

Terminal Evaluation

Latin America and the Caribbean

1. Outline of the Project

Country:

Bolivia

Project title:

The Artificial Insemination of Cattle

Issue/Sector:

Telecommunication

Cooperation scheme:

In-country Training

Division in charge:

Central America and the Caribbean Division, Regional Department III(Latin America and the Caribbean)

Total cost:

22 million yen

Period of Cooperation

Fiscal Years 1999 - 2003

Partner Country's Implementing Organization:

Artificial Insemination Center of Bolivia (CIABO),
Autonomous University of Gabriel Rene Moreno

Supporting Organization in Japan:**Related Cooperation:**

Project-Type Technical Cooperation; "Livestock Breeding Improvement Project"

Dispatch of Expert; Follow-up of Project-type Technical Cooperation "The Beef Cattle Improvement Project"

1-1 Background of the Project

In Bolivia, a Project-type Technical Cooperation project Livestock Breeding Improvement Project was implemented for seven years between September 1987 and September 1994 under the cooperation of the government of Japan. In that project, the Artificial Insemination Center of Bolivia (CIABO) was established, and it trained 700 technicians in artificial insemination and 200 in cattle breeding and management(CIABO is an organization with a main center in Santa Cruz at the present, which comprises the National Livestock Improvement Center, affiliated with the Autonomous University of Gabriel Rene Moreno). The Bolivian side had difficulty in funding but continued activities in CIABO even after the termination of the project. Under those circumstances, upon request from the Bolivian government, the Japanese government decided to implement training on artificial insemination of cattle on a nationwide scale in Bolivia. At the beginning of the project, one Japanese expert dispatched to provide technical cooperation as part of the "Beef Cattle Improvement Project." provided advice on the training. The Japanese expert later remained in Bolivia for a two-year follow-up project beginning in July 2001 and continuously supported the training.

1-2 Project Overview

In order to increase the livestock productivity in Bolivia, the project implemented training at CIABO to participants from seven prefectures in Bolivia; Santa Cruz, Cochabamba, Chuquisaca, Beni, Pando, La Paz and Tarija.

(1) Overall Goal

The cattle productivity in the working place of the participants is improved.

(2) Project Purpose

The participants become able to use insemination techniques acquired through training in the field.

(3) Outputs

1) A.I. Course A (for cowboys and workers who will work as inseminators in the future)

Each participant (cowboy and/or/ ranch worker) understands the course contents.

2) A.I. Course B (for technicians)

Each participant (livestock technician and/or veterinarian) understands the course contents.

3) A.I. Course C (for inseminators)

Each participant (inseminator) deepens his/her understanding of the course contents by retaking the training.

(4) Inputs

Japanese side:

Equipment 2.5 million yen (21,500 US dollars)

Trainees received 303

Local Cost 19.2 million yen (159,685 US dollars)

Bolivian Side:

Counterparts 16

Land and Facilities

Local Cost 10.4 million yen (86,782 US dollars) (for 4 years in 1999 - 2002)

2. Evaluation Team

Members of Evaluation Team JICA Bolivia Office
(Commissioned to: the Tropical Agricultural Research Center (CIAT))

Period of Evaluation 20 January 2003 - 20 March 2003

Type of Evaluation:
Terminal Evaluation by Overseas Office

3. Results of Evaluation

3-1 Summary of Evaluation Results

(1) Relevance

The Ministry of Agriculture and Livestock Industry National and Rural Development ("MAGDR" which changed its name to "The Ministry of Farmers, Indigenous People and Agriculture and Livestock on April 1, 2003), announced its Agricultural Community and Agriculture Development Policy with the following objectives: (1) To provide support for increasing the production and productivity of the livestock farming and to improve the infrastructure and market, and (2) to reinforce the institutional structure in the public sector. CIABO is a non-profit organization whose objectives are to transfer techniques, to produce frozen semen, to provide training to technicians and to offer technical assessment.

They do not have access to training of artificial insemination techniques because of the socio-economical conditions. Therefore, the project was relevant to the needs of small-scale dairy farms (especially those farms in the above-mentioned four provinces of La Paz, Chuquisaca, Tarija and Cochabamba). However, a problem was observed where provincial differences on natural and socio-economical environments were not taken into consideration during the planning of the project. For example, small-scale farmers in the area of Santa Cruz had wider farm areas than those in other areas, and it was cheaper for them to keep oxen and do natural crossbreeding instead of artificial insemination. The farmers in Santa Cruz make their living not by livestock farming but through agriculture. They therefore did not recognize the economical merits to artificial insemination. The project was not relative to the beneficiaries in that area.

(2) Effectiveness

According to the interview survey, 52.3% of participants of Course A were full-time or part-time technicians. This figure was higher than the indicator (50%) when the PDM (Project Design Matrix) was organized for evaluation. As for Course B, 75% of the participants were engaged in occupations related to artificial insemination in their areas. This figure was also higher than the

indicator (50%) when the PDM was organized for evaluation. As for Course C, only 52.78% of the participants mentioned that the pregnancy rate of cows was increased in their area. This figure was lower than the indicator (70%) when the PDM was organized for evaluation.

