

DEVELOPMENT OF FREIGHT TRANSPORT IN INDONESIA: TOWARDS SUSTAINABILITY



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CONTENT

1

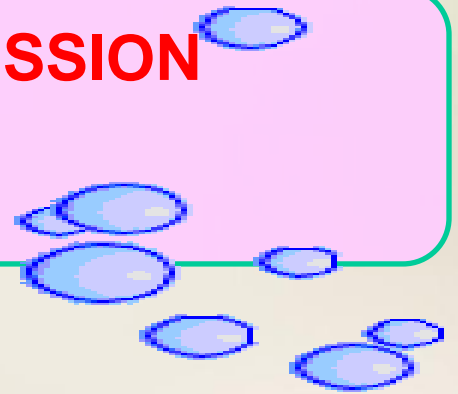
- **TREND IN LOGISTIC**

2

- **MP3EI**

3

- **ENERGY EFFICIENCY - EMISSION REDUCTION POLICY**



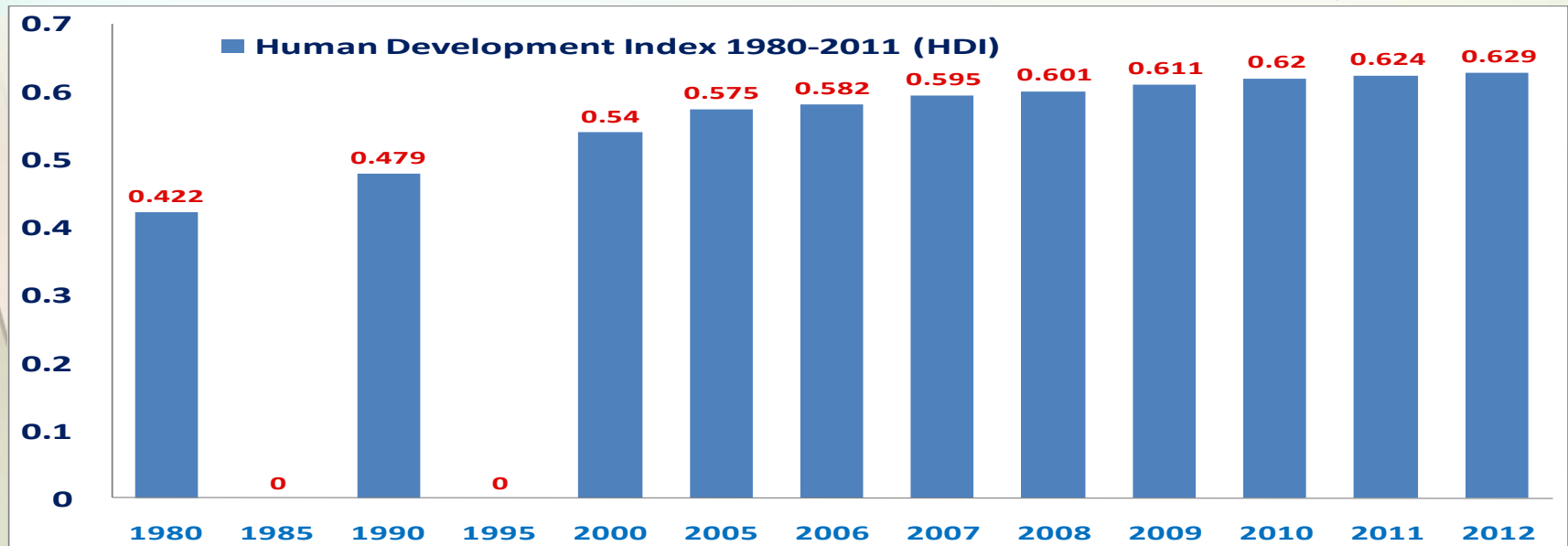
TREND IN LOGISTIC



INDONESIA'S ECONOMICS DEVELOPMENT PERFORMANCE

KEY INDICATORS	
Population 2013 (m)	251.16
Population growth rate (%)	1.03
GDP growth 2012 (%)	6
GDP percapita 2012 (US\$)	5000
Unemployment rate 2012 (%)	6.10
Poverty Rate 2012	11.7
HDI (2011)	0,717

- **INDONESIA'S ECONOMIC GROWTH HAS UPGRADED PER CAPITA INCOME AND HUMAN DEVELOPMENT INDEX(HDI).**
- **IN THE YEAR 1980 TO 2011, HDI HAS INCREASED FROM 0.422 TO 0.629**



