Results of LCTI system in Bitung City

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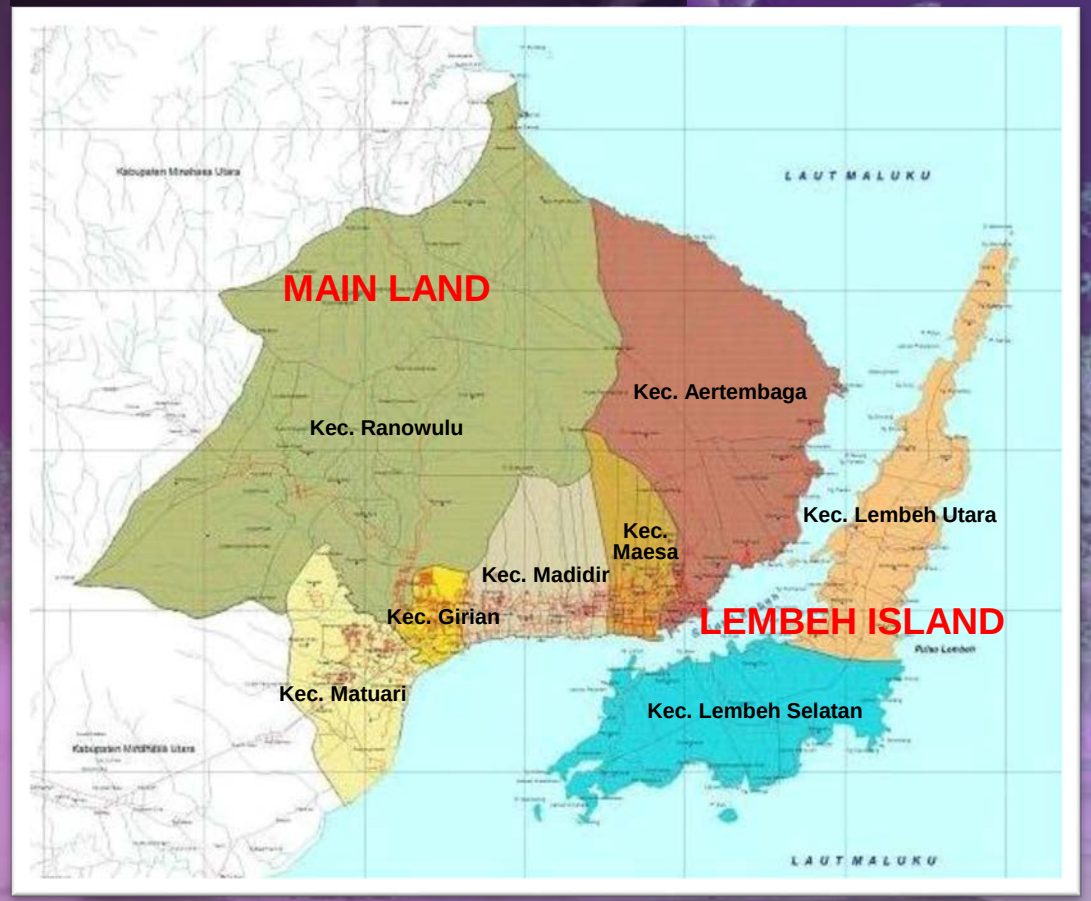
WALIKOTA BITUNG
MAXIMILIAAN J. LOMBAN

WAKIL WALIKOTA BITUNG
Ir. MAURITS MANTIRI

GENERAL DESCRIPTION OF BITUNG CITY

Map of Bitung City



AREA

Located in the most east part of North Sulawesi province
Area 313 Km^2

BORDERS

North	:	Likupang Sub district, Regency of North Minahasa and Moluccas Sea
East	:	Moluccas Sea
South	:	Moluccas Sea
West	:	Kauditan Sub District, North Minahasa Regency

