

“In 2030, Indonesia plans to have ±12.000km of railway networks covering almost the entire big islands”.



What do the public want with the public transportation? They want fast, affordable, reliable, safe, and convenient mass transportation. With the total population of ±250 million, the demand is posing a real challenge for the Government of Indonesia (GOI) to meet as Indonesia currently lacks of basic transport infrastructure.

A possible solution is by using railway. Compared to air transport, even with the low-cost carrier phenomenon, railway has always been a key testament of cheap and reliable mode of transportation for moving people as well as tradable goods. For that reason, GOI has begun the reformation since 1990s along with the national expansion program for airports and highways.

» **Operational Overview**

Figure 1. National Railway Map (green line)



The quality of railway transportation is very reliant not just on the quality of railway network and the interconnectivity; it is also affected by the service quality from the provider. PT Kereta Api Indonesia (PT KAI), a state-owned enterprise, is virtually the only train operator with enormous networks among major cities in Java and Sumatera, and owns remarkable number of rolling stocks. In private sector, PT Railink (a joint-venture between PT KAI and PT Angkasa Pura II) operates a much smaller

segmented market but gain national reputation to becoming Indonesia's first airport rail-link from Kualanamu Airport - Medan.

Unfortunately, there is deficiency in national railway service coverage. Nationwide PT KAI has four railway networks covering most of Java and part of Sumatera with no connections between these two islands.

The national railway has a total ±6,790km of railway connections; of which around a third (±2,122 km) cannot be operated. From the remaining “active” network, about 400km is electrified to serve local commuters in greater Jakarta (Jabodetabek area).

It is worth to note that most of the current national railway was Dutch Colonial heritage. GOI has hardly ever constructed new network but only to revitalize or expand the existing track i.e. double-track.

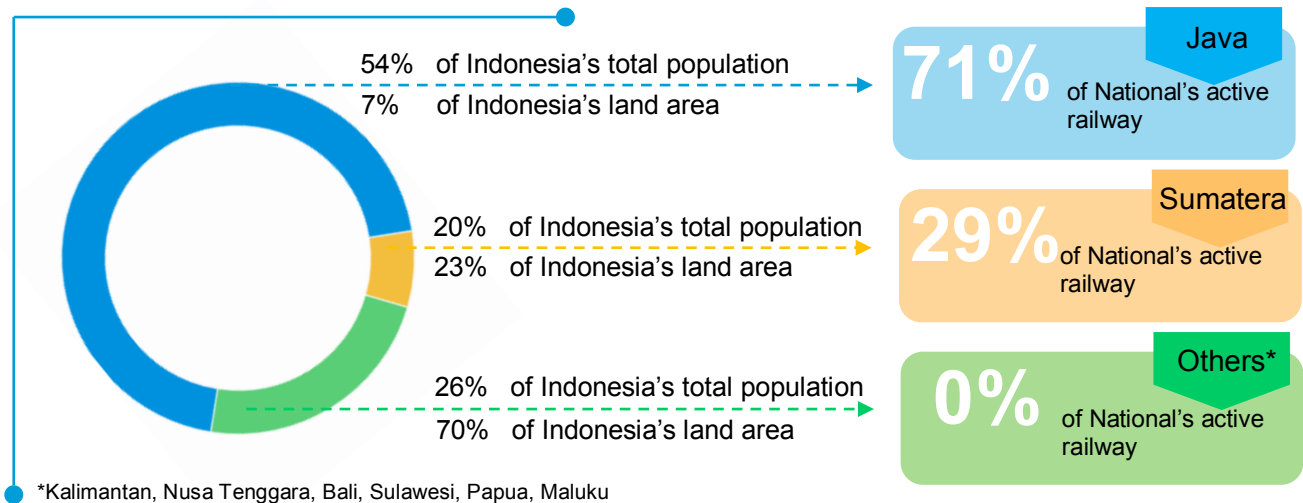
Table 1. Indonesia's Railway Network (in km)

Location	Active Railway	Non-active Railway	Total	Freight
Java	3,327	1,480	4,807	6%
Madura	0	130	130	
Sub-total	3,327	1,610	4,937	
Sumatera				70%
North	516	428	944	
West	169	80	249	
South	663	4	667	
Sub-total	1,348	512	1,860	
Total	4,657	2,122	6,797	

Source : Directorate General Railways, Ministry of Transportation

From the table above, some interesting facts are:

Graph 1. Railways Proportion in Indonesia



Java, home to 54% Indonesians has merely 7% of country's total land area but with the longest track in operation (71%). In the other hand, Sumatera houses 20% of Indonesia population, accounts for 23% of nation's land mass, and has 22% of national's operating track. The rest of archipelago with 70% of Indonesia land mass has 26% of total population but essentially zero in railway network. This simply shows disparity of railway transportation service coverage. The condition is further worsened by sub-standard tracks and therefore has not been able to promote faster economic growth.