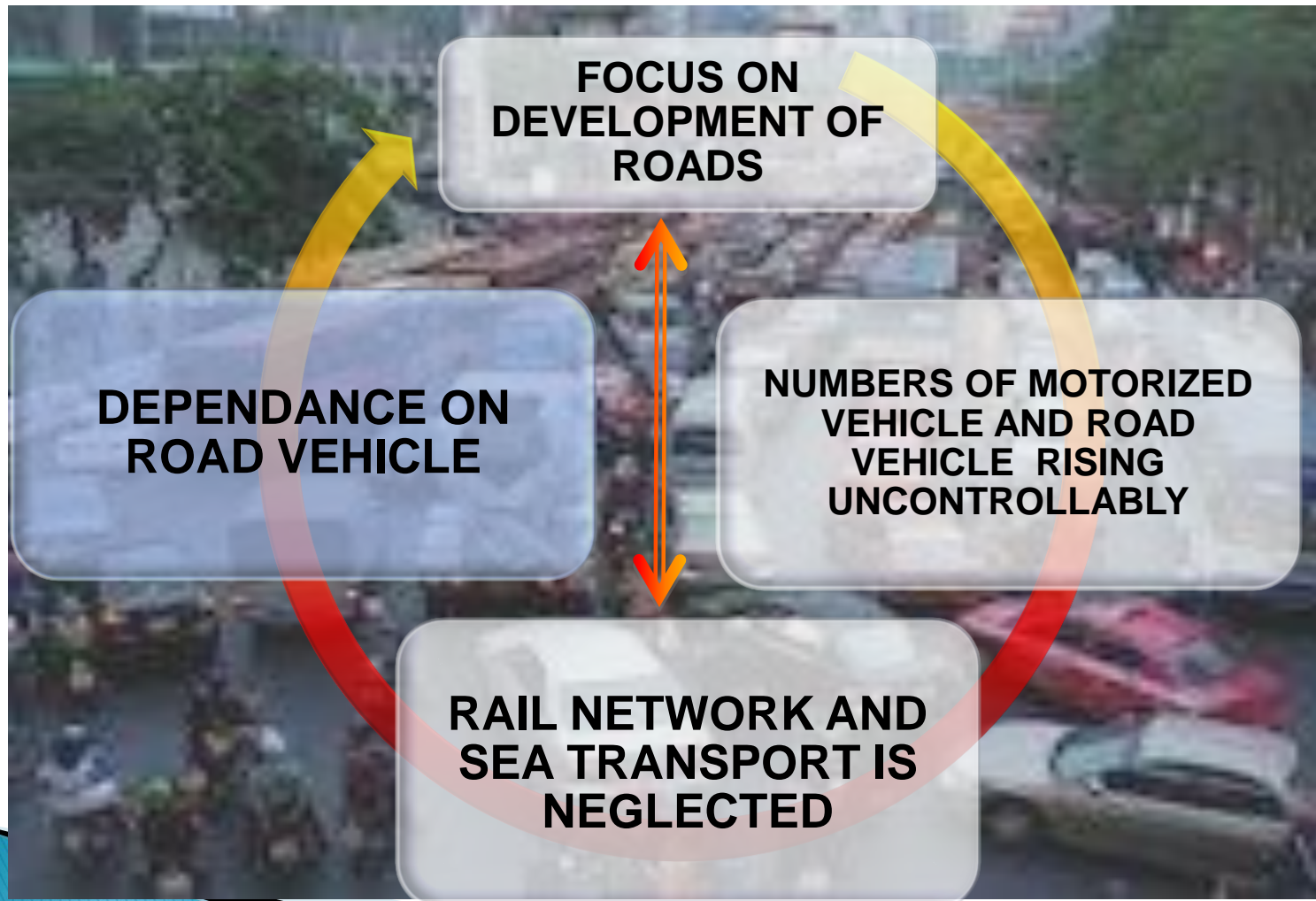
Comparison of Logistics Performance Index (LPI) (from 155 countries)



ASEAN Country	LPI		Custom		Infrastructure		International Shipment		Competence		Tracking & Tracing		Timelines	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Singapore	1	4.13	1	4.10	2	4.15	2	3.99	6	4.07	6	4.07	1	4.39
Malaysia	29	3.49	29	3.28	27	3.43	26	3.40	30	3.45	28	3.54	28	3.86
Thailand	38	3.18	42	2.96	44	3.08	35	3.21	49	2.98	45	3.18	39	3.63
Philippines	52	3.02	67	2.63	62	2.80	56	2.97	39	3.14	39	3.30	69	3.30
Vietnam	53	3.00	63	2.65	72	2.68	39	3.14	82	2.68	47	3.16	38	3.64
Indonesia	59	2.94	75	2.53	85	2.54	57	2.97	62	2.85	52	3.12	42	3.61
Rata-Rata Score		3.29		3.03		3.11		3.28		3.20		3.40		3.74