GENERAL DESCRIPTION OF BITUNG CITY

TOPOGRAPHY

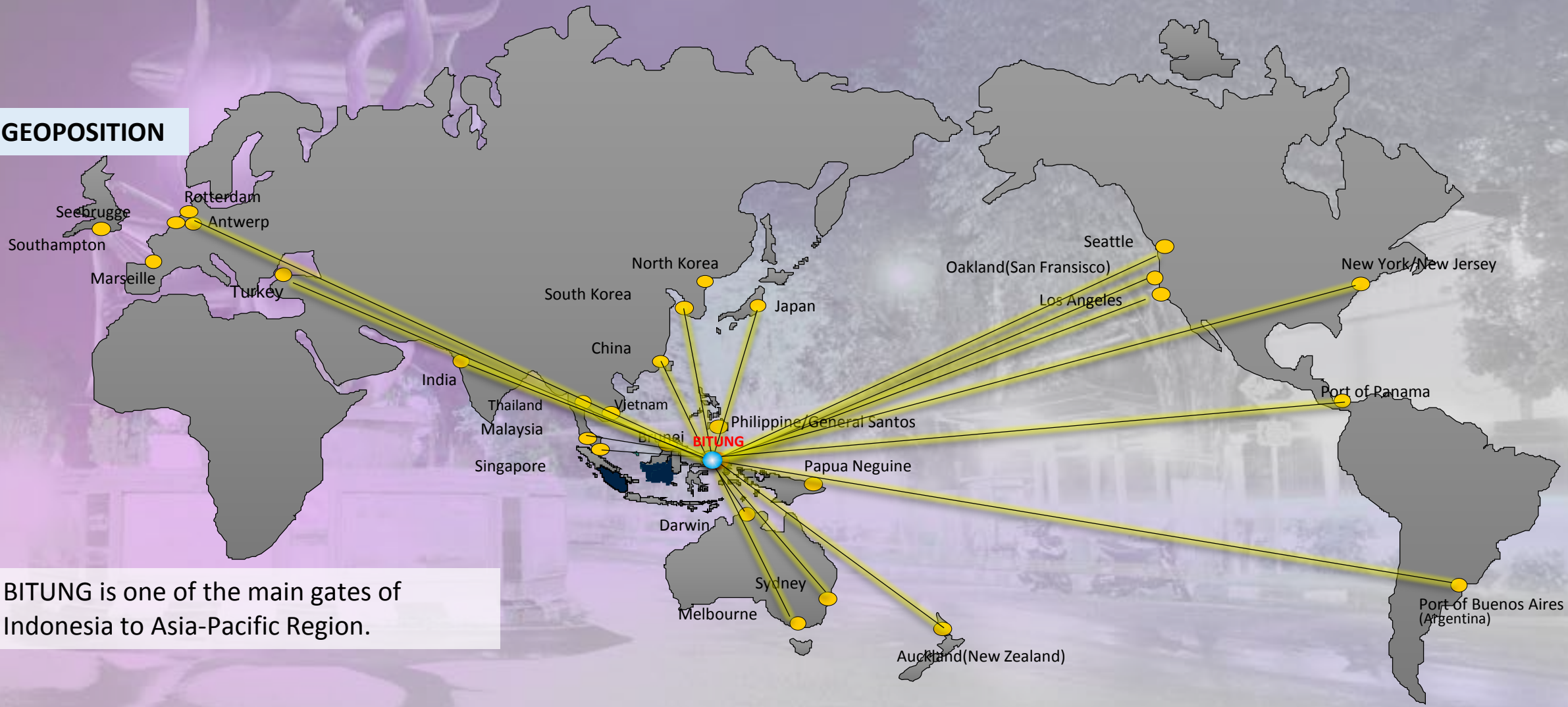
Hilly 45,06 %
Mountainous 32,73 %
Flat 4,18 %
Wavy 18,03 %

AREAL DIVISION

Area 31,350.35 ha
Conservation Area 13,378 ha (42.67%)
Consist of : Protected forests, reserves, nature conservation and natural parks.
17,972 ha (57.33%) Farm.

