Evaluation Summary

1. Outline of the Project	-
Country: Palestinian National Authority	Project Title: Project for Improving Maternal and Child Health and Reproductive Health in Palestine (Phase 2)
Issue/Sector: Healthcare and me treatment	dical Cooperation Scheme: Technical Cooperation Project
Division in charge: Health Divis 1, Health Group 1, Human Development Department	ion Total Cost: 330 million JPY
Period of Cooperati on (R/D): Nov/2008-Nov/2012	Partner Country's Implementing Organization: The Ministry of Health
	Supporting Organization in Japan: N/A
	Other Related Projects: the Grant Aid Project for Improving the Control of Infectious Diseases Among Palestinian Children

1-1 Background of the Project

In the territory of Palestinian National Authority (hereinafter referred to as 'PNA'), political and security situation in the territory constrains the people's movement and thus the access to health services. Infant mortality rate was 25 per 1,000 live births and 11.8% of under-5 children were stunted in 2007¹. Premature and low birth weight which cause the 16.7% of infant deaths² indicated the necessity of enhancement of maternal and child health (MCH) and reproductive health (RH) services and their utilization.

Facing the above-mentioned situation, the PNA requested the technical cooperation project to the Government of Japan and the Japan International Cooperation Agency (hereinafter referred to as 'JICA') implemented the "Project for Improving the Reproductive Health with a special Focus on Maternal and Child Health in Palestine" from August 2005 to July 2008, which is now considered as the phase 1 project. In this project, JICA cooperated with the Ministry of Health in Palestine (hereinafter referred to as 'MOH') in developing Palestine Mother and Child Health Handbook (MCHHB) and its Guidelines. After the series of testing in Jericho and Ramallah, MOH announced the launching of the national distribution of MCH Handbook and actual distribution started at MOH, the United Nations Relief and Works Agency for Palestine Refugees (hereinafter referred to as 'UNRWA') and non-governmental organization (NGO) Primary Health Care (PHC) centers in the West Bank in April 2008. There remained, however, strong need for technical supports in MOH in taking initiatives of improving MCH and RH services and managements to unified quality services in accordance with the medium long term development strategies and national strategic health plan.

Given the situations, a proposal for the technical cooperation as phase 2 for improving MCH and RH in Palestine was submitted to the Government of Japan by MOH in 2007 and the "Project for Improving Maternal and Child Health and Reproductive Health in Palestine (Phase 2)" was started in November 2008 for the tenure of four years.

² Health Statistics in Palestine, Annual Report 2006 quoted from the minutes of meeting signed on 11 September 2008.

Regional Heath Observatory, Country Statistics, 'Palestine'; WHO Homepage (http://rho.emro.who.int/rhodata/?theme=country#)

1-2 Project Overview

(1) Overall Goal

Health among women and children is improved in the West Bank and the Gaza Strip.

(2) Project Purpose

MCH and RH services are improved in the West Bank and the Gaza Strip.

(3) Outputs

- 1) Coverage and utilization of MCHHB are improved.
- 2) Perinatal knowledge and technical skills of MOH/PHC center staff are strengthened.
- 3) National Coordination Committee (NCC) is functioning as MCHHB policy making and implementing/supervising body.
- 4) Community awareness on MCH and RH is raised.
- 5) Enhance project implementation by monitoring and evaluation of Project activities.

(4) Input (as of the evaluation)

Japanese Side

- Dispatch of Experts: a total of 24 experts, 191.6 M/M
- Provided Equipment: Training equipment such as simulators, pelvis models, fatal heart monitors, mercury manometers and measure tapes for circumference. Provision of ultrasonographic device will be discussed after related trainings.
- Overseas Activities Costs: JPY 107,210,510 (Estimated amount as of the end of the project period)
- Training in Japan: 7 personnel for MCHHB management (Total Duration: 4.2 M/M)

Palestinian Side

- Allocation of Palestinian project personnel
- Provision of project office space in the annex facility of MOH in Ramallah
- Utility costs for project office spaces
 - Appropriation of operational cost
- Provision of operating expenses for project activities

2. Terminal Evaluation Team

Members	Leader	Mr. Ikuo TAKIZAWA	Director, Health Division 1, Health Group 1, Human Development Department, JICA		
	Cooperation Planning	Ms. Nae KANEKO	Officer, Health Division 1, Health Group 1, Human Development Department, JICA		
	Evaluation and Analysis	Dr. Yoichi INOUE	Consulting Division, Japan Development Service Co., Ltd.		
Period of	June/24/2012-15/July/2012		-	Study Type: Terminal Evaluation	
Evaluation					

3. Summary of Evaluation Results

3-1 Achievements

(1) Output 1

Though several OVIs for Output 1 aren't fulfilled at the time of the terminal evaluation, it is considered that the overall achievement of Output 1 is generally high in many aspects.

