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Addressing Implementation Challenges of Minimum Service Standards in Local Government Using Soft System Methodology: A Case Study of Bekasi City, Indonesia

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Abstract

Minimum Service Standards (MSS) are specific provisions that must be fulfilled by local governments as a concurrent obligation targeted to reach 100% every year. However, as of 2023, Bekasi City has not achieved the set targets. The MSS Service Quality Achievement Index in Bekasi City is still relatively low, with all 6 MSS falling under the "Unfinished" category. This indicates problems in MSS implementation, including issues related to policy, planning, budgeting, and execution involving policymakers, implementers, and service recipients. This study aims to map the challenges in implementing MSS in Bekasi using *Soft System Methodology* (SSM) analysis and provide recommendations for addressing the identified issues. This research adopts a qualitative approach with action research methodology. Data collection techniques include analyzing relevant documents to understand the problem situation and conducting SSM's seven stages of analysis. This study contributes to the literature by applying SSM to understand and enhance policy implementation at the local level, which can be adapted to similar contexts in neighboring Malaysia and Singapore. The findings serve as a reference for improving MSS implementation and enhancing public service quality.

Keywords: Minimum Service Standards, *Soft System Methodology*, policy implementation, Bekasi City

Abstrak

Standar Pelayanan Minimal (SPM) merupakan ketentuan khusus yang harus dipenuhi oleh pemerintah daerah sebagai kewajiban bersama yang ditargetkan mencapai 100% setiap tahun. Namun, hingga tahun 2023, Kota Bekasi belum mencapai target yang ditetapkan. Indeks Pencapaian Kualitas Layanan SPM di Kota Bekasi masih tergolong rendah, di mana dari 6 SPM, semuanya berada dalam kategori belum tercapai. Hal ini menunjukkan adanya permasalahan dalam implementasi SPM, baik dari aspek kebijakan, perencanaan, penganggaran, hingga pelaksanaan yang melibatkan aktor-aktor kebijakan, pelaksana, dan penerima layanan. Penelitian ini bertujuan untuk memetakan permasalahan dalam penerapan SPM di Kota Bekasi menggunakan analisis *Soft System Methodology* (SSM) serta memberikan rekomendasi untuk tindak lanjut dari permasalahan yang telah dipetakan. Penelitian ini menggunakan pendekatan kualitatif dengan metode *action research*. Teknik pengumpulan data dilakukan dengan memahami dokumen-dokumen terkait untuk memberikan gambaran situasi masalah dan melakukan analisis dengan menerapkan tujuh tahapan SSM. Hasil penelitian ini berkontribusi pada literatur dengan menerapkan SSM untuk memahami dan meningkatkan implementasi kebijakan di tingkat lokal, yang dapat diadaptasi di sistem serupa seperti Malaysia dan Singapura. Temuan ini dapat digunakan sebagai acuan untuk memperbaiki implementasi SPM dan meningkatkan kualitas layanan publik.

Kata Kunci: Standar Pelayanan Minimal, *Soft System Methodology*, implementasi kebijakan, Kota Bekasi

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INTRODUCTION.

Minimum Service Standards (MSS/MSS) are provisions regarding the type and quality of basic services which are mandatory government affairs that every citizen is entitled to at a minimum. Basic services themselves are defined as public services to meet the basic needs of citizens. The basic needs of citizens are goods and / or services of a certain quality and quantity that are entitled to be obtained by each individual in order to live properly While the "minimal" norm in the term MSS refers to the minimum limit of the type and quality of basic services provided by each region to its citizens. The type of basic service is the type of service provided in the context of providing basic needs goods and / or services that are entitled to be obtained by every citizen at a minimum. Meanwhile, the quality of basic services is a measure of the quantity and quality of goods and / or services of basic needs and their minimal fulfillment in Basic Services according to technical standards in order to live properly (PP No. 2 of 2018).

Law No. 23 of 2014 on Regional Government mandates this, even making MSS part of mandatory government affairs related to basic services that must be a priority for the regional budget consisting of: (1) Education; (2) Health; (3) Public Works and Spatial Planning; (4) Public Housing and Residential Areas; (5) Peace, Public Order and Community Protection; and (6) Social. Currently, regulations derived from Law No. 23 of 2014 related to the implementation of MSS have been promulgated. Some of them are PP No. 2 of 2018 concerning MSS; Permendagri No. 100 of 2018 which has been amended to No. 59 of 2021 concerning the Application of MSS; up to regulations related to technical standards for fulfilling basic service quality in MSS from all MSS Supervisory Ministries, such as Permenkes No. 4 of 2019; Permendikbud No. 32 of 2018; PUPR Regulation No. 29 of 2018 which has been amended to No. 13 of 2023; Permensos No. 9 of 2018; Permendagri No. 114 of 2018 and No. 121 of 2018.

Based on the regulations mentioned, MSS becomes a special provision for local government affairs which is a concurrent obligation for local governments,(Lucas, 1973). Every year the government must fulfill minimum services according to MSS provisions whose achievement is targeted at 100%. Interestingly, in terms of achievements, in 2023 Bekasi City has not met the targets that have been set. From the achievements of the implementation of MSS in Bekasi City, it is known that the MSS Service Quality Achievement Index is still relatively low, out of 6 MSS, all of them are in the Unfinished category. From the quality aspect, this means that there are still problems. Meanwhile, from the service aspect, only one MSS field is included in the Unfinished category, namely Health and the Intermediate Complete category is the Public and Social Housing sector. Meanwhile, those categorized as Tuntas Pratama are Education, Public Works, and peace, order and protection of society (POPS). So, when viewed from the MSS service achievement index, health services still have problems.

This study contributes to the literature by applying Soft Systems Methodology (SSM) to understand and improve policy implementation issues at the local level, which can be adapted to soft systems, such as in neighboring Malaysia, and Singapore. The purpose of this study is to map the problems of the implementation of SPM in Bekasi City using Soft System Methodology analysis, as well as provide recommendations from the problems that have been mapped.

