

# The *cekungan bandung* urban area management policy formulation

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**Abstract:** This research aims to explain the management of the *Cekungan Bandung* Urban Area with a focus on three policy formulations, namely process, content and context in the social, environmental and economic dimensions. The research method used is a qualitative approach. Data collection techniques include observation and interviews with stakeholders, using purposive sampling techniques, including the Head of West Java Province Regional Development Planning Agency, district/city Bappeda heads, planners (Badan Perencanaan Dan Pembangunan Daerah, Bappeda), Regional People's Representative Assembly (Dewan Perwakilan Rakyat Daerah, DPRD members), Legal Bureau and Collaboration Bureau Heads in West Java Province, and Academic Manuscript Compiler. Due to the absence of comfortable, safe, and punctual public transportation, people continue to use private vehicles, leading to unresolved traffic congestion and environmental pollution, thus resulting in economic losses. The results show the formulation of policies for managing the urban area of the *Cekungan Bandung*, specifically the establishment of BP Cek ban, faced challenges due to a lack of authority in managing financial and human resources. The agency couldn't execute programs or activities and implement the development due to limitations in legal authority over state finances. Alternative policies were not effectively synchronized between government levels and lacked legislative support, hindered by regional autonomy. The contribution of the research is as reference material for the government in formulating management policies for the *Cekubgan Bandung* urban area.

**Keywords:** urban area management formulation; transportation and coordination; collaboration; integration

## 1. Introduction

In supporting city development and urban agglomeration in the city of Bandung, it is very important to regulate land use strategy policies that are scientific, reasonable, efficient and economical (Shi, 2016), urban space, taking into account: area location, environmentally friendly development, the function of the area as a modern urban area and trade integrated, residence, transportation services and cultural recreation, adopting TOD (Transportation Oriented Development) (Lan et al., 2006) to city development, with mutually coordinated development strategies, cooperation between local governments, as well as formulating plans and making planning controls so as to guarantee the final success of development (Howes et al., 2015; Hatzopoulou & Miller, 2009; Putera et al., 2022) conducted research administered in Canada in the context of Transportation: This research aims to predict travel in metropolitan areas both technically (general modeling methodology) and institutionally (mechanism level funding and organizational structure). The research evaluated three land use policies and transportation policies to determine the policy contribution in facing various urban challenges (Alonso et al., 2017; Putera, et al., 2021).

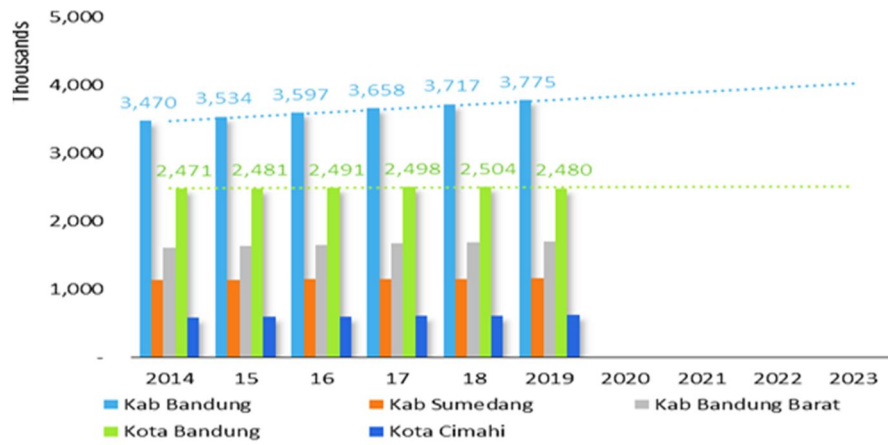
Greater Bandung Metropolitan (Metropolitan Bandung Raya, MBR) is a strategic urban area formed due to the agglomeration of economic activities, social activities of the community, built-up land and a population of 5.8 million people in 73 sub-districts in 5 regencies/cities, namely Bandung City, Cimahi City, Bandung Regency, Sumedang Regency and West Bandung Regency (Planning & Regions, n.d., West Java Regional Secretariat Academic Manuscript, 2014). The Cekungan Bandung is a National Strategic Area (Kawasan Strategi Nasional, KSN) based on Presidential Decree (Peraturan Presiden, Perpres) Number 45 of 2018, while Local Regulation (Peraturan Daerah, Perda) Number 12 of 2014 concerning the management of Metropolitan development and development is one of the loci is MBR. The MBR is made based on an agreement between provinces, districts/cities in accordance with regional interests. Even though there are slices, not all MBR areas are the same as the Cekungan Bandung. This Presidential Decree cannot specifically accommodate MBR management, but is a policy that can support the formation of MBR. Therefore, Regional Regulation Number 12 of 2014 remains in effect even though Presidential Regulation Number 45 of 2018 concerning the Cekungan Bandung Urban Strategic Area has been issued, which is the policy basis for building a synergy between regions and making the Cekungan Bandung Raya an empowered region.

