Ex-Post Evaluation of Japanese ODA Grant Aid Project "The Project for Improvement of Facilities for the Hue Central Hospital"

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0. Summary

This Grant Aid Project (the Project) has been highly relevant with the Vietnam's development plan, development needs, as well as Japan's ODA policy, therefore its relevance is high. The efficiency of the Project is also high as both Project cost and Project period were within the plan and the outputs were achieved as planned. This Project has largely achieved its objectives by realizing such areas as the increase of number of operations, the reduction of average lengths of hospital stays and the increase of patients of the Hue Central Hospital (HCH). In addition, the positive impact has been identified in the improvement of medical services in the Central Region with the synergetic effects of the Project and the Japan International Cooperation Agency (JICA) related technical cooperation project. On the other hand, some problems have been observed in terms of financial aspects, therefore sustainability of the Project effect is fair. In light of the above, this Project is evaluated to be highly satisfactory.

1. Project Description



Project Location



Hue Central Hospital (HCH)

1.1 Background

Due to the severe impact by the war, the economic status in the Central Region was lower compared to the North and South Region, and the poverty rate was higher than the national average. The region was also prone to the natural disasters such as flood or hurricane and the transportation access was poor in the hilly areas, which brought the adversely influence on the public health status.

The Government of Vietnam had been conducting various measures to realize the universal

access of quality medical services to all nations and bring the reduction of morbidity, health promotion and increase of life expectancy.

HCH was one of the oldest hospitals in Vietnam which was established in 1894 and the only general hospital in the Central Region providing the tertiary medical services to the nation as a top referral hospital in the region. However, some of the hospital facilities were deteriorated and the hospital management was less efficient as the various buildings were disorderly located in the compound. Moreover, the planned beds were not enough to accommodate the increased number of patients and additional beds were placed in the wards or corridors. Under these circumstances, the Government of Vietnam requested to the Government of Japan the implementation of the hospital improvement plan with the construction of facilities and provision of medical equipment in order to enhance the hospital function.

1.2 Project Outline

The objective of the Project is to improve the quality of health care services in the Central Region by constructing hospital facilities and providing necessary equipment for the Hue Central Hospital as the base hospital in the Central Region.

Table 1 Project Outline

	J
Grant Limit / Actual Grant Amount	2,989 million yen / 2,894 million yen
Exchange of Notes Date	Detailed Design : April, 2004,
(/Grant Agreement Date)	Construction: July, 2004
Implementing Agency	Ministry of Health, Hue Central Hospital
Project Completion Date	October, 2006
Main Contractors	Construction: Kumagai Gumi Co., Ltd
	Equipment: Ogawa Seiki Co., Ltd/Sojitz Corporation.
Main Consultant	Joint Venture of Nihon Sekkei Co., Ltd and Medical
	Engineering & Planning Co. Ltd.
Basic Design	June, 2003 to September, 2003
Detailed Design	May, 2004 to March, 2005
Related Projects	(1) Project for Improvement of Medical Services of
	Central Region (2005-2010)
	(2) Project for Improvement of the Quality of Human
	Resources in Medical Services System (2010-2015)

2. Outline of the Evaluation Study

2.1 External Evaluator

Akiko Hirano, Global Link Management Inc.

2.2 Duration of Evaluation Study

Duration of the Study: December, 2010 – November, 2011

Duration of the Field Study: 27^{th} March, $2011 - 13^{th}$ April 2011, 26^{th} June $2011 - 10^{th}$ July, 2011

2.3 Constraints during the Evaluation Study

No particular constraints were identified.

3. Results of the Evaluation (Overall Rating: A¹)

3.1 Relevance (Rating: 3²)

3.1.1 Relevance with the Development Plan of Vietnam

The national development strategy at the time of the Project planning was the "Vietnam's Strategy for Socio-Economic Development in the Period 2001 – 2010", which focused (1) to improve healthcare service quality at all levels, and (2) to upgrade equity and efficiency in access to and use of health care and protection services for the people. The national health strategy - "People's Health Care and Protection 2001 – 2010" aimed to secure provision of primary health care services as well as access to and utilization of good quality health services for every citizen. One of its prioritized programs was the development of medical technologies and information which emphasized to continue strengthening and improving the effectiveness of the high tech health centers in major cities including Hue.

