

China-ASEAN Business and Investment Summit



A Survey Report of China-ASEAN (Cambodia, Laos, Myanmar and Vietnam) Trade Facilitation

Hosted by:

China Council for the Promotion of International Trade

Cambodia Chamber of Commerce

Lao National Chamber of Commerce and Industry

The Republic of the Union of Myanmar Federation of Chambers of
Commerce & Industry

Vietnam Chamber of Commerce and Industry

Organized by:

China-ASEAN Business and Investment Summit Secretariat

Supported by:

China-ASEAN Institute of Guangxi University

September, 2016

Acknowledgment

Economic and Commercial Counselor's Office of the Embassy of the People's
Republic of China in the Kingdom of Cambodia

Economic and Commercial Counselor's Office of the Embassy of the People's
Republic of China in the People's Democratic Republic of Laos

Economic and Commercial Counselor's Office of the Embassy of the People's
Republic of China in the Republic of the Union of Myanmar

Economic and Commercial Counselor's Office of the Embassy of the People's
Republic of China in the Socialist Republic of Vietnam

Chinese Chamber of Commerce in Cambodia

China Chamber of Commerce to Lao PDR

Myanmar Chinese Chamber of Commerce

Business Association of China in Vietnam

Department of Commerce of Guangxi Zhuang Autonomous Region, China

Nanning Customs, China

Guangxi Entry-Exit Inspection and Quarantine Bureau, China

China Council for the Promotion of International Trade Yunnan Sub-Council

China Council for the Promotion of International Trade Shenzhen Sub-Council

Management Committee of Commerce and Port of Chongzuo, Guangxi, China

Bureau of Commerce of Ruili, Yunnan, China

Bureau of Commerce of Pingxiang, Guangxi, China

CONTENTS

1 The Backgrounds	1
1.1. Brief introduction on China-ASEAN (Cambodia, Laos, Myanmar and Vietnam) trade development	1
1.1.1. Overview of trade cooperation between China and ASEAN.....	1
1.1.2. Overview of trade between China and Cambodia, Laos, Myanmar and Vietnam	2
1.2. Framework for the implementation of trade facilitation	5
1.2.1. Trade facilitation initiated by the existing international trade organization and regional economic cooperation mechanism.....	5
1.2.2. Sign and consummate agreements on promoting trade facilitation....	8
1.2.3. Proactively Promoting CAFTA Upgrading and RCEP Negotiation.....	10
1.2.4. Greatly Promoting China-ASEAN Connectivity.....	13
1.3. Measures for China-ASEAN Trade Facilitation	14
1.3.1. Trade Facilitation Measures from China.....	14
1.3.2. Trade Facilitation Measures from the ASEAN.....	20
1.3.3. Trade Facilitation Measures from CLMV.....	24
1.4. A measurement of the whole situation of China - ASEAN trade facilitation	31
1.4.1. Measuring object and data sources.....	31
1.4.2. The establishment of indicator system.....	32
1.4.3. Measurement of trade facilitation.....	34
1.4.4. Analysis to the empirical result.....	36
2 Problems	38
2.1. Customs Clearance Environment.....	38
2.1.1. Customs Administration Efficiency.....	40

2.1.2. Import and Export Procedure Efficiency.....	42
2.1.3. Transparency of Border Management.....	45
2.2. Policy Environment.....	45
2.2.1. Transparency of Government Policy.....	45
2.2.2. Non-Tariff Trade Barrier.....	47
2.3. Ports Efficiency.....	47
2.3.1. Logistics Standard.....	47
2.3.2. Logistics Network.....	50
2.3.3. Quality of Transportation Facilities.....	50
2.3.4. Service Quality of Transportation.....	53
2.3.5. Logistics level.....	54
2.4 E-Commerce.....	60
2.4.1. Internet Users.....	61
2.4.2. The Use and Availability of ICT.....	62
2.5 Mobility of business personnel.....	63
3 Suggestions.....	64
3.1. Custom Circumstances.....	64
3.1.1. Enhance Cooperation and Policy Coordination among Customs.....	64
3.1.2. Transfer from “Series” to “Parallel” and Adopt “Single Window” Service.....	67
3.1.3. Promote Mutual Recognition of AEO System and Standards.....	68
3.1.4. Pilot New Clearance Mode of “supervising results mutual-recognition”	69
3.1.5. Standardize and Simplify Import/Export Documents.....	70

