

# Policy Space Utilization in Developing Area Medan-Binjai-Deli Serdang (Mebidang) Indonesia

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Received: October 20, 2015   Accepted: November 12, 2015   Published: December 2, 2015

doi:10.5296/ijrd.v3i1.8501   URL: <http://dx.doi.org/10.5296/ijrd.v3i1.8501>

## **Abstract**

This study is conducted to assess and analyze whether urban areas Medan-Binjai-Deli Serdang optimal functioning as an economic driver of the region with the carrying capacity of the existing potential of the region that will have implications for the use of space.

This research is applied research with descriptive approach. To answer the research questions, then we do the analysis on the Location Quotient (LQ), Specialization Index (SI), Typologi Klassen, MPE (Model Comparison Exponential) and AHP (Analytical Hierarchy Process) on various approaches commodity/sector seed, and the constellation of the region and produce factors driving the economy of the dominant and main policies.

Results shows that the urban area Medan- Binjai - Deli Serdang meet six criteria of 7 criteria primemover for Binjai and Deli Serdang, but the third growth region are no synergy and grow together. Based on analysis of AHP and MPE obtained utilization policy consists of four (4) sectors of economy, infrastructure, environmental, and socio-cultural. Carrying capacity of the commodity which has the function of competitiveness and cities in the region MEDAN - Binjai - Deli Serdang implications on the use of space is an attempt to create patterns and structures of space.

**Key words:** Space Utilization, Regional Development, National Strategic Area

## 1. Introduction

Urban growth in Indonesia, especially in big cities, physically, the region is characterized by rapid growth. The limitations of land and rapid growth of urban population continues to grow, requiring the construction of housing and other urban functional activities, even the physical growth of the city is often uncontrolled (urban sprawl). Uncontrolled growth will have environmental impacts and other problems. Brunn and William (1983) suggested an idea of urban problems (urban problem) due to (1) the size of the city is too big (exersive size) to develop the economic base of the city, the density of excess (overcrowding) which caused the competition of a chance to get a bit of space, services, and employment opportunities, (3) lack of the means and infrastructure (shortage of urban services), (4) the slums and unauthorized (slums and squatter settlements), (5) traffic congestion (traffic congestion), (6) the reduced responsibility social (lack of social responsibility), (7) the unemployed and workers below the minimum wage (unemployment and underemployment), (8) the problem of racial and social (racial and social issues), (9) westernization and modernization (westernization vs modernization), (10) environmental damage (environmental degradation), (11) the expansion and reduction of agricultural land (urban expansion and loss of agricultural), and (12) the organization of administration (administrative organization).

The discussion about the city and its development is closely associated with the process of urbanization and the growth of cities (urban growth) itself. Philip M. Hauser (1985) distinguished between urban growth and urbanization. Essentially, urbanization is a process of change in the proportion of the population living in urban areas, while the growth of the city is changing the size / scale of the urban demographic and physical aspects. Sukirno (1985) suggested other factors that led to urbanization and the development of the city is the economic nature. Economic development will be followed by a reshuffle in the pattern of economic activity, the more developed an economy, the more important the role of industry and trade activities, and further developments will generate specialization in the economy.

Dardak (2006) argued, normatively city is expected to serve as a center of growth which can encourage the development of an area, even national in scope as a whole. Requirements that must be met in order for the city to function as a center of growth in the region, such as the availability of adequate infrastructure to serve both local and regional, and even international, the allocation of a good space that can create a relationship of mutual synergy between the various activities of a space filler, and the development of investment in accordance with the allotment of space. Djakapermana (2008), suggested a city is expected to continue to grow and evolve as a shaper of economic growth in the region and give a strong enough influence on the surrounding area. But in reality, there is a gap (disparity or gap) regional and inter-regional development, especially between development in urban and rural areas. This is illustrated by the high levels of urbanization where the urban population in 2008 reached 50.5% of the 220 million population of Indonesia. In the analysis, the problem of inequality of development among regions according Sjafrizal (2008) due to differences in the content of the natural resources, demographic conditions, less smooth mobility of goods and services, concentration of economic activities of the region, and the allocation of development funds among regions. The gap between regions also occur in the role of the area / island in the formation of gross domestic product (GDP), particularly among the area outside the territory of the island of Java with Java. Based on data from the Central Statistics Agency (BPS), Indonesia in 2012 these conditions can be seen in the following table.

