I. Background of the Project

In the Federal Democratic Republic of Ethiopia (hereinafter referred to as ‘Ethiopia’), the proportion of the burden of communicable disease among all the diseases is high at 73.6%, in 2004. Moreover, the proportion of causes of death attributable to communicable diseases among children under five years of age is estimated to be about half (48%) in 2008. It is considered that most of the infectious diseases, which leads to death, can be cured by early diagnosis and appropriate treatment; however, high mortalities are continued due to low coverage as well as accessibility for health services and insufficient quality of medical services. Therefore, it was desired to develop a system to grasp necessary information of ‘when’, ‘where’ and ‘what’ of epidemic infectious diseases in order to respond outbreaks in a timely manner. In 1999, the government of Ethiopia introduced the strategy of Integrated Disease Surveillance and Response (IDSR), which aims at controlling infectious diseases through strengthening the disease surveillance system and analyzing the data to identify the causes. Since Ethiopia introduced IDSR, Amhara region has also actively engaged in IDSR; however, woreda level activities have not progressed as expected.

Under these circumstances, the government of Ethiopia requested the government of Japan to implement a technical cooperation aiming at the establishment of facility-based as well as community-based surveillance systems to effectively control infectious diseases. In response to the request, Japan International Cooperation Agency (hereinafter referred to as ‘JICA’) has launched a five-year technical cooperation project entitled ‘Strengthening Infectious Disease Prevention, Control and Response in Amhara National Regional State’ (hereinafter referred to as ‘the Project’) from January 2008 to January 2013 with Amhara National Regional Health Bureau (hereinafter referred to as ‘ARHB’) as the implementing organization. The Project selected the target area of 3 administrative zones in Amhara National Regional State, focusing on 22 woredas for facility-based surveillance (6 woredas as pilot) and 2 woredas for community-based surveillance.

The surveillance scheme was changed from IDSR to Public Health Emergency Management (PHEM),
with the aim of strengthening public health emergency management and its response by updating the target
diseases and expanding the coverage of reporting facilities to health posts, in September 2009. PHEM
promotes the linkage between facility-based and community-based surveillance requiring reporting from
community level (i.e. health post), and it includes response activities (i.e. actions following the warning of
epidemic, which covers mobilization of drugs, vaccines, medical supplies, among others) and feedback of
surveillance results. The Project revised Project Design Matrix (PDM) from version 4.5 to version 5, which
complies with the concept of PHEM, at the time of the Mid-term Review in November 2010. Since then, the
Project has four (4) major components as shown below:
1. To strengthen facility-based surveillance system;
2. To strengthen community-based surveillance system;
3. To establish surveillance/response system; and
4. To conjunct facility-based surveillance system with community-based surveillance systems.

2 Project Overview
(1) Overall Goal
Effective facility-based and community-based surveillance/response system is functioning in Amhara
region.

(2) Project Purpose
Effective facility-based and community-based surveillance/response system is functioning in target area.

(3) Outputs
1) Effective system of facility-based surveillance is established and verified in pilot area.
2) Operational capacity of the verified system of facility-based surveillance is developed in all target
area.
3) System of community-based surveillance is established and verified in pilot area.
4) Operational capacity of the verified system of community-based surveillance is developed in all
target area.
5) Public health and medical responding capacity of infectious diseases based on surveillance data is
strengthened in pilot area.
6) A model of surveillance and response is established which connects facility-based and community-
based surveillance.

(4) Inputs(as of the evaluation)
Japanese Side
- Dispatch of Experts : a total of 24 experts, 191.6 M/M
- Provided Equipment : three (3) vehicles for project activities, Laboratory equipment, office
supplies, and other necessary equipment for surveillance, JPY 36,574,680 (as of March 2012)
- Local Cost : JPY 74,359,907 (Estimated amount as of the end of the project period)
- Training in Japan : 22 personnel
Project Performance

(1) Output 1
Achievement of Output 1 is high in many aspects. It is expected that the output will be achieved by the end of the Project.
The Project contributed to operationalizing the system of facility-based surveillance in the 6 pilot woredas, in accordance with the change in national policy from IDSR to PHEM. This was achieved through the development of norms and forms, individual capacity development through multiple training and follow-ups, and improvement of communication means.
Effectiveness of the project interventions was verified by high level of reporting timeliness and high level of completeness in the pilot woredas. It should be reminded that this was achieved against the increase in reporting frequencies from monthly to weekly due to the change from IDSR to PHEM, the increase in reporting facilities due to inclusion of health posts in PHEM and the increase in the number of health centers. However, much improvement is needed in reporting from Zonal Health Departments (ZHDs) to ARHB for the system to complete. There is limited information about timeliness and completeness of reporting from health posts to health centers even though efforts are being made in the pilot woredas to improve these through regular cluster meeting.