Geoposition and geostrategic of Bitung

GEOPOSITION



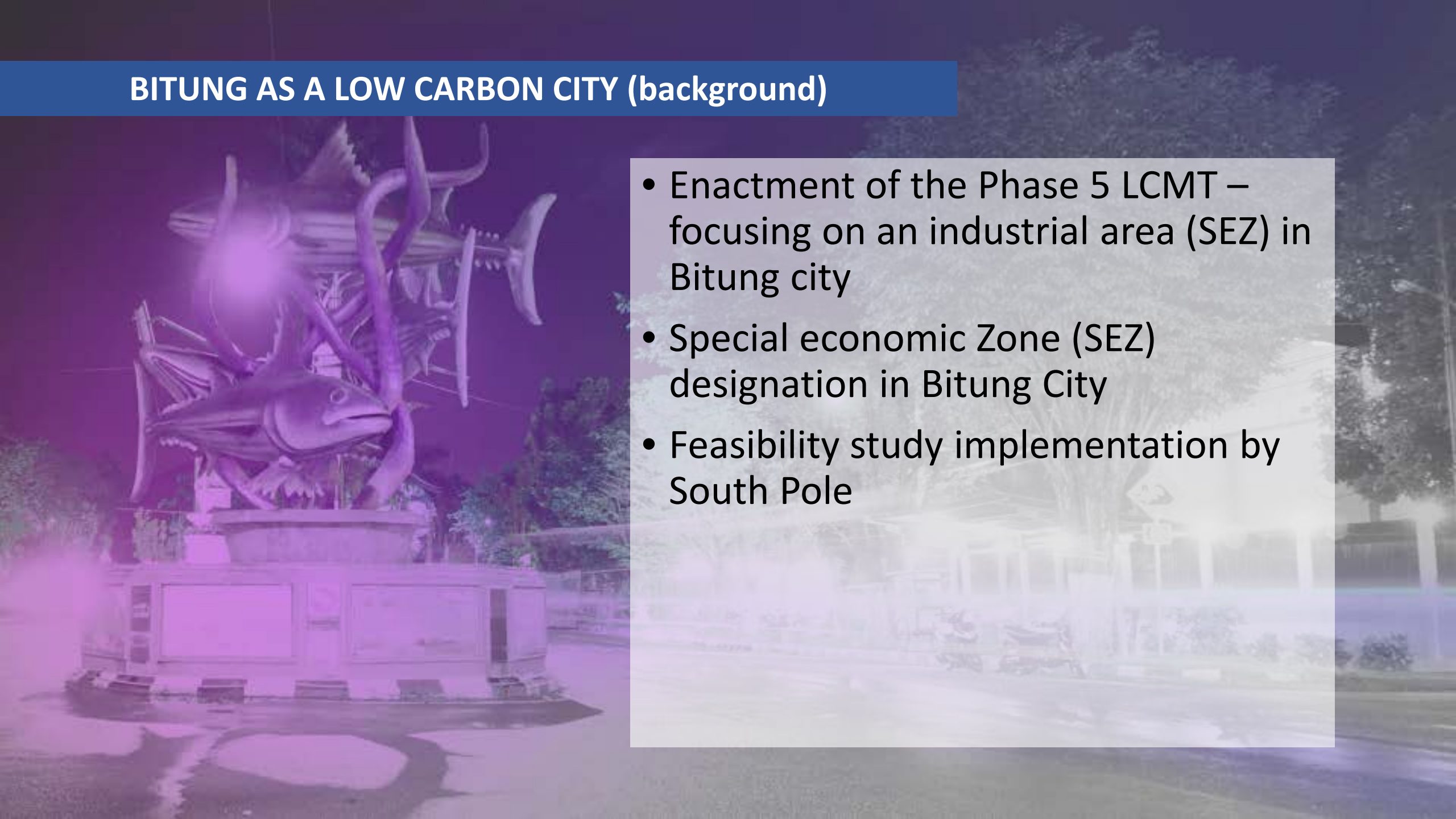
BITUNG is one of the main gates of Indonesia to Asia-Pacific Region.