Tabel 1. The role of area/island formation of national GDP (%)

<b>Region / Island</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Sumatera	22,9	23,4	22,7	23,1	23,5
Jawa	58,8	57,9	58,6	58,1	57,6
Bali and Nusa Tenggara	2,7	2,4	2,7	2,7	2,6
Borneo	9,4	10,0	9,2	9,2	9,6
Sulawesi	4,1	4,5	4,4	4,5	4,6
Maluku and Papua	2,1	1,8	2,3	2,4	2,1
Indonesia	100	100	100	100	100

Source : Central Statistics Agency (BPS) Indonesia, 2012.

Based on the above data within 5 (five) years, with an average value above 58.2% (percent). While Sumatera Island has an average value of 23.1% (per cent), followed by the island of Borneo at 9.5% (percent), Sulawesi Island by 4.4% (per cent), Bali and Nusa Tenggara 2.6 % (percent) and the lowest is the island of Maluku and Papua, at 2.1% (percent). Growth and urban development in each island in Indonesia, is very different in terms of provision of facilities and infrastructure policy. The gap between regions in Indonesia are caused by development policies that concentrated in urban areas. This is due to the convergence of pembangunan facilities and services in urban areas, as can be seen in the following Table.

Table 2. Willingness facilities and services in urban area

Facility	Mebidang (Sumatera)		Jabodetabekjur (Java)		Bandung Raya (Java)		Gerbangkartosusila (Java)		Mamminasata (Sulawesi)	
	City	Village	City	Village	City	Village	City	Village	City	Village
% electricity	89	85	93	69	86	74	88	69	91	67
Facility/1000 citizens										
Hospital	34	143	85	263	121	2370	73	-	51	-
% villages with facility										
Drinking Water Source	99	75	98	82	88	52	90	74	99	71
paved roads	82	41	92	59	93	81	91	53	95	62
Shopping center	42	1	60	7	51	6	39	6	52	5
Markets										
permanent	/ 26	5	34	7	26	9	26	12	24	21
semi-permanent										
Hotel	20	3	24	4	23	4	13	1	29	2
Bank	30	-	42	1	35	2	24	2	32	4
Supermarket	30	-	64	4	48	3	32	1	19	1

Source: Central Statistics Agency (BPS) Indonesia, 2012.

Recognizing this, the Government changes the concept of development of a regional approach to a sectoral approach that aims to develop a national spatial patterns and structures through a regional approach and is implemented through the establishment of national strategic area. Policy space structure development include increasing access to urban services and the central region of equitable economic growth and developed a hierarchical strategy is to encourage the growth of urban areas and centers to be more competitive and more effective in the development of the surrounding region. While policies and strategies for the development of spatial patterns include the following policies and strategies for the development of national strategic areas. According to Government Regulation No. 26 in 2008 on the National Spatial Plan has set key region and national strategic areas in North Sumatra Medan among other areas - Binjai - Deli Serdang with the core area is the city of Medan, while the urban area surrounding the city of satellites. In order for the city of Medan as a driver and the driver of the economy of the surrounding area to function optimally, it needs the right strategic policy. This area is in its infancy and its development has its own dynamics, both in terms of physical development and the socio-economic region.

Farizzi and Pradono (2010), suggested that economic growth can be assessed as the Government's policies, especially in the economic field. Economic growth is one indicator of the success of development. The economic potential of Medan - Binjai - Deli Serdang still lacking in boosting regional economies, as seen from the contribution of this region until the year 2011 accounted for 47% of GDP, North Sumatra Province. Economic influence on the region of Medan city Medan - Binjai - Deli Serdang are very dominant, reaching 64.65%.

Deli Serdang district contribution to the economy of Medan - Binjai - Deli Serdang reach 25.79%, while the contribution to the regional GDP Binjai city of Medan - Binjai - Deli Serdang only 9.56%.

Table 3. Real GDP composition district / city in region Mebidang against Mebidang Regions GDP in 2011

No	Business field	Composition of Real GDP (%)		
		Medan	Binjai	Deli Serdang
1.	Agriculture, Livestock, Forestry & Fishing	22,15	2,71	69,83
2.	Mining & Quarrying	0,09	1,25	32,24
3.	Processing industry	40,88	1,90	48,89
4.	Electricity, Gas & Water	78,16	0,20	5,20
5.	Construction	82,22	0,34	8,69
6.	Electricity, Gas & Water	71,53	0,86	22,08
7.	Freight & Communications	92,80	0,15	3,83
8.	Finance, Real Estate & Business Services	76,90	0,29	7,43
9.	Services	57,65	1,20	31,00
The role of the District / Town		<b>64,65</b>	<b>9,56</b>	<b>25,79</b>

Source: Central Statistics Agency (BPS) Indonesia, 2012.

