2024. <https://www.unesco.org/en/articles/unesco-rio-tinto-partnership-spearheads-sustainable-tourism-mongolia>

UNICEF. "Mongolia Office (Dzud): Humanitarian Situation Report No. 5." 4 June 2024. <https://reliefweb.int/report/mongolia/unicef-mongolia-humanitarian-situation-report-no-5-dzud-4-june-2024>.

Weil, Agnès. "What tourism for remote areas in developing countries?" *Proparco: Groupe AFD*. 6 December 2010. <https://www.proparco.fr/en/article/what-tourism-remote-areas-developing-countries?>.

World Bank Group. "Gender Data Portal: Mongolia." Accessed 15 December 2024. <https://genderdata.worldbank.org/en/economies/mongolia>.

World Bank Group. *2023 DDP Annual Review Transitioning Towards Scale* (Washington, DC: World Bank, 2023). <https://documents1.worldbank.org/curated/en/099810207152431146/pdf/IDU-94eca757-54e9-4a64-990d-339bfc9b1e2c.pdf>.

Wyrostek, Ana, Bożena Patkowska-Sokoła, Robert Bodkowski, Paulina Cholewińska, and Katarzyna Czyż. "The Influence of Zinc-Methionine Bioplex Supplementation to Pregnant and Lactating Sheep on Selected Wool Parameters." *Archives Animal Breeding* vol. 62, no. 1 (21 March 2019): 99–106. <https://doi.org/10.5194/aab-62-99-2019>.

Yousafzai, Shumaila Y. and Alexander Parkyn-Smith. *Together we have it all: Women Entrepreneurs In Kyrgyzstan's Community-Based Tourism Sector* (2023). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4383960.

Zhang, Qirui, Hao Feng, Xinhui Feng, Wangfang Xu, and Longbao Wei. "Has Digitalization Boosted the Rural Tourism Income? — Evidence from Prefecture-Level City Panel Data in China." *Land* vol. 14, no. 17 (25 December 2024). https://www.researchgate.net/publication/387416520_Has_Digitalization_Boosted_the_Rural_Tourism_Income-Evidence_from_Prefecture-Level_City_Panel_Data_in_China.

APPENDIX I

1. Key Functions and Benefits of Cooperatives

A. Overcoming the “Curse of Smallness”

Small-scale herders—defined as those owning fewer than 200 animals—constitute nearly half of Mongolia’s herder population yet control only 12% of total livestock. These herders are typically excluded from high-value markets dominated by large-scale herders and constrained by weak bargaining power and poor access to reliable buyers. Cooperatives address this “curse of smallness” by aggregating production, enabling bulk sales, and facilitating collective bargaining with processors and traders. This aggregation improves price negotiations and market access, correcting the atomistic production structure that has long disadvantaged small herders. ADB’s pilot project in Ulziit municipality illustrates the tangible benefits of this model: herders participating in cooperative-led livestock sales received price premiums of up to 18.8% and reduced transport costs by around 50%, reflecting financial and logistical advantages of collective action. In addition to improving incomes, this cooperative approach reduces reliance on informal middlemen, thereby increasing price transparency and stabilizing producer margins.⁶⁷

B. Expanding Access to Services and Market Infrastructure

Cooperatives also function as key service delivery platforms, particularly in areas where state presence is limited. They enable shared access to essential services such as bulk procurement of veterinary supplies and winter feed, use of storage and transport facilities, and even small-scale processing. Moreover, cooperatives facilitate direct transactions with processors, allowing herders to bypass informal channels that often lack regulatory oversight and product traceability. This institutional structure lowers transaction costs and supports the development of high-quality, traceable livestock products—foundational elements for transitioning Mongolia’s livestock sector toward premium and export-oriented value chains.⁶⁸

C. Advancing Environmental Sustainability and Pasture Management

The rapid growth of herd sizes—doubling in less than a decade—has placed enormous pressure on Mongolia’s rangelands, which are now overstocked by an estimated 25 million sheep units. Cooperatives, when paired with enforceable pasture-use contracts (PUCs), provide a mechanism

⁶⁷ Kimura, Sedik, and Ayurzana, *Strengthening Cooperative Institutions*.

⁶⁸ *Ibid.*

for coordinated pasture management. They can facilitate rotational grazing, regulate stocking densities, and enforce compliance with pastureland usage plans. In Ulziit municipality, the ADB pilot demonstrated a 21.4% reduction in herd sizes among participating herders and a corresponding drop in pasture pressure from 379 to 298 sheep units per 100 hectares within one year. These results underscore the role of cooperatives in promoting ecologically sound practices that improve pasture health, reduce overgrazing, and support climate adaptation.⁶⁹

D. Strengthening Economic Resilience and Risk Mitigation

Given the sector's vulnerability to climate shocks, cooperatives serve as important instruments for risk pooling and income stabilization. Mechanisms like the Livestock Risk Management Fund (LRMF), implemented through cooperative structures, provide compensation for income losses resulting from herd reduction or natural disasters. Furthermore, cooperatives help coordinate access to cash incentives and subsidies linked to sustainable practices like herd size reduction or disease-free status certification. These incentives not only mitigate risk but also encourage behavioral shifts that align individual herder strategies with broader policy goals for sustainability and resilience.⁷⁰

E. Fostering Inclusive and Participatory Governance

Despite persistent governance challenges in Mongolia's cooperative sector—such as ownership concentration among a few individuals and limited member awareness—well-structured and organized cooperatives hold the potential to promote democratic decision-making, transparency, and gender inclusion. The ADB pilot mandated the participation of female herders in pasture-use contracts (PUCs), reinforcing women's role in pastoral management. Grounded in kinship-based networks, cooperatives also strengthen social cohesion and rebuild trust within communities.⁷¹ They serve as inclusive platforms for amplifying the voices of marginalized herders and advancing Mongolia's broader goals of gender equality and rural empowerment.

F. Promoting Livelihood Diversification through Tourism and Cultural Exchange

Beyond livestock production, cooperatives are also piloting innovative strategies to diversify income and strengthen community resilience. One such approach connects herders with tourists seeking immersive cultural experiences, offering paid homestays with nomadic families at around

⁶⁹ *Ibid.*

⁷⁰ *Ibid.*

⁷¹ *Ibid.*

USD 10 per night.⁷² These stays provide a modest but meaningful supplementary income, particularly during off-peak herding seasons. In addition to supporting economic diversification, this model fosters cultural preservation and mutual understanding between visitors and host communities. As part of a broader shift toward sustainable rural economies, such tourism initiatives allow herders to leverage Mongolia's nomadic heritage while reducing vulnerability to climate and market shocks.

2. Pathways for Resilience

The cooperative's multi-pronged approach—integrating livestock production with sustainable tourism—has proven to be a wise and adaptive strategy. By diversifying income sources, the community has become more resilient to sector-specific downturns. For instance, if wool prices fall in a given year, tourism revenues can help offset the loss, and vice versa. This deliberate diversification reduces economic vulnerability and enhances household stability.⁷³

The cooperative's experience during crises—such as dzud events or the COVID-19 pandemic—also underscored the importance of having financial buffers and alternative revenue streams. A balanced mix of traditional herding, value-added production, and eco-tourism has created a more stable, flexible rural economy where different livelihood pillars reinforce one another. Therefore, key pathways for resilience include:⁷⁴

A. Value-Added Production and Productivity Gains

Cooperatives enable herders to move beyond raw product sales from volume to value-added production. This allows herders to earn more from fewer animals, enhancing profitability while reducing pressure on rangelands—supporting SDG 1 (No Poverty) and SDG 8 (Decent Work and Economic Growth).

B. Climate-Smart Livestock Management

By improving access to breeding services, veterinary care, and eco-tourism, cooperatives foster more sustainable herding practices. These interventions can reduce overgrazing, lower methane emissions and promote pasture restoration—supporting SDG 13 (Climate Action) and long-term ecological balance.

⁷² Sarah Trent, "Post-Soviet Co-ops: Mongolian Herders Borrow a Tool From the Recent Past," *YES! Magazine*, 16 August 2019, <https://www.yesmagazine.org/issue/death/2019/08/16/mongolia-herding-cooperatives-rural-communities-survival>.

⁷³ *Ibid.*

⁷⁴ *Ibid.*

C. Empowering Women in the Livestock Economy

Cooperatives provide formal avenues for women's roles in pasture management, cooperative governance, eco-tourism, and marketing activities. Women in Mongolia have higher levels of educational attainment than men yet typically report lower levels of decision-making in households despite participating in many key herding activities.⁷⁵ By institutionalizing women's participation in leadership and decision-making, cooperatives help advance SDG 5 (Gender Equality) and foster more inclusive and equitable rural development as well as improve the functioning of cooperatives.

3. Challenges Facing Cooperatives

Despite their potential advantages, cooperatives in Mongolia face persistent structural, cultural, and institutional barriers that limit their growth, participation, and overall effectiveness. These multifaceted challenges hinder their ability to function as inclusive and sustainable platforms for rural development.

A. Cultural Preference for Independence and Geographic Dispersion

Many herders remain reluctant until today to join cooperatives due to deeply held cultural values of independence and self-sufficiency that are, to some extent, central to Mongolia's pastoralist traditions. The ability to work autonomously, without external oversight, remains a key preference for many.⁷⁶ This resistance is further compounded by the vast geographic dispersion of herding households—particularly in remote areas such as Gobi Desert—where physical isolation makes the organization of cohesive and functional cooperatives logistically challenging.⁷⁷

B. Low Awareness and Financial Literacy

Despite government outreach campaigns, many herders remain unaware of the concrete benefits of cooperative membership. Limited financial literacy compounds this gap, leaving herders unsure how to manage loans, assess risks, or engage in long-term investment planning. In some cases, tangible non-financial incentives—such as access to winter shelters—are perceived as more valuable than abstract financial mechanisms.⁷⁸

⁷⁵ Mieke Meurs, "Women's Role and Bargaining Power in Mongolian Herding Households," *NYU Jordan Center*, 15 February 2023, <https://jordanrussiacenter.org/blog/women-herders-womens-role-and-bargaining-power-in-mongolian-herding-households>.

⁷⁶ Herder, interview by author, 19 March 2025.

⁷⁷ Byamba, interview by author, 17 March 2025.