The MBR development policy strategy has been delegated to the Strategy and Direction of development policy for 2015 as mandated by the Regional Medium Term Development Plan (Rencana Pembangunan Jangka Menengah Daerah, RPJMD) of West Java Province for 2013–2018. Comprehensive acceleration of development is carried out to form National and Regional development, this is in accordance with the National Long Term Development Plan (Rencana Pembangunan Jangka Panjang Nasional, RPJPN) 2005–2025, in the medium term development targets 2020–2024 (Bappenas, 2019)

There are several important principles in managing metropolitan areas in developing countries like Indonesia, such as the acceleration of comprehensive development covering all areas within the area of influence of the city center, the existence of a coordination mechanism that ensures the integration of planning and development, and receiving strong support from the central government (Mardianta et al., 2016).

One of the focuses of planning for the development of the Cekungan Bandung is the transportation network infrastructure network system planning policy. The results of first observations show the city of Bandung as a center for trade, education, tourism & culture, an economic driver, and the capital of West Java Province that has an impact on surrounding districts/cities. Second, there are 32 traffic congestion points (markets, street vendors, shopping centers), narrow roads and intersections (Sulistyo & Kagungan, 2012) (Bandung City Transportation Masterplan, 2009), especially holidays, on the border of Bandung City. West Java Province-Metropolitan Development Management (related to the Initial Development of Greater Bandung Metropolitan, West Java Province, WJP-MDM, 2013). Third, the problem of traffic jams and population density is estimated that in the next 20 years (2032) there will be 2.46 million passenger car units/day (unit car passengers, junior high school/day) vehicles that will operate 5.75 million people/day in MBR (WJP-MDM, 2013). Data from the Central Bureau of Statistics (Badan Pusat Statistik, BPS) for the 2014–2019

period shows that the increase in population growth in Bandung Regency is the highest population density, which is 3,775,279 (See **Figure 1**).

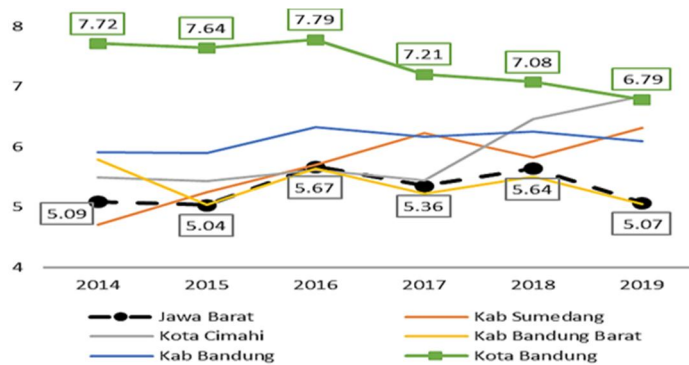


**Figure 1.** Total population of the MBR region 2014–2019.

Source: data processed by researchers, 2023.

Fourth, the Asian Development Bank/ADB (2019) conducted a survey by measuring the average congestion index, the survey results showed that Bandung City was in 14th position as the most congested city, Jakarta and Surabaya were in 17th and 20th positions. Fifth, the West Java Metropolitan Agency was not functioning yet and Growth Center, West Java Metropolitan and Growth Center Agency (Badan Metropolitan Pusat Pertumbuhan Jawa Barat, B -MP2JB), which was formed based on Regional Regulation No. 12 of 2014, resulting in policy delays. Likewise, BP Cekban was formed based on Governor’s Regulation no. 86 of 2020 referring to Presidential Decree 45 of 2020. 2018 in conjunction with Ministerial Regulation ATR has the authority to accelerate, facilitate, resolve Debottlenecking (Problem resolution), monitor, evaluate and provide recommendations but does not execute activity programs.

The focus of this research is the formulation of Cekungan Bandung Urban Area Management policies in the transportation sector. This is supported by data (BPS, 2019) where the Economic Growth Report (Laporan Pertumbuhan Ekonomi, LPE) of Bandung City provides the highest contribution, always higher than the Regency/City in the MBR area during the 2014–2019 period, presented in **Figure 2**.



**Figure 2.** LPE MBR Region 2014–2019.

Source: data processed by researchers in 2023.

To overcome the problem of congestion, it is planned to build strategic infrastructure improvements, namely: six toll roads; three flyovers; two alternative routes; five expressways; as well as the construction of other strategic roads on the basis of an agreement between levels of government based on the Gubernatorial Regulation (article 25.(6) erda 12 of 2014), three development results were realized, namely the Seroja Toll Road, Cisumdawu Toll Road; Fast Train from Jakarta to KSN Urban *Cekungan Bandung*.