The table above explains that the influence of Medan on the region's economy Mebidang very dominant, reaching 64.65%, amounting to 9.56% Binjai and Deli Serdang district contribution reached 25.79%. Physically region, when viewed from the condition of the use of space is an attempt to realize the spatial pattern and structure good space. Spatial use Medan - Binjai - Deli Serdang not optimal if you see the function of the urban area of Medan - Binjai - Deli Serdang (population distribution, spatial pattern and structure of space). Medan regional population distribution - Binjai - Deli Serdang is not well distributed and centralized in the city of Medan, based on data from the year 2011 the population density of Medan at 7986.51 persons / km<sup>2</sup>, Binjai of 2753.28 inhabitants / km<sup>2</sup> and Deli Serdang for 726.90 inhabitants / km<sup>2</sup>. While the area of Medan - Binjai - Deli Serdang itself has a population density of 1468.55 inhabitants / km<sup>2</sup> with an area of 2841.48 km<sup>2</sup> or far above average population density of North Sumatra Province in the amount of 182.81 inhabitants / km<sup>2</sup>.

Table 4. Total population and area Regional /Region Mebidang the year 2011

Region	Population (inhabitants)	Area(km2)	Density (people/km2)
Medan	2.117.224	265,1	7.986,51
Binjai	248.456	90,24	2.753,28
Deli Serdang	1.807.173	2.486,14	726,90
Mebidang	4.172.853	2.841,48	1.468,55
Sumatera Utara	13.103.596	71.680,68	182,81

Source: Central Statistics Agency (BPS) Indonesia, 2012.

As an urban area, the intensity pattern of spatial Medan - Binjai - Deli Serdang still relatively small and have not shown optimal function. Based on the results of the calculation of the intensity ratio of waking and non-waking land still reached 22.57% and there are lands that have not been optimized by 48.43%, if the urban area must meet at least 30% of green open land. Intensity of growth in the region awoke land Medan - Binjai - Deli Serdang reached 19.8% in the period 2000-2005. In accordance with the criteria of growth as the basis for determining the strategic areas are highly relevant to the theory of the growth center Perroux (1975) who said that growth does not appear in different regions at the same time. Poles of growth (growth pole) is the concentration of the auxiliary industry that can lead to the growth of other units. If the development pole has been put in place, then that place is called growth centers which usually is the cities. Therefore, in relation invitation seed sector, Medan defined as core city areas in the development Medan - Binjai - Deli Serdang.

Hirschman (1958) recognized that economic functions of different levels of intensity in different places. Economic growth takes precedence at the original point before it spread to various other places. Hirschman (1958) agreed that the geographical distribution of growth centers are formed as a result of the influence of polarization, they also have a common understanding of the processes that lead to polarization in the growth centers, but they are different opinions in the final result caused the polarization process. Administratively urban areas Medan - Binjai - Deli Serdang consists of three areas that have self-government administration, namely Medan, Binjai and Deli Serdang. The implementation of the regional spatial planning must be done through coordination between the three district / city and under the coordination of the Provincial Government of North Sumatra. This area has been determined to be Indonesian Presidential Regulation No. 62 of 2011 on Spatial Planning Urban Area Medan, Binjai, Deli Serdang, Karo, and in this study the researchers focused on policy making use of space development of urban areas Medan - Binjai - Deli Serdang as development Spatial-based economic region through commodity approach and function of the area.

## 2. Methodology

The research is conducted in the city of Medan, Binjai and Deli Serdang, North Sumatra Province. This research is applied research with a quantitative and qualitative approach (mix method). First, a qualitative approach using the approach to interpretation (interpretative

approach) to the stages of preparation, data collection by using purposive sampling method, and the processing and analysis of data using analysis tools LQ, SI and Regional typology. Second, a quantitative approach using secondary data and interview data were structured quantified using the method / formula as an analytical tool MPE and AHP. This study population using the term informant by purposive sampling method - the use of non probably certain people (specific target groups) with number 120 people, consisting of members of the legislative, Department / office, private, students, and academics.

### 3. Result And Discussion

#### 3.1 Mebidang Urban Area Serves As Regional Economic Mover

Testing to test that Mebidang region serves as the economic driver of the region carried out by using the method: (1) location quotient, (2) analysis of regional specialties, and (3) analysis of the typology of the area.