An initiative has been made to expand the infrastructure of railway transportation industry. In 2030, GOI plans to double-fold the current figure into ±12.000 km of network system, spreading across Java, Bali, Sumatera, Kalimantan, Sulawesi, and Papua. Out of the total, as much as 3.800km would be contributed by electrified-commuter line.

GOALS *12,000 km*
Length of the railway

4,800 & 67,615
locomotive coach

Figure 2. National Railway Master Plan in 2030

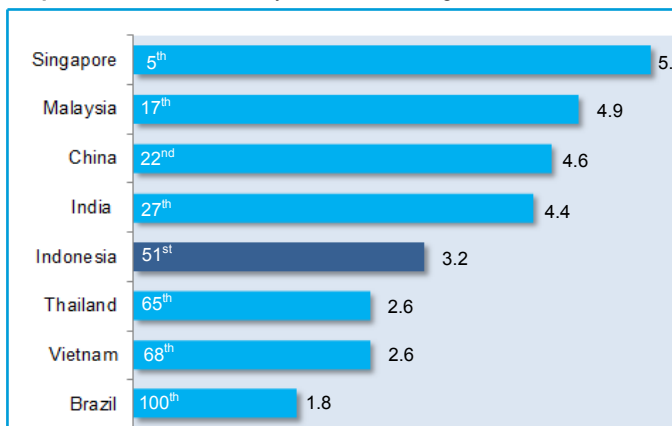


Source : National Railway Master Plan



The network expansion program would be backed by strong procurement strategy. GOI target is to have 4.800 locomotives (of which 2.805 is for passenger) and 67.615 wagons (including 27.960 passenger railway wagons and 39.655 of freight wagons) by 2030. With this program, GOI is expecting to boost quality of tracks as well. From the Global Competitiveness Report of 2013-2014, Indonesia (ranked 51st out of 144 countries

Graph 2. Indonesia's Railway Network Ranking



Source : Global Competitiveness Report 2013-2014

with rail network) is still far below neighboring countries like Singapore (5th), Malaysia (17th), and other Asian countries such as China (22nd) and India (27th).

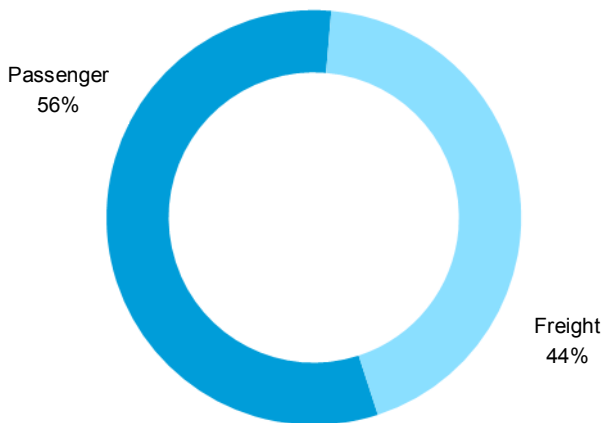
It is much anticipated by 2030 when the program has been fully executed and sustainable improvement is in place, the national railway industry will be the transportation backbone for both passenger and cargo.

Railway Operator

Currently, the only two operating companies are the giant PT Kereta Api Indonesia (PT KAI), a state-owned enterprise, and a small segmented privately-owned PT Railink.

PT KAI is not only government arms' length; itself is a profit-center business entity. From commercial side, it deserves a round of big applause. Prior to 2009 the net income showed frequent annual losses. It then took hefty internal reformation and successfully book IDR 425 Billion of net income in 2012, nearly twice as much as in 2011. The revenue has been obtained from passenger line service (56%) mostly from the dense populated Java Island and freight transport service with 90% contribution is from the resource-rich island of Sumatera.

Graph 3. KAI's Source of Revenue

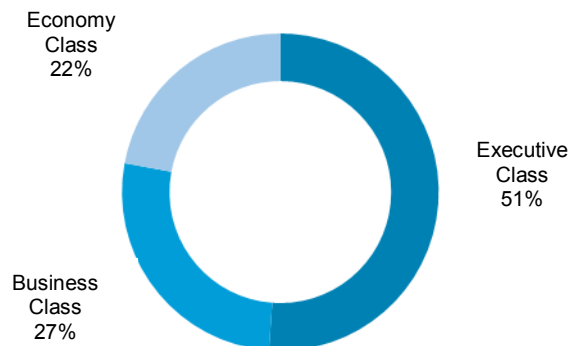
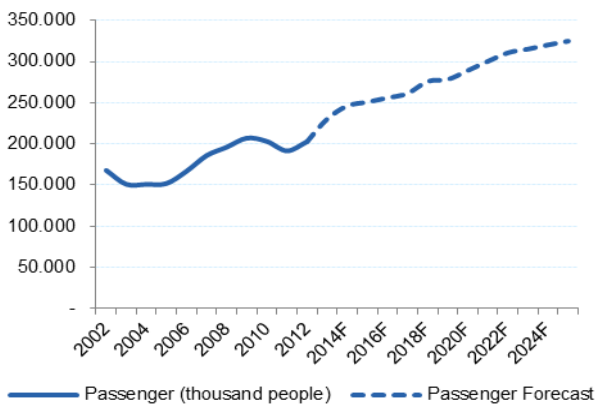


