

MYANMAR'S TRANSPORT INFRASTRUCTURE: DEVELOPMENT VECTORS

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ABSTRACT

The authors assess the current state and problems of Myanmar's transport infrastructure. A list of tasks has been determined, the solution of which will significantly improve its condition, help to achieve inclusion of the country's transport system

in the international transport network and significantly improve trade turnover with China and countries of Southeast Asia. Priority actions in private and public sectors of the economy are named, the implementation of which will lead to development of existing and formation of new trade routes.

Keywords: transport system, infrastructure, Myanmar, communication routes, transport technologies, dry ports, logistics centers.

Background. The formation of market relations, the need to expand international trade turnover requires a dynamic and balanced development of all segments of the national economy of Myanmar, including the transport infrastructure. Today, transport infrastructure occupies one of the priority places and is the main factor that determines the country's prospects and the entry of its regions into the world economy. At the same time, it remains indisputable that in recent years the transport infrastructure of Myanmar has been characterized by physical and moral wear and tear, a low level of material and technical base, disproportions and uneven location of facilities, limited investment, and lack of full-fledged market mechanisms for operation and management. And it is necessary to ensure that all its components guarantee the necessary conditions for development of the main industries and maximize the effective use of the economic potential that the republic possesses.

Objective. The objective of the authors is to consider development vectors with regard to Myanmar's transport infrastructure.

Methods. The authors use general scientific methods, economic evaluation, comparative analysis, scientific description.

Results. Transport infrastructure is a huge complex of services and facilities, including all types of transport, serving structures and units. They perform fast and free transportation of goods and passengers. In addition, the transport complex plays an important role in providing the trade and economic sphere with raw materials, materials, finished products and goods, as well as labor force [1].

As objects of transport infrastructure can be considered:

- all existing and planned communication routes (street-road, non-surface and long-distance transport network);
- transport units;
- technical facilities and warehouses (repair parks, depots, cargo terminals, auxiliary energy facilities);
- railway terminals and stations for transportation of passengers and cargo;
- agencies responsible for the sale of tickets and organization of transportation;
- logistics centers;
- engineering networks and communications on infrastructure facilities.

Each type of transport – rail, road, air and water – plays its role in the implementation of interregional freight and passenger transportation for the connection of central Myanmar with the north-

western, northern and eastern regions, as well as for the implementation of interregional communications.

The longest roads in Myanmar are from the north to the south of the country. Of these, the most important for border trade between China and Myanmar is the Mandalay–Lashio highway, a length of which is 262 km. But it should be noted that most of the roads are in very poor or even unusable condition, with the exception of several roads that are of sufficiently high quality [2]. Most of the traffic in the country occurs along the corridors of Yangon–Mandalay–Muse / Ruili–Kunming. The highway between the points Kunming and Ruili on the border with China is at the final stages of construction. At the same time, on the Myanmar side, the road infrastructure as a whole is much worse.

The main problems of the road infrastructure remain:

- insufficient corridor's capacity to handle the existing traffic volume;
- unusable road condition;
- existing weight limits for the passage of Chinese trucks;
- incomplete reconstruction of highway infrastructure on the border with China.

The railways of Myanmar (MR) are public. The total length of the network was recently 5403 km, with a track width of 1000 mm [2].

The quality of the railway infrastructure is also in critical condition. The maximum speed of freight trains is only 24 km/h [3]. The Railway Administration makes great efforts to build new lines in all states and regions of the country. Currently, the length of railways has increased to 6492,24 km, and the number of stations – up to 793 [4].

Problems of railway infrastructure:

- inefficient organizational structure of the railway transport system;
- ineffective structure of traffic management;
- lack of modern logistics management;
- lack of a modern automatic signaling system to monitor the movement of trains;
- a low level of training of personnel involved at the intermediate level of management structures and the basic level.

The system problem of the transport industry should be considered a discrepancy between the low level of its development, efficiency, the quality of functioning and the growing demand of the economy and society for transport services. This is manifested in the following:

- 1) the state of the backbone transport network does not correspond to existing and prospective cargo flows and passenger flows;

2) transport technologies do not meet modern requirements of efficient functioning of transport in the market conditions; they impede meeting the growing demand for qualitative transport services, reduction of the cost of transportation, and optimal use of transport infrastructure;

3) there is a significant lag in the pace of development of the road network from the pace of motorization of the society; about a third of federal highways operate in an overload mode, especially on approaches to large cities;

4) safety indicators of the transport process, primarily road traffic, do not correspond to the world level;

5) the requirements of security and anti-terrorist stability of the transport system have significantly worsened.

In order to develop the transport infrastructure, in our opinion, it is necessary to solve a number of primary tasks and issues:

- to form an integral transport space of the country through the organization of effective modernization of infrastructure links;

- to organize a high-quality and affordable transport and logistics system for freight transportation;

- to standardize the quality of transport services and ensure their accessibility to the public;

- to realize the transit potential of the country, to integrate into the world transport space;

- to improve the safety of the transport industry;

- to develop a plan for reconstruction of the main regional highways in order to improve internal communications, increase the density of the road network, strengthen ties with the road network of neighboring regions;

- to ensure the implementation of measures aimed at observing and improving the technology of the transportation process, formation of an optimal route network and timetables for the movement of vehicles;

- to form a cumulative set of offers of transport services, sufficient to meet the needs of the population;

- to ensure the development of innovative technologies for construction, reconstruction and maintenance of transport infrastructure.

As recommendations, the following is proposed:

- construction and modernization of transport infrastructure facilities, reconstruction and repair of sections of state, regional and intermunicipal, local highways, rail, water, air transport systems, integrated engineering structures;

- construction of dry ports and logistics centers, as well as large international transport and logistics centers for servicing transit cargo flows;

- development of the transport and logistics services market, creation of conditions for organization of direct multimodal transportation of goods, intermodal transportation along national and international transport corridors;

- reconstruction of warehouse complexes, construction and modernization of container sites at

railway stations (Mandalay, Yangon, Lasho, Pago) in order to expand complex transport services;

- attracting large international transport and logistics companies to the cooperation;

- engineering preparation of sites for construction of logistics centers (mainline networks);

- training of specialists in the field of transport and logistics in the educational institutions operating in the region.

Conclusions. An analysis of the current state and problems of Myanmar's transport infrastructure shows that radical reconstruction and modernization of the entire transport system, including aviation, railway, road and sea (water) transport is needed.

The creation of an efficient transport infrastructure will ensure the territorial integrity of the state, the connection of the regions of the republic in a single economic and defense space, accelerate the development of multimodal transportation, and also the exits to hard-to-reach raw materials bases in China, India, Thailand and South-East Asia.

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