

## DEVELOPMENT STRATEGY OF VIETNAM RAILWAYS: VISION TO 2050 YEAR

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### ABSTRACT

The article presents some of the main objectives of transport policy and measures to implement the strategy for development of Vietnam's railway transport until 2020 and a vision of sectoral prospects until 2050. Among other things, there are preferences concerning investments in modernization of existing networks, construction of speed and high-speed lines, reconstruction of railway stations, railway crossings, introduction of resource-saving and advanced

production technologies, and also the dynamics, priority and proportions of planned changes in certain sectors of the industry and transportation activities of railways are determined. The issues of state budgetary and financial policy, planning, international economic relations, functioning of international transport corridors, education and training of specialists are being considered, taking into account the growing requirements for management and the new information environment.

**Keywords:** Vietnam, railways, development strategy, modernization, investment policy, management system, periodization.

**Background.** In Vietnam railway transport is an important component of the social-economic system of the country, is a main type of transportation of large volume of cargo for average and long distances, serves interurban passenger routes, and in major cities also local needs of population. In fact, railways play a key role in transportation of cargo and passengers on the North-South and on the East-West directions. Their share is primarily large in the sector of passenger public transport, which is invested and developed with priority.

Development of railway system, railway infrastructure, system of organization of services and management at a high level ensure smoothly, orderly, safe, accurate, fast, convenient and efficient functioning of railway transport, serve the cause of industrialization and modernization of the country, help regional and international integration, as well as interests of external defense and environmental protection.

**Objective.** The objective of the author is to consider development strategy of Vietnam railways until 2050 year.

**Methods.** The author uses general scientific methods, comparative analysis, evaluation method.

### Results.

#### Period to 2020

Railways satisfy today 1–2 % of needs in the market of transport services, if we talk about the share in relation to passenger transportation (respectively, approximately 4 % and 5 % in Hanoi and Ho Chi Minh City) and 1–3 %, if we talk about the share in freight transportation market. Focus is put on investment in modernization of existing railway lines with priority to upgrade and modernize the railway lines on the axis North-South. The objectives of upgrading are to reach average speeds of 80–90 km/h for passenger trains and 50–60 km/h for freight trains, to improve the capacity, quality of operation and economic efficiency of such lines as Yen Vien–Lao Cai, Gia Lam–Hai Phong, Ha Noi–Thai Nguyen, Ha Noi–Lang Son.

The focus on investment, modernization and reconstruction of the main railway stations, gradual elimination of the places of direct intersections of motor and railway routes, priority construction of interchanges at intersections with large traffic volumes are also characteristic.

The research continues and preparations are being made for construction of new double-track high-speed railways of 1435 mm, electrification plans are being implemented on the North-South axis, conditions are being created for accelerated

construction of lines with a large transport demand, especially in the zone connecting Hanoi and Ho Chi Minh City: Hanoi–Vinh, Ho Chi Minh City–Nha Trang. Next in line is the commissioning of the whole much-anticipated Yen Vien–Pha Lai–Ha Long–Cai Lan line. In the near future, there are plans for construction of new lines Hanoi–Lao Cai, Ha Noi–Hai Phong, Hanoi–Dong Dang, Bien Hoa–Vung Tau, Saigon–Can Tho, Hai Phong–Lach Huyen, as well as railways to major seaports, industrial and tourist areas, towards Laos and direction of the trans-Asian main line.

The realization of railway urban projects in Hanoi and Ho Chi Minh City looks promising. Participation in the development of railway equipment, new types of construction cars-modern, convenient, diverse by type for use in Vietnam and abroad, production of spare parts, elements necessary for the assembly of locomotives is increasing.

#### Period from 2020 until 2030

The share of railways in the transport service sector: 3–4 % in the passenger transportation market (approximately 15 % and 20 % in Hanoi and Ho Chi Minh City, respectively) and 4–5 % in the freight transportation market.

As the main tasks of this period, we will designate a few – some of them continue those started earlier, while the other part means a different quality and a different level of development. Effective operation of existing railways, elimination of intersections of roads and railways. The construction of a new double-track high-speed line 1435 mm (with the increase in the speed of the train from 160 to 200 km/h), increase in the level of electrification of roads, creation of infrastructures capable of providing a speed of 350 km/h in the future; priority construction of sites with large transport demand on the North-South axis.

Study of approaches and construction of roads to major seaports, industrial and tourist areas, taking into account the previous programs and interests of the main railway hubs of Hanoi and Ho Chi Minh City, as well as real possibilities of attracting capital. Continuation of construction and commissioning of urban railway projects in metropolitan. Investment in advanced technologies at enterprises producing locomotives, cars, rails, components and spare parts at the level of high international standards, which meet the needs for operation and transport equipment, and road infrastructure, and in general transport networks.

