

Implementation of GBSD Program Strategy (Clearance Drainage Movement) towards Community Behaviour in Flood Prevention in Makassar City

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Abstract: *The aim of this study is to determine GBSD program implementation toward community in Makassar city. This study used qualitative research with case study approach and was conducted from April to May 2016 in Gowa district at Public Works Office of Makassar city, Buloa sub district, Tallo sub district and Maradekaya sub district. Data collection was done by in-depth interview and focus discussion group (FGD) from executor, chairman and secretary of GBSD program, community and community leaders. The socialization had been done to community about GBSD program through mass communication, media and interpersonal communication. The sufficient in human resource also contributed in GBSD program implementation whereas the lack in financial resource is not affected in GBSD program implementation. Besides, the skill in implementing agency and understanding standard of operations (SOP) also contributed in GBSD program success. The community knowledge and attitude also help in program implementation. The community had maintained drainage system cleanliness even though they had no knowledge of GBSD program. The community's actions toward GBSD program had maintained the drainage system cleanliness but there is still waste and rubbish in the drainage system.*

Keywords: *community behaviour; flood prevention; GBSD strategies; implementation*

I. INTRODUCTION

In general, lack of drainage system management in several cities in Indonesia has led to flooding problem. The infrastructure and facilities management had promoted community participation in drainage network management which included planning, development, operation and maintenance.¹ The drainage system management needed attention from all parties including government and community to avoid flood occurrence. Based on National Disaster Management Agency (BNPB), it has been recorded that there were 122 flood incidents in 23 provinces.

Revised Manuscript Received on March 08, 2019.

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Most of cities had potential flood due to poor drainage management. Java is most affected by flood and some areas including Makassar city in South Sulawesi.² Each year, Makassar is facing flood problem during raining season especially in Biringkanaya sub district, Tallo sub district, Tamalanrea sub district, Manggala sub district, Rappocini sub district and Panakukang sub district.

The main cause of flood in Makassar city is due to poor drainage system. The poor community behaviour such as throwing rubbish into drain had clogged the drainage system.³ Meanwhile, poor drainage conditions are seen in Mamajang sub district. A lot of rubbish and waste lead in tertiary drainage malfunction. The flood in Makassar city had caused multiple loses in term of physical, social and economy. Besides, flood also contributed in disease infections such as diarrhoea or cholera disease.

GBSD program was introduced to solve draining system issue and based on community empowerment. The community participation had contributed good impact toward flood^{4,5}. Nonetheless, this program is still unsuccessful in solving tertiary drainage problem in some places in Makassar city especially during raining season. The success in GBSD program is inclined by several factors such as community behaviour. In Pekanbaru city, several factors influenced community participation such as government campaign, socio economic conditions and culture. Meanwhile, a study showed that communication in form of counselling also helped student in preparation for the flood.⁶ Thus, the aim of this study is to determine GBSD program implementation toward community in Makassar city.

II. METHODOLOGY

Study Type

This study used qualitative research with case study approach.

Location and Time

This study was conducted from April to May 2016 in Gowa district at Public Works Office of Makassar city, Buloa sub district, Tallo sub district and Maradekaya sub district.



Implementation of GBSB Program Strategy (Clearance Drainage Movement) Towards Community Behaviour in Flood Prevention in Makassar City

Study Informant

The informants are GBSB team included executive of this program (head of water resource management of public work department, chairman and secretary of GBSB), community and community leaders.

Data Collection and Data Analysis

Data collection was done by in-depth interview and focus discussion group (FGD). The data was processed by several stages for making data transformation, data induction, and matrix and data interpretation. Meanwhile, data was

analysed through “content analysis” method and represented in narrative form.

III. RESULT AND DISCUSSION

Results

In general, the socialization had been done to increase awareness on GBSB program strategy. However, implementation of this program is still unsuccessful since lack of communication in the community. The feedbacks from informants are summarized in Table 1.

Table. 1 Implementation of GBSB program strategy in flood prevention in Makassar city

Variable	Informant's answer
Implementation of GBSB program strategy in flood prevention in Makassar city	In the beginning, the implementation strategy was running well with socialization to target group including community or related stakeholders. The target group was expected to increase awareness among others in drainage system management.

