

Country Name	The Project for Strengthening Medical Logistics In Lao P.D.R
Lao People's Democratic Republic	

I Project Outline

Project Cost	313 million yen	
Project Period	May 2005 - April 2008	
Implementing Agency	Medical Product Supply Center, Ministry of Health	
Cooperation Agency in Japan	NA	
Related Projects	<p>Japanese Assistance: Grass-roots Grant Aid Scheme : Construction of Medical Equipment Service Center(MES) (1998), Construction of warehouses at Luang Prabang, Oudomxai, Champasak Provinces (2006) Dispatch of Senior Volunteers in Team to work for MES (2002-2007) and Dispatch of a Senior Volunteer for Logistic Control of Storage, MPSC(2007)</p> <p>Assistance by other foreign donors : Luxemburg(LUX): Medical Equipment Management Project (covered 2 provinces from June 2004 to Dec. 2005) Phase 2 (covered 3 provinces from 2006 to 2009), Phase 3 (covers 5 provinces from 2010 to 2013) -UNFPA-the pilot project for MCH product supply (January 2012- November 2012) -GF(Global Funds)-support to MLC (Medical Logistic Center) to develop MLC Management System (December 2009-December 2012)</p>	
Background	<p>In the Lao PDR, there were few technicians who can properly conduct the maintenance and repair of the medical equipment. Many of those equipment were foreign-made, however, there were few agents who can properly do repair them. Combined with the limited budget allocation to the operation and maintenance of such medical equipment, the absence of proper management system of medical equipment had interfered with the effective and efficient utilization and procurement of those equipment. Therefore, there was a pressing need to establish the system of both medical logistics and maintenance in order to contribute to the ultimate purpose of the health sector.</p>	
Inputs	Japanese Side	Lao PDR Side
	<ol style="list-style-type: none"> Experts:1 Long-term and 11 Short-term experts (9 from Japan and 2 from third country) Trainees received: 8 persons Third-Country Training in Thailand: 57 persons Equipment: US\$126k Facilities constructed: US\$399k Local Cost: US\$183k 	<ol style="list-style-type: none"> Staff allocated: 40 persons Land, facility and project office <p>Provision of office space for Japanese experts at the MES and the Logistics Center of MPSC and the construction site of the Logistics Center</p>
Project Objective	Overall goal:	
	Medicines, medical products and equipment come to be managed and utilized efficiently and properly.	
	<p>Project Purpose: The mechanism is established at the central and provincial levels for managing and utilizing medicines, medical products and equipment efficiently and properly.</p> <p>Outputs:</p> <ol style="list-style-type: none"> The system is established for supporting central and provincial levels through MES(Medical Equipment Service Center) and Logistics Center. The capacity of management, maintenance, and repair for technical staff is improved at MES, central and provincial hospitals. The management capacity for central and provincial hospital managers is improved. The capacity of storage, handling, and inventory control for staff in charge of inventory control of medicines and medical products is enhanced at the Logistics Center and warehouses in 4 target provinces. ※ (4 target provinces : Luang Prabang, Oudomxai, Savannakhet, Champasak) 	

II Result of the Evaluation

Summary of the Evaluation
<p>In order to cope with the problems of medical logistics and maintenance, the Ministry of Health had made some efforts to strengthen the capacity of those technicians of medical equipment and to establish the Medical Equipment Service Center (MES) in 1998 as an affiliated organization to the Medical Product Supply Center (MPSC). MES had given the technical support to those technicians who are in charge of maintenance and repair of medical equipment. However, this did not serve as the drastic solution. It had become aware that it is necessary to establish the comprehensive mechanism of medical</p>

equipment maintenance.

This project has somewhat achieved the project purpose and overall goal. For the project purpose, it was already achieved at the terminal evaluation. However, the effects have not been maintained after the completion of the project. According to the ex-post evaluation study, some indicators such as the number of repair cases have not maintained the achievement level. As for the overall goal, it was partially achieved. There was no dead stock observed at the Logistic Center and warehouses with some exceptions. As for the working ratio of medical equipment in central and provincial hospitals, the data is not currently available.

The project has some problems in technical and financial aspects of the implementing agency. Newly assigned staff have not had the sufficient knowledge and skills, and the implementing agency has some difficulties to independently finance the maintenance cost of medical equipment and tend to rely on the donor's assistance. However, no problem has been observed in policy, structural aspects of the implementing agency. In addition, introduction of sector-wide coordination mechanism to the health sector has served well to strengthen the institutional settings of medical logistics. For relevance, the project has been highly relevant with Lao PDR's development policy, development needs as well as JICA's ODA Policy. For efficiency, the project cost was significantly higher than the plan.

In the light of above, this project is evaluated to be partially satisfactory.

1 Relevance

This project has been highly relevant with Lao PDR's development policy (e.g. "improvement of hospitals at all levels and in remote areas by ensuring effective health administration and management" as set in Health Strategy up to 2020 and 7th 5-year Health Sector Development Plan), development needs (e.g. "improvement of medical equipment maintenance and the Inventory control of medical products and medicines", especially in terms of capacity development of technical staff), as well as JICA's ODA Policy in both ex-ante evaluation and project completion. Therefore, relevance of this project is high.

