

**Ad-hoc Expert Group Meeting on facilitation of International Railways, Bangkok
12-13 March 2015**

(Presentation on Viet Nam railway present status and its plan in railway connectivity with the GMS and ASEAN)

There is saying in Viet Nam that should the inside be strong enough then the external could be fine. In other words, it means that if domestic railways is not developed and paid with due attention, it is hard to facilitate international railway Transport. This paper provides information on the current status of Vietnam railways, the efforts made by the Government recently with an aim to improve the railway capacity and capability and challenges to be solved to help railway develop and facilitate its international links with the railway systems of the other countries in the regions.

A-CURRENT STATUS OF EXISTING NETWORK

1-TOTAL LENGTH

Total length of railway network: 2,524km with gauges of 1000mm, 1435mm and dual gauge (1435&1000mm)

2. INFRASTRUCTURE

- 1.809 big bridges with total length of 56,996m;
- 39 tunnels with total length of 11,513m;
- 5,119 culverts;
- Rail types: P30, P38, P43 and P50;
- Sleeper types: woods, normal and pre-stressed concrete;
- Loading capacity: 14 ton/axle on 1000mm gauge lines; 22ton/axle on 1435mm gauge lines;
- Average train speed:
 - Ha Noi – Ho Chi Minh line:70km/h
 - Other lines: 40-50km/h

■ Communication: 2,620km naked wire; 370km plastic cable hanger;
Ha Noi – Vinh and Nha Trang – Sai Gon optical fibre section;
Automatic electric switch;

■ Signaling: Relay interlocking and semi-automatic block;

Level crossing: Automatic warning level crossing and Manual level crossing



NO	MAIN LINES	GAUGE (mm)	LENGTH (km)	%
1	Hà nội- Hồ chí Minh	1000	1.730	
2	Hà nội- Hải Phòng	1000	102	
3	Hà Nội- Lào Cai	1000	296	
	<i>SUB-TOTAL</i>		2.124	84%
4	Hà Nội- Đồng Đăng	Dual Gauge 1000&1435	162	
5	Hà Nội- Quán Triều	Dual Gauge 1000&1435	75	
	<i>SUB-TOTAL</i>		237	9,5%
6	Lưu Xá-Kép-Hạ Long	1435	163	6,5%
	<i>TOTAL</i>		2.524	

B- CURRENT DEVELOPMENT OF SKRL:

Regarding the Singapore-Kunming Rail Link Project (SKRL), there are four sections (lines) in Viet Nam as follows:

-Missing link: HCM City - Loc Ninh 129 km in length (border with Cambodia), further connecting with Phnompenh. The feasibility Study for this line was completed in 2005 and then be revised with the following indicators: Railway grade: Railway grade I with designed speed of 120 Km/h for passenger train and 80km/h for goods train. The upper structure will be of 1000mm tracks with embankment designed to accomodate for future 1435mm gauge track. Min radius of curve will be 800m with limited track gradient

of 9⁰/₀₀. Gross Train Mass will be 1200-1500 tons. Traction will be of diesel and electric in the future. Signalling and telecommunication will be of semi-automatic blocking system. Axle load will be 20 ton for track and bridges.. ***In relation with rail connection between the two countries, the Agreement between the Government of the Socialist Republic of Viet Nam and the Royal Government of Cambodia on Railway Connection Point has been signed and came in force from 4th November 2008***

- **North-South Railway (Ha Noi Capital - Ho Chi Minh City) 1730km**; This line has been rehabilitated and improved its capacity with different projects aimed at rehabilitation and new construction of weak bridges along this line (Japan funded project for 46 rehabilitation of weak bridges), replacement of old rails and sleepers with new ones, and modernization of signalling and telecommunication system .

- **Ha Noi- Lao Kai line (border with Yunnan, China) 296km in length**, further connecting with Kunming: under the financial assistance from ADN, AFD and Government of China, two projects are being carried out with the aims to rehabilitation and replacement of upper structures, realignment of some sections, elongation of railway sidings, and modernization of signalling and telecommunication system.