Source: World Bank

TODAY'S PARADIGM



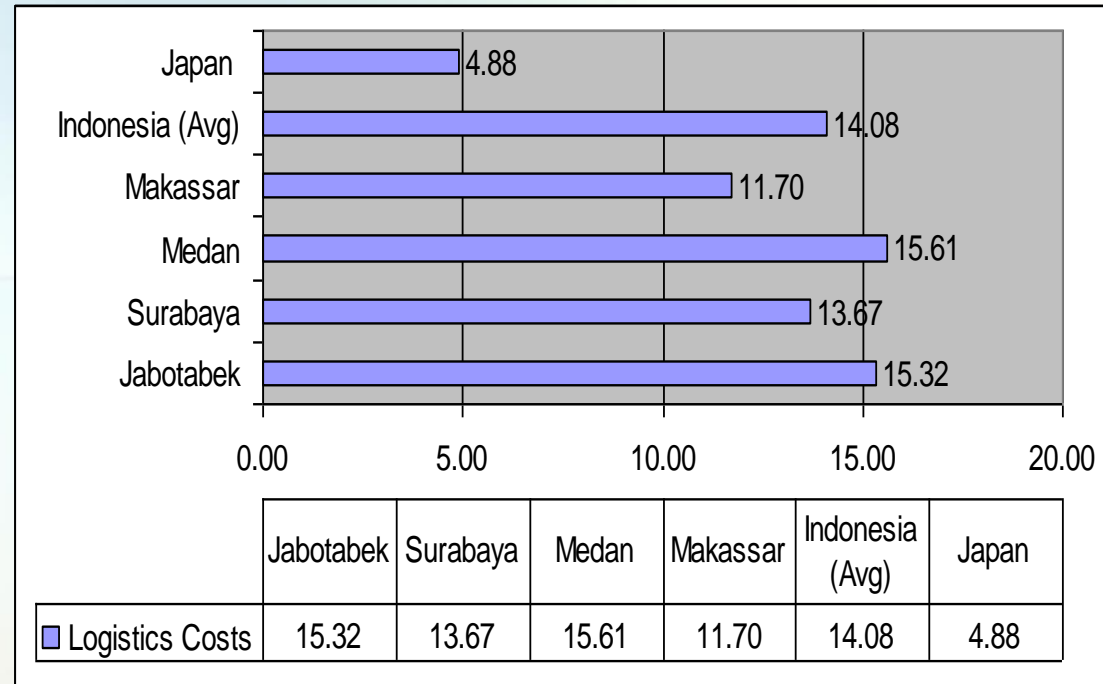
Cost Comparison Between Different Mode Of Transportation

Trucking is a preferred mode of transportation within Java and between Java and Sumatra given the fact that sea transportation is at least 30-40% cheaper. Flexibility and lead time are two key criteria for shippers/consignees to choose their mode of transportation.

MODE OF TRANSPORTATION COMPARISON WITHIN JAVA

	TRUCKING	RAIL	SEA TRANSPORT
Price (Rp.) per TEU	7.500.000	N.A.	2.000.000-2.500.000 (ocean fare) 1.500.000 (two port handling charge)
Lead Time	1-2 days	3-4 days	7-8 days
Capacity	Near unlimited, the capacity is only constrained by road congestion near the port	The rail between Jakarta and Surabaya is for both passenger and freight, but passenger has higher priority. Every train has 20 units of 40 Container per trip. There is 2-5 freight trains between Jakarta and Surabaya. Assuming 5 trains, the annual capacity is about 16.000 TEU per year.	Feeder service between Tanjung Priok and Tanjung Perak is very limited.
Service Frequency	Very frequent and flexible	Service is regular, every day there is 2-5 freight carrying trains	Service is infrequent.

TRANSPORTATION COST



Transport Cost:

Indonesia's logistics costs are very high compared to other countries, which the average logistics costs in Indonesia approach to 14.08% Production Cost.

Congestion that occurs in the Jakarta city resulted trucks can **only do one trip in a day** from industrial location to the port

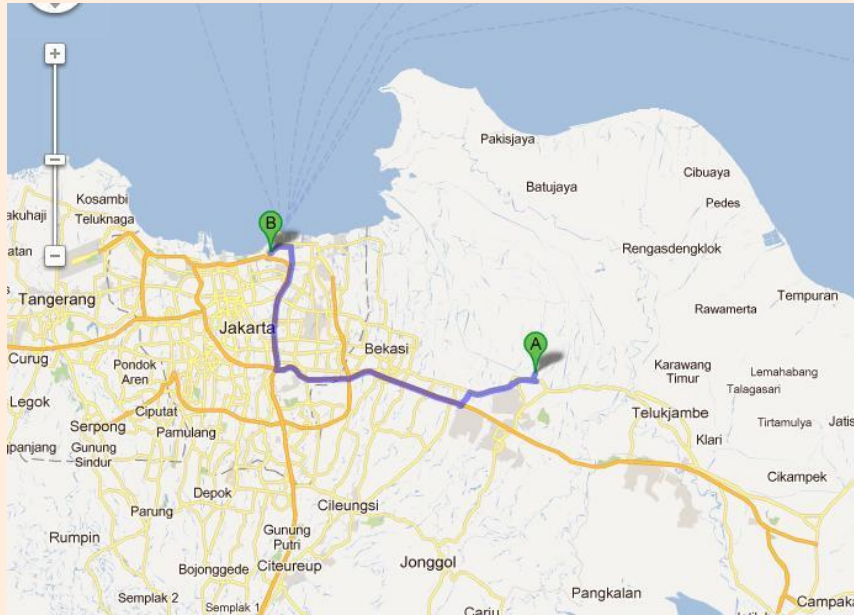


The shipping costs to be twice more expensive than in Malaysia or Thailand.

