

Discussion on the Construction of Modern Logistics System of Sichuan–Tibet Passage

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Abstract—The Sichuan-Tibet Passage act as a major transportation route connecting the two regions hence, accelerating the construction of the modern logistics system is an inevitable requirement for actively promoting the development strategy of Western regions. The paper discusses the construction of modern logistics system of Sichuan-Tibet Passage through the analysis of the status quo of logistics development which proposed that logistics facilities, logistics capabilities, logistics services and government participation are the four major components of the modern logistics system of Sichuan-Tibet route. Information technology, logistics talents and logistics enterprises should be used as a construction tool for the development of the sector. It is also necessary to develop the tourism industry, tap the resources of agricultural products, development e-commerce, exploit regional special resources, and adhere to the concept of energy conservation and environmental protection to promote the coordinated and sustainable development of regional logistics. At the same time, it provides a reference for the logistics development direction, logistics development planning and modern logistics construction in Tibetan areas.

Keywords—*Sichuan–Tibet Passage; Modern Logistics System; Logistics Capacity; Infrastructure Construction*

I. INTRODUCTION

The national highways 317 and 318, the Sichuan-Tibet Expressway, as well as the Sichuan-Tibet Railway, (which are under construction) are the main Sichuan-Tibet Passage that serves as an important strategic position in the carrier of exchanges between Sichuan and Tibet. The modern logistics system of the Sichuan-Tibet Passage is designed to meet the needs of tourism development and people's daily travel demands. On the other hand, it is to improve the secured transportation system and rapid emergency response. It is a necessary condition to eradicate poverty among the people along the passage, strengthen national unity, promote economic and social development in Tibetan areas, and maintain social stability. Therefore, the process of carrying out the modern logistics system construction of the Sichuan-Tibet Passage, clarifying the direction of logistics development, determining the current logistics construction priorities and implementing steps, and making up for the shortcomings of regional logistics development in a targeted manner, has become an important goal of regional logistics research in the Sichuan-Tibet Passage.

II. DEVELOPMENT STATUS OF LOGISTICS OF SICHUAN-TIBET PASSAGE

A. Development status of the logistics industry

With the ongoing economic development in the Tibetan area leading to the implementation of construction projects, the logistics industry of Sichuan-Tibet Passage has been initially developed to aid most importantly material transportation, trade, and tourism whilst economic development along the route has gradually become prominent. However, due to factors such as high-altitude terrain and population density, the logistics level is still in its infancy stage. Logistics along this passage are mainly the transport of construction and building materials, agricultural, side-lined products, as well as living materials, which are mainly based on input economy, relies mainly on roads. Logistics distribution still has difficulties in towns and villages, especially in rural areas. The logistics business is relatively insufficient, and industrial development is greatly affected by the material circulation and the market environment. The degree of cold-chain logistics is low whereas, the E-commerce logistics is popular, the effect is not significant and more so, the use of network technology is not high within the area. The lack of logistics talents and the lack of continuity in logistics development is also having a negative impact on the logistics system in the area [1].

B. Development status of logistics facilities

Compared to the amount of air transportation along this passage which is relatively very low and the railway system of transportation being basically blank, the road is the main system of logistics transportation along the Sichuan-Tibet Passage and the National Highways 317 and 318 are the main trunk roads. The Sichuan-Tibet Expressway and the Sichuan-Tibet Railway are the key components of the Sichuan-Tibet Passage road traffic construction. Due to the road-based transportation mode and the high altitude and bad weather along the way, long logistics transportation cycle, high logistics cost and low logistics efficiency are prominent problems in the development of logistics in Tibetan areas. The road network of the plateau highway is weak, and the traffic characteristics of “door-to-door” are difficult to achieve [2]. In terms of information infrastructure, modern technologies such as the Internet and big data have not yet been applied and developed, and the construction of information networks along the roads

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needs to be further improved. In addition, logistics parks are generally planned or built in various regions, which is accompanied by waste of resources and redundant constructions.

