

# The Acceleration of Open Defecation Free Program With Discrepancy Evaluation Model Approach In Dawuhan, Situbondo, East Java

Globila Nurika

*Department of Environmental Health, Faculty of Public Health*

*University of Airlangga, Jl. Mulyorejo, Surabaya, Indonesia*

*Kamps C UNAIR, Surabaya 60115*

*Email: globila.nurika-2016@fkm.unair.ac.id*

**Abstract-** Open Defecation Free is an effort done to achieve the goal of local government in providing healthy environment through total sanitation program. This research aims to formulate the acceleration of ODF program by focusing on the gap of program implementation based on Regulation of Health Minister Number 3 of 2014 on Community Led Total Sanitation in Dawuhan, Situbondo. It is conducted with a cross-sectional design and quantitative descriptive approach. The techniques of data collection were interview and observation. The result analysis of this study is five important stages of ODF program implementation. The first is definition stage, it sets the goals and resources that play role in ODF program. The second is installation, there are some obstacles in the triggering activity from socio-cultural, economic and geographic viewpoints. The third is process, it is about information analysis and target achievement after triggering activity. The fourth, product stage, shows that the program does not achieve the initial target. The final stage, comparison program, indicates that the ODF program in Dawuhan has not undergone significant changes, especially to reduce the number of population that undergo open defecation and healthy latrine ownership. It is concluded that there is gap in early stage, installation stage, on triggering activity of ODF program so that the result have not met the target. The acceleration of ODF program with DEM approach can be done by implementing program that focuses on supervision, integrating programs of agencies that have potential leverage to get success, and increasing entrepreneurship of the community.

**Keywords:** Stop open defecation, Open Defecation Free, Discrepancy Evaluation Model, triggering activity

## 1. INTRODUCTION

Basic sanitation is the minimum required to provide a healthy environment that meets the health requirements and focuses on controlling various environmental factors that affect human health degree. One of the basic sanitation is meant healthy latrines <sup>[1]</sup>. The proportion of behavior Open Defecation (OD) in Indonesia was ranked second highest after India as many as 58 million people who are still doing the behavior of OD <sup>[2]</sup>. Achievement graph of Open Defecation Free (ODF) in Indonesia shows the percentage of villagers who have the status of ODF by 87% or as much as 50 533 villages. <sup>[3]</sup> Based on data from international and national shows that environmental problems in Indonesia is still high, especially in the achievement of basic sanitation that healthy behaviors defecation only in healthy latrines.

East Java Province is one of the major concern of government in the acceleration of Community Led Total Sanitation program (CLTS). East Java Province has CLTS village percentage of less than 50% with the largest population as much as 38,363,195 inhabitants in 2013.<sup>[4]</sup> Situbondo Regency is one of regencies in East Java Province until 2014 have not yet achieved

the status of ODF districts. The number of villages were verified ODF villages in Situbondo just as much as one village. That number had the lowest percentage when compared with the number of triggers that have been carried out by local governments. The number of ODF claim villages in Situbondo has increased slowly over a period of 2 years in the amount of 3.68%.

This research activity using a DEM approach that popularized by Malcolm Profus in 1966. That focused on efforts to know the progress of the program, to determine whether there is a change as expected or not. Discrepancy Evaluation Model is a problem-solving procedure to identify weaknesses and to take corrective action. The research problems are how the acceleration of ODF program with Discrepancy Evaluation Model approach in Dawuhan, Situbondo? This research aims to formulate the acceleration of ODF program by focusing on the gap of program implementation based on the Regulation of Health Minister Number 3 of 2014 on Community Led Total Sanitation in Dawuhan, Situbondo.

## **2. RESEARCH METHOD**

The type of this research is descriptive observational research, with cross sectional study design. Location of the research done at Dawuhan, Situbondo. The techniques of data collection were interview and observation. The result analysis of this study is five important stages of ODF program implementation. The results of data processing are presented in the form of Discrepancy Evaluation Model that developed by Malcolm Profus 1966.

## **3. RESULT AND DISCUSSION**

DEM approach has focused on five important stages, including: (1) Definition Stage; (2) Installation Stage; (3) Process Stage; (4) Product Stage; (5) Comparison Programme. Definition stage identified the objectives and resources in the implementation of the ODF program. The goal is set based on Regulation of Health Minister Number 3 of 2014 on CLTS and to achieve these goals is necessary roles available resources in the implementation of ODF to be more effective. The objectives include four major aspects of the defecation behavior of communities, healthy latrines, the presence of human faeces in the environment, the establishment and implementation of the rules and sanctions to people who do not defecate in latrines healthy, and the implementation of community monitoring to achieve 100% of household access to healthy latrines in each house. Resources within the program ODF include facilitators, community objectives, policy areas used, media communication and information, as well as the financing of ODF program. Quantity facilitators of ODF program in Dawuhan still less because the number of program facilitators coming from Puskesmas Situbondo there is only one person to carry out the triggering activities. The policy used is still not stipulated in local regulations, only guided by Regulation of Health Ministry Number 3 of 2014 on Community Led Total Sanitation. Media communications and information related to the ODF program include radio broadcasts, leaflets and banners program contained in Puskesmas Situbondo. Financing programs sourced from the budget Situbondo channeled through Puskesmas Situbondo to facilitated of healthy latrine. It is still opposed by implementation of ODF program for the construction of sanitation facilities that healthy latrines by the government are not allowed to do anymore.

