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DEVELOPMENT OF YOUNG HERDERS' TRAINING SYSTEM TO SUPPORT GOOD LIVESTOCK HUSBANDRY PRACTICES

July 2024

SDGs:



Country: Mongolia

Project Code: TCP/MON/3806

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Implementing Partner

Ministry of Food, Agriculture and Light Industry (MoFALI).

Beneficiaries

Young herders, with a focus on women.

Country Programming Framework (CPF) Outputs

CPF Country Outcome 2: Sustainable improvements of crop and livestock productivity.

CPF Country Outcome 3: Strengthening of agricultural value chains including development of export-oriented livestock production.



BACKGROUND

Over the past 28 years, Mongolia's annual gross domestic product rate has fluctuated between a contraction of 20 percent and a growth of 17 percent, reflecting the recurrent boom-and-bust cycles of economic growth. Economic diversification has been slow and the benefits of commodity booms have not been distributed evenly to reduce the growing inequality and persistent poverty. The incidence of poverty is higher in rural areas, where around one third of the population lives on income generated from livestock. Because of limited economic opportunities, harsh climatic conditions and insufficient social services, herders migrate to cities in search of better jobs and living conditions. Aggressive migration to urban areas and declining interest in livestock farming, especially among youth, is threatening the supply of labour force in the agriculture sector, where the percentage of herder households fell from 35 percent in 2000 to below 20 percent in 2019. As well as internal migration, youth are emigrating in search of better economic opportunities. In 2017, 1.5 percent of the total labour force out-migrated to Organisation for Economic Co-operation and Development countries.

The Mongolian Herders Programme 2020-2025, approved by the Government in 2019, aims to improve the well-being and social protection of herders in their communities, strengthen the information network of herders, and increase their productivity, income and profits. It includes activities on improving techniques and knowledge to run environmentally friendly and accountable livestock husbandry, preparing the young generation of herders, reducing the negative impact of climate change, improving risk-bearing capacity, providing favourable working and living conditions in rural areas and enhancing social protection. The project was developed in response to the request of MoFALI, the state agency responsible for the livestock sector. Its aim was to improve livestock production through the adoption of good husbandry practices and the implementation of innovative approaches. It would do this by providing young herders with information, knowledge and the necessary skills to increase the commercialization and competitiveness of the livestock sector.

IMPACT

The project introduced innovative solutions in livestock husbandry through a training curriculum, comprehensive training packages and advanced techniques. It also introduced small-scale skin tanning equipment and improved livestock business marketing strategies. These solutions, previously unknown to many herders, have been crucial in enhancing their knowledge and skills, improving productivity, and diversifying income streams.

ACHIEVEMENT OF RESULTS

The project had three outputs, all of which were achieved. Under Output 1, a training system was designed and piloted to strengthen the capacities of young herders, with a focus on women. The project developed a competency-based training curriculum and comprehensive training packages for both trainees and trainers. Output 2 began with a knowledge, attitude and practices (KAP) survey in May 2022, which served as a foundational step in understanding the needs and priorities of the target group. Based on the survey, the project identified key factors to increase livestock productivity and resource utilization. These were used to assist households to take appropriate measures to improve their livestock management practices. The project also conducted on-site training to improve skills in livestock husbandry, providing practical knowledge and techniques to enhance productivity.

In addition, the project developed and disseminated knowledge materials on the potential for improving livestock quality and productivity, highlighting the importance of new practices. These materials served as valuable resources for young herders, providing them with information on best practices and innovative approaches in livestock husbandry. The project's efforts led to improvements in livestock productivity and an increase of from 5 to 10 percent in household income, demonstrating the effectiveness of the training programme and the adoption of new livestock practices. Under Output 3, the project organized study tours for young herders, providing them with valuable learning experiences and networking opportunities. The project also conducted a "Women in the Livestock Sector" forum, bringing together women from various backgrounds to discuss and promote sustainable livestock practices. Overall, the project delivered the expected outputs effectively, as evidenced by the successful implementation of key activities and the positive feedback from participants.

IMPLEMENTATION OF WORK PLAN AND BUDGET

The project faced significant challenges that necessitated two no-cost extensions. First, the COVID 19 pandemic and resulting travel restrictions hindered the planned commencement of project activities. Second, unforeseen meteorological conditions, including intense and recurrent heavy rainfall events from July onwards, led to severe flooding, disrupting regional events for young herders and the closing workshop. Despite these setbacks, all activities were implemented within the planned budget.

The risks to the project were actively managed. Potential risks were identified and mitigation strategies developed to address them. Regular updates to the risk log ensured that risks were monitored throughout the project.