The communication way such as FGD towards community, media and established cooperation with other related agencies or non-government organizations (NGOs) in the area. The informants also claimed to know GBSB program from socialization and direct counselling from public work department staffs. The informants also mentioned sufficient of human resources in implementation of GBSB program. Besides, GBSB chairman had hired external staffs to fulfil

human resource shortage. The skill of program manager is important in contribution for a successful program. The knowledge is also necessary among program staffs for them improve their performance in GBSB program implementation. However, the incentive became a barrier in successful of GBSB program. Despite that, the staffs claimed that incentives are not an obstacle in their duties. The respondent's answers are tabulated in Table 2.

Table. 2 Factors influencing GBSB program implementation on community behaviour on flood prevention in Makassar city

Variable	Informant's answer
Communication way towards target group	Communication ways had been done to socialize GBSB program through mass communication, interpersonal and mass media.
Availability of human resource in supporting GBSB program	Human and financial resources had supported GBSB program in achieving its goals.
Characteristics of GBSB program implementing agent	The skill among implementing agency also helps in GBSB program objectives achievement.

In Maradekaya sub district, most of the communities did not have knowledge regarding GBSB program. Although informants know this program, they did not know the program's purpose and implementation. Even though some informants had low knowledge on GBSB program, they still maintained drainage system cleanliness. The poor drainage system had contributed to disease transmission such as malaria, diarrhoea and cholera disease.

The positive attitude was observed in community toward GBSB program. The community attitude is very important in drainage system maintenance. The community had maintained the drainage system cleanliness after understanding about benefit of GBSB program. Based on observation as shown in Table 3, good drainage system was practices among community in north Maradekaya albeit most of community in this area had no knowledge in GBSB program implementation.

Table. 3 Factors affected changes in community behaviour

Variable	Informant's answer
Knowledge toward GBSB program	Some informants had lack of knowledge toward GBSB program but still maintained their drainage system.
Community's attitude towards cleanliness of drainage system	The community had positive attitude in maintaining drainage system cleanliness.
Community action in GBSB goal achievements	The actions taken by community such as regularly cleaning the drainage and makes sure no rubbish and waste in their drainage system.



IV. OVERALL DISCUSSION

In general, main cause of flood in Makassar city is due to poor drainage system management. Based on study observation, drainage system is full of waste and rubbish which increased the risk of flood occurrence during raining season. GBSD program was introduced to control flood in Makassar city and it involved communities and local NGOs. A study had suggested that implementing element (implementer) affected the waste management policy in Kota Sintang⁷. The local government play an important role in conveying information to the community. The GBSD program manager only acted as facilitator and collaborated with local government or related stakeholders to achieve GBSD program implementation goals.

Besides, the socialization had been done by public work department staffs to all districts in Makassar city for twice per year. The sub district success in GBSD program implementation included Tallo sub district, Buloa sub district, Mamajang sub district, Panambungan sub district and Ujung Pandang sub district. Meanwhile, failed area was in Maradekaya sub district, Biringkanaya sub district, Manggala sub district and Wajo sub district. The lack of community participation lead to GBSD program implementation failure, while FGD result found that local government and community leaders claimed they did not get any socialization or knew about GBSD program that was launched by public work office. The socialization had important role in changing community behaviour. A study proved statistically the influence in counselling about flood preparation with knowledge and attitude of head of family in facing the flood⁸.

Many communication ways had done by public work office such as interpersonal communication, public communication through counselling and mass communication through media (newspapers, television or radio). Some of communities did not know the existence of GBSD program especially in north Maradekaya village which failed in applying GBSD program in their drainage system management. The community in north Maradekaya village assumed that this program is local government project in manage drainage system. The miscommunication between program manager and local government had lead GBSD program implementation towards failure in north Maradekaya village.

Meanwhile, GBSD program manager mentioned that human resources are sufficient and very helpful in GBSD program implementation. In additions, the external human resource that would be hired included NGOs and local government. The limitation in budget also affected GBSD program implementation. The study found there was no obstacle to maximize GBSD program despite budget is limited. In Surabaya, a study suggested human resource and budget is important in handling flood impact⁹. Similarly, a study found that limitation of budget is not an obstacle in implemented flood control program in Samarinda city¹⁰.

In this study, implementing agency in GBSD program fully understood their task and function. The staffs also attended training to maximize their performance in GBSD program. In Pekalongan, the commitment of local government by frequent visits in high flood risk areas

showed enthusiasm of implementers in flood prevention policy¹¹.