The second stage, installation stage, that the activities carried out in the ODF program. In order to achieve these objectives, ODF program, needed a change in people's behavior through triggering events. However, the triggering events does not necessarily resolve the problem of society's behavior briefly. There are several obstacles in the implementation of these triggers. First, the majority of homes located in the Watershed so that citizens paralon flow into the

river with the assumption that such actions do not make a fuss of citizens to clean or drain the septic tank regularly and do not financial spend. Second, a dense population causing residents do not have land to build a septic tank. The behavior of citizens who feel bothered to empty or clean septic tanks due to sanitation needs of citizens is still low.<sup>[5]</sup> Third, the practice of defecation, especially in the river has become a habit long ago. Fourth, the cost constraints are still many complaints by citizens in building basic sanitation healthy latrines. Not infrequently found that the activities performed by triggering or executor fasilitator of ODF program is not successful because the level of knowledge and local culture that considers open defecation suppose in a body of water is more comfortable than in healthy latrines. To be able to change people's behavior is more hygienic with defecation only in healthy latrines is not an easy thing because of the behavior of a society that has become a habit takes a long enough time to be changed, starting from the stage of introduction, the increasing need to be able to make residents demand to meet the needs of basic sanitation.<sup>[6]</sup> Improved sanitation needs of the citizens will be able to walk to the purpose if the facilitator and cadres engage community leaders, religious leaders, or people who influence the decisions of citizens.

In the implementation of triggering ODF, a much needed is quantity and quality of human resources capable to empower the community to create an independent community. According to Geeta and Kumar (2014), empowerment is an activity that is not forever, but until society is able to perform independently and monitored from a distance so as not to fall back.<sup>[7]</sup> Event triggers as well as development activities is to trigger disgust, shame, fear of pain, fear of sin, guilt, self-esteem, and the cost of illness to be incurred as a result of the behavior of people who are not hygienic ie defecation not in healthy latrines but in place open.<sup>[1]</sup> Once residents feel motivated and feel the need for the fulfillment of sanitation facilities people are required to establish a healthy latrine means that independently. How that can be done in the construction of latrines that cooperate together with other citizens to build toilet facilities general, by organizing a social gathering to get latrine or by way of credit privy to the agency has been working closely with the local government in meeting the needs of basic sanitation latrines healthy communities throughout the district. In Village Dawuhan, mentoring, monitoring and evaluation of post-triggering is still not implemented optimally. The thing that causes a decrease in the numbers of open defecation behavior of society is still very slow.

In the third stage is process that is conducted data collection and information related to any outcomes after triggering activity ODF program is implemented. Data collected by Public Health Care have been good,

but the need for follow-up and processing of data so that it becomes an information that supports the sustainability of the ODF program. Later findings on the process stage in the end product stage continues in stages: stage to identify the findings of performance and compare it with the original purpose of the ODF program. In Dawuhan, performance is still lacking is the number of healthy latrines and open defecated behavior of community is still high.

Basically healthy latrines is an effective sanitation to break the chain of disease transmission. Healthy latrines must be built, owned and used by families with placements (in the home or outside the home) that is accessible by the occupants of the house. Healthy latrine components can not be separated from the presence of septic tanks for mengairkan stool so it does not pollute the environment and is done periodically draining activities. However, facts on the ground said most residents along the river has been building latrines in their homes but not all residents to complete it with a septic tank so that the flow of feces from the toilet directly flowed into a body of water behind or beside the house. According to Jenkins, et.al (2015), which directs the behavior of citizens feces from outhouses to the water bodies feel bothered to empty or clean septic tanks due to sanitation needs of citizens is still low.<sup>[5]</sup> As a result of these activities is the pollution of a river or body of water that can be media fecal oral transmission of diseases. According Puspitasari and Mukono (2013), Stauber, et al (2013), Devamani, et al. (2014), Graham and Polizzotto (2013), and Sincak, et al (2014), states that the neighborhoods with most citizens have basic sanitation minimal form of latrine underutilized can pollute the environment one example could contaminate the river to be contaminated by bacteria and if entry into the human body can lead to fecal oral diseases, such as diarrhea, worms, typhoid fever, parathyroid, dysentery, cholera, viral hepatitis, and several other gastrointestinal infectious diseases, as well as other parasitic infections.<sup>[8][9][10][11][12]</sup>

In addition to the achievements of healthy latrines are still low, open defecation behavior of the Indonesian population is still relatively high. Not only open defecation behavior of adults and children in the open, but there are still many people who dump sludge into water bodies so that toddlers can contaminate the water. If the population access to water for their daily needs harinatau activity in these water bodies would pose a risk of fecal oral transmission of disease. This is supported by Taosu and Azizah (2013), Humphrey (2009), Mufida (2012), Lindayani and Azizah (2013), and Putranti and Sulistyorini (2013) which states that there is a relationship between the use of toilet with the incidence of diarrhea.<sup>[13][14][15][16][17]</sup>

The final stage, programe comparison, showed that the results of the ODF program still has not shown any significant change especially at point reduction in

population figures which open defecate and dump sludge into the environment and healthy latrine ownership. This can be due to a gap in the early stages, triggering activity, the ODF program still encounter many obstacles and require integrated solutions from various parties so that they can carry out activities in accordance with the guidelines and produce output as planned to establishment of the state of ODF.