C. Development status of logistics subjects

Most of the regional logistics enterprises transform from the traditional transportation and warehousing industry into logistics industry. Most of the logistics and transportation entities are individual operating units, and the transportation types are bulk cargo. Express logistics is concentrated in the more developed cities and towns, while rural logistics mainly relies on EMS. Regional logistics enterprises have gained room for development. On the whole, the overall scale of logistics enterprises is small and scattered, lack of third-party professional logistics enterprises with modern advanced technology and management concepts, and lack of logistics talents with professional knowledge and modern logistics management concepts are some of the challenges of the logistics in the area. In addition, due to the high logistics operation costs, corporate financing is difficult resulting in insufficient funds which as well restrict the growth of logistics enterprises.

D. Development status of the logistics market

The logistics industry began to develop on account to the emergence of regional logistics demand, but the corresponding industry norms and management methods have not yet been established, resulting in the uneven quality of the logistics entities. The divisional system of logistics management is also a major factor leading to the disorder of the logistics market. Logistics is a complex industry across sectors, industries, and regions. The implementation of logistics policy planning, industry management and other work require the coordination of various departments [3]. The decentralization of logistics management authority leads to problems such as unclear rights and responsibilities, overlapping functions, and chaotic management, resulting in inefficient logistics management and resource waste. Lack of practical regional logistics construction guidelines and rational industrial planning, and lack of effective innovation guidance mechanisms are also negative impacting factors on the development of logistics along this passage.

III. THE COMPONENTS OF MODERN LOGISTICS SYSTEM OF SICHUAN-TIBET PASSAGE

A. Logistics facilities are the foundation of a modern logistics system

Taking into account the economic strength and logistics development status along the Sichuan-Tibet passage, the current focus of logistics infrastructure construction should still be on improving road traffic by accelerating the construction of the Expressway and Railway, promoting the construction of the last mile of rural roads and upgrading of existing roads as well as accelerating the formation of a three-dimensional transportation network system of interconnectedness. Paying attention to the improvement of a communication network along the roads and expanding internet coverage to accelerate

the process of building information infrastructure should be the focus of logistics infrastructure development as well.

B. Logistics capability is the premise of a modern logistics system

In terms of subjective factors under the guidance of scientific research and analysis, it is necessary to fully consider the economic strength, location conditions, resource advantages and logistics needs along the passage, rationally arranging logistics centers and logistics nodes. According to the regional resources and advantages, develop different logistics function divisions such as trade logistics and agricultural product logistics are needed to improve the logistics system in the area. At the same time, combining logistic outlets with e-commerce supermarkets, living service points and other service functions will help to improve the terminal distribution in rural areas. In terms of objective factors, it is necessary to focus on economic construction, improve people's living standards and consumption levels, provide diversified consumption choices, fully tap logistics needs, and create conditions for the improvement of logistics capabilities.

C. Logistics service is the condition of a modern logistics system

As the main body of providing logistics services, logistics enterprises should establish a modern logistics service concept, pay attention to consumer expectations and consumer satisfaction, and realize the transition from focusing on logistics time and space to logistics service quality. The government should standardize the logistics market environment, implement the national laws, regulations and operational standards, and realize the transformation of the logistics industry from the original growth to the standard operation. Actively guide logistics enterprises to introduce modern information technology and management mode, improve logistics operation efficiency, achieve rapid response and cost control of logistics should also be a government's priority.

D. Government participation is the guarantee of a modern logistics system

The government plays a guiding and supporting role in the development of logistics systems, especially in areas where logistics development is lagging behind. The government is the leading force in logistics construction. First of all, the government must profoundly recognize that logistics construction is an important way to promote the economic development of Tibetan areas and pay attention to the development of the logistics industry. Secondly, the government needs to deepen the reform of the logistics management system, clarify the logistics management department, clarify the administrative functions of the logistics management departments at all levels, strengthen the organizational guarantee for the development of modern logistics [4]. Thirdly, the government should do a good job in the top-level design of logistics. Under the guidance of regional development strategies and national policies, we should objectively examine the development trend of regional logistics, clarify the development direction, develop strategies and tasks

of the logistics industry, and carry out overall planning and functional layout of logistics from the macro level.