##### 3.1.1 Location Quotient (LQ)

One model to determine the commodities or sectors that have a comparative advantage is by using LQ. LQ calculation following the respective districts / cities, namely Medan, Binjai and Deli Serdang:

Table 5. LQ Medan, Binjai and Deli Serdang compared Mebidang Year 2000-2011

No	Bussiness Field	MEDAN				BINJAI				DELI SERDANG			
		2000	2004	2008	2011	2000	2004	2008	2011	2000	2004	2008	2011
1	Agriculture, Livestock, Forestry & Fishing	0,42	0,37	0,36	0,34	1,30	1,09	1,12	0,84	2,15	2,41	2,54	2,71
2	Mining & Quarrying	0,01	0,06	0,00	0,00	1,03	11,37	10,69	7,08	3,02	1,80	2,07	1,25
3	Processing industry	0,65	0,60	0,66	0,63	1,00	1,00	1,00	1,07	1,72	1,74	1,83	1,90
4	Electricity, Gas & Water	1,40	1,36	1,31	1,21	1,15	1,08	1,31	1,74	0,16	0,18	0,20	0,20
5	Construction	1,40	1,30	1,29	1,27	1,11	0,95	1,00	0,95	0,17	0,32	0,31	0,34
6	Electricity, Gas & Water	1,08	1,07	1,07	1,11	0,74	0,70	0,70	0,67	0,88	0,87	0,87	0,86
7	Freight & Communications	1,41	1,41	1,39	1,44	0,36	0,32	0,30	0,35	0,24	0,17	0,14	0,15
8	Finance, Real Estate & Business Services	1,35	1,31	1,28	1,19	1,68	1,54	1,43	1,64	0,21	0,27	0,27	0,29
9	Services	1,05	0,95	0,91	0,89	1,30	1,40	1,43	1,19	0,87	1,17	1,17	1,20
GDP TOTAL		1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00

Source: Data Processing, 2013.

LQ calculation results of Medan, Binjai and Deli Serdang against Region Mebidang above, the obtained results of the analysis LQ:

- Medan has a major sector (2011) ( $LQ > 1$ ) in the field of electricity, gas and water supply; construction; trade, hotels and restaurants; transportation and communication; finance, real estate and business services.



- Binjai has the leading sectors (2011) in mining and quarrying; processing industry; electricity, gas and water supply; finance, real estate and business services; and services. In 2004 the construction sector does not become a dominant sector due decreased from 1.11 in 2000 to 0.95 in 2004, rising in 2008 to 1.00 and then decreased in 2011 to 0.95.
- Deli Serdang has the leading sectors (2011) in the field of agriculture, plantation, forestry and fisheries; mining and quarrying; processing industry; and services.

The LQ Mebidang in provincial and national levels as follows:

Table 6. LQ Mebidang with North Sumatra vs LQ Mebidang with the National Year 2000-2011

No	Bussiness Field	Mebidang To North Sumatera				Mebidang To National			
		2000	2004	2008	2011	2000	2004	2008	2011
1.	Agriculture, Livestock, Forestry & Fishing	0,27	0,29	0,28	0,26	0,49	0,53	0,48	0,50
2.	Mining & Quarrying	0,15	0,45	0,53	0,90	0,02	0,06	0,08	0,12
3.	Processing industry	1,06	0,96	0,95	0,97	0,93	0,84	0,82	0,86
4.	Electricity, Gas & Water	1,51	1,54	1,48	1,49	1,87	1,90	1,49	1,43
5.	Construction	1,31	1,40	1,28	1,27	1,31	1,35	1,36	1,39
6.	Electricity, Gas & Water	1,39	1,34	1,32	1,31	1,58	1,44	1,39	1,35
7.	Freight & Communications	1,63	1,61	1,54	1,42	1,99	1,91	1,80	1,72
8.	Finance, Real Estate & Business Services	1,81	1,77	1,62	1,54	1,19	1,17	1,20	1,19
9.	Services	1,16	1,14	1,14	1,14	1,14	1,18	1,22	1,20
GDP TOTAL		1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00

Source : Data Processing, 2013.