With regard to environmental and social risks caused by the project, measures were implemented to minimize environmental impact and promote social responsibility. These included sustainable livestock practices, waste management and community engagement.

FOLLOW-UP FOR GOVERNMENT ATTENTION

To further strengthen the training system, it is recommended that extension service capacity for private animal breeding service units be developed. This task has been assigned by MoFALI to the Mongolian National Association of Livestock Breeders. The units will act as primary providers of extension services to enhance the knowledge and skills of young herders in sustainable and responsible livestock production, as well as influencing their attitudes.

SUSTAINABILITY

1. Capacity development

The project was implemented in alignment with national policies and regulations related to livestock husbandry and sustainable development. The focus on capacity building and knowledge sharing among young herders ensured that the benefits of the project will be sustained beyond its completion. The active involvement of MoFALI and local communities will further enhance the sustainability of the project outcome, as will the engagement of non-governmental organizations (NGOs) such as "Khugjliin Onison Tulkhuur (Key to the Development Puzzle). The Mongolian National Association of Livestock Breeders was also a key partner in ensuring sustainability.

The project had a solid exit strategy and clearly defined follow-up actions. These included the transfer of knowledge and skills to local communities and institutions to ensure that the benefits of the project would continue to be realized after its completion. The country office also identified key follow-up actions, such as monitoring and evaluation activities, to track the progress of the project's outcomes and make adjustments as necessary.

2. Gender equality

The project placed a strong emphasis on inclusivity, ensuring that both women and men were actively involved in all stages, from training needs assessment to the approval of the training curriculum, providing valuable feedback for the development of training packages. Specific activities for women's participation, such as the "Women in the Livestock Sector" forum, were also organized. In addition, the training curriculum and materials were designed to be accessible and relevant to both genders, addressing their specific needs in livestock husbandry.

The project made significant efforts to ensure equitable benefits for women and men. It aimed to reduce women's work burden by providing them with knowledge and skills to improve livestock productivity, enhancing their income and livelihoods. By promoting sustainable and responsible livestock production, the project also indirectly supported women's access to and control over productive resources, such as land and livestock.

3. Environmental sustainability

The project demonstrated a strong commitment to mainstreaming environmental sustainability. One key aspect was the development of training materials focused on sustainable livestock production. The on-site training and study tours also provided young herders with practical knowledge and skills to implement sustainable practices in their daily livestock management.



In addition, by providing electric sheep wool shearing machines and small-scale equipment for tanning skins, the project not only improved efficiency but also reduced waste and environmental impact. The project's emphasis on cooperation in the livestock sector promoted knowledge sharing and the adoption of best practices, further contributing to environmental sustainability.

4. Human Rights-based Approach (HRBA) – in particular Right to Food and Decent Work

The project contributed significantly to the promotion of human rights, particularly in decision-making processes. Its participatory approach ensured the active involvement of stakeholders, including young herders, women and other targeted groups, in project activities. The project focus on sustainable livestock production and improved livelihoods also aligned with the Right to Food Guidelines adopted by FAO in 2004. By enhancing livestock productivity and providing training in livestock management practices, the project contributed to food security and the right to an adequate standard of living. In addition, the project created gainful employment and entrepreneurship opportunities for rural youth, women and other targeted groups by providing training and resources for livestock management and marketing, thus improving their economic well-being.

5. Technological sustainability

The project demonstrated appropriateness and flexibility in the technology used and introduced, including electric sheep wool shearing machines and small-scale skin tanning equipment. These technologies were well-received by beneficiaries and have shown positive impacts on productivity and efficiency. By introducing modern technologies and incorporating traditional herding methods into the training curriculum, the project enhanced the skills and knowledge of young herders, empowering them to improve livestock productivity and sustainability.

The project built the capacity of stakeholders and beneficiaries to pursue project activities without further technical assistance. Young herders now have the necessary knowledge and skills to independently manage their livestock operations and implement sustainable practices.

6. Economic sustainability

The project mobilized additional financial resources to the livestock sector through various mechanisms. One key source of funding was the government's allocation of subsidies for wool supplied to national textile and carpet factories through herder cooperatives. Other initiatives included the printing of 1 000 copies of the training materials for distribution at a provincial herders' forum by the Office of the President of Mongolia, and of 800 copies for a national young herders' forum by MoFALI. This contributed to the sustainability of the project's impact.

The products and services developed under the project are affordable to beneficiaries and stakeholders. The training materials were distributed free of charge to participants at fora and training events, including provincial and national herders' fora. The project's emphasis on affordability and accessibility contributed to its effectiveness in reaching and benefiting a wide range of stakeholders in the livestock sector.