Based on **Table 1**, the findings in the field are that transportation infrastructure development has been implemented even though the MP2JB institution was not functioning. The management and construction of the Seroja toll road and Cisumdawu toll road is carried out directly by the PUPR ministry. In the policy for managing transportation infrastructure development in the MBR, will the existence of these multi-policies by synergizing Presidential Decrees and Regional Regulations to be harmonized to be effective and efficient in achieving its goals, and will the enactment of Gubernatorial Regulation No. 86 of 2020 be implemented more effectively and efficiently in achieving. The aim is that the similarity between B-MP2JB and BP Cekban is that they cannot execute development programs.

Based on these phenomena, gaps and facts as well as policy problems that have limits and limitations (Nugroho, 2020), in implementing development management in the *Cekungan Bandung* Urban Area, which has multiple policies regulating the same objects, especially in the transportation sector, the research question is formulated: “What is the formulation of the management policy for the *Bandung Urban Area*?”. To answer this question the author will divide this research into 5 parts, namely (1) Introduction; (2) Method; (3) Results; (4) Discussion; (5) Conclusion.

**Table 1.** Comparison of Policies Related to the *Cekungan Bandung*.

No	Policy	Difference	Impact
1.	Regional Regulation No 12/2014 on	Formed an MP2JB institution, but could not execute the program	Program Implementation by the Central Government or Local Government
2.	Presidential Regulation No 45/2018 on	Instructing the implementation of <i>Cekungan Bandung</i> KSN management by Ministers/agencies/governors/Regents/mayors	Intersecting with Regional Regulation 12/2014 but not the same &; Supporting to realize MBR, currently a seroja toll road, Cisumdawu toll road has been built
3.	Regulation of ATR/BPN No 24/2020 concerning	Instruct the Governor to establish the <i>Cekungan Bandung</i> KSN Management Agency	Returning the authority to manage the <i>Cekungan Bandung</i> KSN to the Governor
4.	Gubernatorial Regulation No. 86/2020 concerning	Formed the <i>Cekungan Bandung</i> Management Agency, but could not execute the program	management of KSN <i>Cekungan Bandung</i> based on cooperation/MoU between local governments All territory of KSN—Lack of development financing capacity

Source: Processed by researcher, 2023.

## 2. Review of literature

### 2.1. Policy analysis in the policy formulation process

The historical aim of policy analysis is to provide policymakers with practical solutions by understanding the social processes involved. Dunn (2018) introduces the

policy triangle—context, process, and content—to analyze policies retrospectively and prospectively. It explores how and why policies change over time, shaping existing policies. (Buse et al, 2012) Public policy formulation is a key stage in policy creation, involving the selection of the right alternative to address an issue. (Sulistyo and Kagungan, 2012) emphasize that the formulation relies on values, such as minimizing negative impacts and ensuring transparency and fairness through legitimate mechanisms. (Sen, 2000) The policy-making process starts with policy analysis, a response to practical problems connected with social science and policy making (Kaplan, 1951). (Meijer, 1996; Sen, 2000; Derry, 2000; etc.).

Jones (1984) defines policy formulation as identifying and formulating problems, examining their causes, and exploring options for solutions. This is part of the interdependent policy cycle, involving activities such as researching, interpreting results, discussing alternatives, testing feasibility, refining proposals, and making final choices. Planning, testing, and coordinating follow, where strategies are developed, compromise points are identified, concessions are made, and costs are analyzed.

## **2.2. Policy formulation model**

A policy model is a representation designed for a specific purpose, essentially an effort to simplify or embody political reality, and the main purpose of a model is an effort to embody, explain, imitate, try, predict and test hypotheses (Abdul Wahab, 2017), criteria assessing the model, namely: 1) Simplifying and collapsing political life so that you can think clearly and understand the relationships in reality; 2) focus on important matters in public policy; 3) Is an empirical reference to obtain and facilitate an in-depth understanding of the policy process; 4) Applying a model that can be tested empirically, namely a quantitative model that suggests a number of relationships that can be tested, namely observation, measurement and verification; 5) Can be used to explain Public Policy phenomena (Abdul Wahab, 2017; Nugroho, 2020; Newman, et al., 2022).

## **2.3. Factors influencing public policy achievements**

Policies can fail in their implementation due to (1): The implementation is bad (bad execution); (2): This policy indeed had bad luck and (3): The policy itself is indeed bad (bad policy) Hogwood and Gunn in (Abdul Wahab, 2017). According to (Wibawa, S., & Yusun Purbokusumo, 1994); A policy has the possibility of not achieving program goals and benefits in accordance with the targets set (Dye, 2017) suggests that the impact of a policy has dimensions that must be taken into account in evaluation, namely: 1) Impact policies on desired public issues. and undesirable; 2) There is the possibility of effects (beyond policy objectives; 3) There are impacts on current and future conditions; 4) other elements, especially financing—issued by the government as well as by other parties; 5) as a result of public policy there are indirect costs borne by society.