(2) Output 2
Achievement of Output 2 is not high at the time of the evaluation. However, prospect for achieving the output by the end of the project period is high.

Ethiopian Side
- Counterparts
- Provision of land for construction of the project office facility in ARHB and office space for annex project office space in the Amhara Public Health Research Institute
- Utility costs for project office spaces, Appropriation of operational cost and Provision of operating expenses for project activities

II. Terminal Evaluation Team

<table>
<thead>
<tr>
<th>Members of Evaluation Team</th>
<th>Leader</th>
<th>Director, Health Division 1, Health Group 1, Human Development Department, JICA</th>
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<td>Dr. Yoichi INOUE</td>
<td>Consulting Division, Japan Development Service Co., Ltd.</td>
</tr>
</tbody>
</table>

Period of Evaluation 7/May/2012-26/May/2012 Study Type: Terminal Evaluation

III. Results of Evaluation

1 Project Performance
(1) Output 1
Achievement of Output 1 is high in many aspects. It is expected that the output will be achieved by the end of the Project.
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(2) Output 2
Achievement of Output 2 is not high at the time of the evaluation. However, prospect for achieving the output by the end of the project period is high.
Due to the change from IDSR to PHEM and the need for adjustment in norms and forms, there was a delay in initiating some of the project interventions to 16 target woredas. Even though PHEM TOT was extended for all the target woredas, PHEM training was completed in only 3 woredas at the time of the evaluation. As such, reporting performance of 16 target woredas remains at the equivalent level with non-target woredas in 3 zones. However, the Project is planning to cover all target Woredas with PHEM training by the end of cooperation period. It is expected that similar level of performance improvement will be achieved in those Woredas. It is expected that the effectiveness of PHEM training package to be further verified through the process, facilitating the future application by the Ethiopian authorities.

(3) Output 3
Achievement of Output 3 is high even at the time of the evaluation, although long-term sustainability and feasibility remain to be answered.
Through the Project, a community structure of active disease identification and response using volunteers (KSOs), method of reporting and patient referral from KSOs to HEWs using reporting cards, monitoring and feedback through regular KSO meetings organized by HEWs, were introduced to and established in the pilot 8 villages (kebeles) in 2 woredas. It was verified that majority (over 90%) of KSOs, with proper support from the Project, maintained their knowledge on symptoms of major diseases over time, hence they can be reliable agents of disease identification in the community, complementing facility-based surveillance. With the help of HEWs and Woreda Health Offices (WorHOs), they have a potential to function as agents of mobilizing community responses. However, sustaining motivation and commitment to voluntary work over longer period of time may be a challenge.
It is difficult to make conclusion from the available data about cost-benefit of having community-based surveillance in addition to facility-based surveillance simply from PHEM perspective. However, presence of active community volunteers who can support the work of HEWs has positive impacts on other priority health programs in Ethiopia, such as maternal and child health, nutrition, water and sanitation.

(4) Output 4
Achievement of Output 4 is high at the time of the evaluation.
The system of disease identification by community volunteers is now expanded from the initial 8 pilot kebeles to the total of 81 kebeles covering 3 woredas. A satisfactory level of participation in KSO monthly meeting is maintained in the expanded kebeles in Mecha (66%) and Dembia (76%). KSOs are actively reporting cases and referring patients to health posts in those areas also. However, it will be a challenge for ARHB and other relevant health offices in Amhara Region to replicate the model to other kebeles in the region as these achievements were obtained through intensive support from the Project. Careful designing of expansion strategy will be needed in consideration of additional cost and benefit of having community-based surveillance, though the benefit may not be limited to PHEM.
With regard to the sustainable strategy of scaling-up, the case of Ebinat woreda presents interesting lessons. In Ebinat, the concept of community-based surveillance was adopted spontaneously by the initiative of WorHO. With a minimum technical input from the Project in the initial 8 kebeles, the system was defused to 34 kebeles in the woreda relying mainly on local resources. Another interesting lesson from Ebinat is
the integration of KSOs and HDAs in which HDA members perform the function of KSOs. Those HDA members were not even provided with non-monetary incentives such as T-shirts, umbrellas and bags as in other project-supported kebeles. Since HDA is a national policy vigorously implemented in all parts of Ethiopia, such integration will accelerate the scale up of community-based surveillance.