The Project elaborated "The Palestine National Manual for MCHHB" to standardize the operation among various stakeholders for effective management and utilization of MCHHB; and subsequently, trainings for PHC facilities were conducted by the Project. Based on these activities, the standardized utilization of MCHHB has successfully started at all the PHC centers and clinics managed by MOH, UNRWA and major NGOs by the time of the terminal evaluation. Though it is agreed that the Project does not take direct

intervention to the Gaza strip, MCHHB was introduced at all the hospitals and PHC centers owned by MOH and UNRWA in the Gaza strip based on the manual mentioned above by the year of 2010.

Regarding improvement of utilization, it is confirmed through direct observation and interviews by the team that MCHHB is utilized effectively at antenatal and postnatal care and infant medical examination since the operation of MCHHB was standardized and training was conducted based on the manual. On the other hand, the filling rate of hospital remarks, mainly on delivery care is relatively low compared to the other items on the MCHHB. In addition, the involvement of private clinics remains as a challenge.

(2) Output 2

Since OVIs for Output 2 are fulfilled, it is considered that the overall achievement of Output 2 is high in general.

Trainings on utilization of MCHHB were widely conducted to the staff of health facilities of MOH, UNRWA, and major NGOs. In addition, the Project conducted the antenatal care trainings to the nurses, midwives, and village health workers in charge of MCH in all the 12 districts of the West Bank. As the Project prioritized the training of antenatal care, UNFPA provides the trainings on postnatal care. Additionally, postnatal care is provided based on MCHHB at hospitals and PHC centers, and through postnatal care visits in the Gaza Strip with support from UNICEF. This enhances and strengthens not only antenatal care, which the Project focused but also the continuum of care around perinatal period.

It is confirmed that health workers trained by the Project utilize their knowledge and skills to provide perinatal care to their patients/clients, and meet the satisfactory level to respond to patients/clients' expectation. Bringing rate of MCHHB³ reached quite high level and the communication using MCHHB between health workers and patients/clients is improved.

(3) Output 3

Achievement of Output 3 is high at the time of the evaluation, although long-term sustainability and feasibility remain to be answered.

The Project supported MOH to establish NCC with coordinating and decision-making function, and subordinating NCC TF with the function of action planning and situation analysis. NCC and NCC TF was officially recognized by MOH, and established in April 2009. They have been working on standardization of MCH/RH services and supply and stock control of MCHHB by developing "the Palestine National Manual for MCHHB". Besides, MCH/RH services standardized by the Manual have been monitored regularly at NCC and NCC TF.

It should be pointed out that the function of NCC secretariat as well as data compilation and analysis for monitoring and evaluation of MCHHB-based MCH/RH services had been maintained with the support from the Project. Transitional measures may be needed to ensure its organizational sustainability.

(4) Output 4

Achievement of Output 4 was affected by the change in planned activities. However, it is considered

³ 'Bringing rate of MCHHB' is understood as synonym for the proportion of pregnant women and mothers who brings MCHHB to health facilities for perinatal care or child care.

that the overall achievement of Output 4 is fair, since project activities under other output indirectly contributed to the achievements of OVIs for Output 4.

Original plan of the activity for a raising community awareness of MCH/RH, of which practical implementation was supposed to be entrusted to NGOs, was made changes through a series of discussions between both Japanese and Palestinian sides; however, the Project has been giving the health education using MCHHB its honest efforts. As the results of that, it is confirmed that knowledge and awareness of patients/clients has been improved in the West Bank despite the Project couldn't conduct activities organized specifically for awareness raising.

On the other hand, the approach to private health facilities has just started in the West Bank. In addition to this, utilization of MCHHB in health facilities other than that of MOH and UNRWA in the Gaza Strip remains unclear. Thus, these issues can be recognized as future challenges.