⁷⁸ *Ibid.*

C. Lack of Internal Trust and Social Fragmentation

Trust remains a significant barrier to collective action within and across herder communities. The Sustainable Fibre Alliance, which piloted a cooperative-based program over three years, found that herders often have divergent or conflicting interests that make consensus-building difficult. Weak internal networks and a lack of social cohesion have undermined the ability of cooperatives to operate effectively, particularly in regions where historical experiences with failed or informal cooperatives have left herders skeptical of the model.⁷⁹

D. Limited Bargaining Power and Herd Size Disparities

In Mongolia, a herder's bargaining power within the cooperative model is strongly tied to the size of their herd. While the average herder owns around 200 animals, achieving financial stability and meaningful market leverage typically requires 800 to 1,000 animals. This stark disparity creates structural imbalances within cooperatives where smaller herders often lack the capacity to supply consistent volumes or absorb market shock—challenges that limit the cooperative's ability to meet buyer expectations for bulk, quality, and reliability. As a result, cooperatives composed mainly of small-scale herders struggle to negotiate favorable prices or secure long-term contracts with large processors and export buyers. Moreover, this imbalance can lead to internal power asymmetries, where larger herders dominate decision-making processes, further sidelining those with fewer resources and weakening overall cohesion and trust within the group.⁸⁰

E. Leadership and Governance Challenges

The effectiveness of cooperatives in Mongolia varies significantly depending on the capacity and competence of their leadership.⁸¹ Many of them continue to suffer from inadequate managerial and financial expertise. Limited access to training and skills development results in underqualified or ad hoc leadership structures. In numerous cases, these cooperatives operate more like private enterprises controlled by a few individuals, undermining the democratic principles of member ownership, transparency, and collective decision-making.⁸²

F. Weak Understanding of Cooperative Principles

Another fundamental challenge to cooperative development in Mongolia is the widespread lack of awareness among members regarding cooperative principles. A 2020 assessment found that

⁷⁹ Batkhisig Baival (Co-founder of Sustainable Fibre Alliance), interview by author, 15 March 2025.

⁸⁰ *Ibid.*

⁸¹ Bayarmagnai, interview by author, 3 March 2025.

⁸² Ganbat, interview by author, 20 March 2025.

over 82% of herder members were unfamiliar with essential principles such as democratic control, shared responsibility, and equitable benefit distribution.⁸³ Without a clear understanding of their rights and responsibilities, many members tend to become passive participants rather than active stakeholders, contributing to weak governance structures and poor accountability.

G. Lack of Monitoring and Evaluation Data

Many cooperative-related programs are relatively new and remain poorly monitored, as MOFALI has yet to establish a robust system for monitoring and evaluation.⁸⁴ Without timely, disaggregated data, it is difficult to assess cooperative performance, replicate successful models, or make evidence-based policy adjustments. As a result, key barriers may go unaddressed, and lessons from successful initiatives risk being lost or underutilized.

⁸³ Kimura, Sedik, and Ayurzana, *Strengthening Cooperative Institutions*.

⁸⁴ Erkhembayar, interview by author, 21 March 2025.

APPENDIX II

Initiative 1 (Low): Herder's Manual

A. Stakeholders

No.	Stakeholder	Role
1.	MOFALI and local authorities	Ensure the manual aligns with national development priorities. Support its official recognition, help disseminate it through rural development channels, and endorse it publicly to encourage broader use. Share announcements or distribute copies to remote areas.
2.	Herder communities	Primary end-users of the manual. Their lived experiences, needs, and feedback will guide the relevance and usefulness of the content. Use the manual to support their livelihoods and will provide ongoing feedback to cooperatives and extension officers to help improve future versions, ensuring the manual remains grounded in local realities.
3.	Cooperatives	Lead the content design and translation of the manual into local dialects. Drawing from their close relationship with herders, ensure that the manual reflects local knowledge systems and is practically useful. Support the distribution of the manual to herder members and gather feedback on how it is being used and where improvements can be made.
4.	Non-Governmental Organizations (NGOs)	Contribute specialized knowledge and technical content rooted in field-tested practices and quality assurance. Building on expertise in areas such as land stewardship, conservation planning, climate adaptation, and financial literacy training, ensure that the manual promotes long-term resilience alongside economic development.

5.	Educational and Training Institutions	Universities and vocational schools—particularly those with programs in fiber science, livestock management, animal health, or rural development—can play a pivotal role in content development and dissemination. These institutions can support curriculum design for the Herder’s Manual, contribute technical expertise, and participate in a train-the-trainer model to prepare local extension officers and cooperative leaders. These institutions may also collaborate on future cooperative-linked initiatives by deploying student interns to assist with manual implementation, conduct field-based learning, or support language training. This mutually beneficial model enhances student experiential learning while providing cooperatives and herders with additional capacity and technical support.
6.	Financial Institutions	Handle loan disbursement and collection, using flexible repayment models that suit seasonal income flows.
7.	Private sector	Textile leaders like Gobi and Khanbogd Cashmere, which already partner with herders on sustainable fiber sourcing, can strengthen the manual’s textiles section by contributing expertise on quality standards (e.g., fiber grading, washing standards), providing actionable guides for shearing and storage, and sharing market insights (e.g., pricing, certifications).

B. Risks & Mitigations

No.	Risks	Mitigations
1.	Outdated content due to evolving environmental or market conditions.	<ul style="list-style-type: none"> ■ Establish a structured annual review and update cycle to incorporate seasonal inserts, updated price benchmarks, and best practices aligned with emerging risks (e.g., dzud or drought).

2.	<p>Limited herder availability and engagement. Herders have demanding schedules, especially during certain seasons (e.g., during calving/lambing in spring or during hay-making in summer). Additionally, herders may initially be skeptical of the manual's relevance or see limited value in engaging with training resources, especially if economic benefits are not immediately apparent.</p>	<ul style="list-style-type: none"> ■ Schedule training during less intensive periods of the herding calendar. For example, late autumn after most harvest/preparation work is done, or winter when livestock are relatively settled (but accounting for weather and travel difficulty). ■ Use shorter, modular training sessions (a few hours at a time) rather than long-day workshops, so herders can fit them in. ■ Emphasize practical, immediately useful tips in training so herders see quick benefits. For example, better ger ventilation and cleanliness also improve their family's health, not just tourist comfort. ■ Provide small incentives for attendance: meals, certificates, or even useful items like a basic first aid kit for those who complete training. ■ Involve respected herders who have successfully hosted tourists as peer champions to evangelize the value of training to their neighbors. ■ Encourage family-wide participation (men, women, youth) so that at least one member is likely free to attend each session and can later teach the rest.
3.	<p>Quality of training. There is a risk that training content might not be well-tailored to herders (either too technical or generic) or that trainers are not skilled</p>	<ul style="list-style-type: none"> ■ Involve professional curriculum designers with experience in rural contexts when developing content.

<p>in engaging rural participants. Poorly-delivered training could fail to change behavior. Also, if training is one-off rather than continuous, initial momentum might be lost.</p>	<ul style="list-style-type: none"> ■ Pilots test the training modules with a small group of herders and get feedback to refine the approach. Ensure content is highly visual and scenario-based (role-playing how to welcome a guest, using pictures to illustrate good vs. bad hygiene practices, etc.). ■ For trainers, do a Training-of-Trainers program to build a cadre of local facilitators, ideally including younger herders or local teachers who speak the language and understand the context. Pair external experts with local co-trainers initially to build local capacity. ■ Create a mechanism for ongoing advice, such as a phone hotline or a mobile chat group with trainers, so herders can ask questions that come up during the tourism season. ■ Making training an ongoing process rather than a single event, knowledge retention and implementation will improve.
--	--

C. Case Study

A strong example that supports the rationale for Mongolia’s proposed Herder’s Manual is the Herder Field School (HFS) initiative implemented in Tanzania’s Kilombero Valley. This program effectively addressed the intersecting challenges faced by semi-nomadic pastoralist communities, namely low livestock productivity, degraded pasture quality, widespread zoonotic diseases like helminths and rabies, and persistent marginalization of pastoralist communities from mainstream development efforts and government services, which primarily focused on farming populations.⁸⁵ The situation in Tanzania closely mirrors the circumstances faced by rural herders in Mongolia—

⁸⁵ Leo Mzeru, Robert D. Sumaye, and Henk van den Berg, *Training Manual on the Herder Field School: Improving Livestock and Protecting Human Health and the Environment* (Ifakara: Ifakara Health Institute, 2010), 5.

particularly those in remote areas with limited digital access, weak cooperative engagement, and persistent knowledge gaps in livestock and land management.

The HFS was grounded in participatory, community-centered methods. It brought together local partners and agricultural and livestock extension officers to co-develop a season-long, field-based curriculum.⁸⁶ The resulting manual served as a practical, step-by-step guide covering key topics such as cattle fattening, pasture improvement, animal health, disease prevention, and cost-benefit analysis.⁸⁷ Designed for long-term community use, the manual was structured to ensure broad accessibility among low-literacy and offline households⁸⁸—an inclusive approach that aligns closely with Mongolia’s proposed multi-format Herder’s Manual.

Crucially, the program led to tangible improvements in livestock productivity and animal health.⁸⁹ Participants adopted enhanced husbandry practices such as regular deworming, pasture rotation, castration, as well as improved feeding routines, resulting in measurable weight gain and healthier livestock.⁹⁰ These behavior shifts were reinforced through practical, field-based tools embedded in the curriculum like weekly livestock monitoring and structured cost-benefit analysis exercises. These tools enabled herders to assess the outcomes of their efforts and better understand the economic advantages of adopting improved management techniques.⁹¹

Beyond its technical contributions, the HFS also emerged as an effective platform for fostering communication and cooperation among ethnically diverse pastoralist groups. By bringing together participants from different tribes, the program helped build mutual understanding and trust, which in turn supported conflict resolution and collective problem-solving.⁹² For Mongolia, this shows the potential of the *Herder’s Manual* to function not only as a capacity-building tool, but also as a catalyst for inclusive engagement, cooperative development, and strengthened social cohesion—especially in fragmented or historically underserved herding communities.

The Tanzanian model received formal recognition from national authorities, including the Prime Minister and the Minister for Livestock and Fisheries, who publicly endorsed its expansion to

⁸⁶ *Ibid.*, 5–6.

⁸⁷ *Ibid.*, 10–24.

⁸⁸ *Ibid.*, 4.

⁸⁹ *Ibid.*, 5.

⁹⁰ *Ibid.*, 11–14.

⁹¹ *Ibid.*, 16–17.

⁹² *Ibid.*, 5.

additional villages.⁹³ This high-level validation, coupled with its tangible outcomes and relatively low implementation cost, underscores the effectiveness of such manuals for strengthening rural resilience and livelihoods. For Mongolia, the case reinforces the potential of a regionally adapted, co-produced Herder's Manual—developed with strong community ownership and backed by multisectoral collaboration—to bridge critical knowledge gaps and lay the groundwork for more inclusive, climate-resilient rural development.

⁹³ *Ibid.*, 6.