(5) Output 5
Achievement of Output 5 is relatively low, except for upgrading of health center laboratories. Concerning laboratory functions, it is planned that microscopic and other essential laboratory examinations will be started at 44-target health centers by the end of the project period, and these will open the way to laboratory-based surveillance. Moreover, it is expected to make a major contribution to the improvement of clinical care practices, as definite diagnosis will be available. However, regular feedback, which incorporates such analysis as disease trend, geographic and population concentration, is not provided in a systematic manner at the level of ZHDs. ARHB has just started feedback and it is beginning to be regularized. It is necessary to have response protocols for PHEM target diseases in place in order to realize consistent response activities, but disease-specific response protocols for some of the PHEM target diseases aren’t available even at the national level. The Project supported preparation of the protocols for two high-priority diseases (anthrax and rabies). Currently, draft protocols are shared with the Federal Ministry of Health (FMOH), and it is planned to accelerate efforts to finalize these in the remaining period of the Project.

(6) Output 6
Achievement of Output 6 is moderate at the time of the Terminal Evaluation.
From the outset, the Project has intended to strengthen facility-based surveillance (Outputs 1 and 2) and community-based surveillance (Outputs 3 and 4), and initiatives that entail organized collaboration from community to the central level have been sought as the basic principle for surveillance. Also, promotion of the cluster approach (clustering of several health posts under one health center and strengthening of relations between facilities and communities) was adopted in the national health sector development program (HSDP-IV 2010/11~20014/15).
Even though a model of surveillance, which connects facility- and community-based surveillance systems, is being established, the linkage need to be strengthened further. As there is a gap in each level of reporting, “combined” or accumulated timeliness and completeness when they reach ARHB are still low at 31% and 47% respectively in April 2012. The result suggests that the linkage should be further strengthened. In order to improve the overall function of the surveillance system, the gaps need to be minimized in all levels, especially at higher levels in the case of 3 pilot zones. This kind of analysis may be extended to cover reporting from health posts in the future, to evaluate the level of achievement of Output 6 or to assess combined performance of facility-based and community-based surveillance.

(7) Project Purpose
Achievement of the Project Purpose is deemed partial. Effective facility-based surveillance (Output 1) and community-based surveillance (Output 3) are
functioning to some extent in the pilot areas, and it is being scaled-up to other target areas (Outputs 2 and 4). Foundations are being established for a surveillance system in which there is an effective connection from communities up to ARHB as demonstrated in the pilot areas (Output 6), even though gaps still exist in the reporting system.

Challenges remain, however, with strengthening of response capacity based on the surveillance (Output 5). Apart from upgrading of laboratory diagnosis capacity strengthening in health centers and feedback from ARHB, which has just started, little systematic change, is observed in other aspects of response capacity. Focused input from the Project may be needed for the rest of the project period and even beyond.

2 Summary of Evaluation Results

(1) Relevance
FMOH emphasizes on the importance of the reinforcement of surveillance system for infectious diseases control in the HSDP-IV 2010/11-20014/15, and published PHEM in 2009, which was updated by strengthening IDSR. FMOH has included health posts as reporting health facilities in PHEM and come out with the strengthening of health service provision, including infectious diseases surveillance, at community level. Thus, it is confirmed that the Project Purpose, aiming at the establishment of foundation for facility-based and community–based surveillance system at selected target areas, is substantially consistent with Ethiopian health policies. Moreover, since the Project has been conducting the project activities aiming at development of human resources engaged in PHEM, as well as early detection of infectious diseases and subsequent early treatment at health facilities and awareness raise at communities, the Project is consistent with the respective needs of not only health personnel engaged in PHEM at the ARHB, ZHDs, WorHOs, health centers and health posts, but also community residents. In addition, Importance of preparedness and international collaboration against emerging and reemerging infectious diseases is also cited in “Japan’s Global Health Policy 2011-2015” clearly. Moreover, contribution of Japan to the achievement of MDGs is also stated in “Country Assistance Policy” for Ethiopia clearly. Since the major causes of under-five mortality are infectious diseases such as diarrhoea and pneumonia in Ethiopia, the Project, aiming at strengthening surveillance system for infectious diseases in Ethiopia, also meets the Japan’s Global Health Policy.

