

Summary of Terminal Evaluation Results

1. Outline of the Project	
Country: Sudan	Project title: Frontline Maternal and Child Health Empowerment Project (Mother Nile Project)
Issue/Sector: Maternal and Child Health	Cooperation scheme: Technical cooperation project
Division in charge: Human Development Department	Total cost (at the time of evaluation): 336 million JPY
Period of Cooperation	June 2008 – June 2011
	Partner Country's Implementing Organization: Federal Ministry of Health, Sinnar State Ministry of Health Supporting Organization in Japan: System Science Consultants Inc., Health and Development Service (HANDS)
Related Cooperation: -	
<p>1-1 Background of the Project</p> <p>In September 2006, the Federal Government of Sudan governing Northern Sudan requested this Project to take place to enhance the regional emergency medical services for pregnant and parturient women with particular reference to the hardware side of the services. In response to this request, JICA carried out a preliminary study in September 2007 and an ex-ante evaluation study in December of the same year, having found that people in the local communities concerned did not have full access to the health services. JICA studies have also found various facts and problems that some 19,000 village midwives (VMWs) active in the country were the only health workers in some communities because they could be the sole bridge between the local communities and the formal health system under the current circumstances; that midwives were provided with training opportunities, and facilities and equipment necessary for their activities by the government and donors, but provision was made only partially and sporadically; that the unsystematic support to midwives was attributable to the fragile supervisory capabilities of the Federal Ministry of Health (FMOH) and the State Ministry of Health (SMOH), both of which failed to deliver a functional health care system; and that the country lacked a mechanism where the State, village midwives and other actors could freely communicate with each other on day-to-day basis, resulting in difficulty to share problems and experiences.</p> <p>Under these circumstances, this Project has been launched and in progress for the scheduled period of three years starting in June 2008 and ending in May 2011, aiming to decrease the infant mortality rate and maternity mortality ratio in Northern Sudan. To achieve this goal, the Project has been endeavoring to enhance the capabilities of the federal and state health administrations and village midwives who are active on the frontlines of health services in the communities; strengthen the network among village midwives and the network on the state level; and build a framework providing mothers and children in the communities with the quality and continuing care services.</p> <p>The mid-term review conducted in February 2010 confirmed the results and outputs of the project activities, as well as issues and points to address. The study reviewing the Project also put forward some recommendations for enhancing and institutionalizing the support systems of FMOH and SMOH to village midwives; and standardizing the engagements (the Sinnar Model) in the Sinnar State, the pilot state of the Project, to introduce to other states. Following the review, the project team set about training of trainers (TOT) for in-service training of village midwives in five states including the three Darfur States.</p> <p>As the Project is ending soon in May 2011, this post-evaluation study has been carried out.</p>	

1-2 Project Overview (based on PDM introduced in this evaluation study)

(1) Overall Goal

VMWs are empowered and organized in the PHC context to perform ideal continuum of care for maternal and child health (MCH) in Sudan.

(2) Project Purpose

VMWs are empowered and organized in the PHC context to perform ideal continuum of care for maternal and child health (MCH) in Pilot State.

(3) Outputs

1. Organizational capacity of FMOH and SMOH, and rules and regulations of VMW are strengthened to perform appropriate MCH services.
2. MCH services are provided through empowered and organized VMWs in Pilot State.
3. Horizontal communication network among northern states and relevant stakeholders is strengthened to address the issue on MCH.

(4) Inputs (at the time of the evaluation)

1) Japanese side:

Long-term Expert: 13

Equipment: 2 vehicles, different OA equipment, training tools and other tools

Trainees received: 3

2) Sudanese side:

Counterpart: those concerned in FMOH and SMOH

Land and Facilities: 2 Project offices (one in a FMOH building and the other in a SMOH building)

Administrative and operational costs for the Project, including electricity and water

II. Evaluation Team

Members of Evaluation Team	(Specialized field: name, title) Team Leader/Maternal and Child Health: Akiko HAGIWARA, Senior Advisor, Human Development Department, JICA Cooperation Planning: Kaori SAITO, Associate Expert, Health Division 1, Human Development Department, JICA Evaluation Analysis: Shiho SASADA, Consultant, S-Planning Inc.	
Period of Evaluation	October 9 - 29, 2010	Type of Evaluation: Terminal

III. Results of Evaluation

3-1 Confirmation of results

(1) Overall Goal

VMWs are empowered and organized in the PHC context to perform ideal continuum of care for maternal and child health (MCH) in Sudan .