## **2.4. Transportation**

Transportation is a set of facilities in the form of goods and services provided for the public interest in transfer services (Srinivasu, & Rao, 2013). Transportation

components refer to the physical infrastructure specific to each travel mode (Boisjoly & El-Geneidy, 2017), providing transportation, water, drainage, buildings and public facilities needed to meet basic human needs in the social and economic spheres (Grigg, 1988). The increase in transportation infrastructure is driven by increasing population density or economic activity which creates demand for better transportation infrastructure (Halley et al., 2018). Rail access is more reliable and saves time on long-distance travel, encouraging higher population growth in other suburbs (Halley et al., 2018) infrastructure needs to be understood as a basis for making policies (Sumiarsih, et al., 2018).

### 2.5. Urban area development model

Urban areas are characterized by non-agricultural activities, serving as residential hubs with large populations, diverse industrial and trade centers, and concentrations of built-up spaces. The Cekungan Bandung Urban Area includes the core cities of Cimahi and Bandung, along with surrounding areas like Bandung Regency, West Bandung Regency, and five sub-districts of Sumedang Regency, identified as a National Strategic Area (Kawasan Strategi Nasional, KSN) by Presidential Decree 45 of 2018.

Metropolitan areas, as defined by Winarso (2007) and Jamaludin (2017), encompass various residential zones, forming a unified urban entity focused around a central core city. (Winarso, 2007) notes that a metropolitan area, often consisting of a population exceeding one million, results from the amalgamation of adjacent cities into a large urban conurbation. Heinelt et al. (2005) describe metropolitan areas as administratively distinct but spatially connected urban zones, incorporating both city centers and surrounding areas.

The concept of Greater Bandung Metropolitan (Metropolitan Bandung Raya, MBR) development, proposed by the WJP-MDM Team in 2013, serves as an incentive to accelerated development in West Java. MBR is strategically positioned to harness regional potential across districts, cities, and the broader region.

**Table 2.** Advantages of metropolitan Bandung Raya/KSN Cekungan Bandung.

Absolute advantage	Comparative advantage	Competitive advantage
Geographically in the form of a basin surrounded by mountains There are natural attractions Has historical building relics and cultural heritage	Accessibility Land transportation routes through Cipularang, Nagreg, Lembang Highways, Transportation nodes: Terminal, Husein Sastranegara Airport, Bandung Station Trade infrastructure Industrial infrastructure Industrial labor	Creative community Innovative human resources World-class universities Development research facilities

Source: <https://foursquare.com> Metropolitan Greater Bandung, 2023.

Based on **Table 2** the most potential advantages, “MBR as a modern metropolitan with leading sectors of urban tourism, creative industries, and the development of Science Technology and Art.

## 3. Methodology

### 3.1. Research design

The research is designed using a qualitative approach to comprehensively

understand the various dimensions of social, political, governmental, and institutional aspects related to the formulation of public policies in the transportation sector of the *Cekungan Bandung* urban area (Creswell & Poth, 2018;). The research focuses on explaining the management of the *Cekungan Bandung* Urban Area by focusing on three policy formulations, namely process, content and context in social, environmental and economic dimensions. The conceptual approach in this study is the Urban Area Development Model (Heinelt, et al., 2005; Buse et al., 2012; Hagenars et al., 2021). This concept focuses on the study of the dynamics and capacity of governance in urban areas. In terms of management of the *Cekungan Bandung* area which has an influence on economic growth around the area.

### 3.2. Data collection

Data collection involves interviews with policy formulators and analysis of policy formulation documents, which aim to describe existing conditions and analyze the underlying causes (Zubaidah et al., 2023). Data collection techniques involved a comprehensive literature review (studying 13 articles examining the management of the *Cekungan Bandung* urban area), interviews with 17 actors involved (see **Table 3**) in *Cekungan Bandung* urban area management planning policy using purposive sampling techniques, and observations (observations) conducted for three months, from October 2022 to January 2023, by observing the implementation of Basin urban area management activities Bandung, as well as comparing policy differences between levels of government.