As described above, since the Project Purpose is substantially consistent with Ethiopian 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 considered to be moderate at the time of the Terminal Evaluation for the following reasons.

Even though the revision of the national surveillance policy from IDSR to PHEM during the project period has had negative impacts on the progress of the project activities, a number of positive developments were achieved in the project period with a view to ensuring the adequate implementation of actual surveillance operations in line with the PHEM. These included the preparation of a training package, implementation
of training on system operation using the said package and introduction of operation formats, equipment
required for surveillance and communication. As a result, the timeliness and completeness of reporting
steadily improved from the initial decline immediately after the policy change. Those performance indicators
at the time of the Terminal Evaluation were higher in project-supported areas than in the non-target areas.
Moreover, introduction of KSOs, who are community volunteers, is believed to have made a further positive
contribution not only to the improved detection of infectious diseases but also to enhancement of the
infectious disease awareness among community residents.
Meanwhile, any information obtained by surveillance cannot be considered to be truly useful unless it is
actually utilized in subsequent responses (regular feedback of the occurrence trends of infectious diseases,
issue of alerts and activities designed to achieve the early containment of disease). It is expected that the
establishment of the foundations for the surveillance systems from the viewpoint of developing an effective
reporting system on disease occurrence will be completed by the end of the project period. In contrast, the
strengthening the feedback-related activities to the desired level as part of improved responses may not be
completed by the end of the project period. In regard to the development of response protocols, the situation
is that consultations with the FMOH are currently taking place on the finalization of the drafts for rabies
and anthrax, two diseases with a high priority of which response protocols are currently not available in
Ethiopia. Although the development of response protocols for these two diseases is highly significant, it
may not be enough in achieving “strengthening of the public health and the medical response capacity for
infectious diseases” (Output 5). Tabletop exercise simulating disease outbreaks and other training aimed
at strengthening the practical response capacity and verification of the positive effects of such training
are essential to prove that “the response capacity is strengthened”. Strengthening of the public health and
medical response capacity for infectious diseases is, therefore, considered to be a pending issue at the time
of the Terminal Evaluation.

(3) Efficiency
The efficiency of the Project is moderate since several internal and external factors impeded smooth progress
of the project activities.
The progress of the Project was negatively affected by the change in national surveillance policy from
IDSR to PHEM in September 2009. It was also affected negatively by staff turnover in both Ethiopian and
Japanese sides. These factors reduced efficiency of the Project.
It has been confirmed that the norms and the forms prepared by the Project have standardized the
concrete procedure for surveillance and are routinely used in the field. In particular, Table 1 (spreadsheet
for monitoring the timelines and completeness of reports) and Table 2 (spreadsheet for monitoring the
occurrence trends of PHEM target diseases), which are improved versions of the spreadsheets originally
developed by a person in charge of PHEM at one of WorHos for routine usage, are now adequately used
for the monitoring of reporting performance and disease occurrence trends respectively. In connection with
activities concerning microscopic diagnosis, microscopes, etc. and training on microscopic diagnosis were
provided under the Project on the grounds that laboratory technicians would be assigned. This assignment of
technicians and the delivery of the necessary equipment have been gradually taking place and it is expected
that the microscopic diagnosis service will commence at all 44 health centers by the end of the project
period. The procurement procedure for microscopes is found to be lengthier than expected, delaying the actual introduction of microscopes at these health centers. As such, it can be concluded that the efficiency of the Project has been partially impeded by the delay of the start of the microscopic diagnosis service.

WHO provides assistance for the strengthening of surveillance in the Southern Nations, Nationalities and Peoples Region and there have been routine information sharing and technical cooperation with the Project, including the dispatch of lecturers to training sessions organized by the WHO or the Project and the supply of training materials developed under the Project to the WHO project. The effective collaboration includes the supply of information of suspected cases of neonatal tetanus, AFP and measles to assist the WHO’s surveillance operations. Discussions are currently taking place with a view of incorporating the community-based surveillance aspect of the Project to the PHEM training guidelines and training materials used by the WHO for HEWs and HDAs.

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

The project is aiming at expanding the system/response to non-intervention areas in the Amhara region in sustainable manner as the Overall Goal. As has been stated, the performance of both community-based and facility-based surveillance system was verified at each pilot area. The Project is currently working on introducing the systems to other target areas, and that is supposed to be completed by the end of the project period. Scaling-up the model beyond the target areas of the Project, however, may be affected both positively and negatively, due to several factors indicated as important assumptions in the PDM and other factors.