It will take a while to attain the overall goal but commitments to reflecting the achievements in the pilot state in the country as a whole have already started. In the Project, training programs for trainers took place in five states – that is, three Darfur States, South Kordofan and Blue Nile States – and produced a total of 46 facilitators. In-service training programs for village midwives operated by the

facilitators are to be held soon in these five states. Training of trainees and training programs for village midwives is scheduled to be held by March 2011 in Kassala State, too. This means that village midwives in a total of seven states including Sinnar will be trained by the time when the Project comes to an end, so that the number of states where midwives have been trained – an indicator of the overall goal – is expected to increase steadily.

(2) Project Purpose

VMWs are empowered and organized in the PHC context to perform ideal continuum of care for maternal and child health (MCH) in Pilot State

It is considered that the project purpose will be achieved by the time the Project ends. Thanks to a synergistic effect generated by the foregoing three outputs, the Project has realized empowerment and organization of village midwives in Sinnar State and improved the quality of the maternal and child health services given by them. The number of referrals to village midwives – an indicator of the project purpose – has been increasing, which represents the facts that trained village midwives can now detect hazardous conditions which could threaten the lives of pregnant and parturient women, and thus that an increasing number of women are more willing to visit the health facilities. Now that village midwives not only have improved their skills and knowledge by training but also are well organized, they can provide mothers and children in the communities in Sinnar State with continuing and better primary health care.

Where the other indicator of the project purpose, the ratio of continuing care given by village midwives, is concerned, it was difficult to collect accurate data chiefly because health visitors (HVs) in charge of data collection have been busy serving as lecturers of the in-service training for village midwives and engaging in training activities in other states.

(3) Outputs

Output 1: Organizational capacity of FMOH and SMOH, and rules and regulations of VMW are strengthened to perform appropriate MCH services

Output 1 has been more or less achieved. FMOH has reviewed its policies related to village midwives and developed guidelines for training methods and teaching materials among other things, while SMOH has carried out in-service training in the communities, strived for information sharing with FMOH and carried out joint work with FMOH. The two health ministries at different levels have undoubtedly strengthened their organizational capabilities to support village midwives through these efforts. Meanwhile, since there was no appropriate curriculum of in-service training for village midwives, the parties involved in the Project, led by FMOH, have newly created a curriculum of 7-day in-service training for village midwives and its teaching materials, and guidelines incorporating teaching methods for illiterate adults by referring to pre-service training of the existing 1-year and 2-year courses for village midwives, and standard teaching materials of obstetric care for health visitors. The guidelines for in-service training created under the Project were approved in November 2010 by FMOH and are to be distributed nationwide. The Project has produced nine lecturers of in-service training for village midwives (facilitators) in Sinnar State and another 46 facilitators in five states including the region of Darfur. On the other hand, the Project was not staffed by workers to assign clerical work related to in-service training, so local staff members hired by the Project had to manage most of the practical operations. Even so, part of the practical operational skills has been successfully transferred to officers of the Reproductive Health Directorate of SMOH. On the initiative of SMOH, a survey has been carried out

to measure the effects of the in-service training programs for village midwives and the findings compiled in a report. The survey has clarified that village midwives have improved their knowledge and practices concerning infection prevention and also have better knowledge of recognizing women in high-risk pregnancy; that the number of women referring to the health facilities has increase; and that the upgrading of kits has made it possible for midwives to use more tools and consumable goods. As a result of these activities, the Project has established a system whereby the counterparts can continue to conduct in-service training for village midwives.

Output 2: MCH services are provided through empowered and organized VMWs in Pilot State

Output 2 is being steadily achieved. With the quality of in-service and pre-service training improved, and with village midwives being well organized, the conditions for village midwives to supply appropriate maternal and child health services are being put into place.

