

Summary of Terminal Evaluation Results

1. Outline of the Project	
Country: Mongolia	Project Title: The Project for Strengthening the Capacity for Human Resource Development in the Field of Veterinary and Animal Husbandry
Target Sector: Agricultural Development	Cooperation Scheme: Technical Cooperation Project
Division in Charge: Rural Development Department	Total Budget (Japanese Side): Approximately 500 million yen
Period of Cooperation April 2014 – April 2019 (5 years)	<u>Implementation Agency:</u> School of Veterinary Medicine (SVM) of Mongolian University of Life Sciences (MULS), General Agency for Veterinary Services (GAVS) <u>Collaboration Agency:</u> Institute of Veterinary Medicine (IVM), State Central Veterinary Laboratory (SCVL), Implementing Agency of the City Mayor Ulaanbaatar Veterinary Office (UVO) , National Agriculture Extension Center (NAEC)
	<u>Supporting Organization in Japan:</u> Graduate School of Veterinary Medicine (GSVM) of Hokkaido University
2. Background of the Project	
<p>It is well known that remarkable percent of Mongolian population is highly dependent on agriculture and livestock industry. Due to lack of better definition of appropriate system on rural agricultural service as an essential component of rural development, the improvement of human resources and training of highly skilled specialists in agriculture and livestock sector of Mongolia is strongly demanded.</p> <p>In the frame of the Mongolian National Livestock Programme 2010, which is based on National MDG targets, veterinary and breeding unit consisting of three officers, including veterinarian, breeding specialist, and extension manager has been established in soum level. Capacity building of veterinary and breeding unit is the highest priority in government policy, which includes demand driven to agricultural extension work, cooperated with efficient veterinary service in soum level.</p> <p>Therefore, reform of the veterinary higher education to the international level is highly recommended, which is the key approach to challenge the livestock development, animal health and hygiene issues, and thereby contribute to rural development as well as food security in Mongolia. Upgrading the veterinary higher education will identify the importance of knowledge, skills, and capacity of veterinary medicine as a main component of rural development, educating and developing future specialists as well as functional input of veterinary service for rural development.</p> <p>At the same time, strengthening extension network will be identified as nationwide agricultural and livestock extension service carried out by soum level veterinary and breeding unit with efficient advanced veterinary and animal husbandry service as essential component of rural development.</p> <p>In order to achieve such objectives, the Government of Mongolia requested to the Government of Japan for a technical cooperation aiming at the strengthening of educational and in-service training capacity of School of Veterinary Medicine (SVM) of Mongolian University of Life Sciences (MULS) and Ministry of Food, Agriculture and Light Industry (MOFALI). In response to the request, the Japan International Cooperation Agency (JICA) in partnership with SVM of MULS, National Agriculture Extension Center (NAEC) of MOFALI and Department of Veterinary and Animal Breeding (DVAB) of MOFALI launched a five year technical cooperation project entitled “The Project for Strengthening the Capacity for Human Resource Development in the Field of Veterinary and Animal Husbandry” (hereinafter referred to as “the Project”) from April 2014 to March 2019.</p>	