- **Spur line: Vung Ang – Tan Ap-Mu Gia (border with Lao PDR) 119 km in length**, further connecting with Viengchan. This proposed line will connect Vung Ang deep sea port in Viet Nam with the railway network of Lao PDR. The pre-feasibility study was completed in 2007 for Viet Nam section and 2011 for Lao section. Under ASEAN Transport Master Plan, project feasibility study will be carried out with technical assistance from the Republic of Korea starting from 2015.

It is worth noting that due to physical incompleteness of the railway connectivity among ASEAN countries, not all countries including Viet Nam have yet entered into railway agreements with other countries on bilateral basis as compared to the Roadway Transport Agreements. However under the framework of ASEAN, all ASEAN member countries have agreed to have designated border stations and reached international railway cooperation to a certain extent. In parallel to this, countries in GMS region also entered railway commitments for the establishment of GMS railway association just to paving the way for future development of railway in the region.

C- POLICY AND INSTITUTIONAL CHANGE RELATED TO RAIL TRANSPORT:

- **2003:** Under the Government Degree, established are two railway organizations namely Vietnam Railway Administration to be responsible for State management, law enforcement and railway policy making, and Vietnam Railway Transport Corporation to be in charge of management and maintenance of railway infrastructure, regulate rail transport and rail business including business on rail infrastructure, business on rail transport operation and other railway supporting services. This was regarded as an initial effort made by the Government to separate between railway infrastructure management and train operation.
- **2008** Railway Law has been promulgated; and
- **2015** Railway Law is being amended. The proposed amendments is being drafted to the railway laws with an aim amongst the technical specification and scope of railways to be covered i.e. high speed railways, urban railways..to (i) streamline and restructure of Vietnam railways into specific entities with one to be responsible for infrastructure and other for transport management and operation of rolling stock (2) allow private sector to participate in investment and operation of railway infrastructure (taking into account of the come into being the new Decree No. 15/2015 promulgated on 14th February 2015 on PPP)(iii) facilitating the development of railway sector in the future.

D- MASTER PLAN FOR DEVELOPMENT UP TO 2020 WITH A VISION TOWARD 2030

1. General objectives

- ✓ To develop railway transport in the way that it must be synchronous infrastructure and means of transport, advanced and modernized industry equivalent to other regional countries.
- ✓ To build up an far-reaching railway network connecting to socio-economic centers, focal economic zones in the country and match up with other transport modes; being a major component of urban public transport.
- ✓ To formulate and enforce the policy to involve economic sectors in railway investment and operation.
- ✓ To secure human resources, intensive investment in technical infrastructure, and renovation of programs and expansion of educational method.

2. Railway transport

✓ To the year 2020: railway transport must achieve at least 1-2% of total demand for passenger transport, 1-3% for freight transport and 4-5% of urban transport demand.

✓ To the year 2030: at least 3-4% of demand for passenger, 4-5% for freight transport and 15-20% of urban transport demand.

3. Railway Industry

To build of new coach/wagons of high quality, meeting international standards for local use and export.

To assembly and manufacture of locomotives; modernize workshops for maintenance of locomotives; develop EMU trains building.

4. Railway Infrastructure development plan:

• *To the year 2020:*

-To upgrade and modernize the North-South Railway line, standardize existing lines

-To complete the Yen Vien – Pha Lai – Ha Long – Cai Lan railway line

- To develop Urban railways in Hanoi and Ho Chi Minh city

- To Newly construct Bien Hoa – Vung Tau railway with 1435mm gauge; Railway line connecting with Hai Phong Port

- Study for construction of following railway lines: Lao Cai – Hanoi – Hai Phong, Hanoi - Dong Dang, Ho Chi Minh city - Can Tho, Di An – Loc Ninh, Vung Ang – Tan Ap – Mu Gia, Dak Nong – Chon Thanh, etc...