By the time this post evaluation study is conducted, 450 village midwives out of some 600 in total in Sinnar State have completed in-service training. The remaining midwives will be trained by January 2010. In-service training not only helped village midwives improve their knowledge and skills but also served as a good opportunity to create a database of midwives, based on which village midwives have been divided into individual health facilities and supervisors. Accordingly, village midwives can now participate in regular meetings at health facilities, to which they belong, and receive supervisory support from their health visitors when they participate in the meetings. As the relationships among health professionals are getting closer through in-service training and regular meetings, a network is being formulated, where physicians, health visitors and other health professionals support activities of village midwives: in other words, a supportive system whereby village midwives can provide mothers and children with more appropriate health services is being established. On the other hand, pre-service training of the training courses (1-year and 2-year courses) resumed in January 2010 at two midwifery schools which were refurbished under a grassroots grant aid program of the Japanese government. A hundred women are currently studying at these schools. Moreover, the Project has arranged with village midwives to plan and hold community events four times. These events were a good opportunity for local people to learn the importance of work of village midwives and contributed to an increase in the number of people adopting antenatal care and family planning. Village midwives participating in in-service training have had their damaged or missing tools in their medical kit replaced with new ones and consumable goods supplied. Part of tools and consumable goods in these kits were provided by FMOH and SMOH. Some of these consumable goods, like gloves, are very expensive for midwives: it is necessary to build a system whereby midwives are constantly supplied with these consumable goods.

Output 3: Horizontal communication network among northern states and relevant stakeholders is strengthened to address the issue on MCH

Output 3 is being appropriately achieved. Information about the progress and outputs of the Project is shared with FMOH, SMOHs of other states and donors through their participation in reproductive health (RH) coordinator meetings and steering committee meetings, and mutual visits between the states. Other states are paying attention to the success of the Project as the "Sinnar Model". Training for trainers was conducted in September in five states including the Darfur region, and in-service training for village midwives is to take place soon in another five states.

3-2 Summary of Evaluation Results

(1) Relevance

The relevance of the Project is high. 5-year health sector strategy (2007-2011), an upper level plan in the health sector in Sudan, stipulates the most important health priorities which include improvement in maternal and child health, and the National Health Policy (2007), too, emphasizes the importance of regional commitments and initiatives in the health sector. In this country, where a large number of pregnant women deliver at home, the services provided by village midwives are in high demand. To improve their skills through training and to reduce high risk pregnancies and deliveries entering into risk meet the needs of the target groups – that is, village midwives and pregnant and parturient women. As the Government of Japan prioritizes the basic human needs in its aid policy for Sudan, JICA has taken full advantage of its considerable experience in maternal and child health projects in the Middle East, North Africa and Islamic countries.

(2) Effectiveness

The effectiveness of the Project is moderately high. Each of the three outputs has contributed to achievement of the relevant project purposes, and their synergistic effect has also helped increase the expectations to accomplish these purposes. The approach adopted in the Project has effectively facilitated improvement in the capacity of village midwives and their organization. Although it has not been confirmed whether one of the indicators for the project purposes (to increase the ratio of continuing care given by village midwives in the pilot state) showed a satisfactory level because of the difficulty of getting accurate data, the number of referrals to village midwives has increased as its indicator shows. Judging from the information obtained in the evaluation study, it is considered that the Project has produced outputs necessary to achieve its purposes.

(3) Efficiency

The effectiveness of the Project is moderate. The specialties and the number of Japanese experts put in the Project were appropriate, and supplied equipment was effectively used. As for acceptance of trainees, the number and the term were appropriate, though some trainees seemed to have difficulty putting what they had learned into practice because of the financial constraints. Where the input provided by the Sudanese side is concerned, personnel assigned to the Project were frequently changed, and no clerical worker was assigned to management of in-service training. At the same time, although the Sinnar SMOH pledged to pay village midwives incentives, it made the payment only for two months and suspended it afterwards. The failing personnel allocation and delayed budget execution have held back efficiency of the Project.

(4) Impact

The impact of the Project is high. It will take a while to attain the overall goal but commitments to reflecting the achievements in the pilot state in the country as a whole have already started. It is highly likely that in-service training takes place and village midwives improve their capabilities and get organized in 15 states in Northern Sudan.

The impacts of the Project include those on society. Participation of village midwives in in-service training changed social recognition of people in communities about midwives: people are beginning to recognize or have recognized that midwives play a crucial role in communities. As for the economic impact, the Project has produced a positive impact in the sense that women in financial difficulties can now have prospects of earning cash income if they work as midwives. The Project, however, had a

negative impact, too. Since SMOH failed to supply them with consumable goods necessary to provide the midwifery services, they had to get hold of consumable supplies at their expense. As for the technological aspect, since the Project provided not only village midwives but also health visitors and assistant health visitors with training opportunities, a great number of medical and health personnel have improved their knowledge and skills. The survey has also observed that, thanks to the improved supervisory scheme, these health professionals including physicians are beginning to form personal networks for better services.