DOCUMENTS AND OUTREACH PRODUCTS

- ❑ **Khugliin Onison Tulkhuur.** 2023. *A learner guide to the competency-based young herder training programme.* Ulaanbaatar.
- ❑ **Deeshin, G., Togtokhbayar, N., Narangerel, M. & Jigjidpurev, S.** 2023. *Traditional livestock herding methods and technologies.* Competency-based training handbook for trainees. Ulaanbaatar.
- ❑ **Deeshin, G., Togtokhbayar, N. & Jigjidpurev, S.** 2023. *Animal selection and breeding.* Competency-based training handbook for trainees. Ulaanbaatar.
- ❑ **Erdenechimeg, A., Togtokhbayar, N. & Jigjidpurev, S.** 2023. *Pasture management.* Competency-based training handbook for trainees. Ulaanbaatar.
- ❑ **Togtokhbayar N., Sodnomtsersen Ch., Mendsaruul B. & Jigjidpurev, S.** 2023. *Animal feeding and fodder production technologies.* Competency-based training handbook for trainees. Ulaanbaatar.
- ❑ **Burenjargal, S., Lkhagvatseren S., Jigjidpurev, S. & Togtokhbayar, N.** 2023. *Protecting animal health.* Competency-based training handbook for trainees., Ulaanbaatar.



- ❑ **Narangerel, M., Ganbat G., Dashmaa D., Itgel B., Togtokhbatar, N. & Jigjidpurev, S.** 2023. *Primary production and processing of livestock-origin raw materials.* Competency-based training handbook for trainees. Ulaanbaatar.
- ❑ **Ykhanbai Kh., Dorjdagva B., Erken Y., Togtokhbayar, N. & Jigjidpurev S.** 2023. *Natural resource management.* Competency-based training handbook for trainees. Ulaanbaatar.
- ❑ **Myagmarsuren D., Togtokhbayar N. & Jigjidpurev, S.** 2023. *Development of livestock marketing.* Competency-based training handbook for trainees. Ulaanbaatar.
- ❑ **Baasankhuu N., Mendsaruul B., Tamir B., Togtokhbayar N. & Jigjidpurev S.** 2023. *How to cooperate in the livestock sector.* Competency-based training handbook for trainees. Ulaanbaatar.
- ❑ **Khugliin Onison Tulkhuur.** 2023. *Competency-based training manual for trainers.* Ulaanbaatar.

ACHIEVEMENT OF RESULTS - LOGICAL FRAMEWORK

Expected Impact	Enhanced sustainable livestock production and income generation, market access and youth participation in the livestock sector		
Outcome	Improved livestock production by adopting good practices and implementing innovative approaches and providing young herders with information, knowledge, and the necessary competences		
	Indicator	Training system for young herders and new herder generation (including women participation) established.	
	Baseline	0	
	End Target	1	
	Comments and follow-up action to be taken	<p>The project achieved its outputs, contributing to the development of a training system for young herders and supporting good livestock husbandry practices in Mongolia. A training curriculum for young herders was developed to improve their knowledge, skills and attitudes. The curriculum was created using the standard farmer training programme development process and was complemented by comprehensive training packages for both trainees and trainers. The curriculum and training packages were handed over to the project's implementing partner, MoFALI.</p> <p>To further strengthen the training system, MoFALI has tasked the Mongolian National Association of Livestock Breeders with building extension service capacity for private animal breeding service units in the locality. The units are seen as potential primary providers of extension services to enhance the knowledge and skills of young herders in sustainable and responsible livestock production, as well as influencing their attitudes.</p>	
Output 1	Training system designed and piloted to strengthen capacities of young herders and new herder generation (including women participation) in livestock husbandry		
	Indicators	Target	Achieved
	Training curriculum developed and piloted in 4 soums by the end of the project.	1	Yes
Baseline	0		
Comments	After pilot field training and extensive stakeholder consultations, the competency-based young herder training curriculum was developed. The curriculum, along with comprehensive training packages for both trainees and trainers, underwent evaluation by the National Vocational Education and Training Evaluation Centre. It received approval in July 2022 with a score of 87.5%. The curriculum and training packages were fine-tuned and submitted for re-evaluation, achieving 100% approval on 13 March 2023.		
Activity 1.1	Design and conduct baseline study and training needs assessment for young herders in close collaboration with National Agriculture Extension Centre (NAEC)		
	Achieved	Yes	
	Comments	<p>In early 2021, the NAEC was transformed into a Research and Development Centre (RDC) for food, agriculture and light industries under MoFALI. However, as a result of limited staffing, and following consultation with MoFALI, it was decided to engage the NGO "Khugjliin Onison Tulkhuur", which has been actively involved in agricultural training and information dissemination since 2015. As service provider (SP), the NGO conducted a baseline study to assess the training needs of young herders. The study involved 74 participants (38 men and 36 women under 35 years old) selected from 74 different soums across Sukhbaatar (eastern), Govisumber and Dundgovi (southern), Uvs (western), and Khuvsgul (northern) aimags, representing four distinct geo-ecological regions of the country.</p> <p>Based on the assessment, the NGO developed a training programme and package for both trainees and trainers. Tailored to address the specific needs and challenges identified, the programme was relevant to the local context and met the requirements of the participants.</p>	