NATURAL POTENTIALS

NATURE CONSERVATION, MOUNTAINS, NATURE PARKS, BAYS, LEMBEH STRAIT, 95 DIVING SPOTS, 17 ISLANDS WHERE LEMBEH ISLAND AS THE BIGGEST ISLAND ACTING AS A PROTECTOR OF THE CITY FROM TSUNAMI ATTACK AND RISK.

GEOTERMAL ENERGY POTENTIAL, MINING POTENTIAL, FISHERIES AND AGRICULTURE, SEA CURENT ENERGY POTENTIAL, SOLAR ENERGY POTENTIAL,

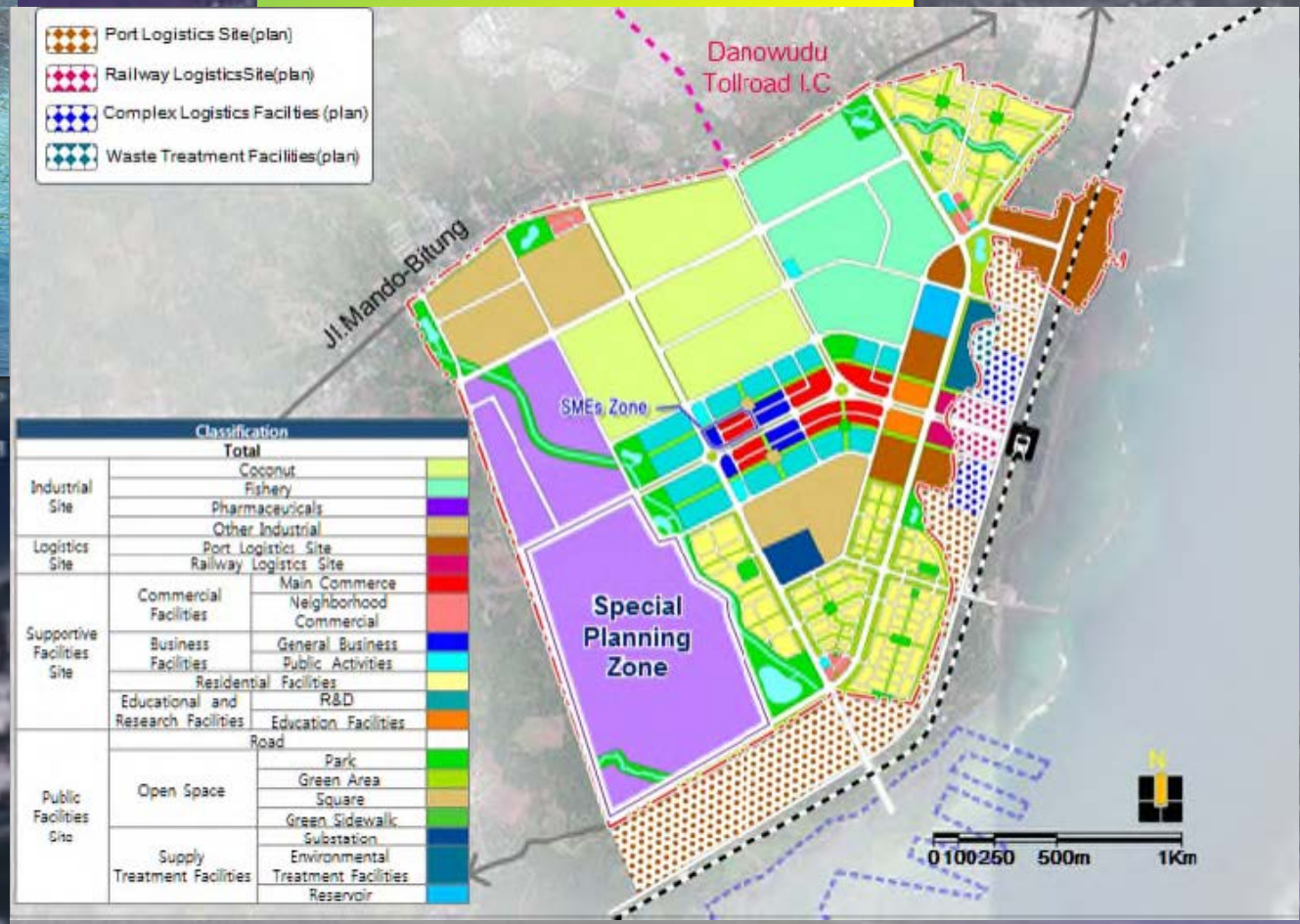
BITUNG AS A LOW CARBON CITY (background)



