



**China (Yunnan) - GMS Countries Contactless, Seamless and Collaborative Logistics Solutions of Border Ports under the Epidemic**

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*SSILR: One International, Professional,  
Regional Social Think Tank*

- 2005 GMS-LRC

GMS Logistics Research Center

- 2011 KOATLR

Kunming Opening Asia Transportation Logistics Research  
Institute

- 2017 SSILR

Kunming South Asia & Southeast Asia International  
Logistics Research Institute

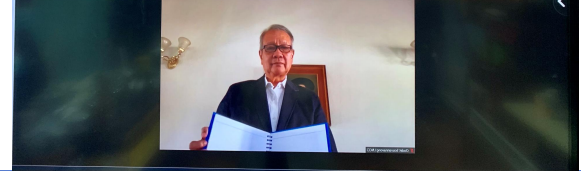




# *Policy Consulting, Business Projects, International Communication*

## **GMS-FRETA China Office**

- 2013 The Capacity Building Study on GMS-FRETE
- 2014 The GMS International Dry Ports Construction Operating Study
- 2015 LMC-GMS Industrial Parks Cooperation Study
- 2016-2017 China-Indochina Peninsula Economic Corridor Logistics Development
- 2018 The Study on Private Enterprises Joining in China-Myanmar Land-River Coordinated Transport
- 2019 The Study on Private Enterprises Joining in China-Laos Economic Corridor Building
- 2020 The Study on Private Enterprises Joining in China-Myanmar Border(Cross-Border) Economic Zones Building
- 2021 China-Laos Railway Intercontinental Multimodal Logistics Cooperation



**SSILR - Lao National Chamber of Commerce and Industry(LNCCI) - Thai Logistics Service Provider Federation(TLSP) in 2021**  
**The Multimodal Transport Logistics Alliance of the China-Laos-Thailand Economic Corridor**



## Difficulties:

ports congestion, spending long time for customs clearance, high logistics costs, failure of traditional modes

In July 2021, the port closure has affected the process of ports operation.

Participating in the ports transportation, prevention and control of epidemic and the disinfection and sterilization management by the governmental agencies and enterprises have resulted the traditional supply chain companies to restructure.



**The congestion situation of the highway ports**



**The added parts: appointed designated driver+epidemic prevention and disinfection**



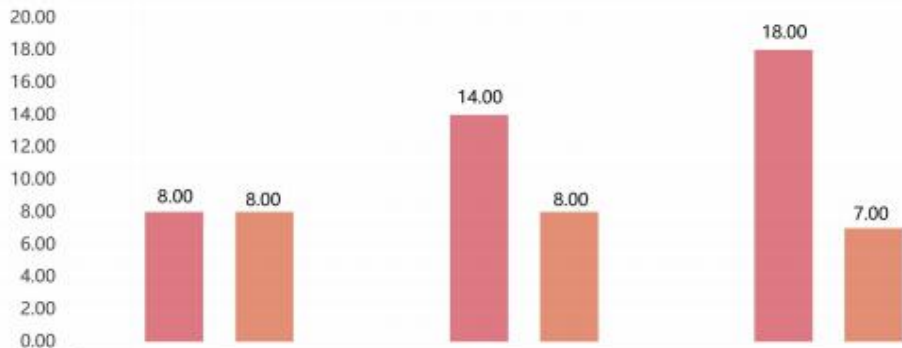
**Stopped the small-scale border trade**



### Difficulties:

ports congestion, spending long time for customs clearance, high logistics costs, failure of traditional modes

Mandalay-Muse Freight Change Chart before and after the epidemic



	Price before the epidemic (Price in February 2020)	Price during the stable period of the epidemic (February 2020 - January 2021)	Price after the epidemic (After February 2021)
■ Mandalay - Muse	8.00	14.00	18.00
■ Muse - Mandalay	8.00	8.00	7.00

■ Mandalay - Muse ■ Muse - Mandalay

- ◆ Take Mandalay (Myanmar) -Muse as an example, the unilateral transport cost since March 2021 has exceed 125% compared to March 2020.
- ◆ The most expensive drayage cost of China WanDing MangMan-Golden Triangle has exceeded the cost of Yangon-Muse, and then Myanmar freight companies turned to choose the Thailand channels.





### Problems:

enterprises shutdown, drivers shortages, supply chain disruptions, unemployment, population shifts in border cities

Designated driver  
charges+transshipment  
charges+handling  
charges+transport charges

Cargo disinfection and  
sterilization fee+truck  
isolation fee+personnel testing  
fee+personnel isolation fee

Container towing fee + site  
fee

- Smuggling, illegal border crossing, and epidemic prevention and control in China-Myanmar border areas lead to governmental management costs increase.
- Supply chain disruptions and cargo information without tracing system hinder the application of digital transportation technology innovation.



## China-Laos Railway Freight Train: New Opportunities for International Multimodal Transport

- 2021.12.3~2022.6.2 The China-Laos Railway racked up 4.03 million tons of delivery cargo, in which Kunming Customs has cleared 1,288 inbound and outbound international cargo trains, and the total import and export cargo volume was 604,000 tons and the total value of the cargo was 6.47 billion RMB.
- Transportation time: 10 days before opening, 4 days after opening.
- Transportation cost: 300 RMB/ton before opening, 170 RMB/ton after opening.
- More than 500,000 tons of goods have been delivered in Laos section, with more than 2,000 kinds of goods including rubber, general merchandise, agricultural product, mechanical product, electronics, automobiles, minerals, etc., and transited to Thailand, Myanmar, Malaysia, Vietnam, Cambodia, Singapore and other countries.