3.2. Regulatory Environment	70
3.2.1. Further Improve the Trade Legal System.....	71
3.2.2. Establish Supervision Mechanism to Improve Reliability of Law Enforcement.....	72
3.2.3. Increase Transparency and Availability of the Law, Regulation, Policy and Information.....	73
3.2.4. Enhance Legal Coordination to Settle Disputes properly.....	73
3.3. Ports Efficiency	73
3.3.1. Actively Promote Infrastructure Construction of Logistics, Perfect Construction of Logistics Channel.....	74
3.3.2. Construct Integrated Logistics Network.....	75
3.3.3. Advance logistic standardization jointly, establish a united logistic standard system.....	75
3.4. E-commerce and E-government	76
3.4.1. Establish and perfect the E-government system.....	76
3.4.2. Increase the penetration of E-commerce in enterprises.....	76
3.4.3. Improve the information network construction.....	77
3.4.4. Build E-commerce supervision system, safeguard network security..	77
3.5. Speed up the mobility of business personnel.....	77
3.5.1. To improve and simplify visa system, relax approval authority....	77
3.5.2. Applying information technology to facilitate business personnel' s outbound travel.....	78
Bibliography	80
Appendix I Terminology.....	86
1. Greater Mekong Sub-Region (GMS)	86
2. Regional Comprehensive Economic Partnership (RCEP)	86

3. ASEAN Economic Community (AEC)	86
4. The “Belt and Road” (B&R)	87
5. Trade Facilitation	87
6. Integration of Customs Clearance.....	87
7. Customs valuation.....	88
8. Single Window Systems.....	88
9. Non-tariff barriers to trade (NTB)	88
10. Most favored nation treatment (MFN)	88
11. Logistics Performance Index (LPI)	89
12. Logistics Supply Chain.....	89
13. Authorized Economic Operator (AEO)	89
14. APEC Business Travel Card Program	90
Appendix II Empirical Analysis of the Impact of Trade Facilitation on Bilateral Trade Volume between China and ASEAN: Based on Gravity Equation.....	91
Appendix III Questionnaire about China—CLMV Trade Facilitation.....	98
Appendix IV The adoption according to the suggestions from experts of the CLMV and China on the review of the Survey Report of China-ASEAN (Cambodia, Laos, Myanmar and Vietnam) Trade Facilitation, dated Mar. 23, 2016.....	103

Catalogue of Tables & Charts

Table 1-1	WTO agreements related to trade facilitation	7
Table 1-2	List of China-ASEAN agreements related to trade facilitation.....	9
Table 1-3	Comparison of FTA signed by ASEAN and China, Japan, South Korea, India and Australia, New Zealand respectively	11
Table 1-4	Rules and Regulations Relating ASEAN by the GACC	18
Table 1-5	First Indicators and Secondary indicators	33
Table 1-6	Trade Facilitation Indicator Index System of Every Country in 2014.....	35
Table 1-7	Trade Facilitation Indicator Index System of Every Country in 2013.....	35
Table 1-8	Trade Weighted Trade Facilitation Indicator (TWTFI) in every countries	37
Table 2-1	Comparison between China and ASEAN in border control efficiency and transparency	39
Table 2-2	Multi-inspection of exports and imports and on-spot inspection of imports in China and ASEAN	41
Table 2-3	Cross-border Trade in China and ASEAN in 2014	43
Table 2-4	Time Cost of Import/ Export in China and ASEAN from 2009 to 2014.....	44
Table 2-5	Transparency of government policy of China and ASEAN	46
Table 2-6	Standard Making Authorities and Formation of Logistics Standard System in the ASEAN countries.....	49
Table 2-7	Global Rankings of Quality and Accessibility of Transportation Infrastructure of China and ASEAN	51
Table 2-8	Global Rankings of Service Quality and Accessibility of Transportation of China and ASEAN Countries	53
Table 2-9	Ranks of LPI of China and ASEAN Countries	54
Table 2-10	Export Time and Cost of the Logistics Supply Chain in China and ASEAN countries	56
Table 2-11	Import Time and Cost of the Logistics Supply Chain in China and ASEAN countries	57
Table 2-12	Global Ranking of Application and Availability of ICT in CAFTA Countries ..	63
Chart 2- 1	Conditions of Registered Ships in The ASEAN countries from 2010-2015	58
Chart 2- 2	Transportation Capacity of Registered Ships in China from 2010-2015	59
Chart 2- 3	Liner Connectivity of CAFTA Countries from 2006-2015	60
Chart 2- 4	Internet Users per 100 people in China and ASEAN	62
Chart 3- 1	Unified Information Platform Construction Process.....	68