3. Project Overview		
(1) Overall Goal Capacity of professionals who are engaging in the services of veterinary and animal husbandry is strengthened.		
(2) Project Purpose Educational and in-service training capacity of SVM of MULS and MOFA is strengthened.		
(3) Output Output 1: Teaching curriculum of SVM is improved by the support of Swiss Development Agency (SDC). Output 2: Educational system at SVM for implementing the new teaching curriculum is prepared. Output 3: Teaching capacity of teaching staff at SVM is strengthened. Output 4: Contents of the in-service training courses by DVAB are improved in collaboration with SVM.		
(4) Inputs (as of October 2018)		
1) Japanese Side:		
- Dispatch of experts: Long-term: 3 (1 Advisor/Pathology, 2 Coordinators), Short-term 39 (a total of 119 times in internal medicine, surgery, pathology, toxicology, microbiology, theriogenology, hygiene, infection and immunity, etc.)		
- Training in Japan: Counterpart Training 51 persons		
- Provision of equipment: Approximately 155.1 million yen (equipment and textbooks, a total of 228 items)		
- Local cost: Approximately 28.5 million yen		
2) Mongolian Side:		
- Assignment of Mongolian counterparts: A total of 73 C/Ps (SVM: 52, SCVL: 10, IVM: 15 UVO: 6)		
- Project operational cost: Approximately 23.6 million yen (including the budgets for new facilities and renovation of the laboratories and project office), the electricity, fuel and personnel costs including traveling expenses		
- Provision for facilities: Two rooms with furniture for the JICA experts, several laboratories		
4. Evaluation Team		
Members of the Evaluation Team	<Japanese Team> - Ms. Tomoko TAIRA, Leader Director, Team 1, Group 1, Rural Development Department, JICA - Dr. Masaharu KANAMEDA, Livestock Hygiene Former Senior Advisor, JICA - Mr. Taketoshi WATANABE, Cooperation Planning 1 Program Officer, Team 1, Group I, Rural Development Department, JICA - Ms. Yayoi ISHIDA, Cooperation Planning 2 Program Officer, Program Division for Eastern Hokkaido, JICA - Dr. Yoshihito KASHIWAZAKI, Evaluation Analysis Senior Consultant A&M Consultant, Ltd. <Mongolian Team> - Dr. Batsuh B, Leader Division Manager, General Authority for Veterinary Services (GAVS), Ministry of Food, Agriculture and Light Industry (MOFALI) - Dr. Duuriimaa R., Evaluator 1 Officer responsible for veterinary license renewal, GAVS, MOFALI - Dr. Bolormaa P., Evaluator 2 Professor, Pharmacology, School of Veterinary Medicine, Mongolian University of Life Sciences	
Period of Evaluation	14 October – 3 November 2018	Type of Evaluation: Terminal Evaluation Study

5. Results of Evaluation

5-1 Achievements of Outputs and Project Purpose

5-1-1 Achievements of Output 1

Output 1: Teaching curriculum of SVM is improved by the support of SDC.

(Partially achieved.)

Indicator 1-1: New curriculum is developed based on the OIE Core Curriculum. (Achieved.)

Indicator 1-2: Syllabus of 10 subjects are approved by MULS. (Achieved.)

Indicator 1-3: New curriculum and syllabus are introduced and implemented for all five scholastic years of SVM by MULS. (Partially achieved.)

The activities for Output 1 (development of curriculum and syllabus) have been implemented by SVM with the SDC's assistance. Both curriculum and syllabus had been developed and applied to the undergraduate education since September 2015, which proves that Indicator 1-1 and 1-2 are achieved. However, it was illustrated through the questionnaire surveys conducted in February 2017 and October 2018 that the implementation of the new curriculum has been causing confusion in both the SVM teaching staff and the students. Although the SVM had established the Curriculum Committee since 2015, it was not functioned effectively to monitor the curriculum. Accordingly, the SVM reestablished Undergraduate Program Curriculum Committee lately in order to respond to the issues. As recommended by the Mid-term Review Team, the Project was expected to support SVM firmly for smooth implementation of the curriculum.

Although the curriculum and syllabus had already been developed, its operation did not proceed smoothly as the management and monitoring system for implementation did not function properly. Subsequently, several challenges on contents and implementation have been illustrated.

5-1-2 Achievements of Output 2

Output 2: Educational system at SVM for implementing the new teaching curriculum is prepared.

(Achieved.)

Indicator 2-1: More than 70% of the teaching staff of SVM recognizes the provision of textbooks, equipment and teaching materials by the project was effective for improvement of their teaching capacity. (Achieved.)

The educational environment of the school has been considerably improved through procurement of the equipment by JICA and renovation of the facilities by SVM. Furthermore, a number of teaching materials have also been prepared and shared as a result of the mutual efforts by the both sides.

5-1-3 Achievements of Output 3

Output 3: Teaching capacity of teaching staff at SVM is strengthened. (Not fully achieved.)