## Measures for the orderly resumption of customs clearance of freight business at border ports

- The People's Government of Yunnan has identified 19 land border cities: Tengchong City, Jinping County, Hekou County, Malipo County, Maguan County, Funing County, Jiangcheng County, Menglian County, Jinghong City, Menghai County, Mengla County, Mangshi City, Yingjiang County, Longchuan County, Ruili City, Lushui City, Zhenkang County, Gengma County, Cangyuan County.
- Closed-loop management, contactless operation process, smart port customs clearance, centralized disinfection & detection & isolation.
- Transform into multimodal container transport, construct emergency logistics infrastructure, set up inspection points.
- International consultation and exchange, support the enterprises to carry out the joint research technological programs.





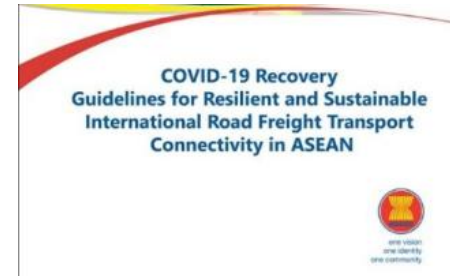
## Contactless, seamless and collaborative UN logistics solutions

- **Technical Principles:**

1. Transport and trade connectivity in the age of pandemic: contactless solutions, seamless connectivity, collaborative solutions (UNTTC)
2. COVID-19 Recovery Guidelines for Resilient and Sustainable International Road Freight Transport Connectivity in ASEAN
3. Epidemic prevention and control policies of China and Myanmar
4. China ports infrastructure construction standards

- **Construction Principles:**

One Port One Solution; led by government, constructed by enterprises, negotiated by commerce chambers and think tanks, operated by stakeholders.





Cancel the designated drivers, reduce the transport costs: apply the multimodal transportation digital technology

- ✓ Digital railway transportation mode
- ✓ Digital belt transportation mode
- ✓ Driverless transportation mode
- ✓ Digital transportation infrastructure construction





## Reproduce the process, improve the customs clearance efficiency: international standard customs clearance digital facilitation

- Front Operation Area: channel automatic spraying disinfection
- Front-line checkpoint: collect the information data of customs clearance
- Inspection operation area: smart bonded supervision
- Inspection and quarantine area: pesticide treatment system
- Customs special network system
- ASEAN Customs Transit System(ACTS)





## Environmental friendly disinfection, efficient detection: intellectualization of inspection and quarantine

- Use the botanical gaseous disinfection products for agricultural products
- The smart contactless disinfection warehouse
- The smart inspection and quarantine lab







Bonded supervision, cold-chain logistics:  
smart matching the transport capacity resource according to the category of goods

- Set up the bonded supervised warehouses at the border ports, two-way correspondence construction, the existing facilities of enterprises can be incorporated in the system.
- Freezer containers, smart freezer warehouses facilities, facilities of fresh packaging and frozen processing, traceable cold chain transport.
- Apply the high precision smart map combined with 5G, hashrate and AIT to realize the virtual real-time management for the all-process, and to realize the smart scheduling and arrangement.



40 Feet Freezer Containers



## The UAV delivery and emergency logistics: the containers multimodal transport logistics can maintain the elasticity of supply chains

- Smart combine vehicles, UAV terminal delivery
- Through the geoelectronic fence technology to realize the regional and routes intrusion control in the restricted areas and yaw supervision



Use the UAV delivery in the closed-loop customs clearance area and promote the transport efficiency for the emergency supplies.



SF UAS of S.F. Express has gotten the first global UAV logistics operation license.

On 12th April 2022, S.F. Express was successful in Pu'er tea transportation trial between Yunnan JinHong Airport and Menghai Country(the tea origin). It planned to put 300 UAVs into operation of tea transport.





## Suggestion: ADB could provide technical assistance

Support and participate in the meetings and activities of the Multimodal Transport Logistics Alliance of China-Laos-Thailand Economic Corridor(SSILR, LNCCI, TLSP).

Support SSILR to join in the GMS transport and logistics projects research; support the digital transformation and development of SSILR; support SSILR to join in the governmental consulting services.



Suggestion: ADB could support the projects and provide the projects loans

Provide the projects loans to smart ports construction in China Yunnan; give priority to Chainsaw Port, ZhangFeng Port and TenChong Port; aid the construction of the corresponding ports of Myanmar.

Support to resume the international shipping of Mekong River; aid the infrastructure construction of China GuanLei Port; aid the manufacturing of shallow cargo boats.

Provide the project loans to the construction of the cold chain logistics facilities of Kunming Tenjun Dry Port and Vientiane Thanaleng Dry Port; support operation and management connectivity of dry ports.



## Expectation

We hope the Asian Development Bank (ADB) would provide more fund for the connectivity projects among Yunnan China, Myanmar and Laos.

We hope the riparian countries of Mekong River to jointly improve infrastructure , and to start dialogue and consultation .

# Liu Jinxin

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