Then, as recorded in the MSS E-Reporting of the Directorate General of Regional Development of the Ministry of Home Affairs in the fourth quarter of 2023, the problems of implementing MSS are summarized based on the results of regional device inputs related to Bekasi City MSS, which are clustered as follows: data collection problems (data from activity holders are poorly coordinated with operators, MSS Education), calculation of needs (Submission of logistics fulfillment of the TB Program in its application has not all health facilities update stock in SITB in realtime, Health MSS), planning and budgeting (Regional Budget is not sufficient, some SAF component in 2023 have been removed), implementation (Domestic Wastewater Management operations require an increase in sludge treatment plant (IPLT) capacity, because the existing IPLT capacity only reaches 120 m3 / day While there is still resistance from residents in the construction of city-scale WWTP, communal WWTP and individual septitank, MSS PU), and other problems (the duties and functions of BPBD Bekasi City have not been optimal in implementing disaster management, because the chief executive of BPBD is still held by echelon III level which should be by echelon II, such as Bekasi Regency and Bogor Regency, MSS POPS).

These problems are some examples in the implementation of MSS in Bekasi City which will be discussed in depth in the discussion section. Based on this description, the author concludes that the implementation of MSS in Bekasi City has complex problems, ranging from policy issues, planning, budgeting, implementation, including from the side of actors, namely policy holders, implementers, and recipients of MSS services who need an analysis model to parse problems and offer recommendations for follow-up. Therefore, the purpose of this study is to map the problems of implementing MSS in Bekasi City using Soft System Methodology analysis, as well as provide recommendations from the mapped problems.

RESEARCH METHOD.

This research is an action research with a qualitative approach using Soft System Methodology (SSM) as a problem analysis technique. SSM is a systemic (rather than systematic) methodology: its focus is the whole, rather than the parts This SSM approach is suitable for use in this study, because it can see complex social situations and involve various points of view. SSM is considered capable of providing accommodation functions that can find other versions of the situation that are acceptable to all parties (Sarsito and Fitriati, 2023: 289-308). SSM assumes that any complex set of behaviors has unique emergent properties better seen as characteristic of the system as a whole rather than any particular aspect of it. In this way, SSM is a systemic (rather than systematic) methodology: its focus is the whole, rather than the parts, (Tajino et al., 2005)

The qualitative research approach is research that emphasizes understanding problems in social life based on holistic, complex, and detailed reality or natural setting conditions (Murdiyanto, 2020). The roots of qualitative research lie in social and cultural anthropology, philosophy, psychology, history, and sociology. The goal of the qualitative tradition is a ‘deep understanding of the particular’ (Domholdt, 1993) .The choice of methodology is directed by the questions being raised (Viswambharan & Priya, 2016). Recently interest in social sciences of qualitative research is growing remarkably. The rapid rise of qualitative research to prominence in scientific communities; considerable debate has ensued regarding epistemological, philosophical, and methodological issues [Spencer

et al., 2003]. Soft Systems Methodology (SSM) is a problem-solving methodology employing systems thinking. SSM has been applied to the management, planning, health and medical systems, information systems planning, human resource management, analysis of the logistics systems, knowledge management, project management, construction management and engineering, and development of expert systems, (Díaz-Parra et al., 2014). Qualitative research methods are procedures for finding and finding understanding on a problem that has special characteristics regarding biographical studies, evidence, basic theory, ethnography and case studies. Ethnographic observation is the most intensive and in-depth observational qualitative approach. The word ethnography comes from Greek ethnos which means 'folk, people, and nation', and grapho means 'I write'. Therefore, ethnography has a setting in anthropology, which means 'portrait of a people'. It represents an approach in which the researcher engages in prolonged observations from the group's everyday life. In this type of research behaviors, values, and interactions among the members of the group are deeply studied, described, and interpreted by the researcher (Creswell, 2009). Qualitative research is a form of social action that stresses on the way of people interpret, and make sense of their experiences to understand the social reality of individuals. It makes the use of interviews, diaries, journals, classroom observations and immersions; and open-ended questionnaires to obtain, analyze, and interpret the data content analysis of visual and textual materials, and oral history (Zohrabi, 2013). Data collection in qualitative research is not limited to the need for a certain number or criteria but rather emphasizes the rationality of needs and the achievement of information needed to develop an analysis model of the situation under study through Systematic Literature Review. Soft system methodology (SSM) as a useful means for structuring Course Timetabling problems and shows its performance for timetabling in management, It seems that Soft OR and the related methodologies, has remained unfamiliar to timetabling researchers, (Daellenbach, 2001). The demand-side perspective on management support systems developed in this paper offers help in analyzing and removing discrepancies between the demand and supply of decision support. Doing so will improve the impact of these research, (Van Bruggen & Wierenga, 2001). The data collection technique in this study is carried out by understanding relevant documents to provide an overview of the problem situation and find a recommendation for results by conducting 7 (seven) stages of SSM analysis. In this case, data collection is carried out by the researcher by collecting documents related to SSM, and validating through short interviews with stakeholders and regulations that are the basis and then building a model of the necessary activities that meet the efficacy, efficiency, and effectiveness in a system to convey change steps. The methods can be described in the form of the following Table.

Table 1. Stages of Analysis of Soft System Methodology

No	Stage	Description	Methode
1	*Situation considered problematic (unstructured situation)*	The researcher is immersed in a problem situation	Collect information from various aspects on the focus of the problem based on scientific and logical reviews

2	*Problem situation expressed*	The problem system and problem context are defined	Develop rich picture ideas to express various perceptions of problem situations and interpretations of situations as identification steps
3	*Root definitions of relevant systems*	The root definition of the relevant system (consisting of the essence of the system) is defined	Develop a statement of purpose that captures the essence of the problem situation of the relevant system for transformation
4	*Building conceptual model*	The conceptual model of the system, intended as an improvement is developed	Build a model of the required activities that meet the efficacy, efficiency, and effectiveness of a system to deliver steps change
5	*Back in the real world*	The conceptual model is compared to the reality system model as improvements are developed	Comparing the reality of conceptual models built with the actuality of system thinking in the world
6	*Define the changes to be implemented*	Feasible and desirable changes are identified	Find relevant factors with feasible change steps to implement
7	*Take action to Improve the problem situation*	Measures are taken to remedy the situation	Take action ideas to make factor-based changes as a new system

Source: Checkland & Poulter. 2006; Nurhasanah. 2020; and Tanaya 2006, processed

DISCUSSION.

