

|   |  |
|---|--|
| Country Name                            | <b>Strengthening Infectious Disease Prevention, Control and Response in Amhara National Regional State</b> |
| Federal Democratic Republic of Ethiopia |  |

**I. Project Outline**

|                             |   |              |   |
|-----------------------------|---|--------------|---|
| Background                  | Ethiopia faced frequent outbreaks of infectious diseases. The Amhara national regional state was known as an epidemic area of malaria and meningitis causing 14,000 death cases annually. In order to timely respond to the outbreak of infectious diseases, it was necessary to develop a system for having proper information of when, where and what of epidemic diseases occurs. In 1999, the government of Ethiopia introduced a strategy of the Integrated Disease Surveillance and Response (IDSR), which aimed at infectious disease control through the strengthening of disease surveillance and data analysis to identify causes of outbreaks. According to the evaluation made by the World Health Organization (WHO) in 2005, while IDSR in Ethiopia had been well implemented at national and regional level, activities at woreda (district) and community level have not been satisfactory conducted. Since the government had introduced IDSR, Amhara region has also actively been engaged in it. However, woreda level activities were not progressed sufficiently as in other regions.  |              |   |
| Objectives of the Project   | Through establishing systems and developing operational capacities of facility-based and community-based infectious disease surveillance <sup>1</sup> , strengthening data-based public health and medical responding capacity, and establishing a model of facility-based and community-based surveillance and response in pilot areas, the project aimed at functional effective facility-based and community-based surveillance/response in target areas, thereby contributing to functional effective facility-based and community-based surveillance/response in Amhara region.<br>1. Overall Goal: Effective facility-based and community-based surveillance/response system is functioning in Amhara region.<br>2. Project Purpose: Effective facility-based and community-based surveillance/response system is functioning in target area.   |              |   |
| Activities of the Project   | 1. Project Site: 22 woredas for facility-based surveillance (6 woredas as pilot) and 3 woredas for community-based surveillance (2 woredas as pilot) in 3 zones (North Gondar, South Gondar, West Gojjam) in Amhara Regional State<br>2. Main Activities: 1) establishment of effective facility-based surveillance system, 2) development of operational capacity of facility-based surveillance system, 3) establishment of effective community-based surveillance system, 4) development of operational capacity of community-based surveillance system, 5) strengthening of public health and medical responding capacity of infectious diseases based on surveillance data, and 6) establishment of a model of facility-based and community-based surveillance and response (activity 5) and 6) were added for the extension period of the project)<br>3. Inputs (to carry out above activities)<br>Japanese Side<br>1) Experts: 32 persons<br>2) Trainees Received: 25 persons<br>3) Equipment: vehicles, laboratory equipment, office supplies, etc.<br>Ethiopian Side<br>1) Staff Allocated: 15 persons<br>2) Land and Facilities: Land for and facilities of project offices<br>3) Local Cost: Cost for utility of offices (electricity, water and telephone) and operational cost |              |   |
| Project Period              | January 2008 – January 2015<br>(Extension: January 2013 – January 2015)   | Project Cost | (ex-ante) 360 million yen, (actual) 672 million yen |
| Implementing Agency         | Amhara National Regional State Health Bureau (ARHB)   |              |   |
| Cooperation Agency in Japan | Japan Anti-Tuberculosis Association   |              |   |

**II. Result of the Evaluation****1 Relevance**

<Consistency with the Development Policy of Ethiopia at the Time of Ex-Ante Evaluation and Project Completion>

The project has been consistent with the development policies of Ethiopia at the time of ex-ante evaluation and project completion. At the time of ex-ante evaluation, the “Health Sector Development Programme III” (2005/6-2009/10) placed high priority on infectious disease control in line with IDSR by strengthening field level government facilities such as Woreda Health Offices and health centers. In 2009, along with the updating of the “Health Sector Development Programme” from III to IV (2010/11-2014/15), the Federal Ministry of Health changed its surveillance scheme from IDSR to the Public Health Emergency Management (PHEM) and widened the policy scope

<sup>1</sup> Infectious disease surveillance system is an integrated system consists of an upward reporting flow and a downward responding flow for controlling the outbreaks of infectious diseases; starting from the filed level facilities of health posts to health centers, Woreda Health Offices, Zonal Health Departments, the Regional Health Bureau, to the Federal Ministry of Health and the feedback from the Federal Ministry of Health to the lower facilities providing necessary information and activities for controlling the outbreak.

by including community health facilities such as health posts in infectious diseases surveillance system. In order to cope with this policy change, the project was extended for two years by adding outputs and activities for community health facilities in line with PHEM.