The national health strategy at the time of the ex-post evaluation, which is "Master Plan on development of Vietnam's healthcare system up to 2010 with a vision to 2020", follows the same direction as the previous one and promotes to improve the health facilities and health care services quality at all levels from the central to the commune. One of the objectives is to develop the networks of medical examination and treatment and functional rehabilitation, and to concentrate investment in perfecting specialized health centers in Hue and other major cities.

3.1.2 Relevance with the Development Needs of Vietnam

The Central Region which was a target area of the Project lagged behind in the economic and health status compared to other regions. As shown in Table 2, the poverty rate and infant mortality rate were worse than the national average. While the situation had been improved over the years, the latest data of 2008 showed that the figures have not yet reached to the national average. Thus, the needs to improve the health sector in the Central Region were high. The cooperation to the HCH could contribute not only to the improvement of the HCH capacity alone, but also to the development of medical care providers and improvement of medical service quality in the Central Region. Therefore, the relevance of the Project is high with the needs.

¹ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

² ③: High, ② Fair, ① Low

Table 2 Trend of economic and health statistics in Central Region and national average

	National		North Central		South Central		Central	
		rage		ast		ast	Highlands	
	2002	2008	2002	2008	2002	2008	2002	2008
Poverty rate (%)*1	28.9	14.5	35.7 ^{*5}	18.4*5	35.7 ^{*5}	18.4*5	51.8	24.1
Percentage of commune health center with doctor *2	61.5	65.93	45.9	61.35	53.7	59.87	51.9	49.86
Infant mortality rate (/1000)*3	26	15	30.9	16	23.6	16	30.9	23
Under-five child malnutrition rate (%) *4	30.1	19.9	36	23.7	32.6	19.2	40.2	27.4

Source: *1 Statistical Yearbook of Vietnam 2009, General Statistics Office of Vietnam, *2 Health Statistics Yearbook 2002 & 2008, Ministry of Health, *3&4 Health Statistics Yearbook 2002 & Five-Year Health Sector Development Plan 2011-2015, Ministry of Health, *5 The data of North Central and South Central coast were merged for poverty rate.

3.1.3 Relevance with Japan's ODA Policy

At the time of the Project planning, the "Japan's Country Assistance Program for Vietnam in 2000" was the Japan's assistance policy. The priority areas were "human resource and institutional building", "infrastructure development including power, transportation and so on", "agricultural and rural development", "education, health and medical care", and "environment". The improvement of base hospitals was one of three pillars in the assistance strategy for the health and medical care sector. Thus the relevance with the Japan's assistance policy is high.

After the completion of the Project in 2008, JICA formulated the "Cooperation Program on Improvement of Health and Medical Services (2008 - 2015)". This program aims to achieve (1) the improvement of the quality of healthcare services in Vietnam by specific goals of the enhancement of policy formulation and implementation, (2) strengthening of provincial health care systems, and (3) improvement of facilities and equipment at central and provincial levels. This Project was part of the series of Japanese assistance for three core hospitals, namely Bach Mai Hospital in the North, Hue Central Hospital in the Central, and Cho Ray Hospital in the South, which was a basis for the formulation of the Program.

This project has been highly relevant with the country's development plan, development needs, as well as Japan's ODA policy, therefore its relevance is high.

3.2 Efficiency (Rating: ③)

3.2.1 Project Outputs

Project outputs from both Japanese and Vietnamese sides were achieved almost as planned. The details are shown in Table 3.