Based on the problems of MSS implementation in Bekasi City that have been studied, the author describes the analysis of these problems using Soft System Methodology with 7 (seven) stages of analysis as recommended by Checkland (2000) and several methodologists.

Stage 1: Situation Considered Problematic (Unstructured Situation)

Determination of the framework of problem situations that are happening in the real world is done by collecting information and exploring views on the situation. Information and exploration of views of problem situations are collected from various related sources supported by the knowledge and experience of researchers. In this case, the author takes the problem of implementing MSS in Bekasi City which has been stated that the implementation of MSS in Bekasi City still has complex problems. In this study, the framework of the problem situation of MSS implementation was collected based on literature studies originating from, among others, Bekasi City development implementation report documents, MSS E-reporting Directorate General of Regional Development Development, and other relevant sources/documents.

In describing the problem, the author begins by discussing the conditions of achievement in the application of MSS. Bekasi City has implemented MSS as stipulated in

accordance with the stipulated provisions. Based on the Bekasi City MSS Implementation Report in 2023, the achievements of the Bekasi City MSS implementation are described as follows.

First, MSS Education. On average, the achievement of the Minimum Service Standard for Education in 2023 in Bekasi City reached a value of 73.93%. This means that the value of the MSS achievement index against the minimum quality achievement and service recipients of Bekasi City shows the 4th category (out of 6 categories), namely Tuntas Pratama. While the average service quality reached a value of 16.76%, it means that the service quality score shows the lowest category, namely Unfinished

Second, MSS Health. The average achievement of the Minimum Service Standard in the Health Sector in 2023 in Bekasi City reached a value of 50.08%. This means that the MSS achievement index value for minimum quality achievements and Bekasi City service recipients shows the Unfinished category (> 60%). While the average service quality reached a value of 10.63%, it means that the service quality score also shows the Unfinished category.

Third, MSS Public Works. The average achievement of the Minimum Service Standard in the Field of Public Works in 2023 Bekasi City reached a value of 75.41%. This means that the MSS achievement index value against minimum quality achievements and Bekasi City service recipients shows the Primary Complete category (70-79%). While the average service quality reached a value of 17.66%, it means that the service quality score also shows the Unfinished category (> 60%).

Fourth, MSS Public Housing. The average achievement of the Minimum Service Standard in the Public Housing Sector in 2023 in Bekasi City reached a value of 80.00%. This means that the MSS achievement index value against minimum quality achievements and Bekasi City service recipients shows the Intermediate Complete category (80-89%). While the average service quality reaches a value of 20.00%, it means that the service quality value shows the Unfinished category (> 60%).

Fifth, MSS Peace, Public Order, and Community Protection. The average achievement of Minimum Service Standards in the Field of Peace, Public Order, and Community Protection in 2023 Bekasi City reached a value of 78.89%. This means that the MSS achievement index value against minimum quality achievements and Bekasi City service recipients shows the Primary Complete category (70-79%). While the average service quality reached a value of 18.32%, meaning that the service quality score showed the Unfinished category (> 60%).

Sixth, Social MSS. The average achievement of the Minimum Service Standards in the Social Sector in 2023 in Bekasi City reached a value of 80.00%. This means that the MSS achievement index value against minimum quality achievements and Bekasi City service recipients shows the Intermediate Complete category (80-89%). While the average service quality reached a value of 18.43%, meaning that the service quality score showed the Unfinished category (> 60%). The achievements of MSS in Bekasi City in 2023 are illustrated in the following table.

Table 2. Average Service Achievement and Service Quality of MSS in Bekasi City in 2023

No	MSS Type	Average Service Achievement (%)	Service Achievement Index Categorie	Average Service Achievement (%)	Service Quality Achievement Index Category
1	Education	73,93	Complete Primary	16,76	Unfinished
2	Health	50,08	Unfinished	10,63	Unfinished
3	Public Works	75,41	Complete Primary	17,66	Unfinished
4	Public Housing	80,00	Complete Associate	20,00	Unfinished
5	POPS	78,89	Complete Primary	18,32	Unfinished
6	Social	80,00	Complete Associate	18,43	Unfinished

Source: MSS E-Reporting of the Directorate General of Regional Development 2023, processed

If analyzed from the achievements of MSS implementation in 2023, Bekasi City has not met the target that has been set (100%). The MSS Service Quality Achievement Index is still relatively low, out of 6 MSS, all of them are in the Unfinished category. Meanwhile, from the service aspect, only one MSS field is included in the Unfinished category, namely Health and the Intermediate Complete category is the Public and Social Housing sector. Meanwhile, those categorized as Tuntas Pratama are Education, Public Works, and POPS. So, when viewed from the MSS service achievement index, the implementation of MSS in Bekasi City still has complex problems

This is proven by what has been shown in the MSS E-Reporting of the Directorate General of Regional Development of the Ministry of Home Affairs that in the implementation of MSS problems arise, including:

1. MSS Education: data from activity holders is poorly coordinated with MSS operators; the existence of self-study; many activities of the Principal and Superintendent have not been budgeted, because the regulations are still not in place; some activities are carried out per TW and per Semester; budget allocations that are in TW. 3 so that the process of implementing activities cannot be carried out; and The process of implementing activities is not all 100%.
2. Health MSS: Data input at the health facilities of service providers has not been on time, some puskesmas do not have MCH data validation schedules, human resources often change. Data collection of targets that are not optimal, especially for school-age children outside of school; The completeness of the data and numbers of the month's report are not synchronized with the report. Complete form data is emailed in the form of JPG, and not in one excel file. There are still Puskesmas that send reports not

on schedule (5th of every month). The number of health facilities reported suspected of tuberculosis from private services is only 37 health facilities from 41existing Private Hospitals; differences in data deadlines, so they still have to be validated again while the data is temporarily reported as inputted in the application; still not optimal recording and reporting and network of health service facilities; partial fulfillment of logistics in the new application of calculating availability in government-owned health services; submission of logistics fulfillment of the TB Program in its application has not all health facilities update stock at SITB in realtime; the calculation of logistics needs is not optimal; submission of logistics fulfillment of the TB Program in its application has not all health facilities updated stock at SITB in realtime, the calculation of logistics needs has not been optimal; insufficient local budgets; internal networks and integration of HIV TB programs are still not optimal, lack of coordination with hospitals related to MCH reporting; there is a change in the TB TEAM responsible in recording of TB reporting, and has not created a schedule for GIS input; and the need for cross-sectoral support in the implementation of MSS, especially in mass gatherings for productive age services