<Consistency with the Development Needs of Ethiopia at the Time of Ex-Ante Evaluation and Project Completion>

The project was consistent with the needs of Ethiopia. In the Amhara region, infectious disease patients at the time of ex-ante evaluation accounted for 42% of all kinds of patients, and malaria patients accounted for 29% which was significantly higher than the national average of 16%. Due to the update of the national strategy from IDSR to PHEM in 2009, the needs for functional operations of infectious disease surveillance system involving zones, woredas and communities further increased.

<Consistency with Japan's ODA Policy at the Time of Ex-Ante Evaluation>

The project was consistent with the Japan's ODA policy for Ethiopia at the time of ex-ante evaluation. One of the five priority areas of the ODA policy for Ethiopia was the health sector focusing on the prevention of spread of infectious diseases including creation of an administrative framework to cope effectively with infectious diseases and enhancing its functions<sup>2</sup>.

<Evaluation Result>

In light of the above, the relevance of the project is high.

## 2 Effectiveness/Impact

<Status of Achievement of the Project Purpose at the time of Project Completion>

The Project Purpose was achieved by the time of project completion. Timeliness and completeness of PHEM reports from health centers was over 90% on average in targeted facilities (Indicator 1), and timeliness and completeness of PHEM reports from health posts was over 90% in all project woredas (Indicator 2).

<Continuation Status of Project Effects at the time of Ex-post Evaluation>

The project effects have continued. Referring to the weekly report of the Zonal Health Departments, the Woreda Health Offices, health centers and health posts visited by the ex-post evaluation survey, it was confirmed that the timeliness and completeness of weekly report had reached 95% to 98% in all targeted facilities (Indicator 1 and 2). One of the reasons which keeps high performance of reporting is improvement of communications by using mobile phones, which are used for reminding the submission of reports and for sending the summary of reports followed by sending of hard copy reports. As for health facilities' responses to infectious disease epidemic, according to the interviews with officials in health facilities visited, proper actions have been taken by health centers and health posts in the model clusters<sup>3</sup> on outbreaks of health issues particularly of malaria, acute watery diarrhea and scabies (Indicator 2). At the higher level facilities of ARHB, the Zonal Health Department and the Woreda Health Offices, PHEM data have been properly collected and analyzed, and the regional weekly PHEM bulletin has been published and distributed to related organizations including the development partners.

<Status of Achievement for Overall Goal at the time of Ex-post Evaluation>

The Overall Goal has been mostly achieved at the time of ex-post evaluation. Although no quantitative data are available, according to the interviews with officials of ARHB including the PHEM Directorate Director, the reporting and response system introduced by the project has been applied in almost all woredas with the policy backup by PHEM which directs all woredas to adopt the reporting and response system developed by the project.

<Other Impacts at the time of Ex-post Evaluation>

Many of the community health volunteers trained by the project have been involved in other health activities such as the promotion of Open Defecation Free (ODF) kebeles (villages), full immunization coverage, and others. They keep practicing the skills they learned in the project, educate other volunteers and villagers, and report when they see or hear any diseases under surveillance or any unknown diseases. No negative impact on natural, social and economic environment has been observed.

<Evaluation Result>

Therefore, the effectiveness/impact of the project is high.