Indicator 3-1: More than 0.5 point in five grades on the satisfactory score to the classes by the teaching staff is increased. (Difficult to be achieved by the end of the Project)

Indicator 3-2: 80% of teaching and technical staff necessary for the new curriculum is trained. (Achieved.)

Indicator 3-3: The results of internal examinations show improvement. (Achieved.)

The teaching capacity of the SVM staff has also been significantly developed through the trainings in Japan and intensive technical transfer by the Japanese experts, which extended to the staff of the related institutions by establishment of 10 education/research groups. Although the satisfactory score of the students did not clear the target of Indicator 3-1, most of the SVM staff have been trained for the new curriculum (Indicator 3-2) and improvement of veterinary education was acknowledged by both the staff and students (Indicator 3-3).

5-1-4 Achievements of Output 4

Output 4: Contents of the in-service training courses by DVAB are improved in collaboration with SVM.

(Achieved.)

Indicator 4-1: More than 10 in-service training courses are developed. (Achieved.)

Indicator 4-2: More than 0.5 point in five grades on the satisfactory score to the in-service training courses by the teaching staff is increased. (Achieved.)

Because of the reform of DVAB referred to “Law on Livestock and Animal Health”, GAVS is now in charge of in-service trainings. The education/research groups have improved the relationship between the institutions (SVM, SCVL, IVM and UVO) and also produced 8 in-service trainings for veterinarians. The departments of the school have also developed 3 trainings, which proves the achievement of Indicator 4-1. Moreover, several questionnaire surveys revealed that the majority of the participants in the courses organized by the Project were satisfied with their contents especially practical classes, which indicated that Indicator 4-2 was also achieved.

5-1-5 Achievements of Project Purpose

Project Purpose: Educational and in-service training capacity of SVM of MULS and MOFA is strengthened. (Partially achieved.)

Indicator 1: Educational training capacity is improved in comparison with the results of previous survey in ‘Training Policy and Coordination Service (TPCS)’ conducted by MULS. (Partially achieved.)

Indicator 2: More than 50% of field veterinarian participated in-service training recognize the improvement of the training by the final year of the Project. (Mostly achieved.)

As explained in Output 1, the SVM formulated the new curriculum and the syllabus with the SDC’s assistance and those had been applied to the undergraduate education since 2015 as planned. However, challenges especially related to the new strand system have been clearly risen up from the both staff and students in late 2018, and the school has just reinitiated to address the issues by establishing a Undergraduate Program Curriculum Committee in October 2018. In response to that, the Project also now planned to send an additional expert in curriculum improvement to support the SVM’s countermeasures for smooth and effective implementation of the curriculum.

In terms of improvement of educational environment and capacity building of the teaching staff, the progress produced by the appropriate inputs and positive involvement by the both sides has significantly been acknowledged by not only the SVM staff and students but also the staff of the related institutions, who have been participating in the education/research projects. As a result of all these improvement in educational conditions and capacity of the C/Ps, the in-service trainings developed by the Project have become popular among Mongolian veterinarians.

5-2 Implementation Process

The project activities have officially been monitored through the Joint Coordinating Committee (JCC) and respective meetings have been held as summarized in the Table 6. The experts are able to piece out the ongoing activities in SVM and exchange opinions with the C/Ps through daily collaborative works and technical transfer. In addition, e-mailing has been enhancing project efficiency and communication especially between the short-term experts in Japan and C/Ps in Mongolia.

For implementation of the new curriculum, SVM established Curriculum Committee, nevertheless, it did not function properly as a monitoring system and a facilitator for information sharing among the teaching staff as well as between the Project and SVM. As a result, teachers and students have been confused by the new curriculum operation.

5-3 Promoting Factors for Project implementation

5-3-1 The project design

As a result of the discussion between the C/Ps, the Japanese short-term experts would support to strengthen the educational capacity of the SVM staff concentrating on practical classes, which resulted in the innovative renewal of the education at SVM.

5-3-2 The implementation process

The past long-term relationship between Mongolia and Japan have promoted the project activities.

5-4 Hindering Factors for Project implementation

5-4-1 The project design

The changes of the PD, TC and JCC members as well as the changes of the SCVL and UVO directors have directly affected the implementation of the Project.