3. MSS Public Works: Differences in data issued by related local offices that handle MSS, differences in data values, how to collect data, communal drnking water supply system (DWSS/SPAM) managers do not record the maintenance of drinking water properly so that difficulties in requesting data, bureaucracy of organizing organizations. The data obtained from Local office related to handling Sanitation MSS are not detailed and detailed, so they require data collection for access to proper and safe sanitation; the basis for determining drinking water needs is different for each Regional Apparatus, for example, the number of population, data used by civil registration or statistical agencies, raw water sources that can be used as drinking water are difficult to find; The calculation of needs for domestic wastewater management in Bekasi City is still not detailed, only at certain points based on the results of sanitation prone surveys. It is hoped that detailed and detailed data collection on all residents of Bekasi City can be used as a reference for calculating domestic wastewater management needs; The availability of funds sometimes does not correspond to the development of drinking water. Sources of funding that can be used for the construction of drinking water are limited; based on data collection and calculation of the needs for handling MSS Sanitation, requires a large enough budget, but limited budget availability, it is necessary to make a priority scale; obstacles to environmental conditions, examples of infrastructure that is difficult to build installations. There is still a refusal of residents to be given access to piped drinking water because the source of drinking water from groundwater is still feasible. There was a clash of development activities that were not in line with drinking water activities. The availability of land for the construction of new drinking water installations is difficult to obtain. Coordination of drinking water development between Regional Apparatuses has not been well coordinated and integrated; and in the implementation of Domestic Wastewater Management operations, it is necessary to increase the capacity of IPLT, because the existing IPLT capacity only reaches 120 m3 / day. There is still resistance from residents in the construction of city-scale WWTP, communal WWTP and individual septitanks. There

is still not optimal awareness of residents for domestic wastewater management.

4. MSS Public Housing: Often encountered by disaster victims who do not have a resident identity who have a Bekasi City Identity Number, because they are missing or other things, making it difficult to collect data; disasters are difficult to predict, thus having an impact on the difficulty of planning the needs of fulfilling basic services for Public Housing affairs; and the budget for the increase in Rutilahu due to disasters has been included in the Renja Disperkimtan, but for the provision of rehabilitation of habitable houses for disaster victims, citizens who are entitled to new services can determined after a disaster and determined by the Regional Head Decree related to disaster status. This research is about MSS Public Housing as conveyed (Wang et al., 2021), the focus of China's housing system reform began to shift toward urban low-income groups. In 2009, the central government began to formulate a development plan for affordable housing, emphasizing not only quantity but also the quality of implementation. The plan called for a resolution of the housing problem of 7.47 million urban low-income families within three years. This result is different from the research of (Ayuningtyas et al., 2021) from the National Institute of Health that disaster mitigation is characterized by the low use of technology and information related to disasters, as well as various obstacles in the evacuation and transportation process. Promoting local wisdom and enhancing it through the integration of science can improve disaster resilience which should be a concern for governments
5. MSS POPS: the density of activities carried out by the Fields in the Bekasi City Civil Service Police Unit, has an impact on the number of activities that are not well documented, resulting in delays in the data collection process; the data collection process is difficult due to the lack of competent human resources to conduct data collection quickly and validly, especially during and after disasters; the management of MSS Data Bases has not been optimal; in calculating personnel needs, the number of regulations and needs in the field has an impact on the difficulty of calculating the logical needs of personnel of the Civil Service Police Unit; calculating the need to fulfill MSS sub-disaster affairs is difficult because the database of disaster-prone information and contingency plans has not been compiled comprehensively; the calculation of needs is constrained by limited budget; in 2022 the nomenclature of its activities does not exist, so the Civil Service Police Unit cannot set the MSS Indicator for Public Peace and Order Affairs to be a Program/Outcome Indicator, because it is feared that it will have a budgeting impact, so the MSS indicator is placed as an Activity Indicator in Public Peace and Order Disturbance Handling Activities; In the strategic plan, only Minimum Service Standard (MSS) indicators are contained, while the supporting sub-indicators have not contained activity indicators, having an impact on meeting the needs of goods / services and personnel for basic services sub-disaster affairs cannot be budgeted; in the Strategic Plan Document for Changes to Regional Board for Disaster management (BPBD) Bekasi City for 2018-2023, indicators and budgets for MSS have been contained, but for the realization of activities and sub-activities for 2023 this is still not optimal because many activities and sub-activities that support MSS do not pass the 2023 Renja Desk; the fulfillment of MSS budget needs already exists in Strategic Medium-term Planning (Renstra) and Annual Work Plan (Renja) but

fulfillment according to the priority scale; the ratio of fulfillment of goods/services and personnel of existing Satpol PP members is not comparable to the number of existing Satpol PP personnel, in accordance with the provisions of Permendagri No. 121 of 2018 and Permendagri No. 17 of 2019, so it is feared that the Civil Service Police Unit in enforcing Regional Regulations and Regional Head Regulations will not be able to maintain the condition of Zero Victims Affected by the Enforcement of Local Regulations and Perkada in the following years; the lack of operational facilities and infrastructure of BPBD and the lack of trained and certified Disaster Human Resources are the main obstacles in the provision of basic services for disaster sub-affairs; the procurement of fire fighting facilities is constrained by production does not have domestic content level and is not yet available in the e-catalog; for the duties and functions of BPBD Bekasi City has not been optimal in the implementation of disaster management because the chief executive of BPBD is still held by echelon III level, it should be held by echelon II according to Bekasi Regency and Bogor Regency; for the tasks and functions of BPBD Bekasi City has not been optimal in the implementation of disaster management, because the chief executive of BPBD is still held by the level of echelon III, which should be held by echelon II, to support tasks and functions as well as coordination in the implementation of Disaster Management; and the competence of MSS POPS management still needs to be increased in capacity.