Activity 1.2	Develop competency-based capacity building training curriculum for young herders and new herder generation with the following considerations: - Develop training programmes and competency-based curriculum for herders developed under the Mongolian Agenda for Sustainable Livestock (MASL) in close collaboration with NAEC - Information and communication technologies for user-friendly application to increase reach-out and reduce location dependency	
	Achieved	Yes
	Comments	<p>Despite the challenges of the COVID-19 pandemic, the SP conducted training needs assessment among young herders across the four ecological regions in early 2022. Based on the assessment and considering the competency-based curriculum drafted earlier under the MASL, a training programme for young herders was developed, comprising the following modules:</p> <ul style="list-style-type: none"> - Traditional livestock herding practices and technologies. - Animal breeding and selection. - Pasture management. - Animal feeding and fodder production technology. - Protecting animal health. - Primary production and processing technologies of livestock-origin raw materials. - Natural resource management. - Development of livestock marketing. - Cooperation in the field of animal husbandry.
Activity 1.3	Conduct consultations on training curriculum amongst key stakeholders: university, local government, herders etc.	
	Achieved	Yes
	Comments	<p>A draft of the training curriculum and training packages, developed in line with the competency-based training programme model approved by the Minister of Labour in 2015 and with the active participation of young herders and local animal production officers in four provincial food and agriculture departments, was discussed with key stakeholders at expert workshops in February, March and May 2022. The workshops were attended by experts and officers from the FAO representative in Mongolia, MoFALI, lecturers and researchers from the Mongolian State University of Life Sciences, the Research Institute of Animal Husbandry, the Institute of Veterinary Medicine and the RDC of MoFALI, as well as NGOs such as the Mongolian National Association of Livestock Breeders, the Mongolian National Federation of Pasture User Groups and the Jasyr Association.</p>
Activity 1.4	Select at least 4 sites and conduct pilot training	
	Achieved	Yes
	Comments	<p>The initial proposal for pilot training aimed to select 60 young households in four soums. However, MOFALI recommended involving one socially active young herder under the age of 35 with good leadership qualities from each of the 74 soums in five aimags in four different geographical areas. The local administration of these soums nominated three young herders from each soum. Of these, 74 young herders (38 men and 36 women aged from 22 to 35) were chosen. The selected young herders participated in the entire process, from training needs assessment to the final approval of the curriculum, and provided feedback for the development of training packages.</p>
Activity 1.5	Finalize training system/curriculum and submit to the MoFALI's consideration and approval	
	Achieved	Yes
	Comments	<p>After multiple rounds of consultations with stakeholders, the curriculum was reviewed by the National Centre for Evaluation of Technical and Vocational Education Programmes. This rigorous evaluation process led to a certification score of 87.5 in July 2022, later revised to 100 in March 2023. The curriculum, along with comprehensive training packages for trainees and trainers, was handed over to MoFALI in October 2023.</p>