(5) Output 5

Since the OVIs for Output 5 is fulfilled, it is considered that the achievement of Output 5 is high. Progress and performance of the project activities have been regularly monitored not only by JCC but also by NCC. The project activities were reviewed at the time of the Operation Guidance Survey and the Mid-term Review; and the project activities were consolidated and prioritized in accordance with the recommendations from them. After those review works, the project activities were accelerated and its performance was improved afterward.

(6) Project Purpose

Though several OVIs for the Project Purpose aren't fulfilled at the time of the terminal evaluation, it is considered that the prospect for the achievement of the Project Purpose is generally high in many aspects.

As a result of concerted efforts among stakeholders under NCC, MCHHB-based MCH/RH service is being improved in the Palestinian health services. Moreover, the number of women and children who received perinatal and childcares were substantially increased after the commencement of the Project, of which mothers were utilizing MCHHB for their health management. In addition, MCHHB has been utilized in health facilities as a complement to the existing referral letters; therefore, it is considered that MCHHB contributes to the continuum of care throughout pregnancy, delivery and child rearing.

The improvement of the quality and quantity of MCH/RH service was confirmed particularly in the West Bank. However, there is room for improvement with regard to the feedback of delivery care from hospitals to PHC centers, the distribution of MCHHB to women in their early gestation, and MCHHB operation in private health facilities. Further efforts should be made for those remaining issues in the remaining project period and even beyond.

3-2 Summary of Evaluation Results

(1) Relevance

MOH put emphasis on the importance of quality MCH/RH services in 'the Palestinian National Health

Strategy (2011-2013)'. And the Strategy places 'Human Resource Development' and 'Institutional Development' as prioritized areas. Meanwhile, "The Japan's Global Health Policy 2011-2015", which was published in September 2010, set out a vision as 'Japan's new policy aims to deliver results effectively and efficiently by addressing bottlenecks impeding progress on the health MDGs', and placed 'reduce child mortality (MDG 4)' and 'improve maternal health (MDG 5)' as one of the top priorities. Moreover, the Policy propounds a model of 'Ensure Mothers and Babies Regular Access to Care (EMBRACE)' to achieve MDG 4 and 5 by securing continuum of care for MCH/RH.

On the other hand, before the commencement of the Project, each agency provided MCH/RH services in their own approaches, and the lack of unified and/or standardized MCH/RH service provision was recognized as a matter of concern. Against these backgrounds, MCHHB was introduced to health facilities, and consequently, the MCH/RH services provided by nurses and midwives at health facilities were unified and the continuum of service was improved through the utilization of MCHHB, by concerted efforts from relevant agencies such as MOH, UNRWA and major NGOs under the coordination of NCC.

As described above, since the Project Purpose is substantially consistent with Palestinian health policies, needs from the target group and Japan's aid policies, it is confirmed that high relevance of the Project is being maintained as of the time of the Terminal Evaluation.

(2) Effectiveness

The effectiveness of the Project is high in general at the time of the Terminal Evaluation for the following reasons.

The Project has contributed to the improvement of perinatal care in Palestine especially at PHC centers, by operationalizing MCHHB in the entire territory by the concerted effort of MOH and other partners (Output 1) as well as by fostering human resources at field level for the improvement of perinatal care (Output 2). NCC was established and operationalized to provide policy directions and to coordinate partners (Output 3). Community awareness on MCH/RH was enhanced through the use of MCHHB as educational and communication tool (Output 4). Furthermore, progress and performance of the Project was monitored not only by the JCC and NCC but also by surveys and other methods.

As the results of such concerted efforts among stakeholders, MCHHB, of which utilization expanded to entire Palestine, has been successfully incorporated and embedded into MCH/RH service. Moreover, MCHHB-based MCH/RH services has been introduced to health facilities of MOH, UNRWA, 4 major NGOs, which accounts for the large part of health facilities in the West Bank; and that is, MCH/RH patients/clients come to be able to receive standardized MCH/RH services. In addition, introduction of MCHHB into health facilities has enhanced the linkage of antenatal care with postnatal care via delivery care as one sequence of care for patients/clients regardless of type and level of facilities. As just described, these achievements of the Project contributed to accomplish the purpose of the Project to improve MCH/RH services. Ensuring proper recording at hospitals and involvement of private sector are remaining challenges.

(3) Efficiency

The efficiency of the Project is high in general though several internal and external factors partially impeded smooth progress of the project activities.