Initiative 2 (Medium): Digitalized Bundled Incentives for Cooperative Engagement

A. Stakeholders

No.	Stakeholder	Role
1.	Local Governments and municipality Administrations	Responsible for identifying suitable infrastructure (e.g., land for shelters) and coordinating logistical support for distribution.
2.	Donor Agencies	Provide financial and technical assistance through climate adaptation, disaster risk reduction, or rural livelihoods programs.
3.	Veterinary Service Providers	Offer subsidized or in-kind animal health services as part of bundled support (e.g., vaccinations, deworming, diagnostic services).
4.	Cooperatives	Manage beneficiary selection, verify milestone achievements, coordinate with partners on bundle delivery and feedback collection.
5.	Herder Communities	Can pilot-test and refine bundled incentives during implementation, providing iterative feedback to optimize usability, address logistical barriers, and ensure the initiative adapts to evolving needs, such as market fluctuations or extreme weather events.
6.	Nongovernmental Organizations	Design and maintain the bundled incentive and training platform (app and website), ensuring offline functionality, SMS integration, and user-friendly interfaces suitable for low-connectivity settings.

B. Risks and Mitigation

No.	Risks	Mitigations
1.	Short-term participation motivated primarily by opportunistic access to immediate benefits.	<ul style="list-style-type: none"> <li data-bbox="829 306 1425 905">■ Design the incentive structure to be phased and performance-based, with increasing levels of access tied to sustained cooperative engagement. For example, initial milestones (e.g., registration and basic training) unlock entry-level benefits such as veterinary service vouchers, while higher-tier milestones (e.g., consistent fiber contributions, leadership roles) provide access to higher-value support like winter shelters or shearing equipment. <li data-bbox="829 905 1425 1066">■ Codify these conditions into cooperative bylaws to reinforce shared expectations and reduce opportunistic participation.
2.	Mismatch between bundled offerings and local priorities, or perceptions of unfairness in distribution.	<ul style="list-style-type: none"> <li data-bbox="829 1066 1425 1262">■ Implement a participatory planning process that engages herder communities in each pilot site to co-design the incentive bundles. <li data-bbox="829 1262 1425 1409">■ This ensures that local preferences—such as prioritizing fodder over fencing—are reflected in bundle composition. <li data-bbox="829 1409 1425 1556">■ Offer flexible or tiered bundles to accommodate regional diversity and reinforce perceptions of fairness. <li data-bbox="829 1556 1425 1816">■ To enhance accountability, establish municipality-level grievance redress mechanisms and transparent beneficiary selection criteria, with oversight by elected cooperative committees.

3.	Low adoption or digital exclusion due to limited connectivity, digital literacy, or user trust.	<ul style="list-style-type: none"> ■ Ensure the digital platform includes offline-capable features such as SMS alerts, USSD menu access, and printable milestone summaries. ■ Develop simplified, multilingual interfaces and provide hands-on onboarding sessions, especially targeting women, older herders, and low-literacy users. ■ Leverage local digital champions (e.g., tech-savvy youth) to offer peer-to-peer support. ■ Iterative platform design based on user feedback will further improve accessibility and trust.
4.	Weak monitoring, inconsistent milestone validation, or misuse of benefits.	<ul style="list-style-type: none"> ■ Deploy an integrated digital dashboard for cooperative managers and implement real-time data validation mechanisms (e.g., photo verification, GPS-tagged attendance logs). ■ Train cooperative oversight committees in basic monitoring practices and include rotating membership to ensure neutrality. ■ Randomized audits and transparent reporting can serve as deterrents for misuse and strengthen overall governance.

C. Case Study

To encourage herders’ active participation in cooperatives and improve the quality and marketability of camel wool, a variety of bundled incentives—offering both financial and non-financial—can be introduced. These bundles not only attract new cooperative members but also reward consistent engagement and performance, reinforcing long-term behavioral shifts toward more sustainable and commercially viable practices. Global examples offer valuable lessons for

designing Mongolia's own incentive systems, demonstrating how carefully targeted support can elevate both wool productivity and cooperative loyalty.

1. Nutritional Incentives to Improve Wool Quality

One of the most effective ways to improve wool quality is by enhancing the nutritional profile of the animals. While much of the research has focused on sheep and goats, the findings are highly applicable to camel herding. Studies show that trace minerals such as copper, zinc, and selenium significantly benefit wool growth.⁹⁴ For instance, an experiment conducted on 22 Polish Merino sheep in Lower Silesia, Poland, found that zinc supplementation led to notable improvements in wool characteristics. Sheep in the supplemented group produced wool with 32% greater length and 8% greater fiber thickness compared to the control group.⁹⁵ Similarly, a study on Liaoning cashmere goats in China demonstrated the importance of high-protein, high-energy diets to promote fiber growth. Adequate intake of essential minerals—particularly zinc- and sulfur-based compounds—was found to be critical for optimal wool production.⁹⁶ Specifically, sulfur content in Chinese Merino wool (average fiber diameter of 22.3 micrometers) showed significant correlation with several key fiber properties, including strength, elongation at break, whiteness, and resilience.⁹⁷

In the Mongolian context, cooperatives can bundle veterinary service vouchers or nutritional supplement kits as performance-based rewards for members who meet cooperative milestones, such as fiber delivery or training attendance. These inputs will help raise wool quality and boost herder incomes, while reinforcing the value of sustained cooperative engagement.

2. Modern Shearing Techniques and Skill-Building for Higher Efficiency

Modernizing Mongolia's wool sector requires more than just market access—it calls for practical incentives that equip herders with the tools and skills to thrive in an increasingly competitive, value-driven industry. One particularly effective non-financial incentive is access to modern shearing techniques and structured training programs. These initiatives not only boost individual

⁹⁴ De Heus, "Nutrition for Increased Fleece Production," accessed 16 April 2025, <https://www.deheus.co.za/explore-and-learn/insights/nutrition-for-increased-fleece-production>.

⁹⁵ Ana Wyrostek et al., "The influence of zinc-methionine bioplex supplementation to pregnant and lactating sheep on selected wool parameters," *Archives animal breeding* vol. 62, no. 1 (21 March 2019), 101. doi: 10.5194/aab-62-99-2019.

⁹⁶ Yali Feng et al., "Promotion of cashmere growth by sulfur supplements in cashmere goats," *Revista Brasileira de Zootecnia* vol. 42, no.11 (2013), 792.

⁹⁷ K. Qi, F.N. Owens, and C.D. Lu, "Effects of sulfur deficiency on performance of fiber-producing sheep and goats: A review", *Small Ruminant Research* vol. 14, no. 2 (August 1994), 122. <https://www.sciencedirect.com/science/article/pii/0921448894901015>.

productivity and income but also offer tangible benefits that can be tied to active cooperative participation.

Mongolia's wool sector holds considerable untapped potential, with over 60 million livestock and nearly half being sheep, offering an estimated 40,000 tons of wool annually. However, outdated shearing practices and limited technical capacity continue to undermine productivity and income for herders. In Mongolia, the introduction of electric shearing tools—supported by UNDP and the Global Environment Facility (GEF)—has already shown transformative effects. While traditional manual shears allow a herder to process just 10–30 sheep per day, electric shears enable a skilled shearer to process over 200 sheep daily. When paired with modern sorting techniques, wool yield can increase by up to 30%, improving both product quality and its market value.⁹⁸

The value of such training-based incentives is echoed in the United States, where the Texas A&M AgriLife Sheep Shearing School offers a model of effective technical capacity-building. This four-day, hands-on training equips participants with internationally recognized shearing techniques, animal handling skills, equipment maintenance, and wool packaging. Participants reported significant skill improvements, with self-assessed proficiency rising from an average of 1.8/5 (novice) to 4.1/5 (experienced).⁹⁹

This example underscores the potential of offering modern shearing technology and technical capacity-building as impactful non-financial incentives for promoting cooperative membership in Mongolia, and cooperatives can serve as platforms for delivering such programs. This model not only fosters greater cooperative engagement but also helps Mongolia accelerate the transition toward a more efficient, value-added wool economy.

3. Genetic Improvement and Technological Breeding Support

Kazakhstan provides an illustrative example of efforts to improve wool output through hybridization and technological innovation. With over 190 million hectares of flat, semi-arid land,¹⁰⁰ the country is ideal for camel breeding.¹⁰¹ Hybridization practices—historically used to produce better pack camels for Silk Road trade—are now focused on improving wool, milk, and meat

⁹⁸ UNDP, "Mongolian Herder's Rise to Globally Acknowledged Wool Shearer," 30 July 2024, <https://www.undp.org/mongolia/stories/mongolian-herders-rise-globally-acknowledged-wool-shearer>.

⁹⁹ Land Grant Impacts, "Sheep producers in Texas and beyond empowered by knowledge gained at shearing school," accessed 18 April 2025, <https://nidb.landgrantimpacts.org/impacts/show/6714>.

¹⁰⁰ Ayan Orazov et al., "Role of Camel Husbandry in Food Security of the Republic of Kazakhstan," *Agriculture* 11, no. 7 (2021), 614, <https://doi.org/10.3390/agriculture11070614>.

¹⁰¹ Liudmila Nadtochii et al., "Comparison of the Energy Efficiency of Production of Camel's and Cow's Milk Resources," *Energy Procedia* 147 (2018), 511, <https://doi.org/10.1016/j.egypro.2018.07.064>.

yields.¹⁰² Research shows that hybrid camels can produce 192% more wool compared to pure dromedaries and 69% more milk than Bactrian camels, slightly exceeding even that of dromedaries.¹⁰³

Kazakhstan has also advanced livestock reproduction through visual insemination technologies, such as the AlphaVision system. Although developed for cattle, this system demonstrates how technology can increase reproductive success. In trials by *Veterinary World*, the technology improved insemination success rates from 58.3% to 79.0%, a 20.7% increase.¹⁰⁴ This model could inform Mongolia's strategy to increase camel populations and wool production using technology-driven breeding programs.

In Mongolia, cooperatives could offer members access to breeding services or hybrid stock, bundled with training in animal husbandry or reproductive health. Eligibility could be tied to cooperative participation metrics such as meeting attendance or leadership roles.

4. Digitalizing Herder Support: Lessons from iCow Kenya

Mongolia's herder cooperatives could significantly benefit from adopting a mobile-based livestock management system modeled after Kenya's iCow—an award-winning platform that has transformed smallholder agriculture through accessible digital tools.¹⁰⁵ Initially launched in 2011 as an SMS-based service focused on cow gestation calendar, iCow has since evolved into a comprehensive suite of tools supporting over 1.6 million farmers (30% of whom are women) with timely, expert-verified information on animal health, breeding schedules as well as market access—particularly via low-end feature phones.¹⁰⁶ This demonstrates the scalability of low-tech solutions in remote areas.

