Model of public health service in wetlands

A T Sompa, S Muzdalifah, A R Hakim
Lambung Mangkurat University, Brig. H. Hasan Basry Street, Banjarmasin, Indonesia

E-mail: saf.muzdalifah@ulm.ac.id

Abstract. The purpose of this study is to describe the model of public health service in wetlands. The idea based on the governmental ecology perspective which states that the government behaviors influenced by environmental ecology. Wetlands occur where water meets land, include mangroves, peatlands and marshes, rivers and lakes, delta, floodplains and flooded forests, rice field, and even coral reef. The object of this research is Public Health Office of Hulu Sungai Utara District of South Kalimantan Province. District of Hulu Sungai Utara has the largest of wetlands area in South Kalimantan. The research method uses literature studies and system of public health service process analysis. The research uses primary and secondary data, the data collection techniques are deep interview, observation, and study library. The results of the study show the adaptive model of public health services in wetlands. The government facilitates people by collaboration program between government and traditional healers, coaching programs for remote parts in Hulu Sungai Utara District, and mobile services by speed boat. The public health services model in wetlands show the extra services by technical implementation units for every district overall.

1. Introduction
Government as organism has been alive [1]. The government behaviors influenced by environmental ecology. [1] The government has the right to realize the sovereignty authority [2]. The actions to realize the sovereignty authority are called government behaviors. Based on these, the government actions are unique depend on the social, culture, and surroundings. The government exists in ecosystem, that is in ecology system formed by interrelationship between environment and organism [3]. The interrelationship is about the way of life and adaptations to the environment (autecology), and as the unity of the organism community (synecology). The government survives adaptively, it is meant the government is part of the human ecology [1]. Human ecology is the relationship between the organizations and the surroundings [4]. The government has an organs system, organ functions, organ structure, and tissues like organism [1].

The following below is the governmental ecology schema [5].

![Governmental ecology schema](image)

**Figure 1.** Governmental ecology.
Based on the schema above, government behaviors influenced by organism theory, the environmental ecology as the significant factor to decide the government actions.

The main action of local government administration is public service. According to The Ministry of Administration and Bureaucratic Reform of the Republic of Indonesia defines public service in ministerial decision Number 63/KEP/M.PAN/7/2003, the public service is all of the services realized by public servicer as the effort to facilitate people in their daily activity based on the normative aspects.

One of the main public services is public health service. Public health service is defined as “the art and science of preventing disease, prolonging life and promoting health through the organized efforts of society” [6]. Activities to strengthen public health capacities and service aim to provide conditions under which people can maintain to be healthy, improve their health and wellbeing, or prevent the deterioration of their health. Public health services also include the provision of personal services to individual persons, such as vaccinations, behavioral counselling, or health advice.

According to the governmental ecology perspective, the public health service has its own uniqueness in implementations model. Model is a representative of object, idea, system, or consisting of the important phenomenon information [7]. The purpose of model study is to identify the certain information and unique aspects to analysis. A model as a system is a representative of the complex reality to simple abstraction. Romney and Steinbart define system formed by the interaction of a community of organism with the physical environment, or as interconnected components to achieve a specific goal [8].

One of the unique area ecosystems is District of Hulu Sungai Utara (HSU) of South Kalimantan Province of Indonesia. District of Hulu Sungai Utara has wetlands characteristic of its area. Wetlands are defined as transitional lands between terrestrial and aquatic ecosystem where the water table is usually at or near the surface or the land is covered by shallow water. We use the word wetland to refer to all areas with water covered periodically, seasonally, or permanently, such as, respectively, tidal flats, and flooded areas near rivers, rice paddies, swamps or lakes. Wetland performs numerous valuable functions such as recycle nutrients, purify water, attenuate floods, recharge ground water and also serves in providing drinking water, fish, fodder, fuels, wildlife habitat, control rate of runoff in urban areas, buffer shorelines against erosion and recreation to society [9].

Based on the explanation, the Government of Hulu Sungai Utara District as the local government with an authority to manage the area in wetlands characteristic. South Kalimantan has 65% wetland areas, and the largest wetland area is District of Hulu Sungai Utara. There are some characteristics of the government behaviors including the implementation of public health service. Hence, this study would like to describe the model of public health service in wetlands.