Table 3 Project Outputs (Plan/Actual)

	Plan	Actual
Japanese side	(1) Facilities ① Central Examination Unit (7 stories) - including Laboratory, Functional Examination, Operation Theater, ICU, Recovery Room etc ② Outpatient Department Building (3 stories) - including Emergency Department and Outpatient Clinic on Internal Medicine, Surgery Ophthalmology, ENT, Dental etc ③ Mechanical Building - including mechanical room, transformer room, generator room and necessary equipment	Completed almost as planned. Minor changes were made in the location of equipment and car parking, partition position, drainage system, water tank etc, but no changes in the Outputs.
Vietnam side	(2) Equipment ENT ³ treatment unit, X-ray unit, ambulance, operation unit, high pressure steam sterilizer, ultrasound scanner, dental unit, endoscopy, laboratory examination equipment etc (1) To secure a lot of land necessary for the	Completed as planned. Completed as planned.
	construction of the project and to clear the site (2) To provide facilities for distribution of electricity water supply and drainage and other incidental facilities outside the site	

Source: Basic Design Study Report (2003), HCH



Central Examination Unit (7 stories building) and Outpatient Department Building (3 stories building)



Endoscopy

3.2.2 Project Inputs

3.2.2.1 Project Cost

The Project E/N grant ceiling was 2,989 million yen and the actual expenditure from Japanese side was 2,894 million yen which was 97% of the ceiling amount. Thus the project cost was lower than planned. In terms of Vietnamese side, the planned amount was 41 million yen. While the detail expenditure for the implementation of the HCH planned Output was not available, the Ministry of Health (MoH) and HCH spent around 1.5 million USD, equivalent to

³ ENT is a short for Ear, Nose and Throat.

176 million yen, to build logistic building and purchase additional equipment in addition to the planned activities.

3.2.2.2 Project Period

The Project period was 30 months from May 2004 to October 2006, which was shorter than planned.

Both project cost and project period were within the plan, therefore the efficiency of the Project is high.

3.3 Effectiveness (Rating: ③)

3.3.1 Quantitative Effects

3.3.1.1 Results from Operation and Effect Indicators

The Project was expected to contribute to the improvement of the HCH through the enhancement of quality tertiary medical services, the centralization of examination and treatment units for efficient operation, and the improvement of medical services by increased hospital incomes. Two outcome indicators which are (1) number of operations and (2) bed occupation rate were set at the basic design study.

(1) Number of Operations

The trend of the number of operations at the HCH is shown in Table 4. The number of operation theaters (OT) at the time of the Project planning was 14 and the Project constructed 8 OTs including necessary equipment. After the Project, the number of operations has been increasing constantly and the target was met before 2010, though it was slightly later than planned.

Table 4 Number of Operations

Indicator	Baseline (2002)	Target (2007)	Actual (2007)	Actual (2008)	Actual (2009)	Actual (2010)
Number of operations	13,523	21,700	17,987	18,381	20,244	23,305

Source: Basic Design Study Report (2003), HCH

(2) Bed Occupation Rate (BOR) ⁴

The bed occupation rate and the number of planned and actual beds at the HCH are shown in Table 5. The baseline and target of BOR were calculated with planned number of beds, whereas the actual data after 2007 are the ones with actual number of beds based on the HCH practice. As the gap between the number of planned and actual beds is large,

⁴ An indicator to see the utilization rate of hospital beds.

it is not possible to assess the target achievement by comparing these data.

On the other hand, if using the actual number of beds, the baseline data in 2002 was 104%, and the figures after 2007 have been almost unchanged or slightly increased. According to the HCH, the Project was expected to reduce BOR by providing around 200 beds, out of which 50 was provided by the Japanese side and the rest was done by Vietnamese side, together with other facility improvement. However, it was not achieved due to the increase of patients which was caused by the improvement of hospital facilities, equipment and medical services. BOR tends to be influenced by several factors. Even if the number of beds is increased, BOR would not be reduced if the number of patients exceeds its pace. Therefore, it is regarded that while BOR has not been reduced, it does not necessarily mean that the Project has not made the improvement. Meanwhile, the national target of BOR is set between 90-100% by the MoH guideline which is "Hospital's annual check guideline 2010", and the HCH is planning to increase 600 beds in 2012-2013 to meet the target.