Unexpected delay of the project activities due to internal and external factors such as managerial problems and restriction of project's intervention to the Gaza Strip impeded the efficiency of the Project. Nonetheless, the project activities were accelerated after the Mid-term Review by streamlining and prioritizing, and it is likely that the planned activities will be completed by the end of the project period. Therefore, it is considered that the serious influence of the delay on the achievement of the Project Purpose was avoided.

The project proceeded in collaboration with various other resources and implemented in a coordinated manner under NCC. Though there has been a restriction for the Project to provide direct intervention to the Gaza Strip, MCHHB was successfully introduced by the effort of MOH and UNRWA. In addition, though direct intervention of the Project to the Gaza Strip was restricted, UNFPA has provided training of postnatal care for MCH service providers; and therefore, it can be interpreted that the MCH service providers acquired knowledge and skills on comprehensive perinatal care through the trainings provided by the Project and UNFPA.

(4) Impact

The following positive and/or negative impacts are confirmed and/or expected by the implementation of the Project.

The Team observed that MCHHB-based MCH/RH services are embedded in Palestinian health system especially in the West Bank, and the services are unified and standardized in the health facilities. Though the Team found logical problems and inappropriateness in several OVIs stipulated in PDM version 2, it is confirmed the improvement of awareness in pregnant women and mothers from interviews and survey results. Therefore, it can be anticipated that health status of Palestinian women and children will be improved to some extent in the future. Meanwhile, though MOH and UNRWA introduced MCHHB in their health facilities, the Project couldn't conduct any direct intervention activities in the Gaza Strip. Thus, it is acknowledged as future tasks that how technical trainings be provided to MCH/RH service providers and how MCHHB be introduced to NGO and private health facilities in the Gaza Strip.

UNRWA applied MCHHB as one of the tools in entire organization for MCH service provision; and started to introduce MCHHB in their health facilities in the Gaza Strip where the Project couldn't intervene directly. And also, UNRWA has introduced MCHHB to UNRWA health facilities in neighboring countries such as Jordan, Syria and Lebanon; and thus, it is acknowledged that the Project as well as phase 1 project substantially impacted on MCH/RH services provided for refugee population in those countries via UNRWA.

(5) Sustainability

The sustainability of the Project is high in general but will be more enhanced if several conditions were fulfilled as described below.

Whereas the awareness of the importance of MCHHB-based MCH/RH will sustain from the political aspect, the rule of utilization of MCHHB at all health facilities including private hospitals and clinics doesn't have any enforceability. In addition, the Project is facing a difficult situation with regard to introduction and/or distribution of MCHHB to private health facilities without operational mechanism for supply and stock control of MCHHB targeting private health facilities even though there is request. Therefore, it is suggested that this policies and/or strategies regarding practical operation of MCHHB at private health facilities should be discussed among stakeholders at NCC hereafter. In this context, as the maintenance of supervisory function of NCC is recognized as one of the key factors for sustaining MCHHB-based MCH/RH services, it is desired that the political and institutional supports will continue to be provided.

As for the financial aspect, though there is a willingness to allocate domestic resources on the part of MOH for printing and distributing MCHHB after 2014 and it was confirmed among stakeholders such as MOH, UNICEF and JICA that MOH would secure the budget for printing MCHHB by any means, it will be a challenge. The unit cost of printing MCHHB is around 1.3 USD depending on printing quantity.

It is anticipated that the sustainability of the Project is secured from the technical viewpoint, since the capacity of MCH service providers has increased and a mechanism of quality control for the services, such as packaged technical training courses, nurturing of trainers and supportive supervision, exists. However, NCC is functioning as a supervisory body for MCHHB operation under well-orchestrated coordination among MOH, UNRWA and major NGOs; nonetheless, the Project so far has been providing the secretariat's function. Since the maintenance of NCC's supervisory function is the key to sustainable MCHHB-based MCH/RH services, the Project should streamline and consolidate the secretariat's work, and hand them over to MOH.

3-3 Factors that promoted the attainment of the Project

(1) Concerning the project design

As has been stated before, the Project has been leading a concerted effort with relevant partners such as UNRWA and major NGOs under the NCC's coordination. It is considered that involvement of such stakeholders as NCC members from the early stage of the Project enhanced rapid expansion of MCHHB in Palestine

(2) Concerning the implementation process of the Project

Since the project activities proceeded in a orchestrated manner among stakeholders under NCC coordination, it is considered this contributed to interlink care for pregnant women and mothers with care for young children as one sequence regardless of type and level of health facilities.