**Table 3.** Research informants.

No	Informant	Information	Dimensional points
a	Head of Bappeda West Java Province	Play Informant	1,2,4,5,6,7
b	West Java Provincial Transportation Service (OPD Supporter)	Additional informants	1,2,3,4,6
c	Head of the West Java Provincial Secretariat's Legal Bureau	Additional informants	1,2,3,4,5,6,7
d	Head of the Hearings Section of the West Java Provincial DPRD Secretariat	Additional informants	2,5
e	Establishment Agency Regional Regulations, West Java Provincial DPRD	Additional informants	2,3,5
f	Committee Special III Plan Regional Regulations regarding Management of Metropolitan Construction and Development and Growth Centers in West Java. West Java Provincial DPRD	Additional informants	1,2,3,4,5,6,7
g	Head of District Bappeda. Sumedang	Additional informants	1,2,3,4,5,6,7
h	Head of Bandung City Bappelitbang	Additional informants	1,2,3,4,5,6,7
i	Head of District Bappeda. West Bandung	Additional informants	1,2,3,4,5,6,7
j	Head of District Bappeda. Bandung	Additional informants	1,2,3,4,5,6,7
l	Head of Cimahi City Bappeda	Additional informants	1,2,3,4,5,6,7
m	West Java Province Department of Highways & Spatial Planning	Additional informants	1,2,3,4,5,6,7
n	Compiler Academic Manuscript	Additional informants	1,2,3,4,5,6,7

Source: Processed by researcher, 2023.

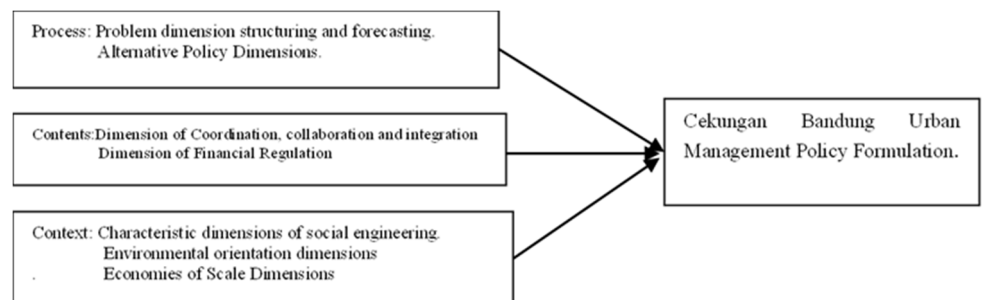
### 3.3. Data analysis

Research data analysis uses interpretive analysis from Creswell and Poth (2016),

namely by collecting, categorizing, mapping, and interpreting data and drawing conclusions. When analyzing data, data credibility is emphasized following the guidelines of Yin (2016), focusing on degrees of trust, data triangulation (cross-examination of data, theories, and methods), and validity. Triangulation involves verifying multiple data sources, such as informant input, interview findings, relevant documents, and direct observation. The interview results were transcribed and submitted for respondents' approval. Information is categorized based on research questions and literature concepts, leading to related recommendations.

#### 4. Findings (also called results)

The results of interviews, documents, and discussion of the literature review produced 7 dimensions then analyzed using the policy triangle theory (Buse et al. 2012) we found several important findings. This perspective is to understand in formulating policies for urban area management of the Cekungan Bandung in the transportation sector. These findings are arranged in pictures 4 to compile influential factors in the formulation of Cekungan Bandung urban management policies in the transportation sector as follows:



**Figure 3.** Influential factors in policy formulation.

Source: Processed by researcher, 2023.

#### 4.1. Process

Formulation of Management Policy for the Cekungan Bandung urban area, based on **Figure 3** processes for formulating urban area management policies consist of:

##### 4.1.1. Dimensions of problem structuring and forecasting

In implementing the management of the *Cekungan Bandung* urban area in the transportation sector through B-MP2JB, planning policies and integrated programs focus on environmental sustainability on a metropolitan and cross-regional scale. Guided by the Development Master Plan (*Rencana Induk Pembangunan, RENIP*) prepared by the Bappeda of West Java Province, authority and responsibility are transferred from B-MP2JB to others.

Presidential Decree No. 45 of 2018 serves as a reference for development in the Bandung KSN area, and recent legislation impacts spatial planning. With the management returned to the regional government, as emphasized in Ministerial Regulation No. 24 of 2020, Gubernatorial Regulation No. 86 of 2020 outlines BP Cekban's duties, but operational activities require cooperation between city districts.

The effectiveness of synergizing alternative policies and implementing Gubernatorial Regulation No. 86 of 2020 remains uncertain. While infrastructure



projects are underway, achieving the set transportation targets is unclear due to differing validity periods between Presidential Decree No. 45 of 2018 and Regional Regulation No. 12 of 2014.

Institutions executing financial and human resources must be listed in regional apparatus regulations, where B-MP2JB and BP Cekban are not included. This hampers their ability to execute programs and activities. Policy implementation challenges are observed, with inadequate monitoring, unclear responsibilities, and insufficient coordination, indicating a need for better problem structuring in policy formulation.