2. Methods
This type of research uses a qualitative and descriptive approach. Qualitative research is inductive in nature, and the researcher generally explores meanings and insights in a given situation [10]. It refers to a range of data collection and analysis techniques that use purposive sampling and semi-structured, open-ended interviews [11]. The research method uses literature studies and model theory, concept of system of public health service analysis. The research uses primary and secondary data, the data collection techniques are deep interview, observation, and documentary data.

![Figure 2. Framework analysis of model of public health service in wetlands.](image-url)
3. Results and discussions

The study focuses on how to identify the model of public health service in wetlands. Based on model theory, the results of this study are comprised of the kinds of public health services, system of public health service process, and the important information, to decide the unification of process system.

The Hulu Sungai Utara District of Health Office of South Kalimantan as a government institution has a right to provide the public health service in District of Hulu Sungai Utara officially. The Hulu Sungai Utara District Health Office carries out the main tasks and functions of providing health services according to the Minimum Service Standards (MSS) and the Health Office’s Strategic Plan. This strategic target refers to the MSS for Health and the Area Applicaion Plan (AAP) Sustainable Development Goals (SDGs) of Hulu Sungai Utara District and still refers to the 2015-2019 Ministry of Health's Strategic Plan and the 2018-2022 Hulu Sungai Utara District Health Service Strategic Plan.

According to the Head of the Hulu Sungai Utara District Health Office, Agus Fidliansyah, explained that:

“jenis pelayanan dasar yang diberikan yaitu pelayanan Kesehatan ibu hamil, pelayanan Kesehatan ibu bersalin, pelayanan kesehatan balita sesuai standar, pelayanan kesehatan pada usia pendidikan dasar pelayanan kesehatan pada usia produktif, pelayanan Kesehatan pada usia lanjut, pelayanan kesehatan penderita diabetes mellitus”.

Through the explanation, it is known that the basic services provided are maternal health services, maternal health services, health services for toddlers according to standards, health services at basic education age health services at productive ages, health services for elderly people, and health services for diabetes mellitus.

Various health services are also described by health office document such as Maternal Health Services According to Standards, newborn health services (0-28 days), toddler health services according to standards, health services at basic education age according to standards. Moreover, the government has the Services for the Prevention and Control of Communicable Diseases, Non-Communicable Diseases. The kinds of health services are Citizen Health Screening Services (15-59 Years) According to Standard, Citizen Health Screening Services (60 years and over) according to standards, Standard Services for Patients with Hypertension, Mental Disorders Sufferes Health Services, Services for people with Tuberculosis (TB) according to standards, HIV Testing of People at Risk of HIV Infection, Management of Patients with Tuberculosis Disease, Handling of Patients with Dengue Daemorrhagic Fever (DHF). (Health Profile of Hulu Sungai Utara District, 2018, Hulu Sungai Utara District Health Office)

In implementing services the Health Office has a breakthrough to do. Agus Fidliansyah explained that:

“ada terobosan yang telah dilakukan terkait program dan kegiatan kesehatan keluarga dan gizi mengupayakan semua persalinan di fasilitas kesehatan dan peningkatan kualitas Kunjungan Neonatas (KN), peningkatan kapasitas nakes dengan pelatihan Manajemen Terpadu Bayi Muda dan Sakit (MTBM, MTBS serta pendidikan perawatan bayi melalui kelas Ibu Hamil.”

Based on the explanation, it is known that the Health Office has a breakthrough in health services, namely improving the quality of Neonatas Visits, increasing the capacity of health workers with Integrated Management of Young and Sick Infants, and caring for infant education through classes for pregnant women.

The health services provided also have problems, Agus Fidliansyah explained that:

“Kendala pelaksanaan kunjungan bayi adalah pada pelaksanaan SIDDTK (Stimulasi, Deteksi, dan Intervensi Dini Tumbuh Kembang Anak) yang harus dilaksanakan selama 4 kali dalam setahun. Oleh sebab itu Seksi Kesehatan Keluarga dan Gizi masih terus
Based on the explanation, it is known that the Health Office realizes a partnership program between midwives and village shamans, incentive money for village shamans who refer mothers giving birth at health facilities, the Regional Jampersal (Childbirth Guarantee) program, stabilization of PONED Puskesmas (Center of Public Health) and implementation of emergency delivery centers for maternity health centers. In the future, delivery assistance will not only be assisted by competent health workers but will also be carried out in health facilities such as Puskesmas (Center of Public Health), Poskesdes (Station of Public Health), Maternity Clinic / Midwife’s Home and Hospital.