These four major components constitute the modern logistics system of the Sichuan-Tibet Passage. The cross-regional nature of the Sichuan-Tibet Passage also determines that its modern logistics system requires joint efforts between regions. All regions must break geographical boundaries and fully interconnect the top-level design and grass-root constructions. Under the guidance of a unified development concept, they should jointly explore new ideas for the construction of modern logistics systems in the Sichuan-Tibet Passage.

IV. THE MEDIUM OF MODERN LOGISTICS SYSTEM CONSTRUCTION OF SICHUAN-TIBET PASSAGE

A. *Information technology is a basic condition*

It is necessary to actively introduce advanced information technology and management systems to the logistics storage, transportation, loading, unloading, packaging and distribution of Tibetan areas. Innovate the logistics circulation model, and strive to achieve the goal of automation, visualization and integration of logistics. Secondly, through the government guidance and enterprise-led forms, establishing a large database of logistics information, building a comprehensive logistics service platform for Tibetan areas, integrating massive logistics information and resources, and providing information, consulting, transactions and other services. Broaden the source of information for logistics entities and realize the process of data value-added should be put in place to ensure accelerated development of the logistics system. At the same time, big data can also be used to assist in the analysis of regional logistics development status, industry trends, logistics competitiveness, etc.

B. *Logistics talent is construction guarantee*

Through various means such as external assistance, school-enterprise cooperation, talent introduction, and orientation training to introduce and cultivate practical logistics talents who understand the regional characteristics of Tibetan areas and possess professionalism into the logistics system in the area. Cooperating with internal and external universities and institutions to set up logistics-related courses, encourage the integration of actual logistics needs and problems into classroom education, actively participating in regional logistics construction practices, and promoting the organic integration of production, education and research is key to developing the logistics sector. Improving regional talent subsidies, social security and other preferential policies, create conditions to attract external logistics talents. Assisting the logistics associations to regularly conduct logistics seminars or training to improve the knowledge level and overall quality of the logistics industry practitioners should also be put on top-of-mind. At the same time, the government's regional logistics development plan should also take into account the opinions and suggestions of logistics professionals.

C. *Logistics enterprise is the main body of operation*

Government's departments should provide preferential policies to actively attract outstanding third-party logistics enterprises to settle in Tibetan areas, and at the same time focus on cultivating local potential logistics enterprises. Encourage enterprises to adopt strategic alliances, mergers and acquisitions, asset restructuring, technical cooperation, talent exchange, and system reform to expand the scale of the company and enhance the competitiveness of the market. Leading the establishment of logistics enterprise alliances, logistics industry associations with other organizations and play the communication service functions of industry organizations to enhance the overall strength and service level of regional logistics. Give local logistics enterprises support for appropriate taxation, capital, land, talents, etc., ease the pressure on business operations, further improve financial services for small and medium-sized logistics enterprises. Relies on the joint efforts of the government and enterprises to promote the construction of a modern logistics system [5].

V. THE PATH OF MODERN LOGISTICS SYSTEM CONSTRUCTION OF SICHUAN-TIBET PASSAGE

A. *Vigorously develop the tourism industry*

Make full use of the rich tourism resources along the passage, combine the regional tourism strategy, actively promote the construction of 317, 318 landscape avenues and tourism economic circle to assist the logistics sector. Improve the transportation and tourism factor guarantee, promote the integration of eco-tourism, rural tourism and folk tourism to promote the economic development in the area. Promote the integration of agriculture and tourism, create a number of tourist towns and characteristic tourist villages, highlight regional characteristics and ecological advantages, and develop sightseeing agriculture and rural tourism. Promote the development of service-oriented e-commerce and trade logistics, and improve the quality of commercial circulation services.