For Mongolia, this model could be adapted to address critical gaps in cooperative engagement: daily SMS alerts could provide early dzud warnings, sustainable grazing tips, and reminders for shearing or veterinary care, synchronized with seasonal needs.

iCow's Kalenda feature, which sends automated reminders for vaccinations and breeding based on farmer-inputted data,¹⁰⁷ could be similarly adapted in Mongolia to notify herders when to claim bundled incentives—such as nutritional supplements for camels after meeting fiber-quality

¹⁰² Shynar H. Akhmetadykova, Gaukhar Konuspayeva, and Nurlan Akhmetadykov, "Camel breeding in Kazakhstan and future perspectives," *Animal Frontiers* vol. 12, no. 4 (12 August 2022), 73, <https://doi.org/10.1093/af/vfac048>

¹⁰³ *Ibid.*

¹⁰⁴ Vitaly Anatolevich Raketsky et al., "Increasing the efficiency of the herd reproduction system by introducing innovative technologies into dairy farming in Northern Kazakhstan," *Veterinary World* vol. 14, no. 11 (2021), 3035, <https://pmc.ncbi.nlm.nih.gov/articles/PMC8743781/pdf/Vetworld-14-3028.pdf>.

¹⁰⁵ iCow, "Home," accessed 19 April 2025, <https://icow.co.ke/>.

¹⁰⁶ *Ibid.*

¹⁰⁷ *Ibid.*

benchmarks). The platform’s virtual marketplace, Soko, also offers a compelling model for connecting herders directly with buyers such as local wool and cashmere processors, helping them bypass exploitative middlemen and secure fairer prices for their fiber products. Critically, iCow’s success hinges on its gender-inclusive design and partnerships with organizations like the International Livestock Research Institution (ILRI)—an approach Mongolia could replicate by collaborating with the MSCP or UNDP. Mongolia’s cooperatives could achieve comparable gains to those experienced in Kenya in animal fiber productivity and quality, while using the platform’s data to verify herder participation and reward compliance, ultimately fostering long-term trust in collective systems.

Initiative 3 (High): Establishment of Regional Cooperative Hubs

A. Stakeholders

No.	Stakeholder	Role
1.	National and province-level Policymakers	<ul style="list-style-type: none"> Provide regulatory frameworks, allocate public resources, and integrate cooperative hubs into broader rural development and economic diversification strategies.
2.	Cooperatives and Herder Federations	<ul style="list-style-type: none"> Act as core operational managers, ensuring local ownership, inclusive governance, and alignment with herders’ needs and priorities.
3.	Private Sector	<ul style="list-style-type: none"> Co-invest in fiber processing infrastructure, enter off-take agreements with certified cooperative hubs, and contribute to quality assurance and market access.
4.	Development Partners	<ul style="list-style-type: none"> Offer technical expertise, financial support, strategic guidance for hub design, capacity building, and implementation.
5.	Training Institutions and Universities	<ul style="list-style-type: none"> Design and deliver tailored capacity-building modules and training on cooperative governance, financial

		literacy, sustainable herding, animal fiber processing, entrepreneurship, and value-chain participation.
6.	Herder Communities	<ul style="list-style-type: none"> ■ Participate and act as key partners and beneficiaries.

B. Risks & Mitigations

No.	Risks	Mitigations
1.	Low participation or underutilization of hubs.	<ul style="list-style-type: none"> ■ Conduct rigorous location analysis using GIS and mobility mapping to prioritize municipalities with high livestock density, active cooperative presence, and access to basic infrastructure. ■ Engage herders in early-stage design to build trust and ensure relevance.
2.	Weak governance and lack of coordination among partners.	<ul style="list-style-type: none"> ■ Establish multi-stakeholder steering committees to oversee hub governance. ■ Co-create governance charters with herders, explicitly incorporating quotas for youth and women to promote inclusive leadership and build long-term capacity.

C. Case Studies

The experience of both Japan’s JA Group and South Korea’s National Agricultural Cooperative Federation (NACF) have demonstrated how integrated cooperative systems can deliver economic resilience and social services, especially for rural communities facing structural disadvantages. These models offer valuable insights for the design and scaling of Mongolia’s proposed Regional Cooperative Hubs.

1. Japan’s JA Group and JA-Zenchu

Japan’s agricultural cooperative system was born out of post-war necessity and built around the principle of mutual help. JA-Zenchu, established in 1954 under the Agricultural Cooperative Law, functioned for over six decades as the apex body coordinating Japan’s agricultural cooperatives.

It provided management consulting, standardized practices, represented cooperative interests in policy making, and facilitated collective purchasing and sales.¹⁰⁸

JA Group's federated structure allowed cooperatives to scale impact across five major business lines: economic/sales, credit, mutual insurance, welfare, and life consulting. For example, ZEN-NOH—the national federation's economic arm—aggregated farm outputs, negotiated large-volume sales, and used collective purchasing power to lower input costs. Meanwhile, welfare unions operated clinics and eldercare programs in underserved rural areas, reflecting a holistic commitment to community well-being.¹⁰⁹

Mongolia's proposed cooperative hubs can emulate this progression. Starting with collective fiber marketing and standardized weighing and grading systems, hubs can gradually incorporate bundled input delivery, financial services, and social programs as cooperative capacity and trust grow. By adopting a federated coordination model akin to JA-Zenchu's role, Mongolia can ensure service integration, efficient fund circulation, and stronger price negotiation power—particularly critical in remote areas or regions.

¹⁰⁸ International University of Japan, "Japan Agricultural Cooperatives: Its Roles and Challenges," *JICA-IUJ Case Material Series* (Tokyo: Japan International Cooperation Agency, 2022), https://www.jica.go.jp/Resource/jica-ri/research/jica-dsp/l75nbg000019c4qr-att/case_iuj_05.pdf.

¹⁰⁹ *Ibid.*

APPENDIX III

Eco-Tourism

1. Tourism Opportunities for Economic Diversification

Community-based tourism (CBT) initiatives have emerged in parallel as a complementary model for income diversification. For instance, the Gun-Galuut Community Association, in partnership with Selena Travel, manages a 15,000-hectare locally protected area that supports both conservation and eco-tourism. Revenues generated from entrance fees and guided tours support the protection of endangered species like the Argali sheep while providing sustainable income for local residents.¹¹⁰

A. Livestock-Based Tourism

Beyond the growing market for camel-based products, Bactrian camels are increasingly valued for their eco-tourism potential—particularly in the Gobi region, where camel trekking offers visitors a uniquely immersive experience.¹¹¹ Many herding families are now exploring tourism as a complementary income stream, building on their traditional knowledge and cultural assets.¹¹² A 2018 study on the tourism supply chain highlights that “Mongolia’s unique traditional and nomadic culture, burgeoning popularity as a destination for outdoor and adventure activities... and ‘natural tourism resources’ ranging from grassland steppe to Siberian taiga, 4,000-meter-high mountains, the Gobi Desert, and enormous lakes make [it] a travel destination unlike anywhere else in the world.”¹¹³ These attributes position Mongolia as a high-potential eco-tourism hub, especially for experiential, cultural, and nature-based travel.

B. Current Challenges: Connectivity and Capacity

Despite its potential, Mongolia’s tourism sector faces a range of structural constraints similar to those seen in livestock and textile sectors:¹¹⁴

¹¹⁰ UNDP Global Environment Facility Small Grants Programme, “Nature Protection and Community Based Tourism Development,” accessed 17 April 2025, <https://www.sgp.undp.org/spacial-itemid-projects-landing-page/spacial-itemid-project-search-results/spacial-itemid-project-detailpage?id=6563&view=projectdetail>.

¹¹¹ Herder, interview by author, 19 March 2025.

¹¹² Byamba, interview by author, 17 March 2025.

¹¹³ Thomas D’Anieri, “Understanding the Mongolian Tourism Supply Chain: Advantages, Challenges and Improvements,” *Independent Study Project (ISP) Collection*, 2989 (Fall 2018).

¹¹⁴ *Ibid.*

1. Geographic Inequities

Much of the tourism-related infrastructure is located in and around Ulaanbaatar, leaving much of the country (and herders in particular) unable to access it. Moreover, there are only two international airports in the entire country, which restricts direct access for many tourists.

2. Digital Connectivity

Many rural and tourism-heavy areas lack reliable internet access, limiting the ability of local operators to market services, engage with booking platforms, or access training and funding opportunities. While the rollout of Starlink and other satellite-based services has begun to bridge this gap, coverage remains uneven.

3. Training and Human Capital Gaps

Many herders-turned-hosts lack formal training in tourism, hospitality, or business management. There are also limited resources to support the language learning, customer service, or eco-certification—essential tools for accessing high-value, international markets. Low levels of English comprehension and literacy also limit tourism potential.

4. Seasonality

Mongolia has harsh winters, which means that its tourism sector can only operate at full capacity for four to five months per year. This has led to unstable employment in the tourism sector.

5. Dependence on a Few Sources

China and Russia account for a large share of Mongolia's visitors, making the sector vulnerable to geopolitical and economic fluctuations. The COVID-19 pandemic caused a 98% decline in international arrivals in 2020, highlighting the sector's vulnerability to external shocks.

C. Diversification Opportunity

1. Supplementary Income and Livelihood Resilience

Even modest tourism earnings can surpass traditional returns from herding. For example, in Arkhangai province, members of the Ar Arvidjin Delgerekh yak herder cooperative began charging tourists around USD 10 per tourist per night for overnight stays, far more than the price of a kilogram of raw yak wool.¹¹⁵ For cooperative herders whose annual incomes rarely

¹¹⁵ Sarah Trent, "Post-Soviet Co-ops: Mongolian Herders Borrow a Tool From the Recent Past," Yes Magazine, 16 August 2019, <https://www.yesmagazine.org/issue/death/2019/08/16/mongolia-herding-cooperatives-rural-communities-survival>.

exceed USD 10,000, this additional revenue is significant.¹¹⁶ Such income can be used to pay for children's education, medical expenses, and investments in livestock or equipment, thereby strengthening household resilience. Moreover, herders with tourism income are better cushioned against disasters like dzud, which can severely devastate herds and therefore herder income.¹¹⁷

2. Empowerment of Women and Youth

Nomadic women are at the forefront of many herder-hosted tourism operations. They typically manage ger camp logistics, prepare meals for guests, and handle earnings, activities that build on their traditional household roles but now command monetary value. Many women have also taken on management and entrepreneurial positions—most operations are managed by women.¹¹⁸ This high rate of female participation reflects how tourism opens avenues for women's leadership.