#### **4.1.2. Alternative policy dimensions**

To find out transportation policy alternatives in developing public transportation discussing budgeting, pedestrian facilities, building roads to reduce congestion and dealing with different environmental changes, with a systematic approach explained in forming more effective policies by examining more policy alternatives, policy alternatives reduce time required for the overall analysis, providing assessments and feedback in real time about the effects of configuration changes and subsidizing capital investments and deficits for service operations. Alternative policies to resolve public transportation problems such as transportation master plans which are alternative distributive policies to resolve transportation problems involving service, and benefits to society (Lan et al., 2006).

By focusing on important aspects of transportation policy, which are the assessments of the importance of congestion, the relative popularity of different policy interventions, expanding provisions and environmental improvements, (Goodwin & Lyons, 2010). Different policy interventions/alternative transport policies: which received unanimous support: 1) Increasing public transport; 2) Agreement supports spending on public transport and priority for buses and pedestrians; 3) Build roads to reduce traffic jams; 4) Mileage on cars for increased public transport, higher unlimited motor vehicle taxes for environmental damage, reduction of new roads; 5) Increasing petrol costs, or reducing road maintenance, there is an increase in Value Added Tax (Goodwin & Lyons, 2010).

Policies in integrating transportation systems to solve congestion problems, namely that transportation policy formulation needs to develop formulations for significant policy formulations with a focus on the areas of congestion and carbon reduction, technological solutions, travel behavior and short and long term vision (Anable & Shaw, 2007).

In formulating that take a systematic approach between districts/cities in the Bandung KSN Basin, namely to map out sustainable, efficient and effective transportation policies, it is necessary to develop new technical tools in advancing sustainable transportation with the development of virtual environments showing a computational approach in overcoming the complexity inherent in package formulation policy (Taeihagh et al., 2014), namely: Synergy:, policy steps at each level of government are integrated into a combination of multi-level policy actions with the aim of increasing efficiency, effectiveness, policy interventions by increasing synergy and reducing potential contradictions between policy steps (Taeihagh, et al., 2013).

Paying attention to the opinions of expert informants in formulating urban area management policies for the *Cekungan Bandung* needs to be carried out by

synergizing district/city, provincial and central policy steps and getting unanimous support (from, legislative, stakeholders) to be able to implement a combination of between levels of government with the aim of improving efficiency and effectiveness of policies so as to reduce contradictions by verifying policies before determining policy alternatives, analyzing, providing an assessment of the importance of the problem of congestion as a cause of economic loss and real time feedback on the influence of configuration changes, which ultimately forms more effective policies.

## 4.2. Contents

Based on **Figure 3**, analysis of the content of the *Cekungan Bandung* urban area management policy formulation for the transportation sector related to policy substance which details the parts for preparing the policy formulation including:

### 4.2.1. Collaboration, coordination and integration dimensions

The *Cekungan Bandung* Urban National Strategy Area, guided by Presidential Decree No. 45 of 2018, necessitates collaborative policies for effective collaboration, coordination, and integration among government levels and stakeholders in managing the urban area. Various approaches, such as the Collaborative Governance Approach, are recommended for forming a regional policy framework to align activities. However, hindered by regional autonomy authority, there is a need for an institution capable of regulating cross-functional, cross-administrative, and cross-impact regional development. This requires multi-level planning, integrated legislation, and organizational network policies to foster a collaborative culture.

The *Cekungan Bandung* KSN planning policy involves coordination meetings between government levels, outlined in the Regional and Central Government Budgets. Despite integrated spatial planning, differences in development priorities can lead to unsynchronized timelines and conflicts. For example, the Jakarta-Bandung high-speed train project lacks infrastructure planning for the Bandung KSN area, indicating a need for involving policies stakeholders in decision-making, seeking consensus, and optimizing coordination at every stage.

Moreover, there is a coordination gap between the center and regions, with transportation development planning policies delegated to the governor, impacting the integration of central vision. Restructuring is necessary to address coordination, collaboration, and integration between regional and central government levels, aligning with Presidential Decree No. 45 of 2018.

### 4.2.2. Dimensions of financial regulation

Based on **Figure 3**, development financing in the Bandung KSN area is carried out through inter-governmental cooperation. This has an impact on the low level of transportation infrastructure facilities, assessment of services for general operations to improve mass transportation programs, (Lan et al., 2006) is still not feasible, such as the lack of integrated transportation infrastructure between mass transportation modes, TOD, and the lack of public transportation services that meet the needs of citizens, are comfortable and on time. (Lan et al., 2006). The policy for operational subsidies for mass transportation has been implemented through subsidies for free ticket sales for the Padalarang-Kota Baru Parahyangan Bus, however the subsidy policy has not been implemented for all mass transportation services in the *Cekungan Bandung* urban area