Output 2	Young herders (with assurance of women participation) in the project sites adopted the identified livestock husbandry practices to improve livestock productivity and household income from livestock increased by 5-10%		
	Indicators	Target	Achieved
	At least two livestock husbandry practices (pasture/fodder management, product primary processing, animal health and breeding etc.) introduced/implemented by beneficiary herder households.	2	Yes
Baseline	0		
Comments	Despite each herder household owning a flock of from 50 to 1 000 sheep, economic efficiency remained low. The provision of electric shearing machines and small-scale equipment for tanning small ruminant skins significantly enhanced the efficiency of sheep flocks. Additionally, young herders learned to benefit from the fertile land available to them for fodder production.		
Activity 2.1	Conduct herder KAP survey before/middle/end of the project (include at least 20 women herders). Identify impact factors to increase livestock productivity and resource utilization and based on it, assist households to take appropriate measures		
	Achieved	Yes	
	Comments	A KAP survey in May 2022 indicated that young herders expressed a strong desire to master fodder cultivation (100%) and increase the benefits from sheep (80%). Sheep are primarily raised for mutton production. Limited technological advancements in wool shearing prevented herders from benefiting from wool sales. Herder households also had the potential to benefit from sheepskins. However, traditional manual skinning techniques resulted in skin damage that was unacceptable for tanneries. Sixty percent of participants expressed interest in small-scale skin tanning equipment that would enable them to diversify their income.	
Activity 2.2	Conduct on-site training to improve skills on livestock husbandry practices		
	Achieved	Yes	
	Comments	All 74 herders were trained in on-site dairy processing, fodder cultivation, pasture management, animal breeding and selection, animal health, sheep wool shearing, small ruminants' skin tanning, marketing and cooperative development, in line with the programme.	
Activity 2.3	Provide required inputs to increase productivity and resource utilization		
	Achieved	Yes	
	Comments	During on-site training in July 2022, each young herder was provided with 40 kg of oat seeds, an electric sheep wool shearing machine and 24 pieces of small equipment to tan the skins of small ruminants, distributed among three herders living in neighbouring soums in the same aimag.	
Activity 2.4	Develop and disseminate knowledge materials on potentials to improving livestock quality and productivity and its importance		
	Achieved	Yes	
	Comments	For each competency-based training module, a self-learning handbook was developed. Five hundred copies of the handbook were printed and packaged as a single training package. The handbooks received widespread praise for being well-written and clearly articulated in plain language. In addition to disseminating the handbooks to the 74 participants and 300 young herders who participated in experience and knowledge-sharing study tours organized by the project and by MoFALI, the Office of the President of Mongolia printed 1 000 copies through its own funding and distributed these to participants of the provincial 1 000 herders' forum in Bayankhongor province in September 2023. In addition, MoFALI printed 800 copies of the training handbook and distributed these to 800 young herders from all 330 soums of 21 aimags, who participated at the national Young Herder Forum in October. At both fora, FAO introduced the training programme.	

Output 3	Young herders and youth in the project sites supported in knowledge sharing and livestock extension services. This will be executed in cooperation with NAEC		
	Indicators	Target	Achieved
	Field visits/study trips organized among beneficiary soums to promote knowledge and experience sharing.	4	Yes
Baseline	0		
Comments	In cooperation with MoFALI's Livestock Policy Implementation and Coordination Department, the project organized two-day study tours for young herders in the eastern and northern regions in June and August 2023.		
Activity 3.1	With leadership by NAEC, organize field visits and study trips for young/women herders and new generations		
	Achieved	Yes	
	Comments	Study tours in June and August 2023 involved 107 young herders from Dornod, Sukhbaatar, Khentii, Bulgan, Khuvsgul and Orkhon aimags. Participants learned from experienced herders, exchanging knowledge and best practices in the livestock sector, and developing networks and cooperation among young herders. In August, MoFALI organized a one-day study tour at a pedigree sheep farm in Selenge aimag, with the participation of 100 young farmers from Tuv, Selenge and Darkhan-Uul provinces, focused on intensive livestock farming.	
Activity 3.2	Support soum extension service units to promote knowledge and experience sharing on good livestock husbandry practices (pasture management, veterinary and breeding practices etc.)		
	Achieved	Yes	
	Comments	During the study tours organized in the eastern and northern regions, young herders visited feedlots for raising and fattening cattle in Khentii aimag and Bulgan aimag, a climate-smart lamb production farm in Bulgan aimag and young households promoting hydrophobic green fodder production in Bulgan aimag. They also received advanced sheep wool shearing demonstration training in Khentii aimag by shearers from New Zealand. In addition, they visited herders' model cooperatives formed by pasture user groups and an artificial insemination operation at a beef farm in Khentii aimag. Finally, the young herders' training curriculum was introduced, along with corresponding learning materials.	
Activity 3.3	Support young herders and youth and women on knowledge sharing and apply the lesson learned from field trip in implementing livestock husbandry practices (pasture management, veterinary and breeding practices etc.)		
	Achieved	Yes	
	Comments	A "Women in the Livestock Sector" forum was organized in Dundgovi aimag in October 2022, in addition to on-site training for the 74 selected young herders and regional study tours conducted under the project. The forum was initiated by the Chairwoman of the Parliament Standing Committee on Environment, Food and Agriculture. The 400 women participants included 328 herder women and 70 local female professionals, such as veterinarians, animal breeders, meteorologists and land managers from all 15 soums within the aimag.	

Partnerships and Outreach

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