In rural areas, women who run homestays or craft workshops for tourists gain financial independence and confidence.¹¹⁹ Moreover, tourism has created attractive opportunities for rural youth, reducing the pressure on young people to leave their communities in search of work.¹²⁰ As Mongolia's tourism sector grows, there will be demand for local guides, drivers, interpreters, cooks, and camp assistants, roles that may attract young nomadic men and women to fill.

3. Cultural Heritage Preservation and Pride

By showcasing horsemanship, music, pastoral knowledge, and felt-making, tourism monetizes cultural heritage, providing herders with an economic incentive to preserve traditional practices. For example, the annual winter festival, organized by local herders since 1997, showcases camel racing, camel polo, and cultural contests that celebrate Mongolia's camel-breeding heritage. It exemplifies how community-driven tourism events can both preserve cultural practices and generate income. By performing age-old camel training techniques and wearing traditional costumes for tourists, elders pass this knowledge to youth, ensuring continuity of the camel-herding tradition. The festival's popularity (drawing thousands of

¹¹⁶ *Ibid.*

¹¹⁷ Maria E. Fernández-Gimenez, Batbuyan Batjav, and Batkhisig Baival, "Lessons from the Dzud: Adaptation and Resilience in Mongolian Pastoral Social-Ecological Systems," *Colorado State University & The Center for Nomadic Pastoralism Studies*, June 2012, 44, <https://documents1.worldbank.org/curated/en/986161468053662281/pdf/718440WPOP12770201208-01-120revised.pdf>.

¹¹⁸ Ger to Ger Mongolia, "Ger to Ger Mongolia Team," accessed 17 April 2025, <https://gertoger.org/ger-to-ger-mongolia-team/>.

¹¹⁹ Selene Orellana, "A Journey Through The Maasai Clean Cookstove Project and Luxor's Funtasia Center," *Planeterra*, 24 March 2025, <https://planeterra.org/category/communities/>.

¹²⁰ Peter Möller, "Young Adult Transition in a Tourism Dominated Rural Area," *Tourism Planning & Development* vol. 9, no. 4 (12 October 2012), 52, doi:10.1080/21568316.2012.726260.

domestic and foreign visitors each year) has instilled pride in the community's unique heritage and even led to broader recognition, the United Nations declared 2024 the International Year of Camelids, highlighting the global importance of such local traditions.

Socially, hosting tourists has become a meaningful source of pride and cultural exchange for herder families. Seeing visitors appreciate their traditional way of life fosters a renewed sense of value and identity within the community. At the same time, interactions with guests offer exposure to different cultures, broadening perspectives. For young people, these encounters provide informal opportunities to learn English and develop hospitality skills—strengthening their capacity and motivation to remain in their communities rather than migrating to urban centers.

Tourism has also encouraged families to maintain and revitalize traditional practices such as cooking, dairy processing, and ger craftsmanship, which they demonstrate to visitors. Many of these skills—often undervalued in the modern market economy—were at risk of fading but now carry tangible economic and educational value. Cultural exchange with tourists also helps preserve intangible heritage like folk songs, games, and hospitality customs, as families intentionally showcase these to curious tourists. In essence, the cooperative has transformed many communities' cultural capital into a meaningful asset.

4. Environmental Conservation

Mongolian herders are generally aware of overgrazing, pasture degradation, and desertification, but often see no alternative way to earn a living.¹²¹ However, tourism may be such an alternative. A recent study argued that encouraging herders to shift efforts into tourism could allow grasslands to recover. It noted that experts have called for livestock numbers to be reduced by 50% for rangeland to recover to healthy levels.¹²² If herders can replace the lost income with tourism earnings, this becomes feasible. In practical terms, a hypothetical herder family that once relied on 500 goats for cashmere could reduce their herd to 250 and use the freed-up resources to operate a small tourist ger camp part of the year, offsetting the lost income.

5. Stimulus for Infrastructure and Service Development

¹²¹ Lian Jing, Peter J. Stauvermann, and Ronald Ravinesh Kumar, "How the Tourism Industry Can Help Resolve Mongolia's Environmental Problems," *Economies* vol. 13, no. 3 (27 February 2025), 64. <https://www.mdpi.com/2227-7099/13/3/64>.

¹²² *Ibid.*

The development of tourism in remote regions has spurred improvements in infrastructure and basic services that benefit both tourists and residents. Many herder communities historically lack modern infrastructure, such as paved roads, electricity grids, water and sanitation systems, and healthcare facilities, due to their isolation and nomadic settlement patterns. However, as these areas become tourism destinations, there is greater justification and external support for infrastructure investments. For example, the GOM has stipulated that 1.4 trillion MNT in new funding in 2025 will primarily go toward connecting centers of provinces, border ports, and tourist destinations. These upgrades not only make the areas more accessible and comfortable for visitors, but also significantly improve the quality of life for herders by connecting them to markets, information, and public services.

6. Linkage with Broader Markets and Exports

Tourism often acts as a gateway to larger economic linkages: travelers who discover locally produced crafts, wool products, or dairy goods may become overseas customers. With branding support and cooperative marketing, herder-made products can reach e-commerce platforms and global supply chains, expanding revenue beyond tourism per se. For example, a yak herder cooperative opened a “Made in Arkhangai” shop in Tsetserleg, Arkhangai province, where they sell their yak-fiber knitwear and other local specialties.¹²³ Tourists traveling through town stop to buy these products, which hold a unique appeal.

Moreover, although seasonal, the additional income from tourism provides a vital financial boost for remote herder households. Over the years, the cooperative has distributed tens of thousands of dollars in dividends to its members.¹²⁴ Many families have used these earnings to invest in their households—improving their gers, funding children’s education, purchasing solar panels or vehicles, and, in some cases, reducing outstanding debts.¹²⁵

¹²³ Trent, “Post-Soviet Co-ops.”

¹²⁴ *Ibid.*

¹²⁵ Herder, interview by author, 19 March 2025.

2. Proposed Policy Recommendation in Eco-Tourism Sector

2.1 Initiative 1 (Low): Continuous Capacity Building

Conduct Regular Training and Development of Guidelines for Herders in Tourism

A. Overview

This initiative involves the development and provision of regular training sessions and comprehensive guidelines specifically designed to help Mongolian herders enter the tourism sector. The initiative covers essential areas in tourism including hospitality management, customer service, hygiene standards, safety protocols, financial literacy, waste management, and digital marketing. Cooperatives will play a central role by directly implementing the training programs, disseminating the guidelines, and ensuring consistent application among their members.

The initiative's workflow begins with cooperatives organizing periodic training sessions for member herder families. To reinforce learning, easy-to-read guideline booklets and interactive videos are distributed for daily reference. Peer learning is central to the model, with experienced herders or trained facilitators leading hands-on demonstrations on setting up a guest-ready ger or practicing sanitation measures, followed by group discussions that promote the exchange of knowledge and tips. Each cooperative appoints a coordinator responsible for tracking training needs, inducting new herders, and disseminating updated guidelines.

B. Rationale

Mongolia's nomadic herders are at the heart of the country's tourism appeal, with most international visitors seeking authentic cultural experiences. Yet, despite the demand, many herders lack the basic hospitality skills necessary to participate meaningfully in the tourism sector. Traditional herding knowledge does not automatically translate to customer service, food safety, or facility management, areas essential to guest satisfaction. Luckily, structured training can bridge these gaps by equipping herders with practical skills in hygiene, communication, marketing, and guest care, while also helping them avoid pitfalls that could harm the reputation of herder-based tourism. Systematic training improves service quality, enhances confidence, and contributes to a cycle of positive reviews and increased visitation, ultimately empowering herders to diversify their income through homestays, cultural guides, and crafts. This diversification is particularly important as climate extremes and volatile livestock markets threaten herder livelihoods. Rural tourism offers a promising alternative, with global studies showing its potential to outperform agricultural returns and reduce poverty.

Organizing herder tourism training through cooperatives strengthens community structures and encourages local leadership, cooperation, and problem-solving. Women, who often manage hospitality, stand to gain socially and economically, while youth can find new roles and inspiration in entrepreneurship. At the same time, training ensures herders can manage cultural exchange and environmental pressures responsibly, protecting fragile landscapes and preserving traditions even as tourism grows. By helping herders meet market expectations and integrate into the formal tourism supply chain, this initiative ensures that the economic benefits of tourism flow directly to the communities that sustain Mongolia's cultural and natural heritage. In line with global trends toward rural tourism development, this policy is a timely and necessary investment in herder resilience, empowerment, and long-term sustainability.

C. Expected Outcomes

If implemented, the cooperative-based herder training initiative is expected to yield wide-ranging benefits for individuals, communities, and Mongolia's tourism sector and economy writ large. One key outcome is improved service quality, as trained herders will be able to offer more professional and comfortable guest experiences, including cleaner accommodations, safer meals, courteous communication, and well-maintained facilities. These improvements will lead to higher tourist satisfaction, more positive reviews, and growing demand for herder-led tourism. As rural homestays become more reliable and comfortable, tourists are likely to extend their stays, recommend experiences to others, and integrate more rural visits into their travel plans, all of which increase income opportunities for herders. Even modest participation, such as hosting a few groups each month, can significantly boost annual earnings and support livelihood diversification. This contributes to rural poverty reduction and stimulates local economies, as tourist spending circulates through nearby shops, services, and producers, creating a multiplier effect. Over time, success in pilot areas can attract more herder families to participate, expanding the network of economic opportunity.

The initiative also strengthens cooperatives by positioning them as central actors in tourism training and coordination. As members collaborate on hosting, training, and decision-making, cooperatives gain cohesion, social capital, and bargaining power with external actors like tour operators. Knowledge sharing across regions further fosters a culture of peer mentorship and continuous improvement. Hosting tourists also promotes cultural preservation, as herders gain renewed pride in their traditions by sharing them with curious and appreciative guests. Everyday nomadic practices, such as cooking, milking, or assembling gers, become interactive learning experiences, helping keep traditions alive. Training on hygiene and safety brings broader health

benefits to families and communities, encouraging cleaner water handling, better sanitation, and readiness for medical emergencies. Importantly, the initiative promotes inclusion: women often manage homestays and will gain skills, income, and leadership opportunities; meanwhile, youth can engage as guides or tech-savvy coordinators, helping stem rural-to-urban migration. Overall, by building a well-trained local tourism workforce, Mongolia can grow a more equitable and sustainable sector, one rooted in authenticity, quality, and resilience.