Based on the calculation LQ Mebidang region of the province of North Sumatra, it can be seen leading sectors ( $LQ > 1$ ) Mebidang region covering the fields of electricity, gas and water supply; construction; trade, hotels and restaurants; transportation and communication; finance, real estate and business services; and services. In 2000 the processing industry is one of the leading sectors for the region Mebidang with LQ value of 1.06, but in 2004-2011 impaired LQ which became 0.96 in 2004, 0.95 in 2008 and 0.97 in in 2011. While based on the calculation of the LQ Mebidang to region National GDP Mebidang leading sectors are sectors of electricity, gas and water supply; construction; trade, hotels and restaurants; transportation and communication; finance, real estate and business services; and the services sector. Based on the theory of economic base, the main support base of a city comes from the sale of goods / services that are beyond the commodity (export). LQ value calculation serves to show that the sector of an area basis. LQ from the calculation of both the North Sumatra province and to the national, the regional Mebidang have economic sector basis consisting of fields of electricity, gas and water supply; construction; trade, hotels and restaurants;



transportation and communication; finance, real estate and business services; and services. Where the growth of economic sectors such bases pose and determine the overall development of the area, while other activities (non-base) is a consequence of the overall development (Supomo, 2000; Hoover, 1971, in Mudrajad Kuncoro, 2004). That is the basic sector is able to be produced for export outside the region. The development of a city associated with the contribution of the base of the workforce base.

### *3.2 Index Specialization*

The model can also be used to determine the commodities or sectors that have a comparative advantage is the specialization index. There are several districts of the city which has an average value of specialization index close to 1 (one), namely Medan with an average index of specialization 0.95, Binjai with an average index of 0.87 specialization, Deli Serdang district with an average index specialization 0.82, Dairi with an average index of 0.81 specialization, District Coal with an average index of 0.81 specialization, High Cliff district with an average of 0.93 specialization index, Pematangsiantar with an average index 0.92 specialization, and Serdang Bedagai with the average index of specialization 0.82. Based on the above data, it can be seen that Mebidang region has an average value of specialization index close to 1 (one), meaning that the region has specialized Mebidang. Specialization Index calculation results can be seen in Table 7 below.

Specialization index value calculation results indicate an increase in the average value of specialization in Medan, namely 0.83 in 2001 and 0.99 in 2008 and then decreased in 2011 to 0.95, the average value of the index in Binjai fixed at 0.87, while the average value of specialization in Deli Serdang regency of 0.82. The analysis showed that the level of specialization possessed not a guarantee of an area designated as Areas of National Strategy.

Table 7. Specialization index calculation results

No	DISTRICT/ CITY	YEAR				Average
		2001	2005	2008	2011	
1.	Medan	0,93	0,94	0,99	0,95	0,95
2.	Binjai	0,88	0,86	0,88	0,87	0,87
3.	Deli Serdang	0,88	0,8	0,77	0,79	0,82
4.	North Tapanuli	0,8	0,68	0,6	0,67	0,70
5.	Toba Samosir	0,75	0,72	0,68	0,72	0,65
6.	Samosir	0,66	0,69	0,77	0,79	0,72
7.	Simalungun	0,8	0,7	0,63	0,68	0,72
8.	Karo	0,84	0,72	0,64	0,69	0,74
9.	Dairi	0,88	0,8	0,69	0,73	0,80
10.	Humbang Hasundutan	0,63	0,71	0,61	0,67	0,68
11.	Pakpak Bharat	0,63	0,81	0,71	0,75	0,75
12.	Asahan	0,83	0,67	0,65	0,68	0,74
13.	Batubara	0,59	0,95	0,97	0,96	0,83

No	DISTRICT/ CITY	YEAR				
		2001	2005	2008	2011	Average
14.	Tanjungbalai	0,76	0,68	0,65	0,68	0,70
15.	Central Tapanuli	0,77	0,66	0,59	0,63	0,68
16.	Sibolga	0,8	0,73	0,71	0,72	0,74
17.	Langkat	0,84	0,71	0,63	0,67	0,73
18.	Tebing Tinggi	0,94	0,93	0,97	0,96	0,94
19.	Serdang Bedagai	0,59	0,64	0,58	0,65	0,63
20.	Pematangsiantar	0,92	0,91	0,96	0,93	0,92
21.	South Tapanuli	0,74	0,65	0,69	0,67	0,69
22.	Mandailing Natal	0,77	0,66	0,59	0,6	0,68
23.	Padangsidempuan	0,59	0,57	0,79	0,65	0,61
24.	Padang Lawas	0,59	0,78	0,64	0,72	0,70
25.	North Padang Lawas	0,59	0,78	0,66	0,68	0,70
26.	Labuhan Batu	0,85	0,81	0,76	0,76	0,82
27.	North Labuhanbatu	0,59	0,78	0,7	0,69	0,71
28.	South Labuhanbatu	0,59	0,78	0,91	0,89	0,75
29.	Nias	0,79	0,68	0,72	0,75	0,71
30.	South Nias	0,69	0,69	0,63	0,65	0,68
31.	West Nias	0,63	0,78	0,74	0,74	0,72
32.	North Nias	0,63	0,78	0,68	0,7	0,71
33.	Gunung Sitoli	0,63	0,78	1,03	0,95	0,78
Average		<b>0,74</b>	<b>0,75</b>	<b>0,73</b>	<b>0,75</b>	<b>0,75</b>

Source: Data Processing, 2013.