- Enactment of the Phase 5 LCMT – focusing on an industrial area (SEZ) in Bitung city
- Special economic Zone (SEZ) designation in Bitung City
- Feasibility study implementation by South Pole

Background

SPECIAL ECONOMIC ZONE



Classification			
Total			
Industrial Site		Coconut	
		Fishery	
		Pharmaceuticals	
		Other Industrial	
Logistics Site		Port Logistics Site	
		Railway Logistcs Site	
Supportive Facilities Site	Commercial Facilities	Main Commerce	
		Neighborhood Commercial	
	Business Facilities	General Business	
		Public Activities	
	Residential Facilities		
	Educational and Research Facilities	R&D	
		Education Facilities	
Public Facilities Site	Road		
	Open Space	Park	
		Green Area	
		Square	
		Green Sidewalk	
	Supply Treatment Facilities	Substation	
		Environmental Treatment Facilities	
		Reservoir	

LOW CARBON MEASURES IN BITUNG

Impact	Side	Aspects	Measurement/indicators	Average Score /Stars
Directly related	Demand	1. Town structure 2. Buildings 3. Transportation	Urban management system of the city Numbers of building with green design Measurement of road length & quality	60
	Supply	4. Area energy system 5. Untapped energy 6. Renewable Energy 7. Multi Energy System	Development of energy system Energy potentials Development of wind energy and solar	50
	Demand and supply	8. Energy management system		50
Indirectly related	Environment and resource	9. Greenery 10. Water Management 11. Waste Management	CO2 measurement, 12th Adipura award etc Water volume Sewage volume	80
	Governance	12. Policy Framework 13. Education and Management	An increase in budget Public education and go green campaign	80

TRANSPORTATION

TOLL ROAD

THE ENVIRONMENTAL ASPECT - Greenery

Greenery : 12 times Adipura

Innovation in water management

Waste management : sanitation – public toilet provision, septic tank amnesty

RESOURCES ASPECT . Esp, Renewable energy

Wind, Solar, Geothermal, Sea Current, biogas

Esp. Wind Energy is developed in eight villages in two sub districts at the level of principal permit issued capacity 30W

CO2 MEASUREMENT IN IN SEVERAL LOCATIONS IN THE CITY for 1 hour (source: the Environmental agency