Table 5 Bed Occupation Rate and Number of Beds (plan/actual)

Indicator	Baseline (2002)	Target (2007)	Actual (2007)	Actual (2008)	Actual (2009)	Actual (2010)
Bed occupation rate: Planned no. of beds (%)	120.5	114	NA	NA	NA	NA
Bed occupation rate: Actual no. of beds (%)	104	NA	102.2	106.4	109.4	107.5
Planned no. of beds	1,090	1,100	1,100	1,400	1,400	1,400
Actual no. of beds	1,550	2,006	2,006	2,006	2,141	2,152

Source: Basic Design Study Report (2003), HCH

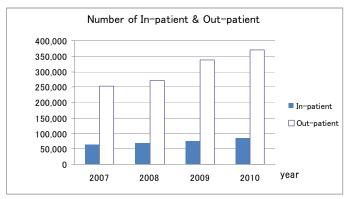
(3) Average lengths of hospital stay and number of patients

Average lengths of hospital stay and number of patients were mentioned in the basic design study report as indicators to be improved, though no baseline data and target were provided. The data of average lengths of hospital stay are shown in Table 6. It has been slightly reduced after the Project. It can be regarded that the Project has contributed to the improvement through efficient operation by the centralization of the examination and treatment units. In terms of the number of patients, both inpatient and outpatient have been increasing over the years as shown in Figure 1.

Table 6 Average lengths of hospital stay

Indicator	Actual (2007)	Actual (2008)	Actual (2009)	Actual (2010)
Average lengths of stay (days)	11.5	11.4	11.3	10.0

Source: HCH



Source: HCH

Figure 1 Number of patients

3.3.2 Qualitative Effects

(1) Patient waiting time

Although no quantitative data were available, the HCH explains that while the number of patients increased as a result of improvement of hospital facilities and equipment, and medical services, the waiting time of outpatients has been reduced. This was achieved by shortening the transit time through the centralization of major examination and treatment units, and improving the medical record management by HCH own efforts.

The survey results of patient waiting time based on the beneficiary survey⁵ as part of the ex-post evaluation are shown in Figure 2 and 3. In terms of the outpatient waiting time for the first contact by the medical care provider, around half was contacted within 10 minutes and 90% was within 30 minutes. It seems to be fairly short. In terms of the inpatient waiting time for the examination, 85% was treated within 30 minutes.

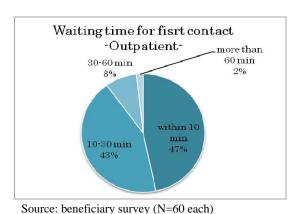


Figure 2 Outpatient waiting time for first contact

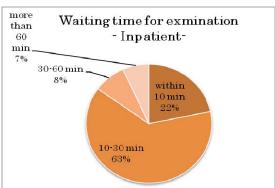


Figure 3 Inpatient waiting time for examination

⁵ Beneficiary survey was conducted with the sample size of 60 patients each in the inpatient department of Pediatric and Abdominal Emergency Surgery, and outpatient department of Internal Medicine in HCH. Total valid answers are 120.

(2) Utilization status of major facilities

It is observed that both the outpatient department building and examination unit are clean and well maintained.



Reception of Outpatient Department Building



Intensive Care Unit

(3) Utilization status of major equipment

Among the equipment provided by the Project, it is reported that major medical equipment have been effectively utilized, except a few which are under repair as waiting for the budget to purchase its spare parts. Details are explained in "3.5 Sustainability".



Operation Theater



Dental unit

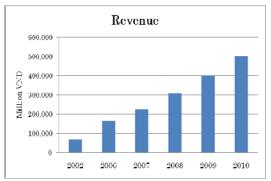
This Project has largely achieved its objectives, therefore its effectiveness is high.

3.4 Impact

- 3.4.1 Intended Impacts
 - (1) Improvement of medical services through increased hospital incomes

The hospital revenue and financial balance of the HCH are shown in Figure 4 and 5. Both have been increasing over the years, and the revenue became almost threefold over the past five years. Due to the Decree 43/2006/ND-CP⁶ which promotes the public hospital autonomous management, the MoH subsidies for the HCH have been decreasing. However, the increase of medical fees and insurance income brings a rise in the total revenue.

On the other hand, it is reported as one of the current concerns in Vietnam that due to the abovementioned Decree 43, there are some public hospitals who struggle to balance between securing the financial self-reliance and the quality of medical services. MoH takes a note on this issue and is reviewing the policy in relation to the hospital management including Decree 43 and considering introducing the new policy on the hospital management.