### 3.2.1 Regional Typology

As the implications of differences in the structure and the economic potential of the region, economic growth in each region tend to vary widely from each other woods. There are areas experiencing rapid economic growth, but some are relatively slow and some are even stagnated. In addition, one indicator is the mainstay of the region's policy-setting “of economic growth is one of the economic variables that are key indicators in development” (Kuncoro, 2004). Indicators of economic growth of a region indicated by the value of income per capita. If the value of the high per capita income of the region, then the region’s economic growth is also high. To see the economic growth of a region typology analysis is needed in the area. Typology analysis tool used to describe the area of the pattern and structure of economic growth in each region. The area is divided into four regions, namely the classification of fast forward and fast-growing, forward area but pressured, rapidly growing area, and the relatively underdeveloped regions (Sjafrizal, 2008). Schematically the four groups mentioned above can be described as follows:

Table 8. Classification typology regencies/cities in North Sumatra Province

Growth rate income per capita	Growth rate above average	Growth rate below average
<b>Per capita income above average</b>	<b>FORWARD &amp; FAST DEVELOPED REGIONS</b>	<b>DEVELOPED BUT SUPPRESSED REGIONS</b>
	<b>Medan</b>	Karo
	Labuhan Batu	Asahan
	Toba Samosir	Batu Bara
<b>Per capita income below average</b>		Tanjungbalai
		North Labuhan Batu
		South Labuhan Batu
		<b>UNDERDEVELOPED REGIONS</b>
		<b>Deli Serdang</b>
		North Tapanuli
		Samosir
		Simalungun
		Dairi
		<b>DEVELOPED REGIONS</b>
		<b>Binjai</b>
		Sibolga
	Langkat	
	Tebing Tinggi	
	Pematang Siantar	
	South Tapanuli	
	Padang Lawas	
	North Padang Lawas	
	Nias	
	South Nias	
	West Nias	
	North Nias	
	Gunung Sitoli	

Source : Data Processing, 2013.

The regional grouping are classified according to two (2) main indicator is the rate of growth and the level of income per capita. Thus there will be four (4) groups of districts / cities in North Sumatra province, namely:

- 1) The area of advanced and fast growing (development region) in quadrant I, wherein the growth rate and per capita income is higher than the average of districts / cities in North Sumatra.
- 2) The area forward but depressed in quadrant II, where the level of regional per capita income has been higher than average, but the rate of economic growth is lower than the average of districts / cities in North Sumatra.

- 3) The area developed in quadrant III, where the per capita income level is still below the average, but the rate of growth in this area has been above the average of the average districts / cities in North Sumatra.
  - 4) Area is underdeveloped in quadrant IV, where both the growth rate and per capita income of this region are below the average of the average districts / cities in North Sumatra.
- From the calculation, the obtained results of the typology of the area in the province of North Sumatra.

**Table 9. Regional typology in the province of North Sumatra**

No	Typology	District/City	Economic Growth (%)	Income Per Capita	Proportion
1.	Developed regions	Medan	6,51	12.285.482	9,09%
		Labuhan Batu	10,60	7.600.398	
		Toba Samosir	5,74	7.243.290	
		Karo	4,62	8.030.609	
2.	Developed but suppressed regions	Asahan	4,83	8.255.942	18,18%
		Batu Bara	4,22	17.214.421	
		Tanjungbalai	4,83	7.297.698	
		North Labuhanbatu	0,00	8.256.790	
		South Labuhanbatu	0,00	9.312.971	
		Binjai	6,43	6.255.669	
		Humbang Hasundutan	5,80	5.143.711	
3.	Developing regions	Pakpak Bharat	6,01	3.507.658	21,21%
		Central Tapanuli	5,78	3.064.701	
		Serdang Bedagai	6,13	5.946.043	
		Mandailing Natal	6,44	3.742.697	
		Padangsidempuan	5,69	4.070.833	
		Deli Serdang	4,35	6.265.360	
		North Tapanuli	5,07	4.709.720	
		Samosir	4,16	6.799.932	
		Simalungun	3,70	5.151.783	
		Dairi	5,03	5.899.440	
		Sibolga	5,35	6.228.260	
		Langkat	3,06	5.854.353	
		4.	Underdeveloped regions	Tebing Tinggi	
Pematangsiantar	4,90			6.499.035	
South Tapanuli	-0,29			4.328.217	
Padang Lawas	0,00			3.649.937	
North Padang Lawas	0,00			3.583.900	
Nias	5,14			3.236.899	
South Nias	3,61			3.757.227	
West Nias	0,00			2.985.642	
North Nias	0,00			3.481.430	
Gunung Sitoli	0,00			6.478.731	
Total					100 %

Description: economic growth and per capita income average of districts / cities in North Sumatra is 5, 51% and 7,044,916 rupiahs.

