



Accessibility Analysis Of Mandai Railway Station To The Transport Network In The Layout Region

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ABSTRACT

Planning the construction or development of the station needs to consider integration with environmental conditions e.g. spatial plans, land use, accessibility, distribution of the population and employment to ensure that they It would be better served by train. More in-depth studies are needed to conducted research on the characteristics of potential demand for Trans Sulawesi train users. Deep management and implementation of Accessibility Optimization to and from station access there needs to be a role of collaboration between local governments. More station area management increasing the need for cooperation of business entities, applying the concept of TOD supported by ease of regulation, and collaborative government services between the central government and local governments that synchronize policies spatial planning, transportation, and institutional implementation of TOD.

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I. INTRODUCTION

The central government, in this case the Indonesian government, has also made Trans Sulawesi Railway construction plan, with the hope of being able to causing economic improvement for the Indonesian people by building a new mode of transportation in South Sulawesi, namely building a railway line Makassar – Parepare. The location of the construction of the station is planned in the District Maros, more precisely in Mandai District. The development has reached on the third segment with the Barru – Mandai line. Mandai is a subdistrict located in Maros district, South Sulawesi province, Indonesia. with mom subdistrict town is located in Tetebatu bontoa village with a distance of 4 km from the city Turikale which is the capital and administrative center of Maros district. Mandai Subdistrict when viewed astronomically, then its position is located between 119 30' BT to 5 00' LS with an area between 5 – 65 m above sea level (DPL). Mandai Subdistrict also has Sultan Hasanuddin International Airport which is directly adjacent to biringkanaya subdistrict, Makassar City on west. Residents of Maros County based on the results of the population sesus on In 2013 there were 325,401 people spread across 14 sub-districts. Transportation network patterns that match the needs of movement services human and goods traffic in capacity, will be able to meet implementation of transportation services in a systematic manner, aimed at improving smooth traffic, helping to realize the national logistics system steadily, encourage regional development, and strengthen people's lives in framework for the embodiment of Wawasan Nusantara.

The preparation of a stable transportation network must pay attention and take into account banyak aspects, e.g. (1) population distribution and activities sectoral development spread across various regions, (2) tata utilization plan predetermined area space, (3) the needs of regional aalntar transportation services and activity centers (cities), (4) the provision of the number and capacity of means of transport, (5) characteristics and classification of road networks according to their functions and (6) strategies national and regional development policies and planning. Planning the construction of transport networks is dynamic and antisipaltive going forward, involves the participation of various relevant agencies.

Given the very important role and function of the transportation network in support the movement of human and goods traffic and development in a way effective and efficient, it is necessary to implement conceptual planning and alnalysis and theoretically reliable and implementable. In the planning of the construction or development of the station at least take into account integrals with environmental conditions for example spatial plans, land use, accessibility, population distribution and employment for ensuring that they would be better



served by such trains. The jugal station should be located within sufficient distance for pedestrians, from residential, workplace, and commercial. This will help to promote the use of rail transport services and to reduce road congestion by reducing dependence on private vehicles. Station trains function as trains departing or stopping to serve boarding and disembarking passengers, loading and unloading goods; and/or train operation needs fire. Therefore the station must be well designed, paying attention to aesthetics, and convenient for passengers as well as efficient in layout and operation.

In fulfilling the meaning of the above, the government must understand characteristic of users of Mandai Railway station towards the transport network, and the accessibility characteristics of Mandai Railway station to the network transportation. And another important thing to note is related to the mode used is hindered by user characteristics and accessibility characteristics on the Mandai Railway transport network. From the description of dialtas, malka researchers akaln conducted research on Analysis Accessibility of Mandai Railway Station to the Transportation Network in Territory Space.

II. METHODOLOGY

In carrying out research, data source collection methods are based in two types of data collection, which are obtained in the form of primary date and date secondary. Primary data obtained from field surveys by making observations related to the accessibility of Mandai railway station to the transportation network in territory space. while secondary data are taken from various mal cam literature as well as related agencies, namely PT KA Mandai daln Talta Ruang party which can support this research.

III. THEORIES AND CONCEPTS

Analysis

According to Dwi Prastowo (2016) analysis is interpreted as a decomposition of the subject matter of its various parts and the study of the passages themselves, as well as relationships between sections to obtain a proper understanding and understanding of meaning sum.

Accessibility

According to Prajalani (in Prawira, 2020) accessibility has a definition, namely facilitating the convenience shown for people with disabilities with its application optimally in order to achieve equality of opportunity in access various activities so as to realize equal distribution of services in the expectation Life follows the service of facilities and accessibility for people with disabilities.

Railway Station

Definition of Railway Stations according to Law Number 23 of 2007 about railways. The station is the place for departure and train stops

Transportation Network

According to Tamin (2000), the transport network can be reflected in the form of fields and nodes, all of which are connected to the center of the zone. Some characteristics of road sections need to know, such as length, speediness, number of lanes, type of side disturbance, capacity and speed–current relationships in the ruals of the road. Nodes can reflects intersections or cities, and roads reflect sections roads between intersections or intercity roads.

Regional Layout

To answer an increasingly complex problem, the government felt the need to establish a responsible Sustainable Transport Management Agency answer directly to the Ministry of Transportation. This Transportation Management Agency have the task of managing, and developing, and improving integrated transportation services in the Trans Sulawesi region. Some literature describes, that in the major cities of the world today, congestion management practices have shifted from network addition orientation (*supply driven*) to the one that is oriented to the needs of the movement of society (*demand driven*).

Various innovative strategies began to be developed with the concept that put forward integration. For example, land use integration with transportation called the concept of areas based on mass public transportation (*transitoriented development/TOD*). TOD be concept Derivation from *Smart Growth* or *Compact City* that focuses on growth in an integrated regional center, and accessible on foot to avoid development that is not directional (*urban sprawl*). Basically, this concept is motivated by thinking, that points, such as stations, can be functionalized. not only to pick up and drop off passengers, but also to be able to serves as a place for urban activities to take place. For example the center settlements, offices, trade and services, and Education. The impact that It is hoped that it will be able to improve the quality of sustainable urban space (*sustainable*) in terms of economy, social, and environment. Success inside implementing the TOD concept supported by ease of regulation, and service a



government that can collaborate between the central government and the government regions that synchronize spatial, transportation, and institutional policies organizing TOD. The concept of *Transit Oriented Development* (TOD) can be useful for development of a city, including:

1. Can reduce the amount of personal vehicle use that serves for avoiding air pollution, and greenhouse gas emissions, as well as congestion.
2. Increasing number of transit passenger transport and increasing local revenues from such freight rates
3. Expand and expand mobility by reducing dependence on private vehicles so as to reduce costs transportation
4. Provide opportunities for low-income people to be able to improving their economy by providing access to jobs.
5. Create and create a pedestrian community to improve Enthusiasm for the community to live a healthier and more active life.

IV. CONCLUSION

The conclusions that can be drawn from this study are as follows.

1. Planning the construction or development of the station needs to consider integration with environmental conditions such as spatial planning, use land, accessibility, distribution of population and employment to ensure that they would be better served by rail;
2. More in-depth studies are needed to research potential characteristics demand for Trans Sulawesi train users;
3. In the management and implementation of Accessibility Optimization towards and to station access needs a collaborative role between local governments;
4. Management of the station area to improve further requires cooperation of the agency efforts, applying the TOD concept supported by ease of regulation, and government services that can collaborate between the central government and local governments that synchronize spatial policy, transportation, and the institutional administration of TOD.

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