- Study for construction of North-South high speed railway, 1435mm gauge, electrification

5. Endorsed restructure of Viet Nam railway sector

For the national rail network in Vietnam, the Viet Nam Railway Corporation (State-own enterprise) is a unique unit who deals with management, maintenance of railway infrastructure while directs rail transport and operates railway operation business including business on rail infrastructure, business on rail transport operation and other railway supporting services. Therefore, the non-state sector is not interested in investment to or trade in railway business, and as a result Vietnam railway sector is lagging behind

compared to the other transportation method. So, the railway restructure has been being implemented by the Government of Vietnam in the direction of making a clear separation between infrastructure business to transport operation on the rail which is invested by the State, such as:

- ➡ Corporatise rail transport operation companies and manufactures of rolling stocks production and assemble.
- ➡ Corporatise railway engineering and construction consultants companies; withdraw state capital from enterprises of which their business is not related with railway activities.
- ➡ Corporatise railway infrastructure maintenance works.
- ➡ Socialize (make concession, sell, contract, lease etc...) the investment, management, exploitation and trading rail infrastructure; socialize rail transportation business.

E- CURRENT STATUS OF CROSS BORDER RAILWAY TRANSPORT AND CHALLENGES

- Current status of cross border railway transport in Viet Nam

The international railway transit or the cross border railway transport between Viet Nam and China has been performed under the Agreement on Border Railway Transport. Both countries are the member of the International Railways Organizations (abbreviated name OSJD). Every year, both railway authorities meet each other to review the implementation and made amendments (formed into year marked protocol attached to the above said Agreement. In this connection, Viet Nam's national railway is connected with China through two (02) following lines:

- 1- Ha Noi – Lao Kai railway line is connected with Hekou – Kunming railway (China). Before 2000, the cross border traffic with China through this lines was performed. However, due to difficult and dangerous condition of railway section in China, the meter gauge section was banned and the standard gauge line instead of that, has been built since then. The cross border transport was interrupted. So, in order to keep on the cross border traffic between the two countries, a study is being conducted on how to interconnected the railway system of different gauges of the two countries in order to meet the transport demands.

2- Ha Noi – Dong Dang railway line is connected with Pingxiang – Nanning railway (China). The cross border transport between Viet Nam and China is being performed with dual gauge Railway system in Viet Nam and standard gauge railway system in China.

- Challenges related to cross border railway transport

+ Technical point of views: different in gauges, technical specifications of rolling stocks, loading standards of infrastructure., signalling and telecommunications system.. between and among the countries; How to deal with different gauges within a country and between country and country, especially the fate and the use of meter gauge system in the future (taking into account of the fact that the length of meter gauge lines of proposed SKRL is still accounting for 92% of the total length.

+ Financial point of view: due to budget constrains, many governments faced problems in materialize their target plans (railway projects) which caused the delays to the implementation of rail connectivity among ASEAN member countries;

+ Formalities point of views: the change of train at the border points; the formalities required by customs as well as immigration takes much time at the border and really still are trouble somes to passengers;

- Suggestions:

+ As experienced in the exercise of regulations and policies of OSJD, there needed an Agreement to cover technical and institutional issues.

+ There also needed further solutions for PPP, BOT or consessionare contract grant in the field of Railways in order to attract more private investment into railway sector;

+ Above all, there required trust and confidence among the countries about the benefits gained from the cross border rail transports.

F- PLAN ON NEW RAILWAY LINE CONSTRUCTION FOR INTERNATIONAL CROSS BORDER TRANSPORT:

As committed with other ASEAN and GMS countries, 01 new line at the South (Ho Chi Minh city – Loc Ninh railway connected with Cambodia) and 02 new lines at the Central (Vung Ang – Tan Ap – Mu Gia railway and Dong Ha – Lao Bao railway connected with Laos) have been put in the the approved transport master plan of Viet Nam and are called for investment.