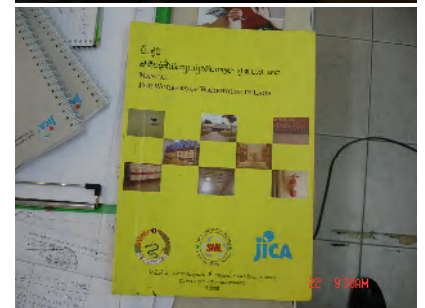
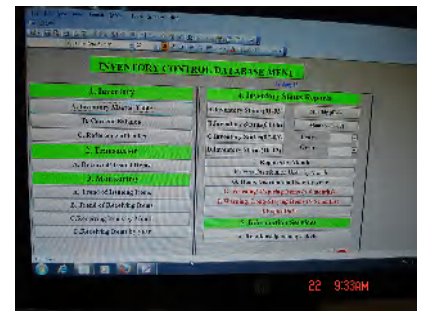
2 Effectiveness / Impact

This project has somewhat achieved the project purpose and overall goal.

For the project purpose, "establishment of mechanism to efficiently manage and utilize medicines, medical products and equipment at the central and provincial levels", it was already achieved at the terminal evaluation. Indicators to examine the efficiencies of inventory control system, such as the number of days of stock period and time spent for picking up medicine and medical products at Logistics Center or warehouses as well as those to examine the effective mechanism of equipment maintenance, such as the number of repair cases were all achieved. It was concluded at the terminal evaluation that the mechanism had gradually been established at both central and provincial levels and therefore, the daily maintenance procedure introduced by the project had steadily become parts of the routine works. However, the effects have not been maintained after the completion of the project. According to the ex-post evaluation study, indicators to examine the mechanism of equipment maintenance, such as the number of repair cases were not maintained. This is partly due to that technicians in some provinces have not yet had sufficient skills, and the data consolidation of medical logistics has not yet smoothly carried out in some provinces which resulted in the overlapped procurement of some equipment.

As for the overall goal, "Proper management and efficient utilization of medicines, medical products and equipment" was also partially achieved. There was no dead stock observed at the Logistic Center and warehouses with some exceptions. As for the working ratio of medical equipment in central and provincial hospitals, the data is not currently available.

Therefore, its effectiveness/impact of this project is fair.



Inventory Database and Guideline at Medical Logistic Center

3 Efficiency

While inputs were appropriate for producing outputs of the project and project period was within the plan (ratio against the plan: 100%), project cost was higher than the plan (ratio against the plan: 151%) as the construction cost of logistic center was increased probably due to the delay of construction schedule, some changes on its specification and other administrative procedures. Therefore, efficiency of the project is fair.

4 Sustainability

The project has some problems in technical and financial aspects of the implementing agency. Although trained staff can efficiently carry out the inventory control at warehouses, newly assigned staff have not had the sufficient knowledge and skills. This is partly due to that they have not been provided enough training because of little budget allocation from the government. As for the financial aspects, the implementing agency has some difficulties to independently finance the maintenance cost of medical equipment and tend to rely on the donor's assistance.

However, no problem has been observed in policy, structural aspects of the implementing agency. The structure of MPSC and MES has been sustained in a similar manner with the implementation period. The guideline of medical equipment management which describes the clear job assignment has served well to streamline the daily maintenance procedure in each position. Furthermore, the introduction of sector-wide coordination mechanism to the health sector, which has resulted in the establishment of Food and Drug Technical Working Group, has come to start serving to strengthen the institutional settings of medical logistics as it facilitates the collective action through collaboration of all those concerned including donors.

Therefore, sustainability of this project is fair.

III Recommendations & Lessons Learned

Recommendations for the Implementing Agency :

1. In order to further improve the mechanism established by the project, it is strongly recommended that the MPSC should continue monitoring of working ratio of medical equipment in central and provincial hospitals as well as regularly checking the dead stock of Logistic Center and four warehouses. This serves as the effective way to observe the progress of proper management of medical equipment.
2. In order to maintain the technical sustainability, the MPSC should conduct training for technicians and inventory control staff on a regular basis. In addition, to cope with complicated and sensitive cases, the MPSC should train some experts with specific skills, so that they can handle such cases professionally.
3. In order to resolve the problems of consolidation procedure for database, it is necessary to continue the regularly update and reporting of ME database to the MPSC and MES. So that the inventory lists of hospital equipment becomes available for all those concerned and overlapped procurement of equipment can be avoided. In relation to the database, the MPSC should also consider setting up the information system which covers all provinces.
4. As pointed out at the terminal evaluation, it is strongly recommended that the MPSC should develop an effective scheme to finance the maintenance and operation cost for the medical equipment.

Lessons learned for JICA :

In order to secure the financial sustainability, it should be supported to strengthen the budgetary planning during the project period. Resources needed for continuing medical equipment maintenance and inventory control, such as training cost, transportation fee and cost of outreach activities, should be included into the annual plan.