Outline

Increasing trade and investment to GMS countries is a very important strategy in expanding and deepening cooperation of economic and trade between China and ASEAN. Considering its geographical advantage, grass roots and environment of cooperation, GMS possesses great potential in trade cooperation and has the most possibility to become “pilot field” and “leading example” where “the Belt and Road” initiative can achieve substantial results. In GMS, Cambodia, Laos, Myanmar and Vietnam (CLMV) experienced the fastest growing economy in recent years, and enjoined a better cooperation in trade with China. But at the same time, it should be clearly recognized that with the upgrading of CAFTA and RCEP negotiation nearly accomplished, trade between China and ASEAN will quickly enter into the ‘post-tariff’ era. Raising the level of trade facilitation in the region becomes the new focus concerned by enterprises from China and the CLMV countries.

With the purpose of giving a full play to China-ASEAN Business and Industry Summit (CABIS) as a platform to represent business community, and to create a sound environment for expanding import/export trade for enterprises from both China and ASEAN, the CBIS Secretariat carried out a specific study on China-ASEAN (Cambodia, Laos, Myanmar and Vietnam) trade facilitation jointly with China-ASEAN Institute of Guangxi University and national chambers of commerce and industry from the CLMV countries respectively, supported by Chinese chamber of commerce from the CLMV countries respectively, Department of Commerce of Guangxi Zhuang Autonomous Region, China, Nanning Customs, and Guangxi Entry-Exit Inspection and Quarantine Bureau. The research group has interviewed domestic and foreign enterprises engaged in trade in Guangxi Zhuang Autonomous Region, Yunnan province, Canton province, Shenzhen city, in the CLMV countries also, and has received 507 feedbacks from business entities at the same time.

The outcome of the survey shows that China and the CLMV have laid down relative policies and measurements to improve trade facilitation in recent years. The construction in fields such as convenient clearance, standardization, working efficiency of ports, logistic passages and E-commerce facilities witness distinctly accelerating development. In the mean time, there are still improvements needed to be achieved such as clearance environment, stipulation environment, port efficiency and

mobility of business personnel.

In order to further improve trade facilitation among China and the CLMV, different levels of trade facilitation in regional countries demand even greater effort and cooperation. And here comes out the suggestions by the survey report as followed: establishing governmental consultative mechanism of trade facilitation; increasing transparency and availability of laws, regulations, policies and information to settle trade disputes adequately; encouraging the development of cross-border e-commerce to promote trade facilities; expedite mobility of business personnel through simplifying border restriction, improving visa management system and developing business traveling card mechanism.