- The shipping cost of container from Padang to Jakarta **Rp 5, 4 million**, while the shipping cost of the same container from Jakarta to Singapore **only Rp 1, 8 million**.
- The price of cement in Papua's **twenty times higher** than the price of cement in Jakarta, because the shipping cost is expensive.

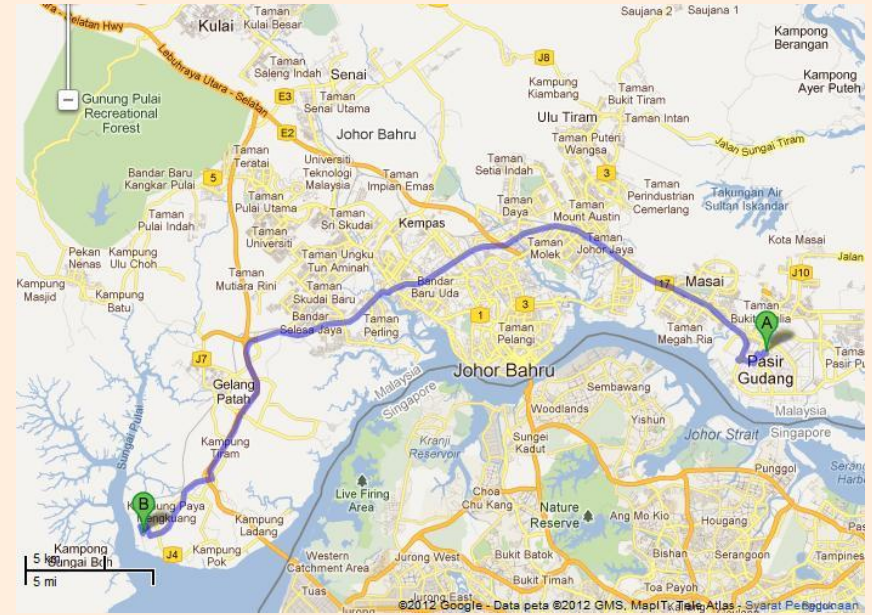
LOGISTIC COSTS FROM THE INDUSTRIAL AREA TO THE PORT IN INDONESIA IS HIGHER THAN MALAYSIA

CIKARANG TO PORT OF TANJUNG PRIOK (INDONESIA)



Mileage of Truck : 55,4 km
Logistics cost : 750 U.S. Dollar

PASIR GUDANG TO PORT OF TANJUNG PELEPAS (MALAYSIA)