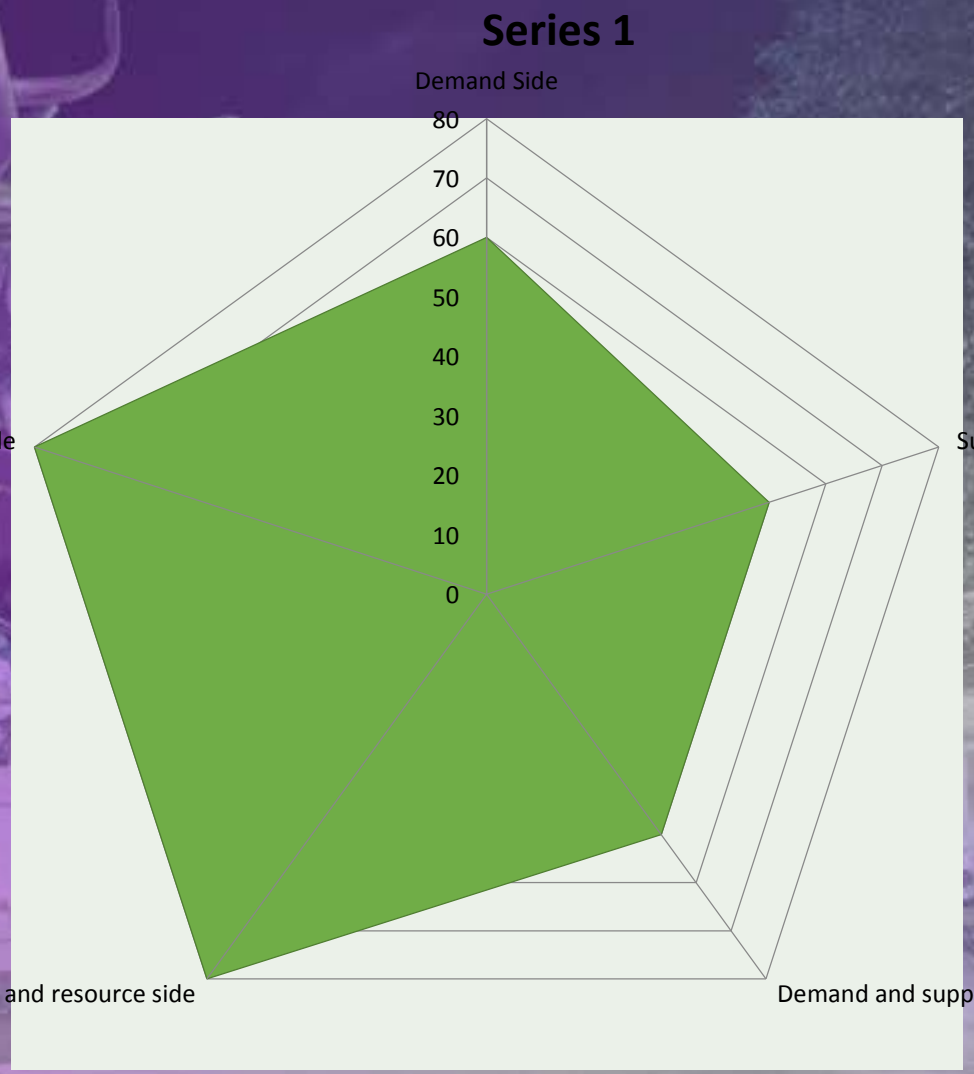
No	Locations	Results		
		2014	2015	2016
1	Tangkoko Terminal	<5000	2200	2100
2	Girian	<5000	320	315
3	Sari Cakalang Field	<5000	240	235
4	Mayor Office Complex	<5000	560	556
5	CBD	<5000	571	570
6	Pateten	<5000	112	115