3-4 Factors that impeded the attainment of the Project

(1) Concerning the project design

As was described in the 'Efficiency' section, unexpected delay of the project activities due to internal and external factors impeded the efficiency of the Project.

(2) Concerning the implementation process of the Project

The Project is targeting entire area in Palestine, whereas direct intervention of the Project was restricted to the West Bank for security reason from the beginning of the project period; however, inputs from other partners and MOH complemented the Project.

3-5 Conclusions

Since its introduction in the two pilot cities of Ramallah and Jericho in 2006, the distribution of MCHHB was rapidly expanded to cover entire Palestine. By 2010, it was verified by a statistically representative household survey that almost 9 out of 10 (89%) mothers in West Bank and 2 out of 3 (62%) mothers in the Gaza Strip received MCHHB in the most recent pregnancy. The ownership of MCHHB can be much higher today in the Gaza Strip, as distribution in MOH health facilities only started in 2010.

The Team observed that MCHHB is well accepted and utilized by both mothers and healthcare providers, as a tool for recording and health education. It is utilized also as a tool for communication between healthcare providers and mothers, and increasingly between mothers and other family members such as husbands. The latest survey by the Project conducted in early 2012 in the West Bank confirmed generally high level of recording, especially for items such as obstetric history (95%), general antenatal care follow-up (97%), child immunization (97%), and growth monitoring table (98%). The same survey revealed that 9 out of 10 (93%) women who received MCHHB read health education section. Seven (7) out of 10 (71%) women reported that healthcare providers explained what is written in MCHHB when they visited health facilities. Two (2) out of 3 (65%) women shared information contained in MCHHB with their family members. It is fair to say that MCHHB has become an indispensable companion to the Palestinian mothers in going through pregnancy, delivery and child bearing.

The success over relatively short period of time was made possible by the continuous leadership of MOH and the concerted effort of JICA, UNRWA, UNICEF and the NGO partners, which was coordinated through NCC. Remarks should be made that the relatively high coverage in the Gaza Strip was achieved mainly by the effort of MOH and UNRWA in spite of the restricted operation by the Project. More than 800 healthcare providers in total (473 from MOH PHC centers, 61 from partner NGO PHC centers and 271 from MOH hospitals) from the entire West Bank were trained by the Project in MCHHB utilization in addition to the group of trainers.

It is not uncommon for Palestinian women to change healthcare providers over the course of their pregnancy. In some cases they are forced to do so because of frequently changed travel restriction in the territory. In other cases women choose providers who can offer specific services they need or who can accommodate their socio-economic requirements. Keeping pregnancy, childbirth and child rearing-related information with the mothers is essential in facilitating continuum of care and in improving its effectiveness and efficiency in the Palestinian context. The Team observed that use of common recording tool has some effect on the attitude of healthcare providers in standardization of services. Through the survey conducted by the Project and interviews conducted by the Team, it was confirmed that many Palestinian women perceive MCHHB as a reliable source of health information

complementing, or in some cases replacing, conventional sources such as family members and relatives.

Significant addition to the efforts to expand MCHHB coverage by the current phase of cooperation is the activities to improve MCH/RH services in total. More than 500 healthcare providers (538 nurses, midwives and village health workers) from the entire West Bank were trained in MCH services focusing on ANC. Ultrasound training for general practitioners is being rolled out to all the 12 districts (2 doctors each) in the West Bank. In coordination with such technical training, essential equipment (12 childbirth simulators, 12 pelvis models, 172 fetal heart monitors, 166 mercury manometers, and 177 measure tapes) were provided. According to the survey conducted by the Project, more than 9 out of 10 (92%) women are already content with the MCH services provided. It is expected that continued utilization of MCHHB, combined with continued efforts to improve service quality, will further improve the MCH/RH services in Palestine.