Balance

25,000

215,000

115,000

5,000

2002 2006 2007 2008 2009 2010

Source: Basic Design Study Report (2003), HCH

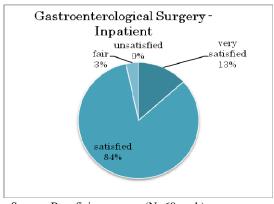
Figure 4 Total revenue

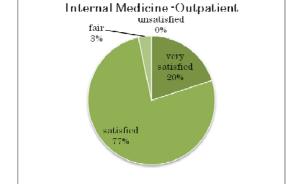
Figure 5 Financial balance

(2) Patient satisfactory score

The patient satisfactory scores in the beneficiary survey as the time of the ex-post evaluation are shown in Figure 6 and 7. 97% of both inpatients at the pediatric and abdominal emergency surgery department and outpatients at the internal medicine department answered "very satisfied" or "satisfied". This is regarded fairly high. Some of positive comments include "the attitude of doctors and nurses is very good", "the procedure of the examinations is very clear", "the waiting time being reduced", or "the facility and equipment are good". At the same time, there are some negative comments such as the long waiting time or the lack of waiting space for family members.

⁶ Decree 43/2006/ND-CP "providing the mechanism of autonomy and self-responsibility for task performance, organizational apparatus, payroll and finance, applicable to public non-business units" was issued on April 25 2006 and includes the promotion of the self-responsibility in resource management for public hospitals.





Source: Beneficiary survey (N=60 each)

Figure 6 Satisfactory score of Inpatient

Figure 7 Satisfactory score of Outpatients

(3) Enhancement of medical services in the Central Region

According to the questionnaire survey with three Provincial Hospitals at the time of the ex-post evaluation, namely Ha Tinh, Phu Yen, and Quang Tri in the Central Region, they all answer that the HCH has been playing a vital role as a top referral hospital in the Central Region, and its medical service quality has been improving over the last five years.

Provincial hospitals also state collectively that the HCH has contributed to the improvement of their medical services. It is mentioned that the various techniques on the clinical procedures or maintenance of medical equipment have been transferred to the provincial hospitals through the training and the medical care providers dispatched from the HCH. Quang Tri provincial hospital explains that due to the improvement of medical services in such areas as emergency treatment or endoscopy technique, there are now more cases which can be treated by the provincial hospital. Thus the number of referral cases to the HCH is declining.

Table 7 Number of referral cases from Quang Tri provincial hospital to HCH

	2007	2008	2009	2010
No. of referral cases	913	946	960	749

Source: Quang Tri provincial hospital

The Project was followed by the JICA technical cooperation of "Project for Improvement of Medical Services of Central Region (2005-2010)", whose objective was to expand and improve training activities of the HCH for the provincial hospitals in the Central Region. It is regarded that the abovementioned improvement of provincial hospitals has been realized by the synergetic effects of the Project and this technical

cooperation project. In Vietnam, there is a policy, named DOHA⁷, which obliges higher hospitals to train medical care providers at the lower hospitals. The abovementioned technical cooperation was implemented in line with this policy.

3.4.2 Other Impacts

(1) Impacts on the natural environment

No impacts on the natural environment were recognized in such areas as drainage, medical waste, exhaust, noise or vibration.

(2) Land Acquisition and Resettlement

No land acquisition and resettlement were conducted as the Project was implemented within the original hospital compound.

(3) Increase of patients from other regions

While almost 90% of the patients come from three vicinity provinces, it is reported that the patients from other areas have been increasing recently. The HCH mentions that more patients even from the South and the North of Vietnam are coming to the HCH these days for better medical services.

(4) Expansion of the HCH

The HCH explains that the improvement of central examination unit and outpatient department building, and major medical equipment through this Project became a trigger for further expansion of the HCH and a number of assistance have been offered from the Government of Vietnam and development partners since then. Since 2008, various facilities namely cardiovascular center, training center, center for ophthalmology, blood transfusion center, international hospital, and oncology center have been constructed or under preparation by the assistance of World Bank, Atlantic Philanthropies, Austrian agencies and so on.

DOHA: Direction Office of Healthcare Activities. In Vietnam, the higher hospitals are obliged to conduct DOHA activities, under the MoH direction, and provide training to the lower hospitals such as provincial hospitals.