In Buloa village, most of informant did not know the full name of GBSD program but had socialization or guided on importance of drainage system maintenance from their local community leaders. The community behaviour in Buloa village also showed importance of knowledge or socialization from GBSD program had helped changed their behaviour.

Meanwhile, some communities considered importance in drainage system maintenance in two targeted village in GBSD program. Good attitude was based on their knowledge on impact from poor drainage system management which lead in disease transmission. The knowledge had influenced attitude for disaster preparation. Based on this study, some informants did daily cleaning on drainage and this action was due to their knowledge and attitude on bad impact from poor drainage system management. A research suggested that knowledge and attitudes are important in changing community behaviour concerning drainage system maintenance¹².

V. CONCLUSION

In conclusions, the socialization had been done to the community about GBSD program through mass communication, media and interpersonal communication. The sufficient human resource also helped in GBSD program implementation and the lack in financial resource is not affected in GBSD program implementation. Besides, the skill among implementing agency and understanding on standard of operations (SOP) also contributed in GBSD program success. The community knowledge and attitude also helped in program implementation. The community had maintained drainage system cleanliness even though had no knowledge of GBSD program. The community's actions toward GBSD program had maintained the drainage system cleanliness but there is still waste and rubbish in the drainage system.

ACKNOWLEDGEMENT

The authors would like to thank Faculty of Public Health, Hasanuddin University for their support and facilities in conducting this study. The authors would also like to thank Ministry of Higher Education for the support given.

REFERENCES

1. Pustaka.pu.go.id - Kementerian Pekerjaan Umum dan ... [Internet]. [Cited 2016Jan29]. Available from: <http://pustaka.pu.go.id/>
2. Mahardy AI. Analisis Dan Pemetaan Daerah Rawan Banjir Di Kota Makassar Berbasis Spasial. Tugas Akhir, Jurusan Sipil Fakultas Teknik Universitas Hasanuddin, Makassar. 2014.
3. Selatan DK. Profil Dinas Kesehatan Provinsi Sulawesi Selatan 2014.
4. Susanto E. Masyarakat Daerah Aliran Sungai Code Dalam Menanggulangi Dampak Bencana Banjir. Jurnal Penelitian Humaniora. 2010;15(1).
5. Reizkapuni R, Rahdriawan M. Pemberdayaan Masyarakat dalam Penanggulangan Banjir Rob Di Kelurahan Tanjung Mas Kota Semarang. Teknik PWK (Perencanaan Wilayah Kota). 2014;3(1):154-64.



Implementation of GBSD Program Strategy (Clearance Drainage Movement) Towards Community Behaviour in Flood Prevention in Makassar City

6. Sasikome JR, Kumaat L, Mulyadi N. 1 Pengaruh Penyuluhan Bencana Banjir Terhadap Kesiapsiagaan Siswa SMP Katolik Soegiyo Pranoto Manado Menghadapi Banjir. *JURNAL KEPERAWATAN*. 2015 May 7;3(2).
7. Alfiadi, H. S. Faktor-faktor yang mempengaruhi implementasi kebijakan penanganan sampah studi di Kota Sintang Kabupaten Sintang. 2013;
8. Djafar MI, Mantu FN, Patellongi IJ. Pengaruh penyuluhan tentang kesiapsiagaan bencana banjir terhadap pengetahuan dan sikap kepala keluarga di Desa Romang Tangaya Kelurahan Tamangapa Kecamatan Manggala Kota Makassar. *Jurnal. Makasar: Universitas Hasanudin*. 2011.
9. Raya HA, Kusbandrijo B. Implementasi Kebijakan Pemkot Surabaya Dalam Penanganan Banjir (Studi di Dinas Bina Marga dan Pematusan). *JPAP: Jurnal Penelitian Administrasi Publik*. 2015 May 21;1(01).
10. Astuti EW. Implementasi Program Pengendalian Banjir Oleh Dinas Bina Marga Dan Pengairan Di Kota Samarinda.
11. Ramadhanni RF, Setiyono B, Manar DG. Implementasi Program Penanganan Banjir Rob Di Wilayah Pesisir Kota Pekalongan. *Journal of Politic and Government Studies*. 2015 Sep 30;5(4):261-70.
12. Merlyn Y, Saleh E, Taqwa R. Partisipasi Masyarakat Dalam Menunjang Kinerja Sistem Drainase (Studi Kasus Sungai Bendung Palembang). *Jurnal Penelitian Universitas Jambi: Seri Sains*. 2015 Jun 30;17(1).