1 The Backgrounds

1.1. Brief introduction on China-ASEAN (Cambodia, Laos, Myanmar and Vietnam) trade development

1.1.1. Overview of trade cooperation between China and ASEAN

Dialogue relationship between China and ASEAN was formally established in 1991. By 2010, bilateral trade has expanded 37 times in 20 years. In this period, with the signing of China-ASEAN Free Trade Area Agreement, the import-export trade volume between China and ASEAN has exceeded USD 50 billion, stood up USD 54.8 billion in 2002, up by 32% on a year-on-year basis, which is much higher than that of 16.2% between China and Japan, 22.8% between China and Korea, and 20.8% between China and USA. Trade volume between China and ASEAN had exceeded USD 100 billion in 2004, one year ahead of the schedule, reaching USD 105.9 billion; in 2007, the volume exceeded USD 200 billion; in 2010, it reached USD 292.8 billion. China has become the largest trade partner of ASEAN, and ranked behind EU, USA and Japan^①, ASEAN became China's fourth largest trade partner. In 2011, trade volume between China and ASEAN reached USD 362.8 billion and ASEAN surpassed Japan to be China's third largest trade partner. In 2012, trade volume between China and ASEAN exceeded USD 400 billion and reached USD 443.6 billion in 2013. Statistics indicates that from 2003 to 2013, bilateral trade volume and investment between China and ASEAN have expanded by 5 and 3 times respectively, and the world's largest Free Trade Area in terms of population covered and also the largest one among developing countries has been built. The Golden Decade of cooperation between China and ASEAN has dubbed accordingly.

Trade between China and ASEAN have continuously picked up rapidly since 2013. In 2014, bilateral trade recorded was USD 480.394 billion; up by 8.3% than last year, 4.9% higher than the average growth rate of China's overall foreign trade, and accounted for 11.16% of the total volume of foreign trade of China^②. China has become the largest trading partner of ASEAN for 5 consecutive years while ASEAN China's third-largest for 4 years in a row. The growing rate of bilateral trade reached 1.7% and ASEAN maintained to be the third largest trade partner. With the

①Li Jianchao, 11 Countries Together Promote the Connectivity Cooperation, *Nanguo Morning News*, 2011-8-24.

②The Fourth-Quarter Report on the 2014 China-ASEAN Free Trade Area Released in Beijing, *The Chinese Certified Public Accountant*, 2015 (4)

establishment of ASEAN Economic Community (AEC), the acceleration on the negotiation of the upgrading of China-ASEAN Free Trade Area (CAFTA) and Regional Comprehensive Economic Partnership (RCEP), and the promotion of China's 21st Century Maritime Silk Road initiative, the economic and trade cooperation between China and ASEAN is expecting a Diamond Decade.

1.1.2. Overview of trade between China and Cambodia, Laos, Myanmar and Vietnam

Strengthen the corporation in trade and investment with countries in Greater Mekong Sub-region (GMS) is a very important strategy in order to broaden and deepen such cooperation between China and ASEAN. In 1992, with assistance from ADB (Asian Development Bank), the six countries, which including Cambodia, the People's Republic of China (PRC, specifically Yunnan Province and Guangxi Zhuang Autonomous Region), Lao People's Democratic Republic (Lao PDR), Myanmar, Thailand, and Viet Nam, entered into a program of sub-regional economic cooperation, designed to enhance economic connectivity, improve sub-regional economic and social development and achieve regional common prosperity. More than 20 years of efforts make GMS Cooperation an important platform of regional economic cooperation, an important driving force of the sub-regional economic integration, and a successful example of both Asia's regional economic cooperation mechanism and South-South Cooperation. As a very important geographical location, GMS, who connecting China with Southeast Asia and South Asia, is a potentially significant economic growth point in Asia. Giving its geographical advantage, grass roots and environment of corporation, GMS possesses great potential in trade cooperation and has the most possibility to become "pilot field" and "leading example" where "the Belt and Road" can achieve substantial results^①.

^①Professor Lu Guangsheng, director of the Institute of Southeast Asian Studies of Yunnan University, believed that the countries in the Greater Mekong Sub-region are located in Indo-China Peninsula adjoining two oceans (namely Pacific Ocean and Indian Ocean) and sitting in the converging point of the Belt and the Road. In addition, the countries have the unique advantages of the Belt and the Road Initiative which other regions do not possess. Firstly, they possess relatively perfect regional cooperation mechanism. Five aspects (namely policy communication, transportation connectivity, free flow of trade, currency circulation and people-to-people exchanges) stressed by the Belt and the Road Initiative enjoy the best foundation here. Secondly, they boast in-depth economic interdependence with economic cooperation as a support. Thirdly, there are no significant political and security threats as a whole. There is small possibility that the cooperation process is interrupted and reversed due to other factors.