The necessary activities to achieve Output 1, namely, implementation, monitoring and evaluation processes such as plan-do-check-act cycle were not recognized and included in PDM.

5-4-2 The implementation process

The delay of procurement of the equipment had hampered the prompt and efficient implementation of the project activities in the former part of the project period.

5-5 Summary of Evaluation Results

(1) Relevance: High

Mongolia declared that the recyclable livestock industry should be strengthened as a national priority strategy in “Mongolian National Livestock Program (2010-2015)” and “Mongolia Sustainable Development Vision 2030 (2016-2030)”, aiming at increase in livestock productivity and contribution to the national finance. In addition, the Purpose of the Project is that Mongolian veterinarian themselves become able to cope with such national major issues under the support of the Japanese experts through academic and technical capacity development of veterinarians, which is certainly regarded to meet the needs of Mongolia and the target groups. Furthermore, the Project also aligns with "Japan's Development and Cooperation Policy for Mongolia" announced in December 2017. As a result, the relevance of the Project is regarded high.

(2) Effectiveness: Moderate

Indicator 1 for Project Purpose will not be achieved till the end of the Project since “the educational training capacity” stated in the indicator is most effective under the new curriculum, which is not properly functioning at the moment, and can also be strengthened only when the indicators for Output 1 through 3 are achieved.

Education and research are the inseparable two factors essential for capacity development in higher education. Accordingly, the direction of the Project supporting research activities was appropriate in terms of effectiveness of the Project.

(3) Efficiency: Moderate

The Activities were set on a variety of subjects in detail and considered to be sufficient to produce Outputs. According to the interviews with C/Ps, the inputs have been appropriate in terms of quantity and timing.

The activities for Output 1 focus on the formulation parts of the new curriculum and syllabus, and any activity on their implementation (Indicator 1-3), monitoring and evaluation processes such as plan-do-check-act cycle was not agreed and stated in PDM. Insufficient activities for Output 1 are supposed to have caused the current confusion in the staff and the students.

(4) Impact: Moderate

Overall Goal: Capacity of professionals who are engaging in the services of veterinary and animal husbandry is strengthened.

The solid progress in Indicators for Project Purpose has been acknowledged and is anticipated to contribute to achievement of Overall Goals if no drastic changes in economy and government policy are well secured. However, Indicator 1 may not be appropriate to evaluate the impacts on Overall Goals.

In addition, several impacts have been observed during the project period as follows: 1) Information sharing, joint use of expensive equipment and collaborative research projects between the related 4 institutions, 2) Increase of graduate students in number, 3) Integration of the outcome of research into the classes, 4) Contribution of the education/research groups to the Mongolian society, and 5) Building up of teamwork within the departments.

(5) Sustainability: Moderate overall

The direction of the Project totally aligns with "Mongolian Sustainable Development Vision-2030" approved in 2016, which secures the sustainability of the Project in terms with political aspect. However, SVM could not introduce and implement the new curriculum and syllabus properly, which implies that the institutional capacity of SVM to operate the system for the new curriculum has not fully developed yet. On the other hand, the technical capacity has been developed through the trainings in Japan and technical transfer by the Japanese experts.

In terms of the financial aspect of sustainability, despite the increasingly difficult national economy of Mongolia and the tight university budget, the staff of SVM has been seeking aggressively for financial resources of their education and research, and accordingly, the school needs solid and recurring financial

sources such as charging the participants for training sessions.

5-6 Conclusion

The Project has been implemented mostly as planned during the project period. Several challenges on application of the new curriculum have become elucidated during the last year of the Project and considered to negatively affect the achievement of Indicator 1 for Project Purpose. As a result, it is speculated that the Project will not be able to complete all the Outputs (especially Output 1) by the end of the Project, and accordingly, it is concluded that the Project should extend its period of 13 months in order to achieve Project Purpose through one year implementation and monitoring of improved curriculum operation.