Achievement of Project Purpose and Overall Goal

| Aim   | Indicators  | Results  |
|---|---|--|
| Project Purpose:<br>Effective facility-based and community-based surveillance/ response system is functioning in target area. | Indicator 1<br>Disease data collection system from woreda to the region is functioning in more than 80% of target 3 Zonal Health Departments (ZHDs) and 22 woreda Health Offices (WorHOs).                                | Status of the Achievement: Achieved (Continued) (Project Completion)<br>Timeliness and completeness of PHEM reports from health centers was over 90% on average in 3 Zonal Health Departments and 22 Woreda Health Offices.<br>(Ex-post Evaluation)<br>Timeliness and completeness of weekly surveillance report reached 95% to 98% in 3 Zonal Health Departments and 22 Woreda Health Offices.  |
|   | Indicator 2<br>Disease data collection system from health posts (community) to the region and infectious disease control mechanism is functioning in more than 70% of model cluster health centres and model health posts | Status of the Achievement: Achieved (Continued) (Project Completion)<br>Timeliness and completeness of PHEM reports from health posts was over 90% in all project woredas. Response and action mechanism was functioning in cluster health centers and health posts in all target woredas. As for health facilities' responses to infectious disease epidemic such as malaria or measles, according to the observation of Japanese experts of the project, response and action mechanism was functioning in cluster health centers and health posts in all target woredas.<br>(Ex-post Evaluation) |

<sup>2</sup> Source: Japan's ODA Databook (2007)

<sup>3</sup> Cluster was a unit of community-based surveillance system or area the system applied designated by the project to which the project made direct interventions. A cluster consisted of 4 to 5 villages and one health center. The project initially conducted its activities in some 'model clusters' as show-cases, and extended its activities to other clusters. (Source: Mid-term Review Report, 2011)

|   |  |   |
|---|--|---|
|   |  | Timeliness and completeness of weekly surveillance report reached 95% to 98% in 3 Zonal Health Departments and 22 Woreda Health Offices. Proper actions have been taken by model cluster health centers and health posts on the outbreaks of infectious diseases. |
| Overall Goal: Effective facility-based and community-based surveillance/ response system is functioning in Amhara region. | Number of woredas applied project's pilot model. | (Ex-post Evaluation) achieved<br>The surveillance and response system introduced by the project has been applied in almost all woredas.   |

Source: questionnaires to and interviews with ARHB, 3 Zonal Health Departments, 10 Woreda Health Offices, 2 health centers and 2 health posts.

### 3 Efficiency

The project cost and the project period were exceeded the plan (the ratio against the plan: 187%, 140%). In order to cope with the change of the national health policy from IDSR to PHEM, the project was extended for 2 years with the increase in the Main Activities 5) and 6) (the ratio against the plan: 150%). Since the cost ratio was 187% and the period ratio was 140% against the activity ratio of 150%, the additional project cost and period was fairly consistent with the additional activities only with cost overrun. Therefore, efficiency of the project was fair.

### 4 Sustainability

#### <Policy Aspect>

The "Health Sector Transformation Plan" (2015/16-2019/20), the updated version of the "Health Sector Development Programme IV" (2010/11-2014/15), designates the improvement of health emergency risk management as one of the strategic objectives. This is meant to improve the prevention, mitigation, early detection and rapid response to any crises through organizing and strengthening community empowerment, health professional's engagement in healthcare reforms. Therefore, the project effects are expected to be sustainable from the perspective of policy aspect.

#### <Institutional Aspect>

The institutional setup formulated by the project for infectious disease surveillance has not been significantly changed. Community level activities have been sustained and expanded by adding some new functions such as maternal and prenatal death surveillance. However, the number of staff and volunteers engaged in the infectious disease surveillance has been insufficient. As for governmental facilities, while each of all health centers is supposed to be assigned with one PHEM focal person, half of the centers visited by the ex-post evaluation survey were not been assigned with any PHEM staff. Manpower shortage in governmental facilities is mainly due to turnover and budget deficiency. As for community health facilities and volunteers, the number of health posts and Health Extension Workers has not met the number required. The number of members of Health Development Army is sufficient but they are not well functioning because they are volunteers without any compensations. It was recommended by the Terminal Evaluation Report (2012) and the Project Completion Report (2015) for the Federal Ministry of Health and ARHB to finalize and operationalize the response protocols for anthrax and rabies prepared by the project. However, the finalization and operationalization has not been progressed due to high staff turnover and poor documentation which has no proper sharing and storing system. Adding to the manpower shortage, the workload on Health Extension Workers are becoming heavier because they are burdened not only with health issues but also with agricultural and educational responsibilities.