For autonomous expansion of the facility-based in tandem with the community-based surveillance system by the Ethiopian side, it is anticipated that the Project would compile reference document(s) on the basis of the experiences and outcomes of the Project by the end of the project period. The reference document(s) are supposed to contain the following 2 components; operational procedures of trainings, schedule, lecturers, operational cost which are needed for expansion of the systems; and information on human resources, timeframe, equipment and materials, monitoring mechanism, running costs which are necessary for sustainable operation of the surveillance activities.

(5) Sustainability
It is difficult to guarantee the sustainability of the project achievements at the time of the Terminal Evaluation for following reasons.

Since FMOH emphasizes the importance of the strengthening of surveillance system for infectious diseases control in the HSDP-IV 2010/11-20014/15, it is considered that political sustainability is secured to some extent. However, necessary budget for the maintenance and/or expansion of the current surveillance activities hasn’t been prepared; and thus, it is desired that FMOH as well as ARHB will consider providing political and/or institutional support for securing necessary budget for surveillance activities. ZHDs and WorHOs should also enhance efforts to secure necessary budget for it. In addition, concerning the community-based surveillance system utilizing KSOs, collaboration with health care facilities has been improved through the
cluster meeting activities and so on. However, since KSOs are a unique innovation of the Project, there is some doubt over sustainability, and the possibility of collaboration and/or future integration with the HDA, which is implemented as a national policy, is being examined. Since there are several differences in applicant eligibility as well as terms of references in KSO and HDA, closer discussions and consultation with relevant authorities should be required in case that the Project drives for future integration of KSO with HDA.

The Project has exerted efforts for future sustainability to standardize practical operation of surveillance activities through development of surveillance norms and forms, packaged training programme, checklist for monitoring and supervision, drafting response protocol for the standardization of practical response for outbreaks of epidemic diseases and so on. However, monitoring and supportive supervision activities have been conducted at the initiative of the Project, accompanied by WorHO staff members, and the mechanism for monitoring and supervision, which can be operated by Ethiopian side autonomously, has not yet been developed as of the time of the Terminal Evaluation. Taking high turnover of health personnel into consideration, it is desired that the Project should work on the development of a monitoring and supervision mechanism for securing technical sustainability during the remaining project period. Meanwhile, the project activities with regard to regular feedback of surveillance results wasn’t conducted as scheduled so far. Therefore, it is required for the Project to work on the activities for introduction of systematized feedback mechanism and for strengthening of capability of analysis and interpretation of reported data at ARHB and ZHDs.

3 Factors promoting better sustainability and impact

(1) Factors concerning to planning
Since introduction of spreadsheets (Table 1 and Table 2) for monitoring of the reporting performance and trends of diseases improved the timeliness and completeness of reporting performance in comparison with non-intervened area, application of simple, locally-invented and easy-to-use tools such as these spreadsheets are considered to be contributing factors for effectiveness.

(2) Factors concerning to the Implementation Process
Good cooperative relations with other development partners as well as other sectors have been maintained throughout the project period. Since cooperation was obtained from other partners and sectors by exchanging lecturers in the training courses and in the response protocols development work, this can be viewed as a contributing factor to the efficient implementation of project activities.

4 Factors inhibiting better sustainability and impact

(1) Factors concerning to planning
The progress of the Project was negatively affected by the change in national surveillance policy from IDSR to PHEM in September 2009.
(2) Factors concerning to the Implementation Process
There are several inhibitory factors regarding effectiveness. These are the transfer or departure of trained counterpart personnel from their positions, delay of equipment delivery and insufficient budgetary arrangements.

5 Conclusion
The Project was successful in operationalizing the facility-based surveillance system in selected woredas in Amhara region, through the transition of national policies from IDS to PHEM. In addition, the Project was successful in introducing and demonstrating effective model of community-based surveillance system in selected kebeles in Amhara region. Strategically combined and scaled-up, both systems are expected to contribute to timely identification of epidemic-prone infectious diseases, which can cause significant loss of human lives.

On the other hand, several activities such as standardized and regular feedback or finalization of response protocols are unlikely to be completed during the remaining period of the Project, since unexpected external factors hindered progress of project activities. Furthermore, several activities including development of response protocols for important diseases and the practical training of response activities should be added, in order to functionalize the response system. As it takes certain period to establish functional surveillance/response system, extension of project period should be considered.