6. Social MSS: unavailability of human resources in presenting disaster event reports that are integrated with reports from kelurahan and kecamatan; unavailability of human resources in presenting MSS recipient reports that are integrated with Integrated Social Welfare Data; calculation of budget needs is not balanced with disaster events; the calculation of budget needs is not balanced with the number of MSS recipients; lack of budget for disaster needs; the number of prospective MSS recipients cannot be calculated in each year; lack of operational vehicles to transport disaster relief; and lack of operational vehicles to accommodate emergency reports in sub-districts and sub-districts.

Stage 2: Problem Situation Expressed

In the context of this analysis, various views of problem situations need to be captured by developing ideas according to perceptions or worldviews (Weltanschauungen). Understanding complex situations can be adequately captured with diagrams or drawings that much more effectively gather information density. The rich picture construction of problem situations is an inspiration for modeling assimilation, relationships and problems that help identify systems relevant to the real world. Each situation can be different due to the diversity of potency so there is no standard symbol used by researchers. But at least the reconstruction of the problem situation into a model is considered according to the researcher's scheme internalized from various information close to the real situation.

Various problems in implementing the Bekasi City MSS in a more structured manner that the author processed from the MSS E-Reporting of the Directorate General of Regional Development of the Ministry of Home Affairs in the fourth quarter of 2023, the author groups into several problem categories, namely problems of data collection, calculation of needs, planning and budgeting, and implementation as outlined in the following table:

Table 3. Problems in the Implementation of MSS in Bekasi City in 2023

Field of MSS	Problems			
	Data Collections	Need Calculation	Planning and Budgeting	Implementation
Education	• Data from activity holders is poorly coordinated with MSS operators		• There is self-study. Head Activities • Many activities of the Principal and Superintendent have not been budgeted, because the regulations are still not in place.	• Some activities are carried out per TW and per Semester.. • The budget allocation is in TW. 3 so that the process of implementing activities cannot be carried out • The process of implementing activities is not all 100%
Health	• Data input at the health facilities of service providers has not been On time, some puskesmas do not yet have a MCH data validation schedule, human resources often change. Data collection of targets that are not optimal, especially for school-age children outside of school. • The completeness of the data and numbers of the month's report are out of sync with the report. Complete form data is emailed in the form of JPG, and not in one excel file. There are still puskesmas that send reports not on schedule (the 5th of every month). The number of health facilities reported suspected of TB from private services is only 37 health facilities from	• Partial logistical fulfillment in the new application calculates availability in government-owned health services. • The submission of logistics fulfillment of the TB Program in its application has not all health facilities update stock at SITB in realtime. • The calculation of logistics needs has not been optimal. • The submission of logistics fulfillment of the TB Program in its application has not all health facilities update stock at SITB in realtime, the calculation of logistics needs has not been optimal.	• The local budget is insufficient. • The regional budget is not sufficient, the TCM Cartridge Procurement Allocation, the source of SAF NF 2023 funds, is frozen by the center.	• Internal networking & integration of HIV TB program is still not optimal, lack of coordination with hospitals related to KIA reporting • There is a change in the TB TEAM that is responsible for recording TB reporting, and has not yet made a schedule for GIS input. • The need for cross-sectoral support in the implementation of MSS, especially in mass gatherings for productive age services.

	41 existing private hospitals.. • The difference in data deadlines, so it still has to be validated again the temporarily reported data entered in the application • There is still not optimal recording and reporting and network of health service facilities.			
Public Works	• Differences in data issued by related Local office that handle MSS, differences in data values, how to collect data, communal DWSS managers do not record the maintenance of drinking water properly so that difficulties in demand data, bureaucracy of organization administration. The data obtained from Local office related to handling Sanitation MSS is not detailed and detailed, so it requires data collection for access to proper and safe sanitation.	• The basis for determining drinking water needs is different for each OPD, for example the number of population, data used by civil registration or statistical agencies, raw water sources that can be used as drinking water are difficult to find. • The calculation of needs for domestic wastewater management in Bekasi City is still not detailed, only at certain points based on the results of sanitation-prone surveys. It is hoped that detailed and detailed data collection on all residents of Bekasi City can be used as a reference for calculating domestic wastewater management needs.	• The availability of funds sometimes does not correspond to the development of drinking water. Sources of funding that can be used for the construction of drinking water are limited. • Based on data collection and calculation of the needs for handling MSS Sanitation, requires a large enough budget, but limited budget availability, it is necessary to make a priority scale.	• Obstacles to environmental conditions, examples of infrastructure that is difficult to build installations. There is still resistance of residents to be given access to piped drinking waterfrom groundwater is still feasible. There was a clash of development activities that were not in line with drinking water activities. The availability of land for the construction of new drinking water installations is difficult to obtain. Coordination of drinking water development between Local office has not been well coordinated and integrated. • In the implementation of Domestic Wastewater Management operations, it is necessary to increase the capacity of IPLT, because the existing IPLT capacity only reaches 120 m3 / day. There is still resistance from