(3) Efficiency

The input was appropriate to the output in terms of timing, quantity and quality. The average cost per participant was US\$ 587. Considering the fact that this was the only training available in the country, and that a participant would have had to go abroad to take similar training, the cost was appropriate. However, if training courses in each participating prefecture are considered with the support of CIABO staff as trainers, these costs could be reduced considerably.

(4) Impact

The project contributed to the improvement of livestock productivity. For example, in the Cochabamba, the amount of milk produced by artificially inseminated milk cows exceeded that of milk cows naturally interbred with imported cattle.

There were other positive effects. CIABO's Human resources were educated as trainers in A.I., and CIABO's operations were enhanced in the areas of equipment and infrastructure.

There were other unexpected positive effects as well. Local farmers' associations, such as the Carachimaya Center in Tarija province, provincial associations in La Paz, and dairy modules in Chuquisaca have been strengthened. CIABO became a reference center for A.I. in Bolivia and strengthened its relations with other organizations.

There were also some negative impacts. Because CIABO and AGANORTE (Association of Livestock Farmers of the North) encouraged the dairy farmers in Santa Cruz province to employ an inseminator at each of the dairy farms in Santa Cruz province, the participants of Course C expected higher salaries. Therefore, the farmers and the trainees could not come to an agreement. Some of the Course C trainees who found the situation unfavorable left the training in the beginning of the project. However, increase in the number of inseminators trained in Course A made it possible to solve the problem.

(5) Sustainability

CIABO could not continue to manage with its own income alone. There was the prospect that the Santa Cruz government, which had given financial support in the past, was going to provide further support to CIABO at the time of the terminal evaluation. As CIABO is a stable organization with good facilities, equipment and human resources, it will exist as an organization even after the withdrawal of support from JICA. However, there remain some political concerns such that the change of staff in the Santa Cruz government, which may affect CIABO.

Given that CIABO has qualified staff in addition to ranchers, technicians and farmers receiving training from CIABO, it is foreseeable that the dissemination of A.I. techniques will be continued even after the termination of training program. However, in the prefectures of La Paz, Chuquisaca and Pando, the dissemination seems to be difficult due to the low availability of equipment and economical resources, especially among small-scale farmers.

3-2 Factors that Promoted the Realization of Effects

(1) Factors Concerning the Planning

N/A.

(2) Factors concerning the Implementation Process

Producers recognize that, with the introduction of the artificial insemination techniques, the opportune disbursement of required funds for the programmed activities had contributed to the improvement of productivity.

3-3 Factors that Impeded the Realization of Effects

(1) Factors Concerning the Planning

N/A

(2) Factors concerning the Implementation Process

It has been observed that some areas are inhibited from using artificial insemination techniques because of the absence of economical resources for purchasing equipment and input. In other cases, there were areas where the introduction of artificial insemination could not be promoted smoothly because of the following reasons: Low milk prices, high purchase costs of semen,

low reliability vis-?-vis the introduction of techniques because of the lack of information on artificial insemination, or no artificial techniques available to cope with the diverse environment.

3-4 Conclusion

The project was found to be successfully implemented because many of the ex-participants engaged in related occupations using artificial insemination techniques. Hence, the relevance, effectiveness, efficiency and impact of the project were considerable.

3-5 Recommendations

- (1) For the financial sustainability of the project, the Bolivian government should ensure funds through the Santa Cruz government and should continue to secure the employment of counterparts.
- (2) CIABO had a sufficient number of capable technicians, but the staff lacked the ability to plan, monitor and evaluate the project. Therefore, CIABO should establish a section to take charge in the above-mentioned tasks.
- (3) To cope with the financial problem, CIABO should offer fee-based services on a nationwide scale with its 303 participants from 30 institutions in 7 prefectures of the country.

3-6 Lessons Learned

- (1) As Bolivia is a multicultural country with marked agro-ecological and socio-economical differences, a national project must take into account the similarities and differences that could affect the expected impact.
- (2) It is necessary to organize the Project Design Matrix (PDM) and Operative Plan (PO) before the commencement of a project. It is also important to carry out a baseline survey at the beginning of a project, which would facilitate the med-term and terminal evaluations.
- (3) To organize an Annual Operative Plan, the data of the previous fiscal year are necessary. It is also necessary to carry out a systematic internal evaluation at the end of each course, which can utilize the data effectively.
- (4) To promote recruitment for a project like this, the use of radio or television is not always appropriate because they are not widely used in rural areas. Taking this situation into consideration, it's been seen that the most effective means of promotion is through letters sent or phone calls made directly to institutions.

3-7 Follow-up Situation

N/A.