Hue Central Hospital Master Plan Model by 2014

As shown above, in addition to the expected positive impact, the Project has contributed to the increase of beneficiaries even outside the target area as well as the expansion of the HCH facilities. It is regarded that these effects are realized by the synergetic efforts of the Project and the JICA related technical cooperation project. Negative impact was not confirmed.

3.5 Sustainability (Rating: 2)

3.5.1 Structural Aspects of Operation and Maintenance

The administration department is in charge of the operation and maintenance (O&M) for the hospital facilities. The department contains 20 technicians, and outsources some of the O&M work. They hired the additional maintenance staff, as recommended during the basic design study, for the newly constructed air conditioning system of the operation theaters. O&M work is conducted according to the annual, monthly and weekly maintenance plans.

In terms of the medical equipment, the material and equipment department is in charge of the O&M. The department consists of 47 staff and they are divided into seven task groups. The equipment database was developed in 2006 with the assistance of the development partner in Luxemburg. With the support of the abovementioned "Project for Improvement of Medical Services of Central Region", all the information such as specification, maintenance and repair record and so on, is managed collectively in the database. Regular maintenance work is conducted according to the annual plan for all the medical equipment. At the same time, the medical equipment is in the possession of the individual departments at the moment, therefore the central management system in which the authority of the allocation and management of the equipment is given to one department has not yet been established.

3.5.2 Technical Aspects of Operation and Maintenance

The O&M for the facilities and medical equipment has been conducted appropriately and

there are no big problems observed in terms of the O&M technical aspects. For the medical equipment, while the maintenance of the high-tech equipment such as CT scan or ultrasound examination machine is outsourced to the specialized agency, the rest of the equipment has been maintained by the hospital staff properly. The material and equipment department developed and published the textbook on medical equipment management, 81 operation procedures and 9 maintenance procedures for medical equipment, and has been conducting training for internal staff as well as provincial hospitals. As shown in Table 8, the training has been conducted constantly for the last a few years.

Table 8 Training on the O&M of medical equipment

	2007	2008	2009	2010
No. of training	8	12	3	10
No. of trained staff	253	426	60	307

Source: HCH

3.5.3 Financial Aspects of Operation and Maintenance

The trend of O&M cost is shown in Table 9. In terms of the facilities, it is reported by the hospital staff that it is around 3 to 4 billion VND required annually which has been more or less secured.

Table 9 O&M cost for facilities and medical equipment (Unit: million VND)

	2003	2006	2007	2008	2009	2010	2011
	(estimate)						(budget)
O&M cost for facilities	550	2,420	4,256	2,768	3,700	4,462	2,500
O&M cost for medical equipment	1,429	635	1,122	1,188	1,076	756	2,500

Source: Basic Design Study Report (2003), HCH

On the other hand, the O&M cost for medical equipment has been reduced over the last few years and is well below the amount estimated⁸ in the basic design study in 2003⁹. Officer in charge of the material and equipment department explains that not enough budge is provided for the O&M. In fact, a few equipments are found to be out of order due to the lack of the budget

⁸ Basic design study report in 2003 stated that the O&M for facilities and equipment including utility cost at the time of planning was 5,311 million VND. It was estimated that 3,372 million VND for the facilities and 3,285 million VND for the equipment would be required after the completion of the Project which was almost double the amount prior to the Project.

⁹ Basic design report in 2003 stated that the HCH and the MoH confirmed to secure the necessary O&M budget. Also, while the JICA technical cooperation "Project for Improvement of Medical Services of Central Region" provided support in the medical equipment management, the issue of securing O&M budget was treated as an external assumption and it did not seem to be recognized as an essential issue, according to the terminal evaluation report.

for spare parts at the time of the ex-post evaluation. The HCH mentions that the material and equipment department compiles the request on the maintenance cost for equipment from all the departments and set the priorities for budget allocation. It is explained that the high priority for the budget allocation is usually given to the personnel cost and it is difficult to accommodate all the requests for the equipment maintenance since the request is too large.