due to limited financial capacity and has not implemented a policy of increasing additional costs for private vehicle owners. personal. For sources. The budget for transportation infrastructure development in the *Cekungan Bandung* KSN comes from the Regional Income and Expenditure Budget (*Anggaran Pendapatan Belanja Daerah, APBD*) and State Budget (*Anggaran Pendapatan Belanja Negara, APBN*). Supported by providing alternative funding for public infrastructure (Rahman et al., 2019), namely government policy towards supporting investment in public transportation and private partnership schemes, (Rahman et al., 2019) Public-Private partnership cooperation policy for alternative funding and infrastructure development The public development of rail-based transportation in the city of Bandung failed because the government was unable to provide subsidies for expensive ticket prices. Ticket prices should be adjusted to people's abilities and reasonable prices.

### 4.3. Context

Based on **Figure 3**, the context of policy formulation for management of the *Cekungan Bandung* urban area, the transportation sector refers to systemic-political, economic and social, local, regional, national and international factors that have an impact on policy, including:

#### 4.3.1. Dimensions of characteristics and social engineering

Transportation policy by considering local conditions in policy formulation is linked to national consistency, not only practical decisions but deepens the cultural perception of the community which encourages changes in the culture of community oriented towards general needs above individual needs. Local conditions in the *Cekungan Bandung* KSN area which is cultured to use private vehicles, people use public transportation is only 13%, the regional government has put it in the RPJMD and Spatial Plan Policy (*Regional Spatial Planning , RTRW*) to divert people's travel to use mass transportation but failed because limited budget capacity has not been able to facilitate comfortable and timely mass transportation, such as LRT and KRD train development policies have failed because they were unable to provide subsidies for operations.

The government has issued a regional regulation on heritage that states that transportation infrastructure policies consider the preservation of cultural heritage in urban areas as historical sustainability (Wang et al., 2019).

In Prioritizing Congestion Reduction, such as limiting the use of cars, optimizing the use of existing infrastructure, as well as Social Perception and Social Demographic Characteristics of travel users, people in the productive age group, children, by determining road engineering and carrying out outreach to the community by the West Java Provincial Transportation Service, as well as planning programs to facilitate road-based and rail-based transportation infrastructure, a master plan has been made in accordance with what is stated in the West Java Province RTRW so that it needs to be followed up for planning in the city district area, it has not yet been realized. , the provision of ticket price subsidies for public transportation is not yet comprehensive.

#### 4.3.2. Environmental dimensions

Transportation management in the Bandung Urban KSN area, implementing strategies to reduce emissions, maximize conservation while meeting urban

transportation needs (Goodwin & Lyons, 2010) in (Anable & Shaw, 2007) with the use of electric vehicles, especially for mass transportation such as Transpasundan buses, as well as implementing vehicle use control in environmental regulations to reduce carbon through the Motor Vehicle Test (*Uji Kendaraan Bermotor, KIR*) program for public and commercial transportation vehicles, then conduct routine emission tests on private vehicles by the Department of Transportation and apply analysis to the transportation infrastructure development process related to facilities environmental impact, pollution impact and social impact. But in fact, the management of the *Cekungan Bandung* urban area causes various impacts, including: Congestion in motor vehicle transportation causing economic losses and environmental damage. Economic losses caused by traffic congestion in motor vehicle transportation cause more fuel use and longer travel time (Hosea, et al., 2019; Prabawa, et al., 2020). While the most prominent environmental damage is air pollution (Sulistyono, 2022). That air pollution causes air quality to decrease, so it is feared that it will cause various diseases such as ARI (acute respiratory tract infections), including asthma, bronchitis and other respiratory disorders.

The policy for transferring the culture of using private vehicles to new public transportation is planning the development of a rail-based transportation network, planning the railway master plan and improving facilities to support transportation needs such as the construction of transit and terminals will be implemented in 2023–2024, and making studies regarding determining integrated location points between modes, bus stop locations, pedestrians and bicycle spaces.

#### **4.3.3. Dimensions of economies of scale**

To formulate management policies for the urban areas of the *Cekungan Bandung* to assess economic losses caused by traffic jams both materially and non-materially, such as losses from using more fuel oil, longer travel times and air pollution due to vehicle engine exhaust, due to longer periods of time which causes air pollution to have an impact on public health (Goodwin & Lyons, 2010). Public transportation in inter-city and urban transportation services provide facilities such as TOD so that people still choose to use private vehicles because public transportation policies facilities are limited in number, not yet timely, so people take longer to use public transportation.

Transportation planning are developed to determine short-term planning policies, namely those relating to traffic engineering management and urban transport rerouting, as well as medium- to long-term planning policies by establishing Regional Spatial Plans including city-scale and neighborhood-scale TOD development plans.