Mileage of Truck : 56,4 km
Logistics cost : 450 U.S. Dollar

MP3EI

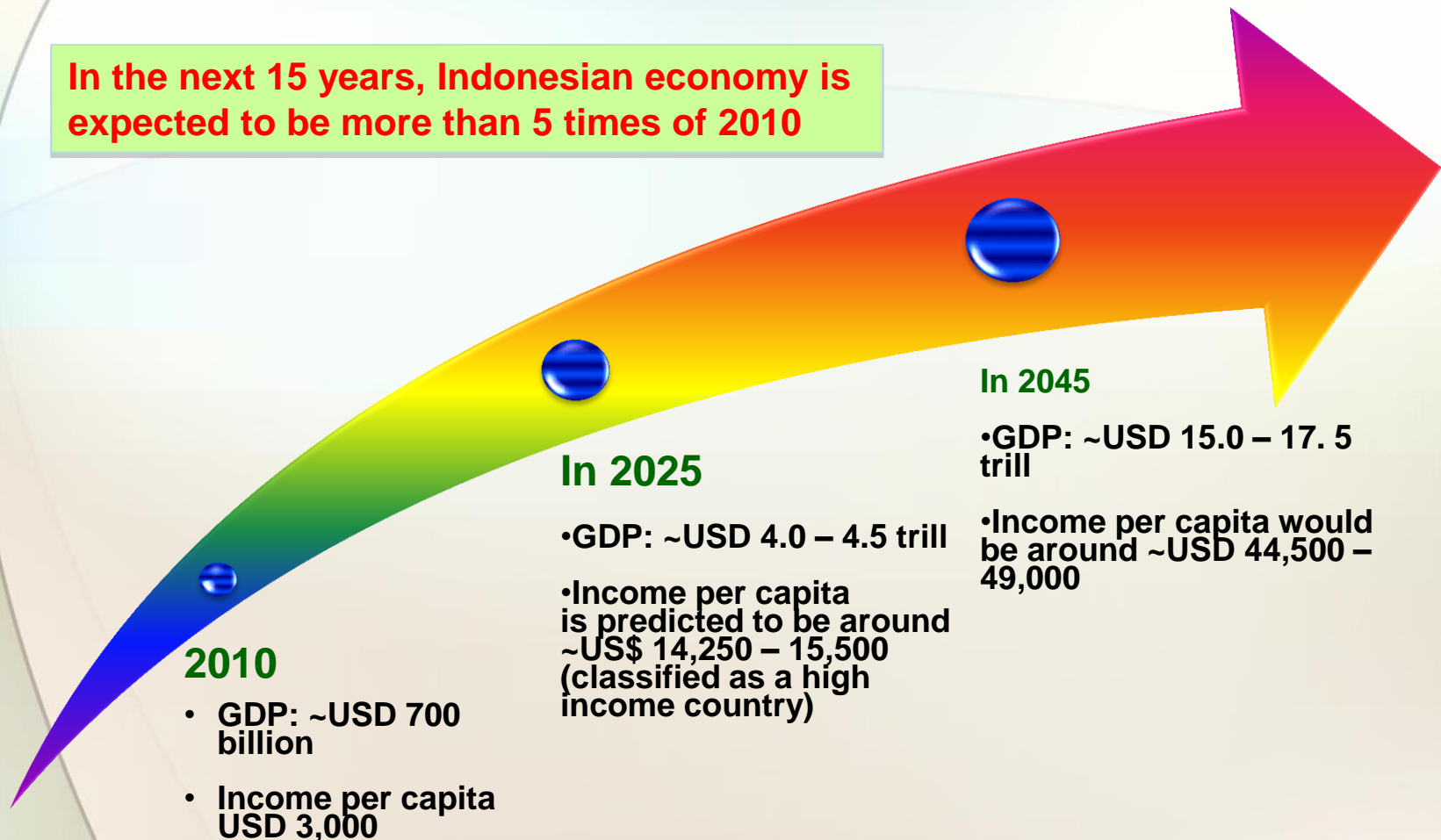
THE MASTER PLAN FOR ACCELERATION AND EXPANSION
OF INDONESIA ECONOMIC DEVELOPMENT
(Presidential Regulation No. 32/2011)



PLANS FOR INDONESIA GDP

STRONG ECONOMIC GROWTH IS PROJECTED, THUS REQUIRES MORE DEVELOPMENT OF BASIC INFRASTRUCTURE

In the next 15 years, Indonesian economy is expected to be more than 5 times of 2010



2010

- GDP: ~USD 700 billion
- Income per capita USD 3,000

In 2025

- GDP: ~USD 4.0 – 4.5 trill
- Income per capita is predicted to be around ~US\$ 14,250 – 15,500 (classified as high income country)

In 2045

- GDP: ~USD 15.0 – 17.5 trill
- Income per capita would be around ~USD 44,500 – 49,000