				residents in the construction of city-scale WWTP, communal WWTP and individual septitanks. There is still not optimal awareness of residents for domestic wastewater management.
Public Housing	• Often found disaster victims who do not have a resident identity who have a Bekasi City Identity Number, because they are missing, making it difficult to collect data.	• Because disasters are difficult to predict, it has an impact on the difficulty of planning the needs of fulfilling basic services for Public Housing affairs.	• The budget for increasing rutilahu due to disasters has been included in the Renja Disperkimtan, but for the provision of compensation for the rehabilitation of habitable houses for disaster victims, citizens who are entitled to new services can be determined after a disaster and determined by the Regional Head Decree regarding disaster status.	• The budget for increasing rutilahu due to disasters has been included in the Renja Disperkimtan, but for the provision of compensation for the rehabilitation of habitable houses for disaster victims, citizens who are entitled to new services can be determined after a disaster and determined by the Regional Head Decree regarding disaster status.
POPS	• Due to the dense activities carried out by the Fields in the Bekasi City Civil Service Police Unit, it has an impact on the number of activities that are not well documented, resulting in the hampering of the data collection process for the implementation of the Minimum Service Standards for Public Peace and Order Sub-Affairs. • The data collection process is difficult because of the lack of competent human resources to conduct data col-	• In the calculation of personnel needs,many regulasi and the needs in the field have an impact on the difficulty of calculating the logical needs of Bekasi City Civil Service Police Unit personnel. • Calculating the need to fulfill MSS sub-disaster affairs is difficult because the database of disaster-prone information and contingency plans has not been compiled comprehensively • Calculation of Needs Constrained by Limited Budget.	• Because in 2022 the nomenclature of its activities does not exist, the Civil Service Police Unit cannot set the MSS Indicator for Public Peace and Order Affairs to be a Program/Outcome Indicator, because it is feared that it will have a budgeting impact, so the MSS indicator is placed as an Activity Indicator in Activities for Handling Disturbances of Peace and Public Order in Fiscal Year 2023. • Because the strategic plan that has	• The ratio of fulfillment of goods/services and personnel of existing Satpol PP members has not been • comparable to the number of existing Satpol PP personnel, in accordance with the provisions of the Minister of Home Affairs Regulation Number 121 of 2018 and Minister of Home Affairs Regulation 17 of 2019, so it is feared that the Civil Service Police Unit in enforcing Regional Regulations and Regional Head Regulations cannot

	lection quickly and validly, especially during and after disasters. • Management of MSS Data Bases Not Optimal		contained only minimum service standard indicators, while the supporting sub-indicators have not contained activity indicators, the impact on meeting the needs of goods / services and personnel for basic services sub-disaster affairs cannot be budgeted. • In the Strategic Plan Document for Changes to BPBD Bekasi City for 2018-2023, indicators and Budgets for Minimum Service Standards (MSS) have been published, but for the realization of activities and sub-activities for 2023 this is still not optimal because many activities and sub-activities that support MSS do not pass the 2023 desk plan. • MSS Budget Needs Fulfillment Already exists in the strategic plan and plan, but fulfillment is according to the priority scale.	maintain the condition of Zero Victims Affected by the Enforcement of Local Regulations and Perkada in the following years. • The lack of operational facilities and infrastructure of BPBD and the lack of trained and certified Disaster Human Resources are the main obstacles in the provision of basic services in disaster sub-affairs. • Procurement of Fire Fighting Facilities Constrained by production does not have domestic content level and is not yet available in the e-catalog.
Social	• The unavailability of human resources in presenting integrated disaster event reports. with reports from sub-districts and sub-districts. • The unavailability of human resources in presenting MSS recipient reports that are integrated with Integrated Social Welfare Data.	• The calculation of budget needs is not balanced with disaster events. • The calculation of budget needs is not balanced with the number of MSS recipients.	• Lack of budget for disaster needs. • The number of prospective MSS recipients cannot be calculated in each year.	• Lack of operational vehicles to transport disaster relief. • Lack of operational vehicles to accommodate emergency reports in kelurahan and sub-district areas.

Other issues that also affect the implementation of MSS are policy issues and Human Resources (HR). In its implementation, there are still Regional Apparatuses that do not fully understand the policy, in this case the technical regulations of MSS. Then, in terms of HR support, MSS organizers have not been supported by human resources who have adequate qualifications and capacity, for example in Health MSS and POPS, especially Disaster MSS. The various MSS problems are depicted in the construction of the following rich picture problem situations:

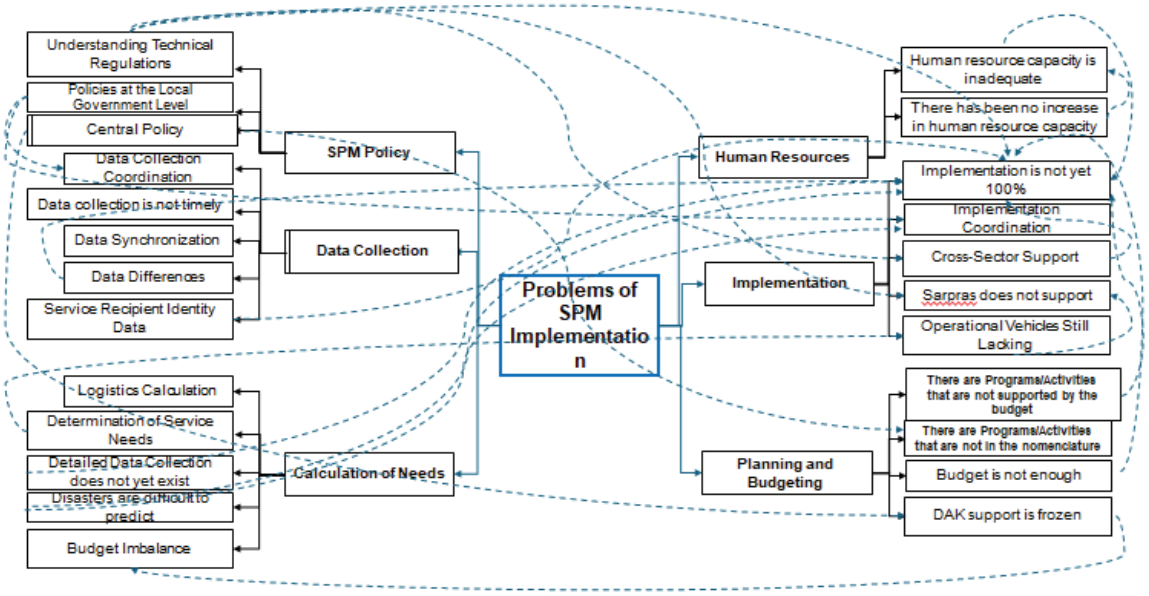

Figure 1. Rich Picture Problems of MSS Implementation in Bekasi City

Stage 3: Root Definitions of Relevant Systems

Root definitions are expressions of the transformation of real-world problematic situations into the perspective of the essence of relevant situations in a system. It is a keyword that becomes a critical point for the occurrence of a situation that leads to change. Root definitions are very important to conclude what to do. With a logical way of thinking, root definitions are guided by the fulfillment of the function of the CATWOE element as a control on the relevant system to take the correct transformation steps. Drafting needs to be done repeatedly to be able to implement CATWOE but in the process the most important thing is to find the purpose of transformation. Thus, based on real-world problematic situations, system root definitions that are relevant to the problems of implementing MSS in Bekasi City are obtained in the following table.