B. *Optimize agricultural and animal products resources*

Adjust the structure of agriculture and animal husbandry and promote regional specialized production as well as strengthening the construction of industry demonstration bases for high-altitude fruits and vegetables, Tibetan medicines, plateau animal husbandry and edible fungi, promote the certification of Tibetan medicine standards, turn resource advantages into industrial advantages, and build agricultural products trade centers, create a whole industrial chain for processing, trading, and distributing, realizing the value-added process of agricultural products [6] help promote the agricultural logistics service. Actively carrying out agriculture-supermarket jointing, innovating the circulation mode of agricultural and animal products. Actively using modern information technology to establish an agricultural product traceability system and risk early warning mechanism, improving the safety of agricultural and animal products and market competitiveness, continuously drive logistics business growth [7].

C. Pay attention to developing e-commerce

It is necessary to actively perfect the logistics network and distribution system according to the regional e-commerce consumer demand, encourage e-commerce enterprises and express enterprises to settle in Tibetan areas. With the help of postal, the logistic industry will continuously improve the last mile distribution of rural logistics; improve urban and rural e-commerce delivery quality. Externally, active use e-commerce to transform the traditional commerce and trade circulation industry, innovate the commerce and trade business model, rely on local characteristic product resources to develop modern commerce and trade, and the use of modern logistics system as a channel to promote the coordinated development of online transactions and offline services are very necessary components of the logistics industries. The development of e-commerce in Tibetan areas must first create regional brands, build a regional e-commerce trading platform, and use the overall force to further enhance regional brand awareness and product reputation, and then form a virtuous circle of regional economic development.

D. Develop regional special resources

Fully exploit the resource advantages of regional agricultural and livestock product resources, ecological resources, mineral resources, tourism resources, etc.. With the support of improved transportation networks, strengthen economic and trade cooperation with the central and eastern regions will go a long way to improve the logistics sector. Rationally, planned logistics hubs and logistics parks will develop different logistics functional divisions. For the surrounding areas of provincial capitals, actively integrating into the economic circle of the provincial capital, develop industries such as health care for the elderly and tourism. For the central city, relying on transportation, economic and geographical advantages, build a regional integrated logistics park, create regional logistics hubs, and radiate the logistics development of the entire region will have an improved impact on the logistics sector. According to the special product resources of each region, focus on the development of specialized markets such as the Tibetan Agricultural Products Trading Center, the Tibetan Medicines Trading Center, and the Plateau Animal Products Processing and Trading Center.

E. Stick to the concept of energy saving and environmental protection

In the process of logistics development, we must implement the concept of energy conservation and environmental protection, promote the development and upgrading of modern logistics on the basis of protecting the environment. First of all, gradually optimize the equipment facilities and technical processes in all aspects of logistics. Secondly, industrial development is an important way to promote the development of modern logistics. It is necessary to develop modern industry, especially the clean industry, on the basis of controlling pollution and protecting the environment. Make full use of the geographical features and sunny resources of Tibetan areas, develop resources such as hydropower and solar energy, and guide the development of clean energy industries such as hydropower and new energy, new materials, biomedicine and

other emerging industries, and orderly develop the advantageous mining industry, guide the transformation and upgrading of traditional industries, further release regional logistics demand. In addition, in the process of developing tourism, we must also pay attention to protecting the ecological environment and promote the sustainable development of logistics and economy.

VI. SUMMARY

The modern logistics system construction of the Sichuan-Tibet Passage is not only to solve the constraints and bottlenecks of logistics development along the route but also to promote the sustainable development of the regional economy and meet the strategic needs of emergency response in Sichuan and Tibet. Under the background of strategic arrangements such as the Belt and Road Initiative and China Western Development, it is an inevitable requirement of the time to study how to build a modern logistics system for the Sichuan-Tibet Passage, further release the logistics capacity and efficiency of the Sichuan-Tibet Passage, explore the modern logistics system construction path with regional characteristics, and cultivate a new driving force for regional economic development. Based on the analysis of the development status of Sichuan-Tibet Passage, this paper clarifies the development direction of logistics, determines the current logistics construction priorities and implementation steps, so as to make up for the shortcomings of regional logistics development and explore the ways of modern logistics system construction in line with regional characteristics. This paper has important practical significance for driving economic growth along the passage, promoting coordinated regional development, promoting national unity, and safeguarding national security and social stability.

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