ECONOMICAL GROWTH



GREENHOUSE GAS EMISSION

Environmental Impact

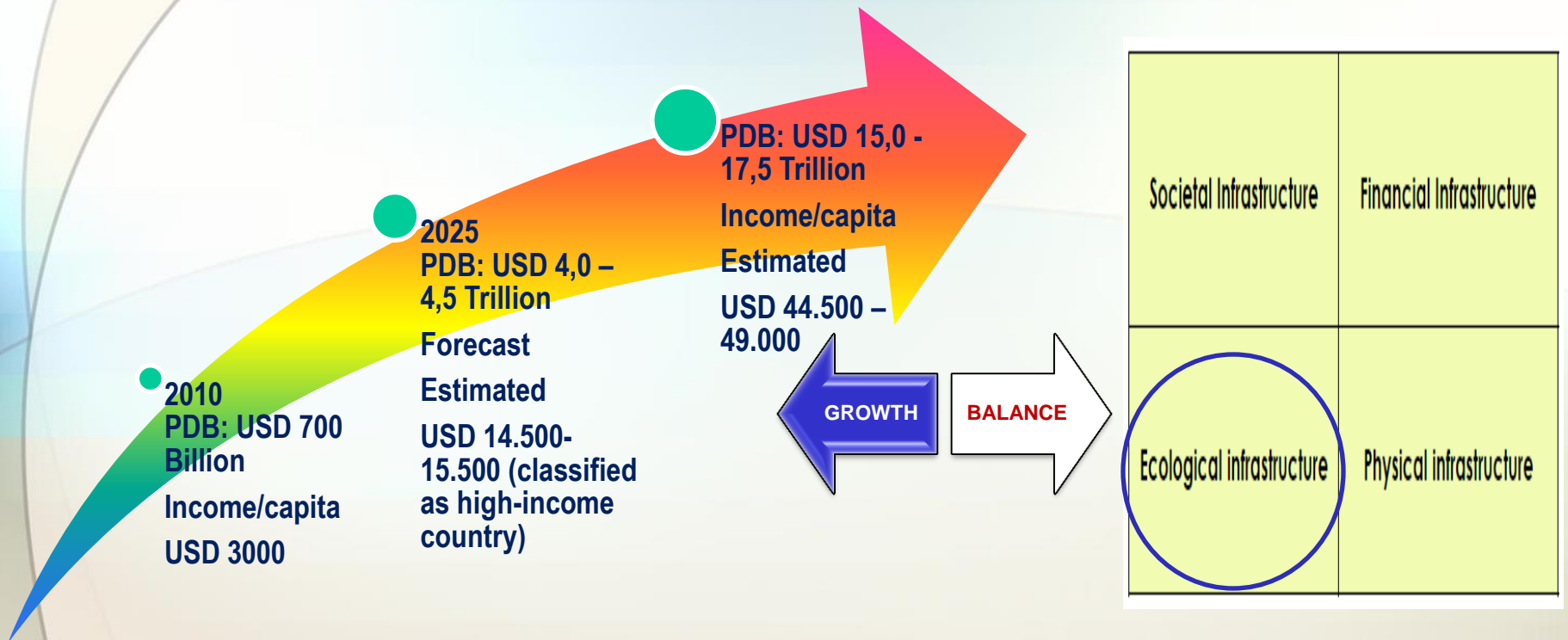
Pollution and Environmental Degradation

Natural Resource and Biodiversity Degradation

Natural Disasters Caused by Climate Change

Social welfare degradation

MP3EI



The vision for Indonesia's Acceleration and Expansion of Economic Development is: "To create a self - sufficient, advanced, just and Prosperous Indonesia"

Sustainability spirit based in every development activities.

HOW TO ACCELERATE ECONOMIC TRANSFORMATION:

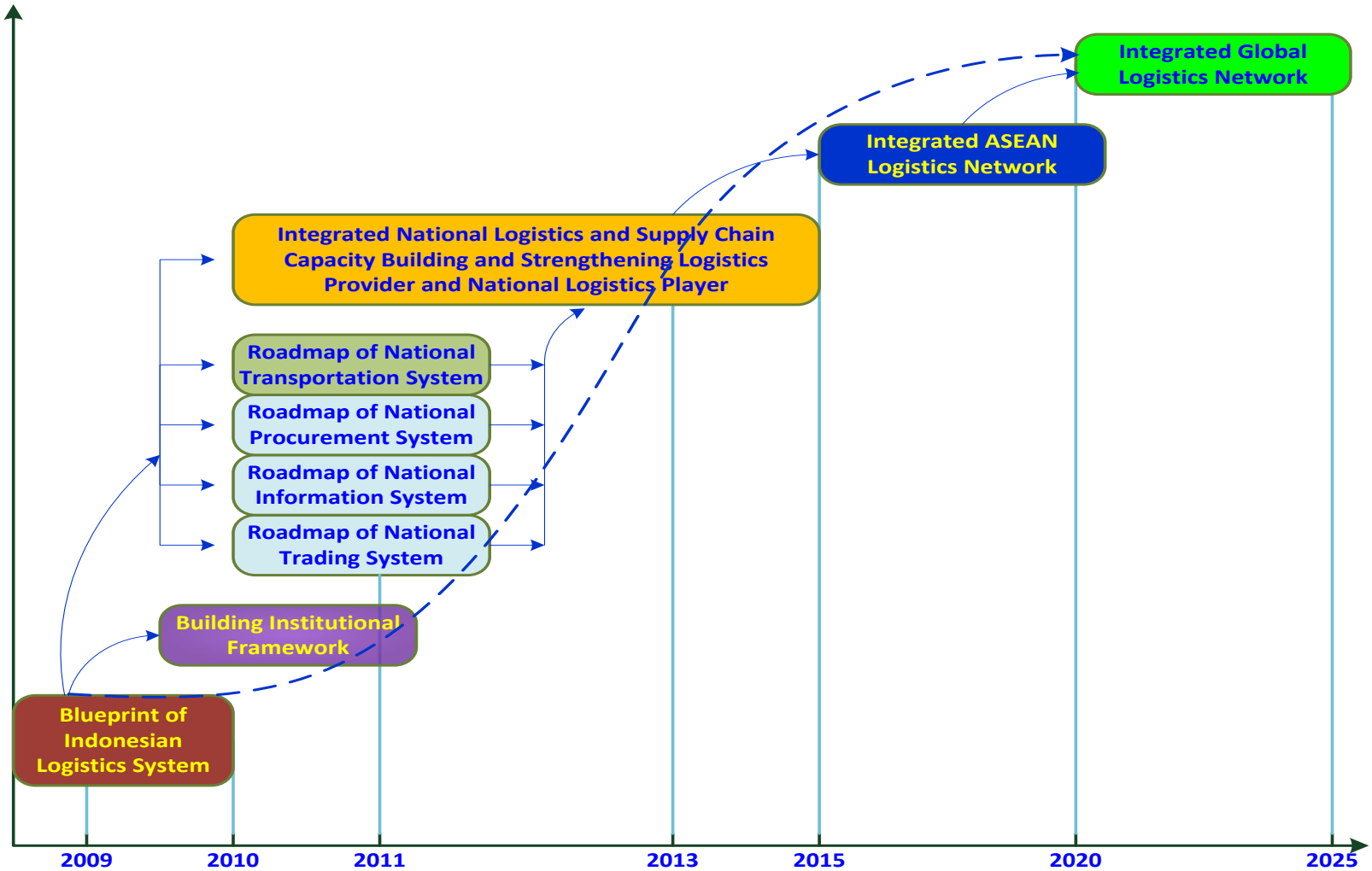
The 2025 vision is expected to be achieved by focusing on 3 main goals:

1. Increase **value adding** and expanding value chain for industrial production processes, and **increase the efficiency of the distribution network.**

2. **Encourage efficiency in production** and improve marketing efforts to further integrate domestic markets in order to push for competitiveness and strengthen the national economy.

3. To push for the strengthening of the national innovation system in the areas of production, process, and marketing with a focus on the overall **strengthening of sustainable global competitiveness towards an innovation-driven economy.**

ROADMAP NATIONAL LOGISTICS SYSTEM



Source: Cetak Biru SISLOGNAS

MP3EI Connectivity Vision 2025:

Locally Integrated, Globally Connected

- **Improved accessibility**
- **Ambitions for Modal split
→ Multi modal**
- **Increasing sustainable energy use/production**
- **High-end port activities, innovation**
- **Strengthening partnerships :PPP**



ENERGY EFFICIENCY-EMISSION REDUCTION POLICY



LOGISTICS AND FREIGHT-RELATED ACTIVITIES MAY ACCOUNT FOR UP TO 15 PERCENT OF HUMAN CARBON DIOXIDE EMISSIONS, IN PART BECAUSE OF FOSSIL FUELS (WORLD BANK) .

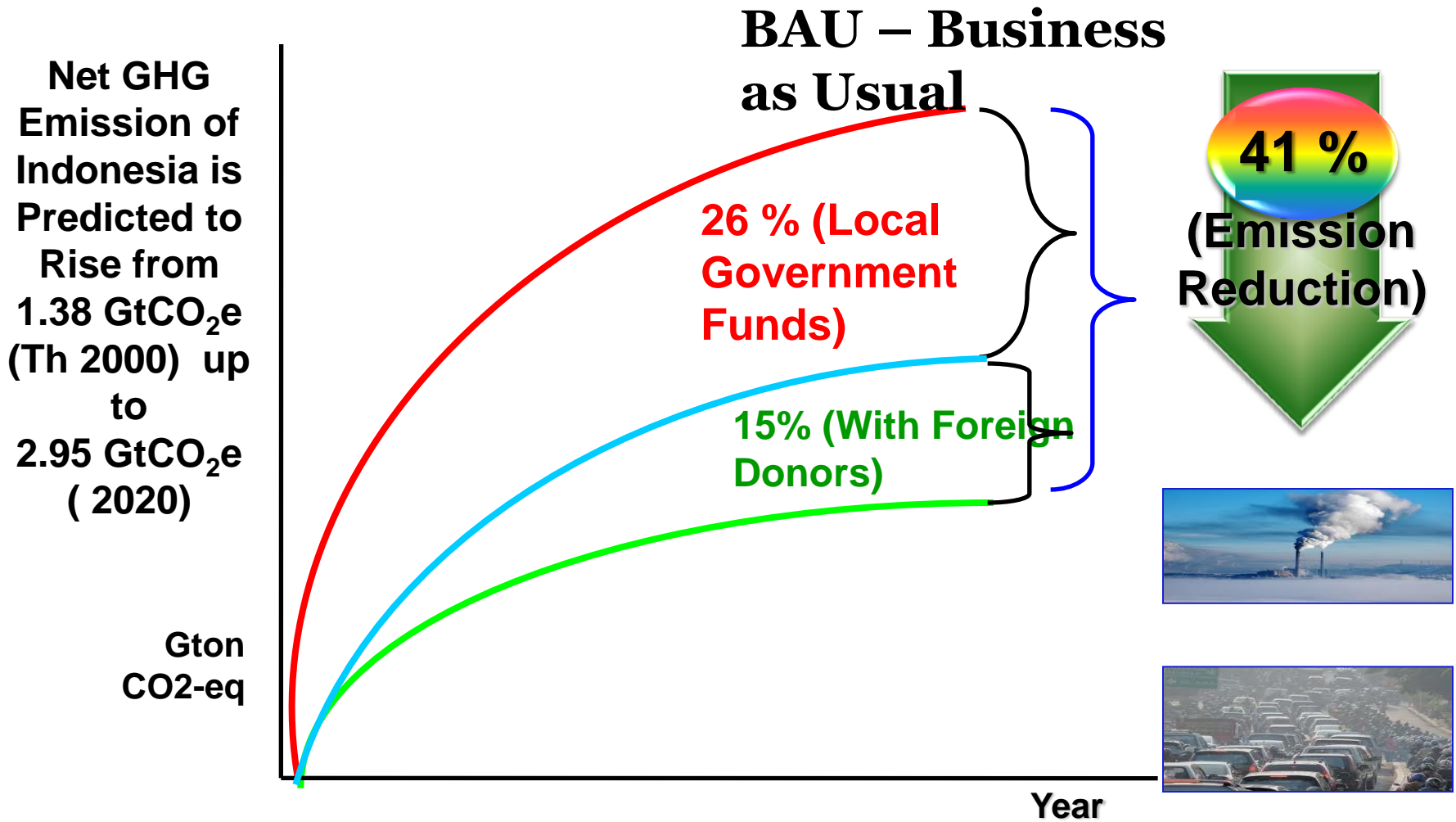


BETTER LOGISTICS EMISSION REDUCTION

More *fuel-efficient vehicles and cleaner* practices mean better logistics. It may be possible for logistics to diminish its carbon footprint with **higher load factors or fewer trips**. But emissions can be reduced the most through a **shift away from higher emission transport modes**—that is, if lower emission modes (which in many cases are also slower) can be made more attractive through better service delivery and predictability.

GHG Emission Reduction Target 2020

(Presidential Regulation no 61/2011)



Strategy on Multimodal TRANSPORT

“... the carriage of goods by at least two different modes of transport on the basis of a multimodal transport contract

AIM: To create *one stop service (3 S's)*, ; i.e *single operator, single tariff and single document* for cargo transport