6 Recommendations

<JICA>
1. JICA should consider the extension of project period for approximately 2 years, which is considered necessary for the completion of the project activities that cannot be completed by the end of the current project period (implementation of regular feedback based on the surveillance results, finalization of draft response protocols, development of a mechanism for monitoring and supervision, and so on) as well as for the implementation of necessary activities to realize effective surveillance and response system (development of response protocols for important infectious diseases, practical training for response activities, and so on).

< The Project (ARHB and JICA)>
1. The Project should work on for the consolidation of the surveillance system introduced in the target areas.
2. The Project should commence the technical assistance for practical operations of regular feedback especially from ARHB and ZHDs. Efforts should be made to improve reporting performance of ZHDs in target areas.
3. The Project should facilitate the discussion among stakeholders such as FMOH, ARHB, WHO and other relevant organizations for the finalization of the response protocols for rabies and anthrax.
4. The Project should develop a mechanism of monitoring and supervision for surveillance activities, which Ethiopian side can continue by themselves.
5. The Project should elaborate the future collaboration and/or integration between KSO and HDA in order to maintain and scale-up the functions of KSO in communities in sustainable manner.

6. The Project should compile the reference document(s) for the scale-up of the surveillance system, which includes experiences and achievements, human resources, cost, materials and equipment, time frame, etc. necessary for the activities.

7. The Project should develop a draft of modified PDM by taking the duration of extension into consideration, if the extension is officially determined.

8. The Project should conduct systematic assessment of the functionality of surveillance systems, in addition to the regular monitoring and evaluation of the project process, before the termination of the Project.

9. The Project should study the progress and future plan of HMIS development, as there may be changes in communication, reporting and data analysis environment in all levels of health systems in the near future.

< FMOH >

1. FMOH should enhance the efforts to finalize the response protocols for rabies and anthrax through the closer discussions with the stakeholders such as the Project, WHO and ARHB.

< ARHB >

1. ARHB should continue the practical activities for regular feedback of the surveillance results.

2. ARHB should provide support to ZHDs and WorHOs so that they can secure budget necessary for the operation of the surveillance system.

3. ARHB should facilitate the dialogues among relevant departments such as Health Promotion and Disease Prevention Core Process and PHEM Core Process about integration of community-based surveillance into HDA activities.

< ZHDs >

1. ZHDs should commence the practical activities for regular feedback of the surveillance results.

2. ZHDs should enhance the efforts of monitoring and supervision for maintaining and improving the quality of surveillance activities.

3. ZHDs should appropriately utilize the equipment provided by the Project, and should ensure regular maintenance.

< WorHOs >

1. WorHOs should enhance the efforts of monitoring and supervision for maintaining and improving the quality of surveillance activities.

2. WorHOs should appropriately utilize the equipment provided by the Project, and should ensure regular maintenance.

3. WorHOs should ensure assignment of PHEM officers continuously for consistent surveillance activities.

4. WorHOs should ensure functionality of cluster health centers for sustainable surveillance system connecting facility and community.
7 Lessons Learned

1. 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. In many cases, OVIs are revised at the time of Mid-term Review. In such case, it is desirable to choose indicators for which retrospective data is available, as much as possible.

2. Contribution from community volunteer was essential for the Project. It is considered that presence of relatively strong community in Ethiopia and the procedure to select reliable persons in each community contributed to the success. In order to introduce and utilize community volunteer effectively, it is necessary to carefully study the situation of community in each society, to utilize existing community volunteer system, as well as to apply appropriate method of selection and appointment.

3. Even in a project working mainly at the regional level and below, close communication and collaboration with FMOH and other central government agencies is critical, as the activities are affected by the changes in national policy and institutional framework.

4. In a country where health systems are in transformation, project should be designed and implemented as flexibly as possible, allowing for adjustments to changes in policy, institution and organization along the course of project implementation. Increase (or decrease in other cases) in resource requirement should be anticipated, as number of target health offices and officers, health facilities and workers are likely to increase (or decrease).

5. Scaling-up successful models piloted in confined geographical areas to wider area requires careful assessment of not only effectiveness of the models but also technical, financial and other resource requirement. It requires deliberate and concerted effort of various stakeholders therefore clear scaling-up strategy should be in place. However, prospect for spontaneous diffusion relying on local initiatives should also be considered whenever possible.