5-7 Recommendations

5-7-1 Necessary measures to be taken by SVM and the Project

(1) Review of curriculum and syllabus, and implementation of improvement process

It is necessary for SVM, led by the Undergraduate Program Curriculum Committee organized in October 2018, to establish the monitoring system of curriculum and syllabus, and implement the improvement cycle of curriculum/syllabus continuously in order to solve those operational problems revealed in this year. Although lectures and practices based on the new curriculum and syllabus have been introduced to the 1st through the 4th year students as of October 2018, teachers and students have been confused by the new curriculum operation. Therefore, SVM shall 1) carefully review contents of the curriculum and syllabus, 2) make the improvement policy and its short- and long-term plans, 3) execute the plan properly in order to address those problems.

(2) Revision of PDM

The current PDM (version 2) should be reviewed and revised based on the suggestions made by the Evaluation Team to achieve Project Purpose. Proposal for the revision to PDM (version 3) is shown in Annex 13. The major revised points are as follows;

1) Additions of activities of Output 1 and Indicators of the Project Purpose

Although SVM is supposed to solve all those problems, the support by the Project is necessary to implement the countermeasures mentioned above due to lack of the knowledge and experience on curriculum operation. Therefore, it is recommended to add activities of Output 1 and indicator of the Project Purpose in order to clarify the necessary activities and the indicator to achieve the Project Purpose.

➤ Activities of Output 1 to be added are as follows. Especially, Activities 1-6 through 1-8 should be implemented by SVM independently.

1-3 To formulate a policy (long- and short-term) to manage quality of the classes led by the Undergraduate Program Curriculum Committee

1-4 To formulate operation improvement plan to address issues, implement countermeasures, monitor the operation and feedback throughout a year

1-5 To revise the syllabus based on the educational environment (facilities, staff and equipment) and the needs on veterinary and animal breeding following identification and analysis of the challenges

1-6 SVM carries out trainings on the revised syllabus for the staff.

1-7 SVM shares the syllabus with the students at the beginning of the semesters (handouts or HP of MUSL).

1-8 SVM implements the classes based on the syllabus.

1-9 To implement monitoring activities in line with the plan formulated in 1-4

➤ Indicator for the Project Purpose to be added is as follows;

2. The operation system for the curriculum and syllabus is functioning.

2) Extension of the Project period until May 2020

Ensuring achievement of the indicator for Project Purpose, it is recommended to extend 13 months of the Project period until May 2020 in order to conduct the additional activities mentioned in 5-1-2.

3) Clarification of Indicator for Overall Goals

The indicator of Overall Goals is recommended to be described in details in order to clarify the targets for assessment of the Project impact.

(3) Information collection/sharing on the related activities of other donors

It is recommended for the Project to collect and share related information of other donors such as SDC's project to enhance effectiveness of the in-service training especially for local veterinarians.

(4) Collaboration with Mongolia Veterinary Association

Although official veterinarians are assigned in each soum, it is not sufficient to provide quality veterinary services to livestock farmers. Therefore, it is recommended that the Project should further collaborate with Mongolia Veterinary Association in order to improve the capacity of private veterinarians in soums systematically and efficiently.

5-7-2 Necessary Measures to be taken by GAVS

(1) Participation in GAVS Expert Committee

It is recommended that GAVS involve IVM, SCVL, UVO and SVM in the GAVS Expert Committee, which clarify the selection process and criteria for "professional development training on retraining" for assuring further development of the education/research group activities.

(2) Securing budget for implementation of the in-service trainings for licensing renewal

GAVS should secure the necessary budget for the smooth implementation of professional development training on retraining as supervising agency.

5-7-3 Necessary Measures to be taken by SVM, IVM, SCVL and UVO

(1) Securing budget for implementation of the in-service training and continuous utilization of equipment

IVM, SCVL, UVO and SVM should secure the necessary budget in order to assure further development of the education/research group activities, proper maintenance and active utilization of equipment.

5-8 Lessons Learned

5-8-1 Attention points for procuring equipment in the research field

In case of the procurement of special equipment in countries where the market of the research field is not well developed, it is desirable 1) to clarify specifications with Japanese experts and C/Ps who understand the local circumstances and 2) to divide equipment and materials into multiple batches as necessary.