Source : PT KAI Annual Report 2012

Passenger Line Service Growth

In 2012, the total annual user to the service is ±203 million passengers. The revenue is divided into three classes: economy (22%), business (27%), and executive (51%). Passenger line service is expected to grow 60%, reaching ±325 million passengers by 2025.

Graph 4. Passenger Growth Projection and Passenger Service Segmentation Based on Class



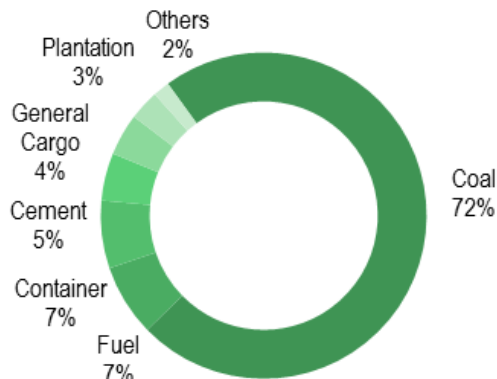
Source : National Railway Master Plan and PT KAI Annual Report 2012

Freight Transport Growth

Coal was the highest contributor in 2012 taking 72% of freight transport revenue. The 2025 projection would give an estimate of 24 million tons, 10% increase from 2012 figure.

Passenger line service would still be the majority source of revenue in the following years. However, freight transport cannot be ruled out as it is also giving a significant amount of income. The bigger prospect lies in the fact that Indonesia has a lot more natural resources than coal with producing areas still uncovered by railway infrastructure and transportation services.

Grafik 5. Freight Growth Projection dan Freight Service Segmentasi Based on Comodity



Source : National Railway Master Plan dan Laporan Tahunan PT KAI 2012



Regulations

Indonesia Railways Act No. 13 year 1992 is no longer suitable to embrace new technology development and standard services for passenger line. Therefore, in 2007 the act was amended as Indonesia Railways Act No. 23 year 2007 with the spirits of:

- 1 Obliterating PT KAI monopoly by giving rights for private to enter railway infrastructure business (network management, electronics and signaling, stations, other fixed assets, maintenance) and operation (passenger and freight transport services including management of the rolling stocks and equipment).
The motivation is to lure private as operators and/or investors, with objectives to increase the quality and coverage of infrastructure and service.
- 2 Decentralization, to open possibility of regional governments act as investors and/or operators.
- 3 The new act also separates the role between regulator and operator

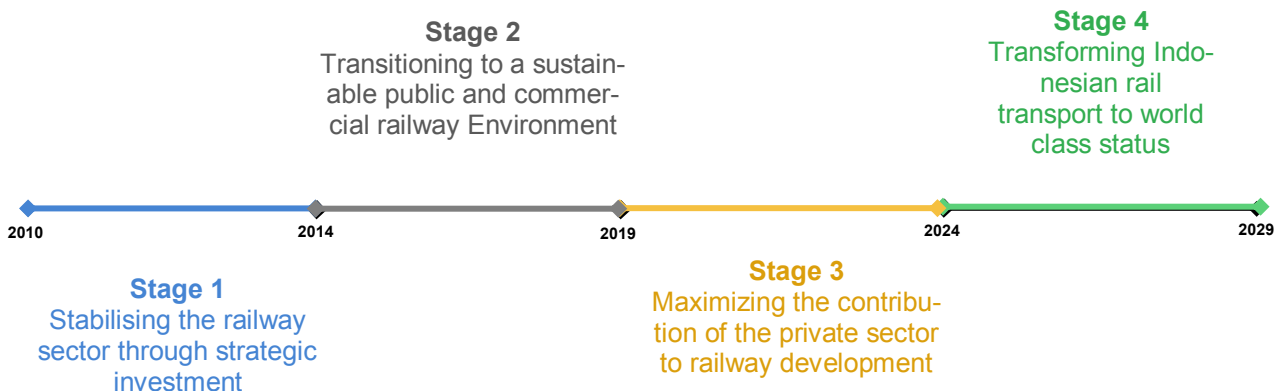
By this, private entities would have similar rights as other operator such as PT KAI in doing investment, operation, and management of train and railways. Investment would now open to any source of fund for example: private, regional budgets, and PPP.