In the policy to build a culture of travel behavior among citizens to switch to using public transportation, efforts have been made but the results have not yet met expectations because the existing public transportation facilities cannot provide comfortable, timely service and the capacity of the number of public transportation vehicles are still less than that of rail-based public transportation. like Diesel Rail Train (Kereta Rel Diesel, KRD), so people still need to queue for long hours and departure schedules have long delays.

## 5. Discussion

The formulation of urban area management policies for the *Cekungan Bandung* in the transportation sector involves three key elements: process, content, and context. The process encompasses problems structuring and forecasting, and the identification of alternative policies. The content includes coordination, collaboration, integration, financial regulations, and other relevant dimensions. The context involves characteristics and social engineering, environmental orientation, and economical scale. This framework is analyzed using the policy triangle theory proposed by Buse et al. (2012).

In the dimension process, it is observed that the formation of BP Cekban faced functional failures due to a lack of authority in managing financial and human resources. The policy formulation did not consider organizational structures sufficiently, leading to ineffective problem structuring and an inability to predict future challenges.

Regarding alternative policy dimensions, there is a lack of synergy among district/city, provincial, and central policies in managing transportation infrastructure. The absence of unanimous support from various stakeholders hampers the effectiveness of alternative policies aimed at improving efficiency and service effectiveness.

In the content dimension, issues in collaboration, coordination, and integration are highlighted. Regional autonomy constraints hinder collaborative policy formulation for the KSN Basin area, necessitating cooperation through Memoranda of Understanding. Development planning coordination faces challenges in aligning budget priorities and timelines between different government levels.

In the context of dimensions, characteristics and social engineering factors in the Bandung KSN area, such as a high reliance on private vehicles, have led to policies such as increased parking fees and subsidies for Trans Bandung metro bus users. However, efforts to promote mass transportation have been hindered by the lack of comfortable, safe, and timely services.

The environmental dimension reveals efforts to reduce emissions through policies promoting electric vehicles and controlling vehicle use. However, incomplete railway master plans and budget shortfalls pose challenges. The establishment of a Regional Regulation on Heritage indicates a commitment to preserving historical heritage, influencing transportation choices.

In the economic scale dimension, policies aim to address economic losses caused by traffic congestion, such as increased fuel consumption and longer travel times. Short-term traffic engineering management and rerouting strategies are implemented, along with medium-to-long-term plans for road network development and Regional Spatial Plans.

In summary, the formulation of transportation management policies in the *The Cekungan Bandung* faces challenges in problem structuring, stakeholder collaboration, and infrastructure development, requiring comprehensive and integrated solutions for effective urban area management.

## 6. Research implications

The management of the *Cekungan Bandung* urban area gives rise to various impacts including: Congestion in motor vehicle transportation has an impact on economic and environmental losses. The most prominent environmental loss is air pollution. Since air pollution causes air quality to decrease, so it is feared that it will cause various diseases such as ISPA (acute respiratory tract infection), including asthma, bronchitis and other respiratory problems. Economic losses caused by traffic jams in motor vehicle transportation cause the use of more fuel and travel times to elongate. Strategies that can be taken to overcome motor vehicle transportation congestion resulting from the management of the *Cekungan Bandung* urban area include planning transportation systems, limiting motor vehicles, using environmentally friendly fuel, implementing green open spaces and using environmentally friendly vehicles.

## 7. Conclusion

The formulation of policies for managing the urban area of the *Cekungan Bandung*, specifically the establishment of BP Cekban, faced challenges due to a lack of authority in managing financial and human resources. The agency couldn't execute programs or activities and implement development due to limitations in legal authority over state finances. Alternative policies were not effectively synchronized between government levels and lacked legislative support, hindered by regional autonomy.

Budgetary sources from APBN and APBD for *Cekungan Bandung* KSN development faced discrepancies in determining priorities and timelines between regions and the center, leading to unintegrated and unsynchronized development. Insufficient financial capacity hindered the provision of comfortable and timely public transportation, impacting the transition from private vehicles to public transportation and contributing to persistent traffic jams, pollution, and health issues.

The Ministerial Regulation no. 24 of 2020 granted policy authority to the Governor but resulted in suboptimal financing and a lack of central government involvement in the development process. The research recommends a review or revocation of this regulation, citing conflict with Presidential Decree 45 of 2018.

Further suggestions include central government management of Bandung KSN development through the establishment of a coordinating institution, aligning with Presidential Decree 45 of 2018. This aims to regulate policies across administrative areas, functions, and impacts to realize the national strategic area's vision and mission.

The research anticipates future studies exploring unstudied dimensions like the prescription dimension of policy formulation (Dunn, 2018) and the development of a shared policy vision and cooperative funding model in the dimensions of coordination, collaboration, and integration (Howes et al., 2015).

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