While the HCH claims that the countermeasure is to increase the hospital fee by renewing the MoH hospital price list, it seems to be difficult to happen¹⁰. At the same time, the HCH is making its best efforts to improve the situation, and in fact, the budget for the year 2011 is increased to be around 2,500 million VND for the equipment O&M out of 5,000 million VND for the total O&M.

Material and equipment department is making own efforts to make up for the budget deficiency by conducting regular check up more frequently and thoroughly to prevent breakdowns in the first place. The staff at the material and equipment department are placed high trust by the clinical departments on their activities.

3.5.4 Current Status of Operation and Maintenance

Facilities and equipment are more or less maintained well except the financial issue mentioned above. Some of the minor problems identified at the time of the ex-post evaluation are shown in Table 10.

Table 10 Problem and countermeasure in facility and equipment

	Problem	Countermeasure
Facility	Moldy dirt is found on the ceiling board around AC diffuser in the emergency recovery room.	
Equipment	General X ray unit at radiology, and broncho fiberscope and blood gas analyzer at laboratory are waiting for the budget to purchase spare parts.	some other machines of the same kind

Some problems have been observed in terms of financial aspects, therefore sustainability of the Project effect is fair.

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¹⁰ Hospital price list has been enacted in 1995 and has not been revised since then. Therefore, there are many voices requesting the revision of the list. Under these circumstances, the MoH has being trying to increase the hospital fee, however, there is little prospect of realizing it due to the strong resistance from the community people.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

This Project has been highly relevant with the Vietnam's development plan, development needs, as well as Japan's ODA policy, therefore its relevance is high. The efficiency of the Project is also high as both Project cost and Project period were within the plan and the outputs were achieved as planned. This Project has largely achieved its objectives by realizing such areas as the increase of number of operations, the reduction of average lengths of hospital stays and the increase of patients of the HCH. In addition, the positive impact has been identified in the improvement of medical services in the Central Region with the synergetic effects of the Project and the JICA related technical cooperation project. On the other hand, some problems have been observed in terms of financial aspects, therefore sustainability of the project effect is fair. In light of the above, this project is evaluated to be highly satisfactory.

4.2 Recommendations

- 4.2.1 Recommendations to the Executing Agency
 - (1) Securing the maintenance cost for medical equipment

It is recognized that the maintenance cost for medical equipment has been inadequate. Therefore, it is recommended that the material and equipment department and hospital management side hold close dialogue to build common recognition on the importance of the maintenance cost and to secure the adequate cost from now on.

4.2.2 Recommendations to JICA

(1) Enhancement of cooperation with ongoing technical cooperation project

While it is planned to work together with the HCH in the JICA ongoing "Project for Improvement of the Quality of Human Resources in Medical Services System" as a major partner for training implementation, it is recommended that the closer collaboration to further strengthen the HCH capacity. In addition, as the abovementioned project is reported to plan the regular conference with the directors of three core hospitals, namely Bach Mai hospital, HCH and Cho Rai hospital, the MoH, and the project team, it is desirable that, if appropriate, it provides a platform to discuss and share the key issues such as hospital management or financial issues including the ones out of the abovementioned project scope.

4.3 Lessons Learned

(1) Maintenance cost security

In this Project, although it was confirmed to secure the maintenance cost for facilities and equipment by the HCH and MoH at the time of the planning, in fact not enough budget

was provided for equipment. Thus, when conducting the same type of cooperation in the future, it is desirable to address it, not only at the project planning stage, but also during the project implementation and/or after the project completion. Particularly, when there are the grant aid follow up project or technical cooperation for the same counterpart agencies implemented, it is ideal to share the suggestions or countermeasures during its implementation.

(2) Synergetic effects of Grant Aid and Technical Cooperation (Good Practice)

After the Project, the JICA technical cooperation of "Project for Improvement of Medical Services of Central Region" was implemented in order to improve the HCH training capacity for the provincial hospitals in the Central Region. As a result, due to the synergetic effects of two projects, the result of the improvement of the tertiary referral hospital by the grant aid project has been contributed to the enhancement of provincial level health services through the technical cooperation. Hence, when planning the cooperation for the tertiary referral hospital in the future, it would be worthwhile to consider implementing the related projects which include the aspects of technical transfer for the lower health facilities and/or improvement of the referral system in the region.

(END)