### 3.3 Analytical Hierarchy Process (AHP)

Based on calculations MPE, the criteria taken into account to be processed with AHP are four alternative criteria spatial policies with the greatest weight, namely economics, environment and Socio-cultural.

### 3.4 Facilities or Infrastructure

Based on data from AHP analysis results can be seen that the percentage of selection of policy alternatives in the management Mebidang region is human resource capacity development which amounted to 31.53%. Therefore, capacity building is an alternative policy that ranks I. While capacity building in the field of cooperation in second place with a percentage of 29.09%, and capacity building in the field of rule ranked third with 24.30% and the percentage of the field of organizational capacity building fourth:

Table 10. Rating alternative capacity management of Mebidang

No	Rank	Destination Capacity	Quality	Percentage
1.	I	Human Resources	0.3153	31,53 %
2.	II	Cooperation	0.2909	29,09 %
3.	III	Rule	0.2430	24,30 %
4.	IV	Organization	0.1508	15,08 %
<b>Total</b>			<b>1</b>	<b>100 %</b>

Source: Data Processing, 2013.

The above table shows the respondent's choice of alternative capacity building in management planning efforts Mebidang region of North Sumatra province is ranked first is capacity building, followed by cooperation, rules and organization. Based on calculations using Exponential Comparative Method, can be structured hierarchical structure:

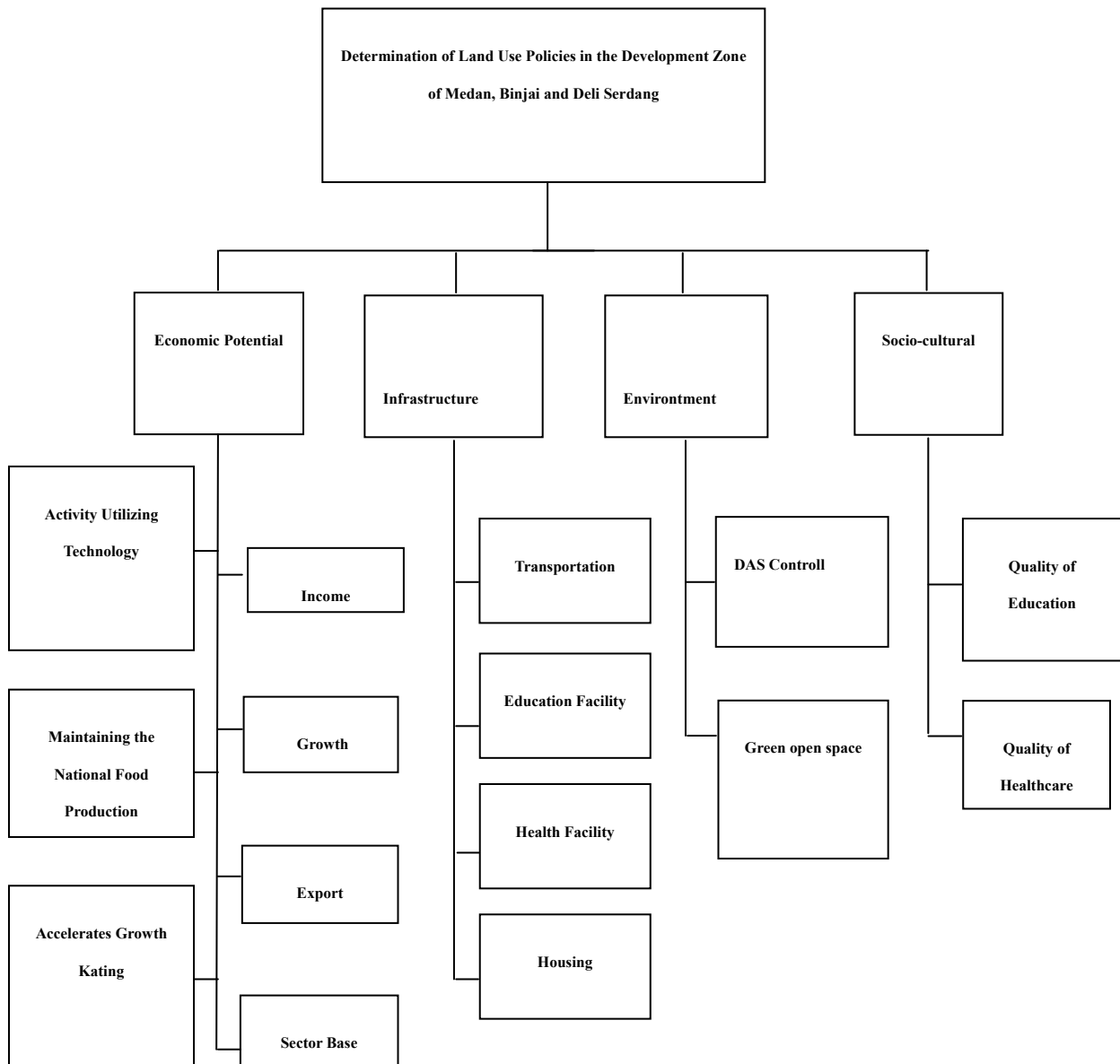


Figure 1. Hierarchy of utilization policy determination

Results of the analysis can be concluded that LED can be seen from variable income, employment opportunities, and increased economic activity. Therefore, in the development of policy of Mebidang Local Economic Development is needed. One of the most important factors in the analysis of the structure of space is the availability of adequate infrastructure, both for local and regional services. Besides the availability of green open space is sufficient, the good allocation of space that can create a relationship of mutual synergy between the various activities of a space filler, and the development of investment from both the government and private sectors in accordance with the allocation of space so that the creation of the function of the city as a center of growth. Mebidang regional spatial structure plan developed with policentric pattern, the tendency of the movement, although not evenly spread. This shows that the region has a structure policentric Mebidang. This is in line with Zulkaidi

(2011) which said that the characteristic structure Mebidang region of space has been basically meet the characteristics, the structure of the pattern of metropolitan areas as ideal space. In development-oriented monitoring economic activity centers that make up the metropolis requires a network infrastructure that can provide service to existing economic activities and be a force forming the fabric of space in the region. To maximize the development of the area Mebidang, the policy space utilization which can affect economic development and the physical area of Mebidang consists of policies Local Economic Development (LED) as a commodity or sector superior and dissertation with the policy of the use of space (the pattern and structure of space) (based on the calculation AHP and MPE). This space pemanfaatan policies can be implemented at least for the long term. This is like saying Adisasmita (2008), which stated that the development of urban areas show awakened (urban area) is increasingly widespread as a result of a number of penduduknya grow. Ideally a city that should be able to accommodate urban development is very rapid and dynamic in the future and able to anticipate developments in the next 20-30 years. Even in urban life metropolitan developments concerning the basic aspects of the economy, among others specification utilization of space, infrastructure/infrastructure, and population.

#### **4. Conclusion**

- 1) Urban areas Medan - Binjai - Deli Serdang serves as the economic driver of the region viewed from a supporting factor for the utilization of space, including the availability of potential/superior economic commodity, infrastructure support, social, cultural, and environmental.
- 2) The carrying capacity and functionality within the city of Medan - Binjai - Deli Serdang implications on the use of space is an effort to realize the structure and spatial patterns. The need for government policy intervention to determine alternative policy design. Through analysis of MPE and AHP obtained policy alternatives in the development area of Medan-Binjai-Deli Serdang include Medan as a center of services and trade, centers of higher education, transportation regional scale, high density with the intensity of a high building with green space of at least 30% for pemanfaatan spatial urban, and as an industrial area.
- 3) The potential of different regions, in the absence of policy support and inter-regional cooperation resulted in the disparity (gap) between regions. Based on the region's economic driving factors and major policy space utilization, there needs to be a policy designed space utilization simultaneously in one area by moving each potential / main commodity owned (full power for commitment and supporting). Therefore, the design of the policy (policy by design) in the development of space utilization Medan region-Binjai -Deli Serdang is:
  - a) Local economic development policies of competitive and value-added (added value) by utilizing the potential and competitive commodities each region are grown simultaneously.
  - b) Utilization policy space by bringing about the structure and spatial patterns through regional cooperation.



## 5. Suggestion

In making policy space utilization, the government is expected to have consistency, support, and a strong commitment to develop cities that have been assigned functions in one area, so that each region within the region can develop simultaneously in accordance with the potential and the hierarchy through development cooperation region.

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