In GMS, Cambodia, Laos, Myanmar and Vietnam (CLMV) experienced the fastest growing economy in recent years, and enjoined a better cooperation in trade with China. Ever since China-ASEAN Free Trade Area (CAFTA) came into force, development of bilateral trade between China and GMS countries has been getting on soundings, trade composition has turned out to be more improved, and bilateral investment has also seen a rapid growth. Furthermore, China has participated in the joint development and construction of Cambodia-Thailand-Vietnam Economic and Trade Cooperation Zone by single proprietorship or joint venture, which has promoted the development of local economy^①.

(1) Bilateral trade between China and Cambodia

In 2014, China-Cambodian bilateral trade volume reached USD 3.76 billion, up by 161% over 2010. Among which, China's export and import with Cambodia amounted to USD 3.28 billion and USD 0.48 billion, an increase of 143% and 433% over 2010 respectively. From the perspective of commodity type, the main commodities which China exported to Cambodia including knitted fabrics, cotton, machinery, electronic products and chemical staple fiber, etc. and the main commodities imported from Cambodia including wood products, knitted garments, non-knitted garments^②, electronic products, and grains, etc^③.

(2) Bilateral trade between China and Laos

China-Laos bilateral trade volume was USD3.818 billion in 2014, an increase of 264% over 2010. Among that, China's export and import with Laos amounted to USD 2.032 billion and USD 1.786 billion, an increase of 323% and 86% respectively over 2010. From the perspective of commodity type, the main commodities which China exported to Laos including electronic products, machinery, vehicles and parts, iron and steel products, and fertilizers, etc^④ and the main commodities imported from

①Ren Na, US Involvement in the Greater Mekong Sub-region and China's Countermeasures, Dongyue Tribune, 2014 (12) .

② The Garment industry in Cambodia remains as a pillar industry, so its garment is the main product China would like to import in the future.

③He Xuli, Trend Analysis of the Import and Export of Major Products between China and Cambodia in 2014, 2015-2-13, <http://customs.caexpo.com/data/country/2015/02/13/3640541.html>.

④Growing domestic market in Laos has established more products markets for Chinese exporters, allowing Chinese export to appear a trend of diversification. In 2014, fertilizer became one of the five major exports to Laos from China with annual export volume reaching \$ 31 million which accounted for 1.5% of the total amount of China's exports to Laos. Mechanical and electrical products contributed most accounting for two-thirds (64.3%) of the total. In recent years, Chinese automobiles are successively put into the Lao market and get the favor of the Lao consumers

Laos including wood products, iron ore, copper and its products, rubber^① and grains, etc^②.

(3) Bilateral trade between China and Myanmar

In 2014, China-Myanmar bilateral trade volume was USD24.643 billion, an increase of 455% over 2010. Among that, China's export to Myanmar amounted to USD 9.273 billion and import from Myanmar amounted to USD15.37 billion, an increase of 166% and 1501% over 2010 respectively. From the perspective of commodity type, the main commodities China exported to Myanmar including electronic products, pearls and gems, machinery, iron and steel, vehicles and parts, etc^③, and the main commodities imported from Myanmar included pearls and gems, mineral fuels^④, wood products, iron ore and steel, etc.^⑤

(4) Bilateral trade between China and Vietnam

In 2014, China-Vietnam bilateral trade volume was USD 79.38 billion, an increase of 164% over 2010. Among that, China's export to Vietnam amounted to USD 60.229 billion and the import from Vietnam amounted to USD 19.152 billion, an increase of 161% and 174% over 2010 respectively. From the perspective of commodity type, the main commodities which China exported to Vietnam including electronic products, machinery, iron and steel, knitted garments and non-knitted garments, etc. and the main commodities imported from Vietnam including electronic products^⑥, mineral fuels, cotton, machinery and wood products, etc^⑦.

because their price, quality, service and other aspects are in accordance with the Lao consumers market.