1. Infrastructure
Network Integration

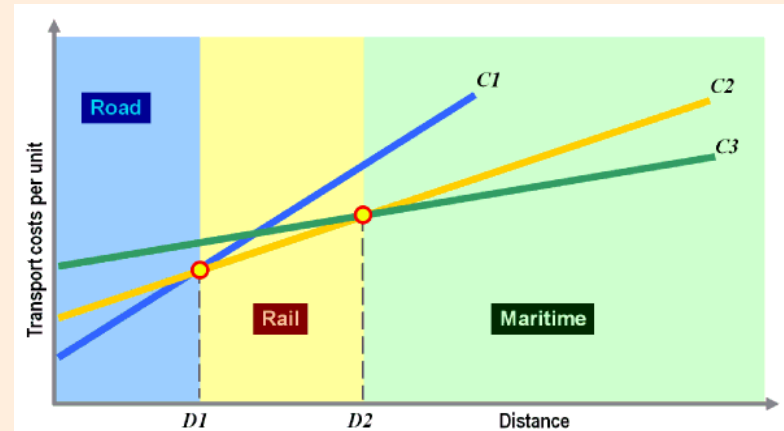
2. Integration of Services
Network

3. Improvement of Multimodal
Transportation Company/HRD



SHIFTING FROM ROAD

1. Transportation movements still dominated by road transport (80%). Road transport have the lowest cost function for short distances (<500km), however, the cost rises quickly, when $i > 1500\text{km}$ → maritime transport have the lowest cost. Between 500-1500km, trips using rail transport have the lowest cost function.



D1 : 500 km , D2 : 1500 km

Source: THE GEOGRAPHY OF TRANSPORT SYSTEMS

Railway Development



Sumber: IndII, 2010

2. Indonesian Government has implemented policies in order to reduce traffic load in roads → redirected and balanced using other modes of transportation such as rail and short-sea shipping → Improve MULTI MODAL.

POLICY IN RAIL

- Develop seaport

- To speed South
Double
cities
and 7

- Develop and K
and th

- Develop Cirebon

- Building infras

unit locomotive

POLICY IN AIR

- Setting
- Optim cargo
- Optim devel **intern**
- Impro air tra
- **Impr** airport

POLICY TRENDS IN SEA TRANSPORT

- Enforcement of **Cabotage Principle** for domestic sea freight.
- **Enhances the accessibility** of goods transport in rural and density/congested areas.
- **Improving the performance of services on the strategic port** that handle most of goods flow (Banten, Tanjung Priok, Tanjung Emas and Tanjung Perak).
- **To socialize laws about environmental protection**, especially international laws which are ratified nationally.
- **Screening Indonesia/foreign ships in order to comply with pollution prevention laws.**



CONCLUDING REMARKS

Freight transport is a big issue in Indonesia and it is crucial to be improved, especially to achieve MP3EI target.

Better transport management → efficient → reduce emission.

Sustainability transport as the basic spirit in all transport development → regulated.

Towards green freight transport → cooperation → agreement.



Thank You

