

## SUMMARY

### **Evaluation of Water Sanitation and Hygiene (WASH) Program in Mawar Village of Alor district**

Diarrhea disease is one of communicable diseases that still become a serious public health problem in Indonesia and kills an estimated 1.5 million children under 5 years of age. Diarrhea is the second main cause of death of children under 5 years after ISPA. As result of Basic Health Research 2007 showed diarrhea disease has caused of 31.4% infant death (age of 29 days to 11 months) and 25.2% of children 1 to 4 years age. The disease burden is attributable to the environment, including risks associated with unsafe water, lack of sanitation and poor hygiene.

Access to improved drinking water sources and sanitation facility in Indonesia are still low compared with other countries in South East Asia. At the end of 2008 only 52% Indonesia population has access to improved sanitation facility and 26% still practices open defecation. While access to improved drinking water sources has reached 80% of total Indonesia population, included 23% of pipe system and 57% in other kind of improved drinking water sources.

Learnt from the previous experiences and success stories of other countries in the world, Indonesia government has realized the importance of sustainability in the development of water and sanitation sector and raised a national policy on community based drinking water and environmental sanitation.

In order to support the implementation of national policy on community based drinking water and environmental sanitation and encourage the acceleration of achievement of MDGs target of Indonesia on water and sanitation, UNICEF has put WASH program as a part of cooperation program in Indonesia and Alor district is one of districts focus for WASH program implementation. The goals of WASH program were to increase access to improved water drinking source and sanitation facility by 80% at the end of program and improve hygiene behavior practices among household.

This research was aimed to evaluate the impact of WASH program in Mawar village of Alor district comprise health impact (focusing on diarrhea incidence), access to improved water source for household purposes and sanitation facility, and also the sustainability of WASH program. This evaluation research used logical framework approach comprises input, process, output, outcome and impact.

This was an observational research with cross sectional conducted in June 2011. The technique for collecting data was combination of quantitative and qualitative and involved method such as questionnaire, observation check list, focus group discussion, in-depth interview and document review. The population of this research was all households in Mawar village amount of 212 household. Number of sample for this research was 67 household that calculated using Lemeshow (1997) method. As impact evaluation, this research uses comparison village which did not receive any the same intervention. Therefore total sample

for both village were 134 households. Households sample selected using simple random sampling method and existing household list used as frame sample.

The research result showed that 100% households in program village have access to improved water sources for all household purposes and sanitation facility. In comparison village was only 21% households have access to improved water sources for drinking and cooking and 18% for other personal hygiene purposes and access to improved sanitation facility was 55%. While hygiene behavior which most attribute to diarrhea prevention such as practice of drinking water treatment, defecating using toilet and hand washing with soap also significantly better in program village than control village. Diarrhea incidence was indicated by % of household with family member suffered by diarrhea within 24 hours and 2 weeks. The results showed diarrhea incidence in program village was significantly less than control village. Regarding to the achievement of WASH program goals, this research also found fantastic achievement of increase access to drinking water source and sanitation facility 100% compared to 80%. Hygiene behavior also showed a fantastic improvement. Utilization of private toilet increased about 1667% from baseline 6%, household water treatment increased 168% form baseline 55% and hand washing using water and soap increased 152% from baseline 57%. WASH program in Mawar village found to be sustainable as indicated by quality of piping system, effectiveness of function, management and utilization of the system.

Conclusion: Implementation of WASH program in Mawar village, Alor district is successful to increase access to improved water sources and sanitation facility and hygiene behavior. 100% household in Mawar village has access to piping water system and sanitation facility. The system is also to be sustainable as indicated by effectiveness of system, contribution collection, management and utilization of system. Although so, there are some improvement needed for further water and sanitation program, such as community contribution in cash and participation of women in community organization should be encouraged by district policy.

**ABSTRACT****Evaluation of Water Sanitation and Hygiene (WASH) Program  
in Mawar Village of Alor district**

This research was aimed to evaluate the implementation and impact of WASH program in Mawar village of Alor district using logical framework approach. The conceptual framework for this study was guided by a literature review of water supply and sanitation impact evaluation and a program theory that linked goal, resources, activities, output, outcome and impact. This was case study with cross sectional method conducted in June 2011. The population was all households in Mawar village amount 212 household. Sample was calculated using Lemeshow (1997) model. Sample for this study was 67 household from program village (Mawar village) and 67 household from village control (Purnama village). The results indicate that a significantly higher proportion of households in the program village (100%) than in control village (21%) had access to improved water sources for all purposes. A significant higher proportion of households in program village (100%) than control village (21%) spent less than 5 minutes for fetching water. All households sample in program village had private latrine and used it for defecation and significantly higher rather than control village (56%). Household hygiene behaviors in program village also show better significantly than control village. While diarrhea incidence in the program village was significantly lower than control village. Conclusion: Implementation of WASH program in Mawar village, Alor district was successful to increase access to improved water sources and sanitation facilities and hygiene behavior. The system is also to be sustainable as indicated by the effectiveness of system, contribution collection, management and utilization of system.

**Keywords:** *evaluation, water supply, environmental sanitation, hygiene behavior, program*