GOVERNANCE

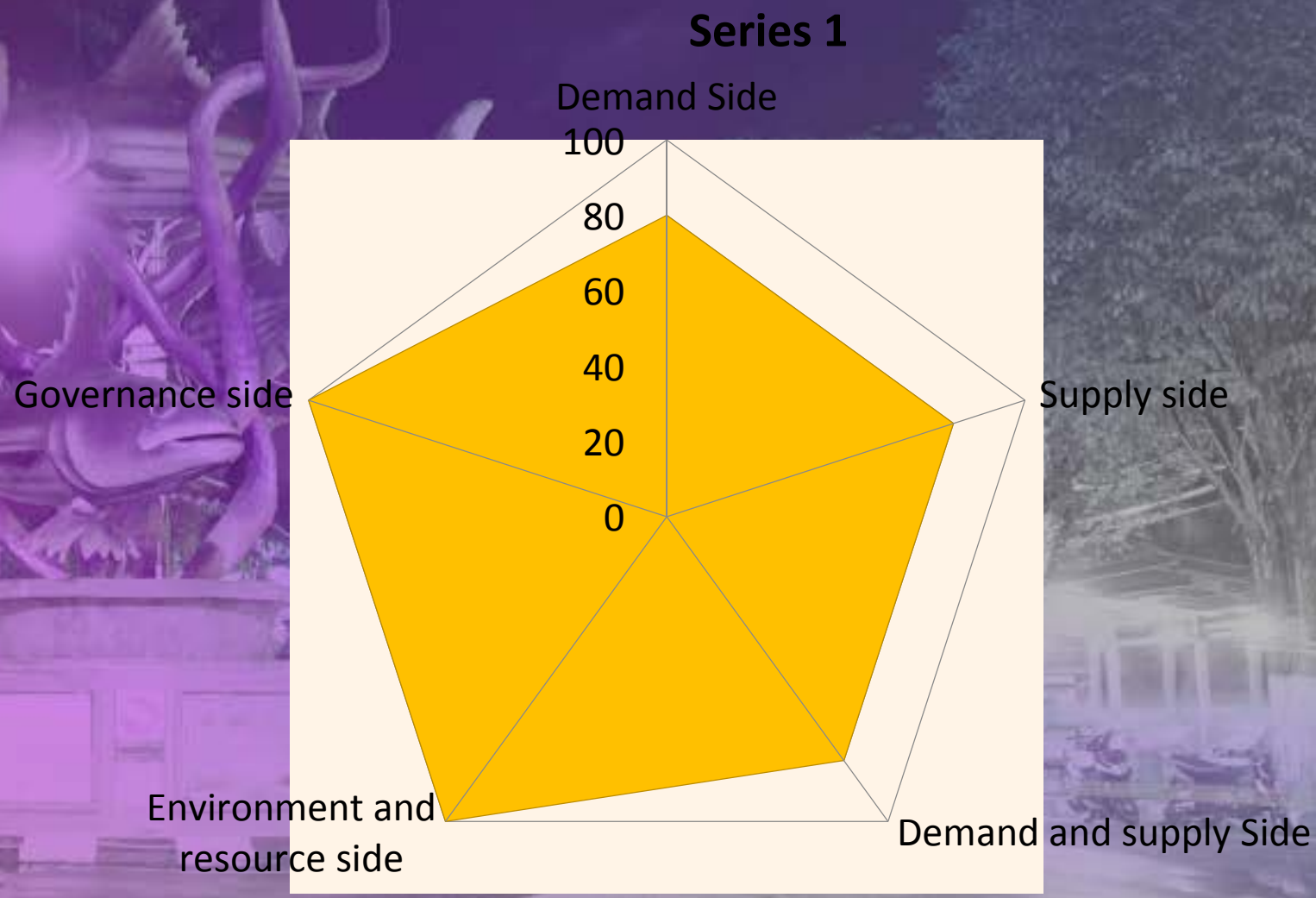
Policy framework: in increase in budgeting of the city related to LCMT : infrastructure and housing quality.

Education and management : Car Free Day: Go Green Campaign

SELF - EVALUATION RESULT OF BITUNG



FUTURE PLAN


Series 1
Demand Side
100
80
60
40
20
0
Supply side
Demand and supply Side
Environment and resource side
Governance side
Series 1

FEEBACK ON LCTi System

- Simple but good and flexible self assessment system
- Without being judged
- Indirectly encouraging to improve the performance of LCMT host.

CONCLUSION (BITUNG)

- People’s awareness of green energy is relatively good
- Strong Leaders’ commitment in relation to implementation of renewable energy (reject investments using fossil fuel energy)
- Has Renewable energy resources potential (Solar, wind, Hydro, Waste, Geothermal).
- Strong Policy Frameworks
- Collaboration with The Ministry of Energy and Mineral Resources in order to implementation of Low Carbon Model Town (LCMT)

THANK YOU

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