Agus Fidliansyah also added regarding services in remote areas:

“Daerah-daerah yang jauh dari kawasan kota terus berupaya untuk memberikan pelayanan kesehatan yang terbaik bagi masyarakat. Hal ini dibuktikan dengan terbinanya layanan kesehatan di Kecamatan Paminggir Kabupaten Hulu Sungai Utara”.

Based on this explanation, it was explained that the Health Office also pays attention to remote areas. This is done by developing target areas in remote areas.

Paminggir sub-district is a remote area, which is quite far from the city area. In fact, to get to this area one must pass through the waterway, because access is not available by land.

“pelayanan kesehatan yang tersedia di sini tidak jauh berbeda seperti pelayanan kesehatan pada umumnya, seperti adanya layanan pengobatan umum, pengobatan gigi, posyandu, pelayanan bagi ibu hamil, dan lain-lain. Fasilitas pendukungnya pun cukup lengkap, ditambah dengan adanya puskesmas keliling. Namun karena di sini wilayah perairan, puskesmas keliling biasanya menggunakan kapal cepat”.

Based on this explanation, it is known that in general health services are not much different from other areas, but here there is a mobile health center that is operated by speed boat. This is done as a form of adjustment to environmental conditions and the needs of people who need health services quickly.

In identifying the health service model by the local government, it is necessary to identify important information and the health service process system. It can be seen that the Hulu Sungai Utara District Health Office adjusts to the conditions of the community and the environment in providing services. The services provided are proactively closer to the community in order to understand and facilitate the reach of the community. In addition, programs are also carried out by empowering local resources to assist in health services. The following below is the model of public health in Hulu Sungai Utara District. Services provided by the government, then channeled through the technical implementation units through additional programs, namely partnerships with local residents and mobile services.
Figure 3. Model of the public health service in wetlands.

Based on the servant model of public health, it can be seen that the services provided to the community try to adjust to the contours of the area connected by the river. It is understood that people's access to mobility has limitations because they use water transportation modes. In order to bring these services closer together, service providers realize a health service system that can be reached by the community to remote areas by building technical implementing units in these areas, both in the form of coaching programs to partnerships for health workers.

4. Conclusions
In this research it can be concluded that there are special characteristics in the model of the public health service system in wetland areas. These characteristics are in the process of providing services to the community. The government adjusts to the contours of the region, namely that the connecting routes between regions are rivers and some are underdeveloped areas. This condition makes access between regions less smooth and as easy as regions in general. Due to this condition, the government service process is designed to be as close as possible to the community, namely placing a technical implementation unit in each sub-district to connect the community with service providers.

The suggestion for this research for the development of science is that it can be developed in research on governance behavior in fields that focus on the characteristics of wetland areas. In addition, the suggestion for the implementation of government services in wetland areas is to always make innovations so that they are in line with current developments and become better.

5. Acknowledgment
The authors would like to thank the University of Lambung Mangkurat for supporting the research implementation.

6. References
[1] Sitanggang H 1996 *Ekologi Pemerintahan* (Jakarta: Pustaka Sinar Harapan)
[2] Strong C F 2011 *Konstitusi-Konstitusi Politik Modern* (Bandung: Nusa Media)
[3] Hutagalung R A 2010 *Ekologi Dasar* (Jakarta: Gramedia Pustaka)
[4] Duncan O D 1964 *Social Organization and the Ecosystem* In *Handbook of Modern Sociology* Faris R E L Ed. (Chicago: Rand McNally) pp 36-78
[5] Apriansyah 2017 *Ekologi Pemerintahan* (Banjarmasin: Pustaka Banua)
[6] World Health Organization Public Health Services https://www.euro.who.int/en/health-topics/health-systems/public-health-services
[7] Achmad M 2008 *Tehnik Simulasi dan Permodelan* (Yogyakarta: Universitas Gajah Mada)
[8] Romney, Marshall B and Steinbart 2015 *Sistem Informasi Akuntansi Edisi 13* (Jakarta: Salemba Empat)
[9] Lucknow U P 2017 *Green 7(3&4)*
[10] Levitt H M, Motulsky S L, Wertz F J, Morrow S L and Ponterotto J G 2017 *Qualitative Psychology* 4(1) 2–22
[11] Dudwick N, Kuehnast K, Jones V N and Woolcock M 2006 *Analyzing Social Capital in Context: A Guide to Using Qualitative Methods and Data* (Washington: World Bank Institute)