(5) Sustainability

Sustainability is high in terms of policy, institution and technology, while financial sustainability is moderate.

The technological achievements of the Project are highly sustainable because the facilitators and health visitors trained and produced through the Project will stay in their local communities and be able to serve as lecturers of future in-service training even after the end of the Project. Official policies related to village midwives are expected to remain unchanged for the time being, and the Project contributed to improvement in the administrative capabilities of FMOH and SMOH which are now competent enough to carry out in-service training and apply the model in Sinnar State to other states. Despite all this positive side, some financial issues remain unsolved. For example, it may take time for the state government to put the existing midwifery services into the official employment scheme because of their financial constraints. It is also doubtful at this stage whether the Sudanese authorities are capable of bearing financial burdens of in-service training, monitoring and supervisory activities and the expenses of tools and consumable goods in the midwifery service kits which are supplied or replaced with new ones when training is conducted.

3-3 Factors that promoted realization of effects

(1) Factors concerning Planning

- The baseline survey conducted during the project term has clarified issues facing village midwives and specific activities to take under the Project, such as the contents of training required and specific actions to improve their work environment.
- Creation of a database of active village midwives has enabled to locate all of them in the state, though the overall picture of midwives was unclear until then. Based on the database, the Project has promoted monthly regular meetings with health visitors and the formulation of networks with physicians and other health professionals.

(2) Factors concerning the Implementation Process

- Two midwifery schools in the state have been refurbished under a grassroots grant aid program of the Japanese government, thanks to which pre-service training has resumed. The grant aid, together with this Project, has produced considerable collaborative effects.
- The FMOH minister, the ambassador of Japan to Sudan, the head of the JICA office and other important persons visited Sinnar State from time to time at important stages of the Project and emphasized the importance of training of village wives. Their appearances in the state helped the Sinnar Model draw attention.

3-4 Factors that Impeded Realization of Effects

(1) Factors concerning Planning

- Nothing in particular

(2) Factors concerning the Implementation Process

- An employment scheme for village midwives has not been established, and payments have not been made to midwives.
- Since SMOH fails to supply village midwives with consumable goods necessary for delivery and care of pregnant women, they have a considerable financial burden.
- Because of short supply of personnel especially from FMOH, the Project had difficulty in allocating workers who could serve on a full-time basis.
- Unstable supply of the basic infrastructures such as water and electricity in Sinnar state had negative impact on improvement in the quality of maternal and child health services.

3-5 Conclusions

The Project has realized empowerment of village midwives in both material and psychological terms by carrying out in-service training; strengthening the relationships between health professionals and village midwives; strengthening the support system including additional instructions and individual counseling; and upgrading tools and consumable goods necessary for delivery and care of pregnant women. It has also demonstrated that empowerment of village midwives has certain effects on improvement in the quality of maternal and child health services in the regional health sector. A survey on the effect of training carried out in line with the Project has clarified that part of the maternal and child health services provided by village midwives has in fact improved. Confirmed facts include, for example, (i) improvement in knowledge and practical skills of village midwives about infection prevention; (ii) improvement in knowledge about the situations needing referrals; and (iii) an increase in the number of referrals actually made.

Empowerment of village midwives has been realized as a result of the synergistic effects of the following factors: (i) improvement in their knowledge and skills by in-service training; (ii) allocation of village midwives to health facilities to which local people have access, and building of personal relationships with staff members of the health facilities, in particular, with health visitors who are their supervisory instructors; (iii) establishment of a scheme whereby they can have visiting instructions and technical advice after completion of training; (iv) establishment of closer relationships among village midwives which make it easier to exchange information and support each other; (v) earning respect from local people; and (vi) obtaining tools and consumable goods necessary for the services. Moreover, because village midwives and staff members of health facilities have become closer, the former can now consult the latter about difficult cases and questions more easily and also get advice from the latter. These relationships much closer than before have also contributed considerably to an increase the number of referrals.

These successfully empowered village midwives have achieved social status to some extent in the regional health sector and can provide mothers and children with more appropriate and continuing care services in collaboration with other health and medical personnel involved in their communities.

The project activities have also strengthened the organizational capabilities of FMOH and Sinnar SMOH. Since the Sinnar Model to empower village midwives has consequently produced a highly communicative environment in the federal and state health ministries concerned, it is expected to be applied to all the 15 states in Northern Sudan.