#### **4. CONCLUSION**

It is concluded that there is gap in early stage, installation stage, on triggering activity of ODF program so that the result have not met the target. The acceleration of ODF program with DEM approach can be done by implementing program that focuses on supervision, integrating programs of agencies that have potential leverage to get success, and increasing entrepreneurship of the community. The acceleration of ODF program with DEM approach in Dawuhan, Situbondo requires the formulation of a strategic plan to improve the achievement of the target program. It is suggested still continue to implement the program, but with planning involving several agencies or parties as leverage the success of the program.

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#### **REFERENCES**

- Dirjen PL. 2013. Road Map of The Acceleration CLTS Program. Jakarta: Directorate General of Disease Control and Environmental Health
- WHO. 2010. Progress on Sanitation and Drinking-Water 2010 Update. Diakses dari [www.unicef.org/eapro/JMP-2010](http://www.unicef.org/eapro/JMP-2010)
- Dirjen PL 2015. Monitoring Data of STBM in 2006-2015. Access <http://stbm-indonesia.org>.
- Central Bureau of Statistics of East Java Province.2014. Jawa Timur in Figures 2014. BPS Catalogue :1102001.35. No. 35000.1401. BPS Provinsi Jawa Timur.Surabaya
- Jenkins, M.W., Oliver, C., and Sandy C. 2015. Pit Latrine Emptying Behavior and Demand for Sanitation Service in Dar Es Salam, Tanzania. *International Journal of Environmental Research and Public Health*. 12: 2588-2611
- Pfadenhauer, L. M. and Eva, R. 2015. Towards Effective and Socio-Culturally Appropriate Sanitation and Hygiene Interventions in the Philippines: A Mixed Method Approach. *International Journal of Environmental Research and Public Health*. 12: 1902-1927

- Geeta, J. and Kumar, S.S. 2014. Open Defecation: Awareness & Practices of Rural Districts of Tamil Nadu, India. *Internastional Journal of Scientific Research*. 3(5): 537-539
- Puspitasari, S. dan Mukono, J. 2013. Relationship of Bacteriological Quality of Well Water and Healthy Behavior with Waterborne Disease Event in Tambak Sumur Village, Waru Sub-district, Sidoarjo Regency. *Jurnal Kesehatan Lingkungan*. 7(1): 76-82
- Stauber, C.E., Adam, W., Anna, M.F.A, and Mark, D.S. 2013. Bacterial Contamination on Household Toys and Association with Water, Sanitation and Hygiene Conditions in Honduras. *International Journal of Environmental Research and Public Health*. 10: 1586-1597
- Devamani, C., Guy, N, and Wolf Peter, S. 2014. A Simple Microbiological Tool to Evaluate the Effect of Environmental Health Intervention on Hand Contamination. *International Journal of Environmental Research and Public Health*. 11:11846-11859
- Graham, J.P. and Polizzotto, M.L. 2013. Pit Latrine and Their Impacts on Groundwater Quality: A Systematic Review. *Environmental Health Perspectives*. 121(5): 521-530
- Sincak, P., Jaroslav, O., Daniela, K., Maria, V., Zuzana, V., and Jakub, S. 2014. Artificial Intelligence in Public Health Prevention of Legionellosis in Drinking Water Systems. *International Journal of Environmental Research and Public Health*. 11: 8597-8611
- Taosu, S.A. dan R. Azizah. 2013. Relationship of Basic Household Sanitation and Housewife Behavior with Diarrhea Occurrence in Toddlers in Bena Nusa Tenggara Timur Village. *Jurnal Kesehatan Lingkungan*. 7(1):1-6
- Humphrey, J.H. 2009. Child Undernutrition, Tropical Enteropathy, Toilets, And Handwashing. *Lancet*. 374:1032-1035
- Mufida, A.A. 2012. Overview of Factors Affecting Diarrhea Events in School-Age Children (6-12 Years Old) at SD Negeri Sukorejo Blitar City. *Jurnal Ners*. Diakses dari [journal.unair.ac.id/filerPDF/pnj6b74aaa482full.docx](http://journal.unair.ac.id/filerPDF/pnj6b74aaa482full.docx)
- Lindayani, S. dan R. Azizah. 2013. Relationship of Household Sanitation Means with Diarrhea Occurrence in Toddlers in Ngunut Village, Tulungagung District. *Jurnal Kesehatan Lingkungan*. 7(1): 32-37
- Putranti, D,C,MS dan Sulistyorini, L. 2013. The Relationship Between Ownership of Jamban and Diarrhea Occurrence at Karangagung Village, Palang Sub-district, Tuban Regency. *Jurnal Kesehatan Lingkungan*. 7(1): 54-63