#### Vision to 2050

The share of railways in the transport service sector is 5–8 % – in the passenger transportation market (more than 30 % in Hanoi and Ho Chi Minh City) and 5–6 % – in the freight transportation market.

Completion of construction of a double-track high-speed railway line 1435 mm on the North–South axis. After 2050 the commissioning of the train with a speed of 350 km / h; modernization of the railway network to a level fully satisfying the needs for passenger and freight transportation; commissioning of the Tay Nguyen railway, a Trans-Asian railway linking the major seaports and major industrial areas of the country. The completion of works on creation of a network of urban railways in Hanoi and Ho Chi Minh City, investment in development of urban rail systems in other major cities in accordance with the plans approved by the government. Correspondence of the level of enterprises in the industry with modern trends. The assembly and production of locomotives and cars satisfy the demand in the country, and in part also export orders.

Policies and implementation measures: active allocation of capital from the state budget; priorities are ODA, concessional loans from foreign countries and international donors, issuance of state, corporate bonds for investing in construction of the main national and urban railway lines.

A special mechanism has been developed and is in place to support those sectors of the economy that are ready to invest in development of infrastructure and railway transport business in the form of contracts «building–operation–transfer» (BOT), «building–transfer» (BT), public-private partnerships PPP). The same stimulating role assumes use of lands appearing in projects of building of city railways, stations. They become an excuse to attract investment capital to railway infrastructure facilities on economically advantageous lines in accordance with the state plan and the social development strategy. Promotion of the socialization policy of business in railway transport, readiness to mobilize the resources of economic sectors and foreign investors, to invest them in transport facilities such as a warehouse, or equipment such as loading machines, etc.

There are also mechanisms to support enterprises of the railway industry interested in importing modern technologies from developed countries that are trying to replace obsolete and energy-intensive and low-powered vehicles more quickly.

Rational investment policy is increasingly related to the sphere of education and training of human resources. The situation makes it necessary to engage in programs to support and attract qualified professionals working in the field of transport, especially related to high-speed railways. Investments in organization of the educational process and expansion of the forms of education are increasing, the importance of socialization in education, ensuring the quality of human resources, and their correspondence to the needs of modern railways is given more importance than before. The policy on salaries and compensation for employees working in special conditions, especially in remote and disadvantaged areas, is changing. Scientific and research institutions dealing with educational problems in transport are being established, the costs of modernizing railway vocational schools,

training of qualified personnel are increasing. Training abroad on specialty «railway» becomes a priority.

There is also a much more tangible policy aimed at practical application of scientific and technical knowledge in industry, in engineering activities. The attention to the use of information technologies in planning, organizing the transportation process, working with customers, operating the system of automatic sales and ticket control, procedures and methods of quality management, standardization of industrial products in accordance with Vietnam's national technical standards and international standards increases.

Expansion of international cooperation with countries where railway traditions have long been established, there is a rich experience of transport business, gives Vietnamese specialists their own guidelines. They concern the construction of a price system, cost criteria that are means of macro regulation, a kind of vector-wise rational development of rail transport, which includes aspects of quality, reliability, safety, convenience, economy. Here, too, there are tasks of multimodal transportation, logistics in the field of freight transportation, protection of the interests of passengers.

At the same time, the task is not only to specify the policy in order to encourage interdepartmental cooperation and create favorable conditions for enterprises ready to expand joint production with transport companies, to participate in general-purpose programs, but also to take into account a strategically important responsibility for all to maintain the transport security of the country.

First of all, we talk about implementation of plans to restore the security regime in the zones of railway corridors approved by the government. Accelerated reconstruction and modernization of infrastructure systems in these corridors will allow to reduce the number of accidents, and with them the number of victims each subsequent year. This process should be accompanied by increase in effectiveness of propaganda, dissemination of legal education, direct struggle against violations of rules on the railway, efforts of the rescue service to minimize losses during accidents.

Naturally, one of the duties remains the need to control, prevent and limit pollution of the environment due to the ecological specificity of the railway transport, the need to take care of waste processing, to seek opportunities for using clean fuel, renewable energy sources, to build the capacity of the railway infrastructure system to adapt to climate change and sea level rise.

**Conclusion.** The Vietnamese government encourages all sectoral sectors of the economy and mobilizes all resources to invest in development of infrastructure, locomotive and railcar facilities, provides unified management and strategic direction in the activities of rail transport. From this point of view, the continuity of actions in each of the envisaged periods is important, and it is precisely its preservation that becomes the guarantor of achieving the set goals. ●

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