D. Stakeholders

No.	Stakeholder	Role
1.	The Ministry of Culture, Sports, Tourism and Youth of Mongolia	<ul style="list-style-type: none"> <li data-bbox="711 632 1406 863">■ Formally recognize the cooperative-based training program as part of Mongolia’s rural tourism development strategy. This could involve endorsing the training curriculum or issuing certificates to participants. <li data-bbox="711 884 1406 1167">■ Develop simple accreditation standards for herder homestays (covering hygiene, safety, etc.) in consultation with cooperatives. Achieving these standards could earn cooperatives a certificate or listing on official tourism websites, giving them marketing advantages. <li data-bbox="711 1188 1406 1419">■ Provide financial support such as grants for training materials. Additionally, they could offer incentives like tax breaks or small awards for cooperatives that excel in training and quality service, spurring competition and improvement.
2.	Local Governments (Province and District)	<ul style="list-style-type: none"> <li data-bbox="711 1440 1406 1671">■ Champion the initiative by providing venues for training (community halls), helping with mobilization (announcements on local radio to encourage herders to join training), and mediating any community issues that arise.

3.	Cooperatives	<ul style="list-style-type: none"> ■ Coordinate, organize, and deliver training sessions. ■ Disseminate training guidelines to members. ■ Ensure adherence through ongoing support and monitoring. ■ Provide direct feedback for continuous improvement. ■ Represent herders' interests. Cooperatives can advocate for their needs (such as requesting external funding for better sanitation facilities or influencing local tourism policy). They liaise with provincial authorities or NGOs on behalf of their members. Because cooperatives are member-owned, they ensure the initiative remains community-driven and culturally appropriate.
4.	Educational and Training or Institutions	<ul style="list-style-type: none"> ■ Provide expertise and assistance in developing curricula and training content, conduct initial trainer training (train-the-trainer approach), and support cooperatives during implementation. ■ A university with a tourism or hospitality program could assist in drafting the training curriculum, making sure it covers essential hospitality concepts in a simplified manner. They also might send student interns to cooperatives to help implement training or language practice. Therefore, students get field experience and cooperatives get extra help.
5.	Development agencies and NGOs	<ul style="list-style-type: none"> ■ Provide funding and technical assistance. These actors often provide grants or expertise for rural development projects. They can fund the creation of training materials, sponsor pilot training, or bring in experts to train the trainers.

6	Herder Communities	<ul style="list-style-type: none"> ■ Participate and act as key partners and beneficiaries. ■ Provide feedback to cooperatives for ongoing improvement.
---	--------------------	---

E. Financing

Expenses for this initiative include the development and dissemination of training materials and guidelines, logistical costs for organizing regular training workshops, transportation, trainers' fees, and follow-up evaluation activities. Funding could be mobilized through national government budgets dedicated to rural and tourism development, supplemented by grants from international development agencies, and NGOs interested in tourism.

F. Risks and Mitigations

No.	Risks	Mitigations
1.	<p>Limited herder availability and engagement. Herders have demanding schedules, especially during certain seasons (for example, during calving/lambing in spring or during hay-making in summer). They might find it hard to take time off for training, or might not immediately see the value if tourism income is uncertain initially.</p>	<ul style="list-style-type: none"> ■ Schedule training during less intensive periods of the herding calendar. For example, late autumn after most harvest/preparation work is done, or winter when livestock are relatively settled (but accounting for weather and travel difficulty). ■ Use shorter, modular training sessions (a few hours at a time) rather than long-day workshops, so herders can fit them in. ■ Emphasize practical, immediately useful tips in training so herders see quick benefits. For example, better ger ventilation and cleanliness also improve their family's health, not just tourist comfort. ■ Provide small incentives for attendance: meals, certificates, or even useful items

		<p>like basic first aid kit for those who complete training.</p> <ul style="list-style-type: none"> ■ Involve respected herders who have successfully hosted tourists as peer champions to evangelize the value of training to their neighbors. ■ Encourage family-wide participation (men, women, youth) so that at least one member is likely free to attend each session and can later teach the rest.
2.	<p>Quality of training. There is a risk that training content might not be well-tailored to herders (too technical, too generic) or that trainers are not skilled in engaging rural participants. Poorly delivered training could fail to change behavior. Also, if training is one-off rather than continuous, initial momentum might be lost.</p>	<ul style="list-style-type: none"> ■ Involve professional curriculum designers with experience in rural contexts when developing content. ■ Pilots test the training modules with a small group of herders and get feedback to refine the approach. Ensure content is highly visual and scenario-based (role-playing how to welcome a guest, using pictures to illustrate good vs. bad hygiene practices, etc.). ■ For trainers, do a Training-of-Trainers program to build a cadre of local facilitators, ideally including younger herders or local teachers who speak the language and understand the context. Pair external experts with local co-trainers initially to build local capacity. ■ Create a mechanism for ongoing advice such as a phone hotline or a mobile chat group with trainers, so herders can ask questions that come up during the tourism season.

		<ul style="list-style-type: none"> ■ Making training an ongoing process rather than a single event, knowledge retention and implementation will improve.
--	--	---

G. Case Study

To illustrate how continuous training can empower herder communities in tourism, we can look at the experience of Kyrgyzstan, a Central Asian country with a nomadic pastoral culture similar in many ways to Mongolia. In the early 2000s, Kyrgyzstan implemented a highly successful community-based tourism (CBT) initiative through which communities received training in hospitality and management and then organized tourism services for visitors.¹²⁶

The outcomes in Kyrgyzstan provide a valuable case study for Mongolia. The Kyrgyz CBT model, with a sustainable approach, has successfully generated economic livelihoods and reduced rural poverty, while also protecting the local environment and cultural practices, and employment for local communities.¹²⁷ CBT also provides, expands, and improves sources of livelihood and opportunities to earn income, which is often used for basic living materials, education, healthcare, clothes, and building houses.¹²⁸ Moreover, the project specifically empowered rural women, expanding her role beyond a housewife—thanks to the training and support, women became entrepreneurs, hosting guests and managing finances.¹²⁹ Women gained confidence, formed networks, and some took on leadership roles in the CBT groups. This parallels Mongolia, where women in herder households will be able to be key players in hospitality after training in business skills and autonomous decision-making.

The most important lesson to Mongolia is that the Kyrgyz communities didn't learn everything overnight. They started with basics and over time added more skills. Mongolia's program should likewise be seen as a journey, with cooperatives gradually building capacity. The existence of structured modules in Kyrgyzstan such as hospitality, cooking, marketing, and environmental, provide a template that Mongolia can adapt rather than reinventing the wheel.

H. Implementation

¹²⁶ Nazgul Jenish, "Tourism Sector in Kyrgyzstan: Trends and Challenges," *University of Central Asia – Institute of Public Policy and Administration (IPPA) Working Paper No. 42* (15 January 2018), 16, <https://www.ucentralasia.org/media/bytfaqur/uca-ippa-wp42tourismeng.pdf>.

¹²⁷ Shumaila Y. Yousafzai et al., *Together we have it all: Women Entrepreneurs In Kyrgyzstan's Community-Based Tourism Sector* (2023) 19, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4383960.

¹²⁸ *Ibid.*, 15.

¹²⁹ *Ibid.*, 85.

Implementation will follow a phased approach over three years.

1. Year 1 (Pilot and Launch)

In the first quarter (Q1), the project will kick off by forming a task force composed of representatives from all stakeholders. Initial funding should be secured through government or donor sources, and 2–3 pilot provinces should be selected for their tourism potential and active cooperatives. Local government support must also be confirmed. In Q2 and Q3, training materials will be developed with both international best practices and local input. Q4 will be focused on trainer orientation, bringing together a mix of local leaders and professional trainers for a week-long workshop. Training will then begin in each pilot province, targeting 2–3 cooperatives with a core 2-day training before the summer season, followed by monthly topic-focused sessions. Continuous monitoring will be conducted throughout the year, with a stakeholder workshop held at year-end to gather feedback and make necessary adjustments.

2. Year 2 (Refine and Expand)

The second year will begin with the refinement of training materials in Q1 based on feedback from the pilot phase. Original cooperatives will continue receiving advanced training on topics like marketing and first aid. In Q2, the program will expand within the same province by training new cooperatives, with Year 1 participants serving as mentors. Experienced trainers, including trained herders, will lead sessions to double the number of participating coops. Q3 will introduce regional exchange visits where representatives from each pilot province visit others to observe best practices firsthand. These exchanges will help reinforce learning and build motivation. By Q4, the program will document early success stories and promote them through national media, increasing visibility and encouraging new cooperatives to join. Stakeholders will convene a national planning session to select additional provinces for expansion and resource commitments for scaling are secured.

3. Year 3 (National Scale-up)

Throughout Q1–Q4, new provinces will join the program using the refined training tools and trained ambassadors from earlier phases. A growing network of experienced trainers will help maintain quality. A certification system will be introduced, granting a quality label to cooperatives that meet hospitality standards, which boosts credibility and motivates participation.

2.2 Initiative 2 (Medium): Funding and Mentorship

Providing Financial Loans and Establishing a Tourism Business Incubator for Herders

A. Overview

The proposed initiative is a Tourism Business Incubator for Herders (TBIH), designed to help nomadic herder families in Mongolia develop their own tourism micro-enterprises. It will serve as a central hub where herders can access bundled support such as small financial loans coupled with hands-on mentorship and business training. The incubator is envisioned as a public-private partnership consisting of buy-in from herder cooperatives and financial capital from commercial banks or microfinance institutions. Herders interested in diversifying their income through tourism will be able to apply to the TBIH, and successful applicants will receive training in business skills and hospitality, seed capital, experienced mentors who guide them from business plan to launch. By integrating finance, training, and ongoing support, the TBIH will lower the barriers to entry for herders to participate in the growing tourism sector.

The TBIH follows a structured workflow from initial outreach to post-launch support. Herders will first learn about and apply for the program, then undergo training and mentorship to develop a viable business plan. Once the plan is solidified, they will receive a bundled micro-loan (with flexible terms) to start the tourism venture while continuing to receive guidance during setup. Finally, after launching their tourism business, they will benefit from ongoing support (marketing assistance and advanced training) and gradually repay the loan from their new income.

Through this workflow, the TBIH will ensure that each herder with entrepreneurial ambition is not only given financing but also the knowledge and social support to succeed. The cooperative-led structure means the community will have a stake in each venture's success and the central incubator will be able to coordinate quality and safety standards. The outcome of each cycle (number of businesses launched, loan repayment rates, income generated, etc.) will be monitored to inform scale-up in subsequent phases.

B. Rationale

Mongolia's herder families face increasing pressures on their traditional livelihoods. While around a third of Mongolians depend on pastoral animal husbandry, this single-source income is highly vulnerable to climate and economic shocks and leaves many families in a place of financial insecurity.¹³⁰ Diversification of income is urgently needed to improve rural resilience, and tourism

¹³⁰ Mercy Corps, *The Legacy of Mercy Corps Mongolia*, May 2021, <https://www.mercycorps.org/sites/default/files/2021-05/LegacyofMCMongolia22YearReport-ENG.pdf>.

offers a promising solution, but nomadic herders must be able to participate in and benefit from this tourism growth rather than being bypassed by it.