The challenge remains with the sustainability, in particular with the mobilization of domestic and other resources for sustainable printing and distribution of MCHHB after 2014, together with a mechanism for periodical updating of MCHHB contents as need arises. The Team confirmed encouraging commitments from the high officials of MOH and partner organizations in this regard. Improvement in program efficiency through better management, as observed in the reduction of over-distribution of MCHHB from 163% of total number of delivery to 116% in the West Bank, will enhance the sustainability. Another effort by the Project to enhance sustainability is the integration of MCHHB-related training with pre-service training of healthcare providers. So far 12 out of 16 medical and nursing schools were oriented about MCHHB and 2 of them already started teaching MCHHB in their curriculum. Other challenges may be increasing MCHHB recording on delivery care at hospitals (currently less than 20% is recorded in average and around 40% in MOH hospitals) and establishing partnership with the private sector for the promotion of MCHHB in private clinics and hospitals (the Project participated in annual meetings of pediatricians and OB/GYN associations, and workshops for OB/GYN and general practitioners are being organized). However, with the continued leadership of MOH and concerted effort of various partners, which iwll be coordinated through NCC, there is a possibility that these challenges will be overcome.

In consideration of the high level of outputs and prospect for achieving project purpose within the project period, it is concluded that the Project be completed in accordance with the agreement in Record of Discussions (R/D).

3-6 Recommendations

< Measures to be taken by the Project (MOH/JICA) before its completion >

- The function and the responsibility of NCC secretariat should be streamlined and transferred to MOH to further strengthen the ownership by the Palestinian government and to ensure sustainability of NCC and NCC TF. Procedure for periodical revision of MCHHB contents through NCC should also be elaborated.
- Efforts should be made to increase MCHHB recording by the physicians in public hospitals. It is preferable to conduct activities to raise awareness among the physicians about the importance of MCHHB, together with follow-up activities to increase their compliance.
- Follow up should be made with the training institutions (colleges) to facilitate integration of

- MCHHB into pre-service training of doctors, nurses and midwives.
- The achievements of the Project and its lessons should be compiled and widely shared among stakeholders related to the promotion of MCHHB, and to MCH and RH in general.
- < Measures to be taken mainly by MOH before/after the completion of the Project >
- In line with the official process of the Palestinian government, efforts should be initiated on time to secure sufficient internal budget for printing and nation-wide distribution of MCHHB after 2014. The roles and responsibilities of the concerned departments within MOH for planning, budgeting, printing, distribution, and monitoring of MCHHB should be clarified.
- Arrangement with NGO partners should be made to initiate the use of MCHHB in their PHC Centers in the Gaza Strip.
- Continuous training of healthcare providers on effective utilization of MCHHB should be planned and organized by MOH or by PHDs with assistance from MOH as needed. Training package developed by the Project can be applied in such training.
- Policies, strategies and practical interventions to operationalize use of MCHHB in private sectors should be elaborated and discussed in NCC. Possibility of including private sector representative in NCC should be considered to facilitate such process.
- < Measures to be taken mainly by JICA before/after the completion of the Project >
- Depending on the needs and interest of other countries, possibility should be considered to work with Palestinian technical resources as partners in spreading MCHHB to other countries in Arab and other regions.

3-7 Lessons Learnt

- Coordination among the stakeholders and their concerted effort is the key to rapid scale-up. The rapid expansion of MCHHB in the entire territory of Palestine was made possible because of the foundation of partner coordination, which was initiated in the pilot phase. It helped to create sense of ownership to everyone involved and facilitated the introduction and spread of MCHHB in the Gaza Strip where the Project could not provide direct intervention. Solid mechanism under the leadership of the recipient government, such as NCC, is important as a vehicle for such coordination.
- Relatively high accessibility to the health services through the course of pregnancy, delivery and child rearing, might have contributed to the high acceptability and utilization of MCHHB in Palestine. Availability of relatively well-trained health care providers in particular may have played important role. Contextual analysis is needed before the introduction of MCHHB. Intervention to strengthen service delivery may need to be in place in parallel depending on the context.
- Cost sharing to ensure sustainability should ideally be started during the cooperation period. Transfer of managerial responsibility from the project to the implementing agency of the recipient government should be processed gradually. Verification of effectiveness and cost-effectiveness of interventions through impact evaluation should be encouraged as an integral component of pilot activities to provide evidence for policy advocacy.
- Since the achievement of the project output and project purpose is evaluated against the OVIs specified in PDM, definition of OVIs should be clear, and it should have clear numerical target for quantitative assessment. If it is difficult to set appropriate target figure at the time of commencement of the Project, such figures should be set shortly by conducting baseline survey.

Some OVIs can be utilized not only for the terminal evaluation but for the progress monitoring and evaluation of the project. For this reason, the monitoring system should be combined into the project framework so that the project could monitor its progress and achievements on a regular basis. This also contributes to verify the logic of OVI itself; hence the logic of the PDM can be modified in the early stage of the project period.