Future Development

Passenger and Freight Transport Services

National Railway Master Plan is divided into 4 Five-Year plans with different focus in each stage:



Source : National Railway Master Plan

There are two main objectives in the National Railway Master Plan:

- 1 To make 10-20% market share in intermodal transportation for passenger line service and 25% by 2025.
- 2 And 5-10% market share for cargo and freight by 2020.

To accomplish such targets, GOI and PT KAI are leveraging the role of train as public mass transportation and focusing on the interconnection among major cities in Java by using advanced technology that will improve service level in terms of capacity, speed, and quality. The development of Jabodetabek line with its luscious annual growth would also help to realize such target.

In passenger line category, expansion can be generated by numerous greenfield and brownfield PPP initiatives in Metropolitan areas of Java, Sumatera, and Kalimantan.

For freight transport services, interconnectivity and service quality are the key strength to spur the growth for both the business itself and economic in general as trucks and containers would then be deemed inefficient in terms of time and operating cost.

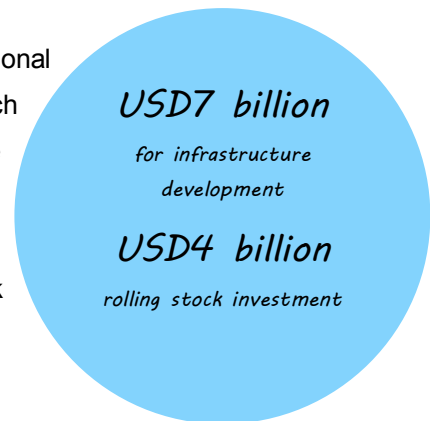
The expansion can also target agriculture-producing regions and mineral-rich areas to enhance intermodal connectivity, reducing the costly land transportation, and at the same time enforcing the growth of sea cabotage and promote Indonesia as a maritime country.

Table 2. Ministry of Transportation Target for Railway Distance Coverage by 2025

Island	Minimum Railway Length by 2025 (km)	Current Railway (km)	Panjang Rel yang Belum Dibangun
Java	6,800	3,300	3,500
Sumatera	2,500	1,300	1,200
Kalimantan	1,100	-	1,100
Sulawesi	200	-	200

Source : National Railway Master Plan

The target growth by distance coverage in 2025 as outlined in the National Railway Master Plan is the development of ±6,000km new track which include two new islands: Kalimantan and Sulawesi. An increase of twice as much as the existing condition is mandatory to achieve the target. The necessary capital injection in the first five year is around USD7 Billion and USD4 Billion for infrastructure development and rolling stock respectively.



Rail Transport Operators

Such targets are not achievable without a sustainable business practice and a healthy competition among the operators. Good corporate governance from the industry players is a key to promote successful rail transportation development.

1 PT KAI

A state-owned enterprise operator, is projected to still be the leader for few years to come without any means of monopoly. At this time, PT KAI is expected to lessen its resources inadequacy (technology, people, investment) by affiliating with private entities.

2

Private/ Special Railway Enterprises

There are initiatives from private to be involved in development of coal train in Sumatera and Kalimantan as well as for other natural resources elsewhere. As outlined in Indonesia Railway Act No. 23 year 2007, mining license holders would be able to obtain the right to operate special freight services as long as they are honoring the concession agreement and have obtain government clearance for such operation.

Investment by Private Sector

According to the Act No. 23 year 2007, private can be actively involved in investment and management of the industry as GOI aims to widen railway coverage and promote better service quality by means of:

1

Network maintenance in Sumatera and Java which is currently under the management of PT KAI

2

Railway development in the natural resource-rich area in Sumatera and Kalimantan

3

Regional railway development that is aligned with local need and regulations

To date, private is primarily interested in developing special railway for agriculture, mineral, and logging. Another potential is PPP development in commuter line, where private could take a role as the operator of the service to the government. Supported by the cooperation agreement, private may also put investment for rolling stock or other assets.

Regulation

Good institutional framework among the related institutions is needed to accomplish such targets and ambitions in regards with leadership, roles, and level of authority. There are key things to consider:

a

Regulatory framework should encourage pro-market approaches to spur healthy development of train and railway industry in Indonesia.

b

Market needs to be given some level of flexibility. At the same time related regulations have to be able to mitigate market risks while at the same time protecting customer and promoting efficient and effective transportation system.

c

The industry has to be advocate for public transportation safety through continuous service improvement of the operator, infrastructure, rolling stock, management, and system.

d

All with cost efficiency



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