Many herders are keen to improve their livelihoods and are even willing to take reasonable risks such as small loans, but they lack the knowledge, skills, and confidence to start a new business outside their traditional domain.¹³¹ Furthermore, herders typically have had little exposure to the tourism industry. Running a guesthouse or tour operation involves skills that are completely new to most nomadic families, and without an intervention, herders are unlikely to enter this sector on their own, and many of those that do try may fail due to inexperience. If they were to have taken out a high-interest loan to build tourist gers that then stay empty due to lack of marketing, they could be in an even worse financial situation than before. Therefore, this risk aversion is actually rational given the circumstances, which is why an incubator model that de-risks entrepreneurship by coupling financing with expert guidance and a supportive community is needed.

In summary, this initiative addresses economic necessity to diversify, leverages a market opportunity, and overcomes structural barriers through a proven strategy. The experience of many herders considering entering the tourism industry underscores the notion that finance plus education is the winning formula to unlock herders' potential, and the TBIH will deliver just that.

C. Expected Outcomes

Participant herder families will gain more stable incomes by adding tourism to their traditional earnings. Even a modest tourist flow (a few dozen guests per season) can boost household income by 10–15% within the first few years, based on similar business development programs.¹³² This additional income can support education, healthcare, goods, and reinvestment into herding (buying winter fodder), reducing rural poverty and creating a financial buffer against climate or market shocks.

Furthermore, each tourism microbusiness will create employment within the family and beyond. Spouses, children, and neighbors may assist or be hired, especially during peak seasons. Tourism also boosts demand for local shops, crafts, transportation, and services, a multiplier effect that can support rural development and infrastructure upgrades. Over time, successful ventures may scale up into small cooperatives or camps, which will incentivize young herders to stay and work locally rather than migrating to cities.

¹³¹ Byamba, interview by author, 17 March 2025.

¹³² Mercy Corps, "The Legacy of Mercy Corps Mongolia."

Moreover, participants will gain skills in business planning, accounting, customer service, languages, and digital tools. These capacities are transferable and will build long-term confidence and market engagement. Women may lead in hospitality and crafts, increasing their income and household decision-making power. Youth exposed to local entrepreneurial success may develop stronger interest in business. The result is a shift toward rural innovation and reduced risk aversion.

D. Stakeholders

No.	Stakeholder	Role
1.	The Ministry of Culture, Sports, Tourism, and Youth of Mongolia	<ul style="list-style-type: none"> ■ Oversee the program’s policy alignment and provide support to integrate the initiative into rural development efforts.
2.	Local Governments (Province and District)	Provide venues for training (community halls), helping with mobilization (announcements on local radio to encourage herders to join training), and mediating any community issues that arise.
3.	Cooperatives	Serve as the primary implementers. Help identify herder participants, organize training, support loan management, and monitor business progress.
4.	Educational and Training Institutions	<ul style="list-style-type: none"> ■ Provide expertise and assistance in developing curricula and training content for business incubators, conduct initial trainer training (train-the-trainer approach), and support cooperatives during implementation. ■ A university with a tourism or hospitality program could assist in drafting the training curriculum for a business incubator. They also might send student interns to cooperatives to help implement training or language practice. Therefore, students get field experience and cooperatives get extra help.

4.	Financial Institutions	<ul style="list-style-type: none"> ■ Handle loan disbursement and collection, using flexible repayment models that suit seasonal income flows.
5.	Herder Communities	<ul style="list-style-type: none"> ■ Participate and act as key partners and beneficiaries. ■ Provide feedback to cooperatives for ongoing improvement.

E. Financing

Key expense areas include loan funds, training and mentorship delivery, and mentoring and evaluation. The GOM can allocate a national budget from relevant ministries (MOFALI, MED) as this aligns with national priorities in tourism development and herder income. However, the ongoing soft loan program for cooperatives indicates the national government of Mongolia’s commitment to finance herders.¹³³ However, part of that budget could be channeled specifically into this targeted program.

F. Risk and Mitigation

No.	Risk	Mitigation
1.	Low herder participation or uptake. Herders may be hesitant to join the program due to fear of debt or skepticism about tourism’s viability.	<ul style="list-style-type: none"> ■ Community engagement & trust-building. Work through respected cooperative leaders to endorse the program. Organize exposure visits (for example, take a few hesitant herders to visit a successful herder-hosted ger camp in another region) to demonstrate tangible benefits.

¹³³ Sambuunjam M., “New Cooperative - Wealthy Herder” Program to Be Intensified,” *Mongolian National News Agency*, 11 September 2024, <https://mn/en/read/351132>.

2.	<p>Seasonality and income fluctuation.</p> <p>Tourism in Mongolia is highly seasonal (peak in summer), so herders might struggle with cash flow in other months, affecting their ability to repay loans consistently.</p>	<ul style="list-style-type: none"> ■ Structure loan repayment schedules to match seasonality (for example: larger payments after summer, token or no payments in winter months). ■ Conduct financial literacy training to encourage and teach herders to set aside a portion of summer earnings into savings (possibly facilitated by a mobile savings account) to tide through off-season.
3.	<p>Financial Mismanagement. Risk of misuse of loan funds by participants such as spending the loan on immediate needs unrelated to the business or mismanagement of funds by the incubator/cooperative.</p>	<ul style="list-style-type: none"> ■ To ensure proper use, disburse loans in tranches tied to a business milestone (for example, require proof that the first tranche was used to buy the intended equipment before releasing the second). Mentors and cooperative officers will help track expenditures. Provide basic bookkeeping training to herders so they can separate business funds from household funds. ■ As for incubator finances, maintain transparency: regular audits of the program’s accounts, community oversight (a committee including cooperative members to review how funds are being used), and adherence to donor/government financial management rules. These steps will minimize corruption or leakage.
4.	<p>Dependency on external funding</p>	<ul style="list-style-type: none"> ■ Promote co-investment from cooperatives; build financial sustainability models (e.g., revenue sharing). This ensures that earnings from eco-tourism (e.g., homestays, tours, meals,

		workshops) are equitably divided among participating herders, the cooperative fund, and service providers.
--	--	--

G. Case Study

A useful analog for this initiative is the Grameen Bank in Bangladesh and its celebrated microfinance model. While Mongolia’s context is different, the core principle is similar: empowering low-income individuals (or herders) to become entrepreneurs by providing credit in addition to a strong support system. Grameen Bank, founded by Dr. Muhammad Yunus, began in 1976 by giving microloans to poor villagers (particularly women) to start income-generating activities.¹³⁴ It achieved remarkable success and won the Nobel Peace Prize in 2006 for its impact on poverty reduction, which was achieved by combining financial services with mentorship, peer support, and capacity-building of borrowers.¹³⁵

Key features of Grameen’s approach included forming small groups of borrowers who meet weekly to repay loans and discuss their businesses, thereby creating accountability and mutual encouragement. Borrowers receive guidance during these meetings on how to improve their activities, manage money, and even on social issues (health, education), effectively a form of continual mentorship. This structure-built confidence and discipline among people who had never dealt with formal finance. As a result, Grameen achieved extremely high repayment rates and entrepreneurial success among some of the poorest communities.¹³⁶ By February 2025, Grameen had disbursed over USD 40 million in loans to more than 10 million borrowers with a nearly 96% repayment rate, statistics that highlight the effectiveness of the model.¹³⁷ Such outcomes are not possible with credit alone; they require earning the trust of clients and building their capacity to use the credit well.

One relevant aspect is how Grameen boosted the morale and dignity of marginalized people. Per a 2014 case study, the program creates the “right opportunity” to “[provide] them with peer support and [boost] their morale and dignity,” encouraging them to use their entrepreneurial talents.¹³⁸

¹³⁴ Grameen Foundation and Grameen Trust, *Guidelines for Establishing and Operating Grameen-Style Microcredit Programs: Based on the Practices of Grameen Bank and the Experiences of Grameen Trust And Grameen Foundation Partners*, 16 July 2015, 1, <https://grameenfoundation.org/documents/GrameenGuidelines.pdf>.

¹³⁵ *Ibid.*, 17-18.

¹³⁶ *Ibid.*, 4

¹³⁷ Grameen Bank, “About Grameen Bank,” accessed 19 April 2025. <https://grameenbank.org.bd/about/introduction>.

¹³⁸ Rosario Laratta and Ghyes Kamal, *The Grameen Bank Micro-Credit Programme for ‘Struggling Members’ in Bangladesh: Empowerment to Tackle Social Exclusion*, 2014. <https://www.govint.org/our-resources/case-studies/case-study/the-grameen-bank-micro-credit-programme-for-struggling-members-in-bangladesh-empowerment-to-tackle-social-exclusion>.

This is precisely the intangible benefit that Mongolian herders will obtain through the TBIH: not just money but self-confidence and the recognition that their skills and culture have market value. Much like Grameen's group lending methodology, leveraging cooperatives and cohort-based mentorship can foster a supportive peer environment. Herders in the program will feel less isolated if they have a network on which to lean, just as Grameen borrowers had their weekly center meetings for solidarity.

The Grameen model also provides for insights on designing sustainable institutions. Grameen Bank was not a one-off project but one that became a self-sustaining bank. Similarly, the vision for the TBIH is to keep supporting new waves of herder entrepreneurs. Grameen's experience of starting small in one village and scaling nationwide serves as a blueprint for the pilot-to-scale approach. Finally, the TBIH will follow Grameen's example by incorporating rural social dynamics to most effectively integrate itself into the local culture, cooperatives, and community structures.

In summary, the Grameen Bank case study illustrates that access to capital, when delivered with knowledge transfer and moral support, leads to far greater success than capital alone. Poor women in Bangladesh, like nomadic herders in Mongolia, initially lacked experience with formal businesses. However, with the right mentorship and group support, they became entrepreneurs capable of improving their families' lives. The TBIH echoes this philosophy, and the research team anticipates outcomes akin to Grameen on a smaller scale: high repayment, strong empowerment effects, and potentially a demonstration effect that could spur replication. Just as Grameen has been replicated globally as a model for microfinance, a successful herder tourism incubator in Mongolia could become a model for other countries seeking to link sustainable tourism with rural livelihoods. The Grameen example thus provides both inspiration and practical lessons chiefly, that integrating social support with economic tools is a powerful formula for inclusive development.

H. Implementation

Implementation will follow a phased approach over four years.