#### <Technical Aspect>

The technical capacities of higher level facilities including ARHB, the Zonal Health Departments and the Woreda Health Offices have been maintained at high level with the continuous technical supports from development partners such as WHO, the United Nations Children's Fund (UNICEF) and others. Most of Woreda Health Offices and health centers visited by the ex-post evaluation keep conducting the follow up, supervision, feedback and training for health officers, PHEM focal persons and Health Extension Workers, and they keep using reporting sheets introduced by the project.

#### <Financial Aspect>

Although it is hard to find the financial trends and foresee the financial sustainability with the data available (Table 1), the budget for infectious disease surveillance has been insufficient at all levels according to the interviews with the staff of ARHB and the Woreda Health Offices. In order to make up for budget deficiencies, the Zonal Health Departments and the Woreda Health Offices redirect other budget lines such as the budget for nutrition and Maternal, Newborn and Child Health (MNCH) activities to PHEM. The health centers also utilize their internal revenue and budgets for other lines for infectious disease surveillance activities.

Table 1. Amhara Regional Health Bureau Budget

Unit: million Birr

| Year   | 2015 | 2016  | 2017  |
|--------|------|-------|-------|
| Budget | 917  | 1,350 | 1,130 |

Source: Amhara Region Health Bureau

#### <Evaluation Result>

In light of the above, some problems have been observed in terms of institutional and financial aspects of the implementing agency. Therefore, the sustainability of the project effect is fair.

### 5 Summary of the Evaluation

The Project Purpose was achieved by making the facility-based and community-based infectious disease surveillance/response system functional in the target areas in Amhara Regional State, and the reporting and response system introduced by the project has been applied in almost all woredas. As for sustainability, while the community level health centers and health posts have been suffering from the manpower shortage, regional, zonal and woreda level facilities have improved their institutional and technical capacities for the infectious diseases surveillance by adding new activities such as the maternal and prenatal death surveillance. As for efficiency, the project cost and the project period exceeded the plan. Considering all of the above points, this project is evaluated to be satisfactory.

### III. Recommendations & Lessons Learned

#### Recommendations for Implementing Agency:

- In order to increase the institutional aspect of sustainability at the governmental facilities levels, it is recommended for ARHB to take initiative for improving documentation system including escalating, sharing and storing. Document sharing through the improvement of documentation system, with small additional investments, could improve the share of technical knowledge and know-how under the condition of manpower shortage. It is also expected ARHB to finalize and operationalize the response protocols for anthrax and rabies prepared by the project by improving the documentation system.
- For institutional sustainability at health center and health post level, it is recommended for ARHB to provide refresher training for the staff of health centers and equip them with necessary equipment such as PCs, to streamline the responsibilities of Health Extension Workers to make them concentrate on health issues, and to increase the motivations of Health Development Army members by providing any compensations including training programs. In order to carry out them with the limited budget, it is expected ARHB to prioritize a variety of equipment and parties provide to, and try some creative measures, for instance, to repeat small scale training programs at site.

#### Lessons Learned for JICA:

- Communication by using mobile phones has played a significant role in this project particularly on requesting and sending the report of infectious disease surveillance. For projects establishing or improving reporting system involving hierarchical and geographical wide range of actors, identification and utilization of common communication tools including mobile phones and integrated operation of them as a system can be expected to be a success factor of the project.
- In this project, Health Extension Workers are burdened not only with health issues but also with agricultural and educational responsibilities. The higher the capacity and commitment of community members, the more projects and activities they tend to be involved in and burdened with several different roles and responsibilities. Therefore, when a project expects community members to play a part in it, careful and cautious supervision on them is expected to be conducted.



Public Health Emergency Case Team compiling data



Surveillance guide for Health Extension Workers and community health workers