Many African countries are challenged by the gap in access to health services. The Sinnar Model is expected to contribute possibly to closing the gap in these countries where neither human nor financial

resources is sufficient.

3-6 Recommendations (specific measures, suggestions and advice related to the project)

(1) Matters to be dealt with by the time the Project ends

- Completion of the Sinnar Model to empower village midwives: necessary tasks include to provide all the village midwives in Sinnar State with in-service training; to improve the system whereby village midwives can contact and report to the health facilities; and to improve the visiting advice system using regular meetings at the health facilities.
- Standardization of main factors of the Sinnar Model: necessary tasks include to prepare guidelines for a set of teaching materials for the 7-day in-service training; to supervise village midwives after training; to conduct follow-up activities after training; to build a personal counseling scheme; and to build a system to supply midwives with tools and consumable goods necessary for their services.
- Employment of new graduates from the midwifery schools in Sinnar State by SMOH
- Appointment of clerical workers supporting RH coordinators of SMOH
- Comparison of midwives' skill levels concerning infection prevention before and after training and objective assessment of the effects of training
- Monitoring of in-service training for village midwives planned in five states including the Darfur region in terms of quality and management
- Making proposals for a grand design of the Sinnar Model to deploy the model nationwide in collaboration with SMOHs and donors (training plans in the other 14 states, estimation of training cost, etc.)

(2) Matters to be dealt with in the medium and long terms (after the end of the Project)

- Deployment of the Sinnar Model in all the 15 states in Northern Sudan
- Continued commitment to training and strengthening the capabilities of health visitors and assistant health visitors who are supervisors of village midwives
- Strengthening of the cooperative framework for maternal and child health teams (comprising officers in charge at local health offices, health visitors, assistant health visitors, physicians, nutritionists, maternity nurses, managers of health facilities, and village midwives)
- Implementation of in-service training for general practitioners at village hospitals, etc. concerning the general and emergency obstetric procedures
- Refurbishment and improvement of facilities, equipment and, in particular, obstetric wards of village hospitals, etc.
- Collection of basic information related to refurbishment and improvement of facilities and equipment, and the cost estimation
- Introducing specific case examples to and making proposals for strategies concerning RH-related human resource development to the health ministry when it prepares a national strategic work plan for human resources for health (There is a possibility that skilled birth attendants (SBAs) who has completed technical training will replace village midwives in the medium and long terms.)

(3) Notes concerning project formulation in future

- Not letting village midwives isolated: village midwives who have completed one-year courses at midwifery schools are not skilled birth attendants after all. There are limitations to their knowledge and skills, and they cannot care mothers and children constantly before and after deliveries without any help. It is necessary to formulate a team of midwives and other medical and health personnel to

provide the former with technical support.

- Providing village midwives with maximum support: for this, physicians, health visitors and other medical professionals play a crucial role because they are in the position to be able to give them direct support. It is also necessary to consider strengthening the framework where village offices and local entities can also offer support to them.
- It is impossible for JICA alone to expand the Sinnar Model to other states: It is necessary to strengthen the system to work together with other donors, while avoiding overlapping activities with others.

3-7 Lessons Learned (Cases from this project that may be a reference for the discovery, formulation, implementation, and operation for other similar projects)

It seems reasonable to say that the Sinnar Model is applicable to other countries in Africa which are short of human and financial resources and challenged by problems with access to health services.

In the trends in global health, childbirth attended by skilled birth attendants is promoted and thus the focus is on improvement in the quality of education at “formal” birth attendant schools, in particular, pre-service training. Training of active village midwives or traditional birth attendants who have been trained only for a short period (normally one-year) is not necessarily advocated.

Despite these global trends, both the literacy rate and school attendance rate among Sudanese women are low: only a limited proportion of women can complete secondary education which is a prerequisite for admission to birth attendant schools. At the same time, the fact is that births assisted by midwives at their home account for 80% of all births in Sudan. For these reasons, a realistic strategy is to promote improvement in the capabilities of village midwives who in practice attend a large number of deliveries, and the Project has proved that it is possible to empower village midwives and also that the empowerment has certain effects on improvement in the mother and child health services in local communities. As education for skilled birth attendants advances, they may outnumber village midwives in the long run. Even so, as a more realistic strategy during the transitional period, this post-evaluation study recommends the Sinnar Model as a useful device which can be shared wider areas in African countries.