Table 4. Root definitions According to CATWOE Elements on the Problem of MSS Implementation in Bekasi City

CATWOE	Description	Result
Customers	Those who benefit the most from the transformation	Service Recipient
Actors	Parties who can transform when the system is implemented into real-world action	Ministry of Education, Ministry of Health, Ministry of PUPR, Ministry of Social Affairs, Ministry of Home Affairs, Bekasi City Government
Transformations	Activities aimed at converting inputs into outputs	Fulfillment of MSS Basic Services
World Views	Belief in a move that is seen as realistic	Availability, Accessibility, Affordability dan Acceptability
Owners	The part causing the transformation implications was not achieved	Education Office, Health Office, Public Works Office, Public Housing Office, Social Service, Office in charge of POPS
Environmental	The main constraint of the whole definition of a system is beyond what it should be	Social Change

Then find the purpose of transformation. According to Checkland (2000) ethicality and elegance can be developed in certain cases, while 3E, namely efficacy (E1), efficiency (E2), and effectiveness (E3) as important logic determines the transformation process. The determination of a logical transformation cannot be separated from the consideration of the involvement of the parties who will carry it out, therefore the 3E criteria must incorporate the perspective of the role of stakeholders in the CATWOE element. This study develops the 3E criteria by combining stakeholder role perspectives on CATWOE elements outlined in the Table below:

Table 5. Determination of the Transformation System for Solving the Problem of MSS in Bekasi City Implementation

Efficacy **(Keampuhan)**	***Efficiency*** **(Efisiensi)**	***Effectiveness*** **(Efektivitas)**	**Transformasi**
Search for alternative financing	Determination of financing alternatives	Implementation of alternative use of financing	*Affordability: MSS financing alternatives are met by several sources that are easily accessible*
Human Resources Capacity Building	Implementation of HR capacity assessment	Translate the whole document.	*cceptability: determination of the role of all stakeholders in achieving 100% implementation of MSS*
Improved Coordination	Cross-sector coordination planning	Implementation of effective coordination	*Accessibility: stakeholders are committed to strengthening the implementation of MSS*

Strengthening Central and Regional Policies	Policy Understanding Applicatively	Easy Policy Implementation	*Availability: Implementation of Virtue by MSS implementers*

Stage 4: Building Conceptual Model

The conceptual design phase is one of the initial stages of the design process, the aim of which is to create general solutions for achieving individual goals according to the requirement, (Pokojski et al., 2019)The transformation that meets the 3E criteria in Table 3 is then used to understand important factors from the perspective of the role of stakeholders in the CATWOE element which refers to the framework of the problem situation built into the conceptual model. The best way to build a conceptual model of the system is to show resource output as an important factor based on the goals and needs of all stakeholders. Building the conceptual model is the fourth step. The conceptual model is formed to identify the main purposeful activities through a set of logical actions implied by the root definition,(Checkland, 1988).All relevant parties can transform following the cycle if the conceptual model of the system is built according to the perception of the benefits obtained so that the model needs to consider goals and needs. CATWOE elements are Customers, Actors, Transformation process, Weltanschauung, Owner, Environmental factors. The outcome of the CATWOEs based on different perspectives of stakeholders (Cooper & Kingston, 1996). Means Building a conceptual model as a construct of thinking of problem situations is “defensible logic” and is not modeling real-world systems but the resources needed to convey transformation activities in the root definitions of MSS implementation problems. The conceptual framework becomes the researchers’ logical consideration of resource needs that meet the elements of CATWOE and rational for the value of efficacy (E1), efficiency (E2), and effectiveness (E3) in identifying problems in implementing MSS in Bekasi City, described as follows:

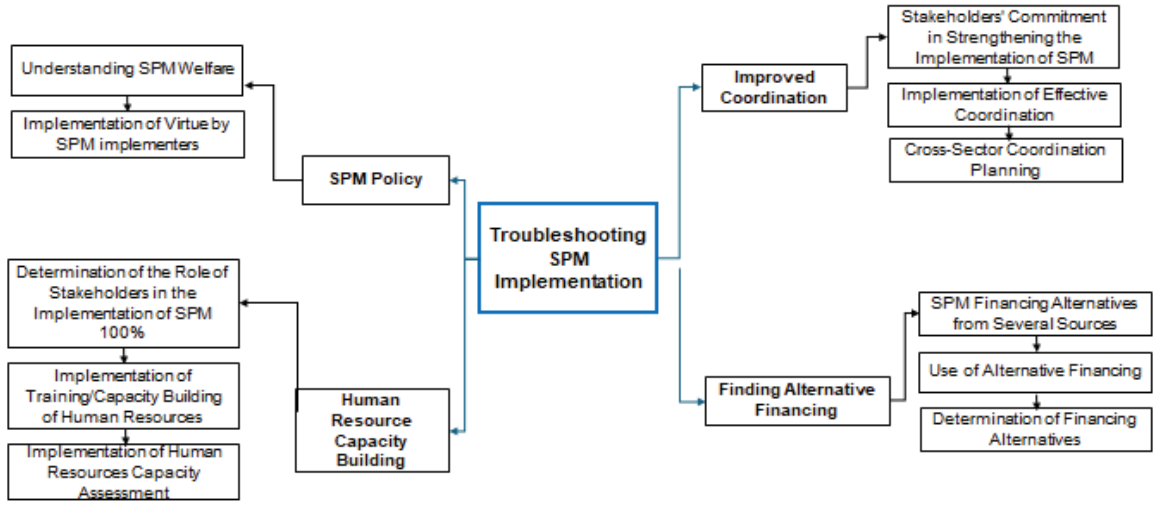

Figure 2. Root Definitions Troubleshooting the Application of MSS in Bekasi City

Stage 5: Back in the Real World

This approach uses comparison to provide a means of understanding different views of reality by stating possible assumptions and having arguments. Comparison refers to conceptual models that have been defined through system reconstruction according to abstract resource needs. A root definition is a sentence that describes the ideal system: its purpose, who will be in it? Who is taking part in it? Who could be affected by it and who could affect it? (Kassabova & Trounson, 2000). The root definitions and conceptual models can be formulated by considering the elements of the mnemonic CATWOE Constructivist grounded theory is a popular method for research studies primarily in the disciplines of psychology, education, and nursing. In this article, the authors aim to locate the roots of constructivist grounded theory and then trace its development. They examine key grounded theory texts to discern their ontological and epistemological orientation. They find Strauss and Corbin's texts on grounded theory to possess a discernable thread of constructivism in their approach to inquiry.

To generate a reality closer to the conceptual model it is necessary to define what happens to reality and what can be done logically according to the resource situation. It is this difference between reality and logic that then raises questions that ultimately lead to the discussion of new transformation actions that need to be implemented. The following table is to facilitate a comparative understanding of the situation of MSS implementation problems in Bekasi City.

Stage 6: Define the Changes to be

The framework of actuality of actions on development actions can intersect in making changes. The change actions are then grouped according to the role of stakeholders as implementers because in principle change is an act of human activity which in some cases is represented on behalf of a particular group. Pragmatically, the selection of the order to implement recommendations is considered according to the parties that most influence the larger action, leading to more opportunities and problems. To help understanding in finding change actions, conceptual models of system thinking are needed, including using xmind tools that can be accessed openly. Practically, every project (Pahl et al., 2007) consists of new, modified and re-used elements - with components referring to the process of the specification of project requirements, initial costing, conceptual design and detailed design, etc. The first approach is intended for the situation that we have today in the offices of design-design documentation stored in different formats on different devices, and generally it is quite extensive. The underlying problem is quickly finding searched for documentation when needed. Tools are proposed that allow you to model search templates of specific documents (Stork et al., 2005). A.Multi-State System (MSS) in the form of a Multi-Valued Decision Diagram based on incompletely specified and uncertain data is proposed. In other words, the proposed method takes into account the epistemic uncertainty of the initial data. The specific of this method is the use of Data Mining based classification procedures, in particular, the Fuzzy Decision Trees.The design of the conceptual model of solving the problem of implementing MSS in Bekasi City is an arrangement of actuality conclusions in the previous stage, as illustrated below:

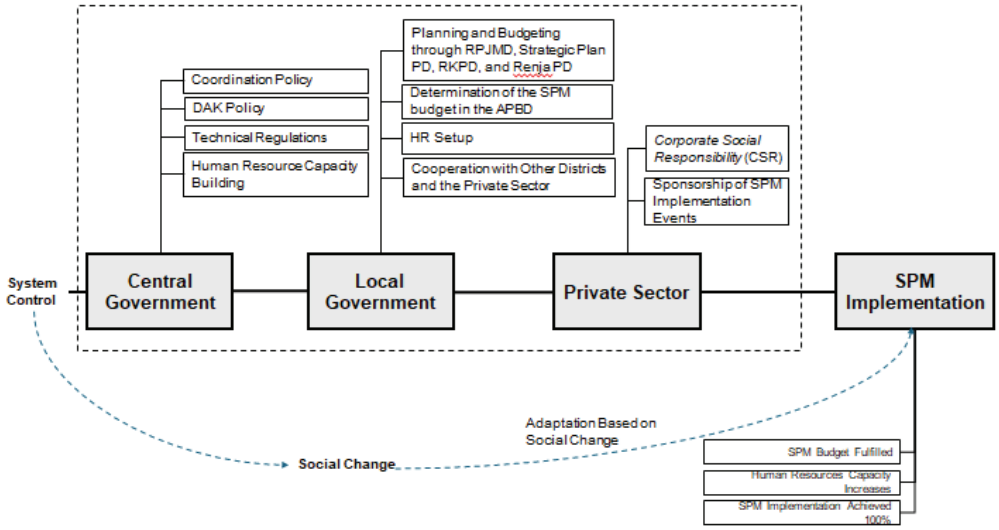

Figure 3. Conceptual Model of Problem Solving System for MSS Implementation Bekasi City

CONCLUSION.

Based on the results of the research discussed above, conclusions can be drawn, namely, With a description of the conclusion, namely,the rich picture construction of problem situations is an inspiration for modeling assimilation, relationships and problems that help identify systems relevant to the real world. Each situation can be different due to the diversity of potency so there is no standard symbol used by researchers. In the implementation of MSS, there are still Regional Apparatuses that do not fully understand the policy, in this case the technical regulations of MSS. Then, in terms of HR support, MSS organizers have not been supported by human resources who have adequate qualifications and capacity, for example in Health and peace, order and protection of society, especially Disaster MSS. The determination of a logical transformation cannot be separated from the consideration of the involvement of the parties who will carry it out, therefore the 3E criteria must incorporate the perspective of the role of stakeholders in the CATWOE element. Comparison refers to conceptual models that have been defined through system reconstruction according to resource needs that are still abstract.The design of the conceptual model of solving the problem of implementing MSS in Bekasi City is an arrangement of actuality conclusions in the previous stage.It should be that the logic of the conceptual model turns into one that focuses on strong cultural aspects. Therefore, the specifics of the actions to be carried out must be within the qualifications of the functions and interests of the actors involved.

The recommendation of this study is that the implementation of this policy can be implemented by local governments, in accordance with appropriate references and targets. Because the goal of SSM is to implement the recommendations considered according to the parties that most influence the greater action leading to more opportunities and problems. To help understand in finding change actions, a conceptual system thinking model is needed, including using the xmind tool that can be accessed openly. The next research is suggested to focus on elaborating problems with the use of budget in the implementation of government policies from the local and national scale

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