1. Year 1 (Foundation and Pilot Launch)

The program will begin with the design phase, stakeholder engagement, and the selection of cooperatives during the first two quarters. In the second half of the year, training modules will be developed, and a pilot program will be launched in one to two provinces.

2. Year 2 (Capacity Building and Early Business Activation)

The first two quarters will focus on delivering training and mentorship to the pilot participants. During the third and fourth quarters, loan disbursements will begin, and early-stage business development will be monitored.

3. Year 3 (Regional Expansion and Market Integration)

Based on the outcomes of the pilot, the program will expand to three to four additional provinces in the first half of the year. The latter half will involve onboarding new participants and launching regional marketing support.

4. Year 4 (National Rollout and Sustainability Planning)

The first two quarters will mark the nationwide rollout of the incubator model and a comprehensive final evaluation. In the final two quarters of the year, results will be published, and a long-term sustainability plan will be developed.

2.3 Initiative 3 (High): Digital Infrastructure Development

Promoting Rural Tourism and Connecting Remote Communities with International Visitors Through Centralized Digital Platform

A. Overview

Mongolia's nomadic herder tourism offers rare and authentic cultural experiences, from ger stays and horseback riding to dairy production and traditional festivals. However, many of these valuable offerings remain invisible to international tourists due to limited digital presence, fragmented promotion, and poor booking accessibility. To address these challenges, this initiative proposes leveraging the existing government-backed tourism platform, Go MonGOlia, to build a centralized digital gateway for rural tourism.

The platform will enable tourists to easily discover, book, and pay for immersive herder-led experiences while integrating transportation services for access to remote areas. Local cooperatives will play a central role as digital intermediaries, bridging technological gaps and ensuring coordination. Even in areas with weak internet connectivity, cooperatives will manage booking availability by collecting herder schedules weekly via SMS or in-person check-ins, updating the online system accordingly. They will also be responsible for confirming reservations, and answering inquiries on the platform. To ensure service reliability, cooperatives will deliver regular digital platform training to their members and charge a small management fee for each booking to cover administrative costs.

The typical workflow will follow this process: tourists browse and book their experience online and submit payment through the platform. The cooperative administrator receives a notification from the platform and contacts the assigned host by call or text to confirm availability. The host then prepares for the guest's visit, and the tourist arrives at the ger as scheduled. This system simplifies the logistics while allowing herders to focus on the hospitality aspect, even without directly engaging with the digital interface.

This initiative will operationalize a dedicated module within Go MonGOlia to promote and manage herder-led tourism offerings. It aims to diversify rural income, empower nomadic communities, and advance inclusive, sustainable tourism development across Mongolia.

B. Rationale

Mongolia's herders rely almost entirely on livestock, with few alternative income sources.¹³⁹ On average, herder households earn approximately 7.2 million MNT annually, significantly below the national average wage.¹⁴⁰ These households are vulnerable to volatile prices and climate-related shocks. However, tourism presents a viable opportunity to supplement their income. By offering experiences such as hosting guests, guiding trips, or selling local products, herder families can reduce poverty and economic dependence on livestock, supporting Mongolia's national goal of diversifying the rural economy.

Mongolia is experiencing a tourism rebound post-pandemic. It welcomed a record high 727,386 international tourists in 2024, which was a 25% increase from the previous year.¹⁴¹ Yet, most visitors remain concentrated around urban centers. Mongolia's nomadic culture and vast open landscapes are a unique draw that remains underutilized. Utilizing digital platforms like Go MonGOlia would allow these experiences, such as ger stays, horse treks, and seasonal festivals, to become visible and easily bookable by international visitors. This approach supports sustainable tourism growth by dispersing visitors and promoting less-visited areas.

Cultural preservation and local empowerment are core to this initiative. Herder-led tourism reinforces traditional practices while creating financial incentives to maintain and celebrate nomadic heritage. Cooperatives ensure that communities retain ownership over how tourism

¹³⁹ National Statistics Office of Mongolia, "News Release: Jan–Dec/2023," 16 January 2024. https://downloads.1212.mn/lbNgWBVXUkO8fDY-FPc8mzP_A-TW_6J_-E8H_sq.pdf.

¹⁴⁰ Development Impact Evaluation (DIME) and Global Agriculture & Food Security Program (GAFSP), *Mongolia Livestock and Agricultural Marketing Project (LAMP): Baseline Household Survey Report*, December 2013, <https://gafspfund.org/sites/default/files/inline-files/LAMP%20Baseline%20Report%20final.pdf>.

¹⁴¹ CEIC, "Mongolia Visitor Arrivals: 1994 - 2024," accessed 3 April 2025. <https://www.ceicdata.com/en/indicator/mongolia/visitor-arrivals>.

develops, protecting against cultural commodification and outside exploitation. This model also ensures that experiences remain authentic and respectful.

C. Expected Outcomes

This initiative is expected to produce significant positive impacts across economic, social, and technological dimensions. Hundreds of herder households will gain access to new revenue streams through tourism, increasing their annual income by an estimated 15% or more. These earnings will enhance rural resilience, reduce dependency on livestock, and stimulate local economies.

Mongolia’s national tourism performance will also improve, with international arrivals projected to rise as rural destinations become more accessible. The platform will encourage longer stays and higher per-visitor spending, contributing to broader economic growth and helping reach the national target of one million annual visitors.

On a cultural level, herder-led tourism will foster pride in nomadic heritage and incentivize the preservation of traditional practices. By involving youth and local cooperatives in managing tourism services, the initiative will empower communities and promote inclusive development.

D. Stakeholders

No.	Stakeholder	Role
1.	The Ministry of Culture, Sports, Tourism, and Youth of Mongolia	<ul style="list-style-type: none"> ■ Take the lead in policy oversight, ensuring that the platform aligns with Mongolia’s national tourism strategy and quality standards. ■ Lead the integration of the new digital module into the Go MonGOLia platform and ensure connectivity in targeted rural areas.
2.	Cooperatives	<ul style="list-style-type: none"> ■ Act as the core operational actors. They will coordinate host scheduling, confirm bookings, manage guest communications, and ensure that services are delivered consistently across regions. These cooperatives will also conduct digital platform training and provide regular support to herder families engaged in the tourism system.

3.	Tech and App Development Companies	<ul style="list-style-type: none"> Develop and maintain the platform.
4.	Development partners	<ul style="list-style-type: none"> Financing.
5.	Herders Communities	<ul style="list-style-type: none"> Act as active participants, beneficiaries, and key partners in providing feedback to cooperatives for ongoing improvement.

E. Financing

Key expense areas include platform development and system integration, equipment provisioning such as tablets and mobile Wi-Fi devices, training and capacity building for cooperatives and host families, targeted international marketing campaigns, and monitoring and evaluation activities.

Funding is expected to be primarily provided by the development agency through concessional financing or a dedicated rural development grant. This would be complemented by national tourism and digital transformation funds. To support long-term sustainability, a 5–10% commission will be applied to all bookings on the platform. This revenue will fund cooperative operations, digital maintenance, and ongoing training programs beyond the project lifecycle.

F. Risks and Mitigations

No.	Risk	Mitigation
1.	High cost of infrastructure installation.	<ul style="list-style-type: none"> Target initial investment in high-potential areas; bundle with renewable energy projects for efficiency.
2.	Technological obsolescence or lack of maintenance.	<ul style="list-style-type: none"> Invest in scalable, modular tech; train local cooperatives in basic maintenance.
3.	Low utilization due to lack of awareness.	<ul style="list-style-type: none"> Launch awareness campaigns; offer digital toolkits and starter incentives (e.g., discounted mobile data).
4.	Low internet coverage.	<ul style="list-style-type: none"> Use offline booking sync, SMS-based coordination, and in-person updates via cooperative offices.

5.	Herders lack the time to regularly monitor the platform.	■ Cooperative helps herders manage bookings, allowing herders to focus on the hospitality aspect.
----	--	---

G. Case Study

Based on research conducted by students at Zhejiang University in 2024, China has effectively leveraged the power of digital platforms to promote its rural tourism industry, leading to significant advancements in the sector.¹⁴² The adoption of digital technology has transformed how rural tourism operates, with online systems and digital marketing enabling tourists to discover and access information more easily. Operators utilize social media, tourism websites, and mobile applications to showcase rural attractions and reach a wider audience. Furthermore, digital tools such as virtual tours and online cultural presentations enhance the appeal of these destinations, influencing potential tourists' decisions. Digitalization has also optimized the operational aspects of rural tourism through online booking and payment systems, alongside the use of big data analytics for personalized marketing and service delivery.¹⁴³

The positive impact of digitalization on rural tourism has translated into notable increases in household incomes within these areas.¹⁴⁴ Rural tourism serves as a crucial aspect of rural industrial development and an effective tool for creating and sustaining rural industries, often offering returns that surpass those from traditional agricultural labor. The study's analysis indicates that digitalization has a statistically significant positive effect on rural tourism income across China, particularly benefiting regions with natural landscapes. By driving increased visitation and spending through effective digital engagement, digital platforms for rural tourism in Mongolia can make a substantial contribution to the national economy by stimulating local economic development and injecting funds into various sectors.

H. Implementation

Implementation will follow a phased approach over four years.

1. Year 1 (Planning, Coordination, and Pilot Preparation)

¹⁴² Qirui Zhang et al., "Has Digitalization Boosted the Rural Tourism Income? — Evidence from Prefecture-Level City Panel Data in China," *Land* 2025 vol. 14, no. 17 (25 December 2024), 3, https://www.researchgate.net/publication/387416520_Has_Digitalization_Boosted_the_Rural_Tourism_Income-Evidence_from_Prefecture-Level_City_Panel_Data_in_China.

¹⁴³ *Ibid.*

¹⁴⁴ *Ibid.*, 24.

Planning and coordination will take place in Q1 and Q2, followed by stakeholder engagement and cooperative selection in Q3. Technical development and pilot site identification will continue through Q4.

2. Year 2 (Pilot Rollout and System Refinement)

Platform integration and testing will be conducted in Q1 and Q2, followed by the rollout of pilot programs in two to three provinces from Q3 to Q4. Feedback will be collected and system refinements made by the end of the year.

3. Year 3 (National Expansion and Operational Scaling)

Nationwide training and expansion will begin in Q1, with cooperative onboarding taking place across regions through Q3. A full marketing campaign will be launched mid-year. Monitoring and performance adjustments will occur in the final quarter.

4. Year 4 (Evaluation, Impact Reporting, and Strategic Transition)

By Q1, the platform will operate at national scale. From Q1 to Q2, data will be collected for final evaluations. Between Q3 and Q4, a comprehensive impact report will be published, and recommendations will be made for long-term sustainability and potential expansion to new sectors.