① In recent years, the rubber industry has become one of rapidly growing new industries in Laos, so Chinese enterprises enjoy great development potential for investing in rubber planting in the northern part of Laos. According to statistics, rubber area in Laos exceeded 150,000 hectares in 2014.

②He Xuli, Trend Analysis of the Import and Export of Major Products between China and Cambodia in 2014, 2015-2-13, <http://cutoms.caexpo.com/data/country/2015/02/13/3640541.html>.

③ Relaxed regulation on the fields of telecommunication, automobile and motorcycle further in Myanmar stimulated China's export trade with Myanmar to a certain extent.

④As is known to all, Myanmar boasts as the world's major raw jadeite origin, while China is one of the main consumers of jade. Jewels and pearls, fossil fuels and others will remain as the major products that China would like to import from Myanmar in the future.

⑤He Xuli, Trend Analysis of the Import and Export of Major Products between China and Cambodia in 2014, <http://customs.caexpo.com/data/country/2015/03/27/3642291.html>.

⑥Electronic products are major imports and enjoy rapid growth compared with other imported products from Vietnam, so it will be the recent trade growth point. Gradually-increased import of electronic products shows the competitiveness of Vietnam in the field of electronic products has improved.

⑦He Xuli, Trend Analysis of the Import and Export of Major Products between China and Cambodia in 2014, 2015-2-13, <http://customs.caexpo.com/data/country/2015/02/13/3640541.html>.

In general, all located in the Greater Mekong Sub-regional area (GMS), China, Laos, Cambodia, Vietnam (CLMV) have witnessed continuously progress in economic cooperation, more closed to each other, more frequent exchange in both personnel and commodities, and development in bilateral trade under the establishment of the GMS Economic Cooperation Program and China-ASEAN Free Trade Area (CAFTA). According to the report of China-ASEAN FTA of the Fourth Quarter (2014) published by China-ASEAN Business Council in January 2015, Vietnam has maintained its position as the second largest trading partner to China among the ASEAN countries, next to Malaysia only. Moreover, the volume of bilateral trade between China and Vietnam has already topped the Vietnamese foreign trade, which makes China the largest trading partner to Vietnam. According to Chinese Customs statistics in 2014, China's trade with Myanmar, Laos and Vietnam raised by 144.9%, 32.4% and 27.7% respectively, enjoyed the fastest growth rates among the ASEAN countries. Despite the slight drop of the trade volume between China and ASEAN in 2015, the bilateral trade between China and Cambodia has achieved a growth rate of 17.95%, the highest among the ASEAN countries.

But at the same time, it should be clearly recognized that with the upgrading of CAFTA and RCEP negotiation nearly accomplished, trade between China and ASEAN will quickly enter into the 'post-tariff' era. Tariff barriers which block trade liberalization are being reduced greatly or even eliminated. Under the new situation, to eliminate all factors hindering trade facilitation, further raise trade facilitation level between countries, and deeply remove the obstacles and bottlenecks of trade development become concerns shared by regional countries.

1.2. Framework for the implementation of trade facilitation

So far, China and ASEAN have carried out trade facilitation mainly through participating in different levels of regional economic cooperation organizations such as WTO and other multilateral trade system, participating in APEC and GMS, promoting the upgrading of CAFTA and the RCEP negotiation, developing the strategy of connectivity and communicating.

1.2.1. Trade facilitation initiated by the existing international trade organization and regional economic cooperation mechanism

As members of WTO, both China and the ASEAN countries must comply with basic rules and obligations of WTO and actively promote the development of trade

liberalization in the field of tariff and non-tariff barriers reduction and trade barriers elimination. WTO started the negotiation on trade facilitation from 1996. And at present, "WTO Trade Facilitation Rules and Arrangements" framework has been introduced. This framework requires WTO members to follow the trade facilitation rules in the fields of import-export procedures, release of goods and customs clearance, and customs cooperation^①. In addition, some separate agreements of WTO are also related to the issue of trade facilitation as listed in Table 1-1.

①Li Xuan, " Study on Trade Facilitation Status, Challenges and Countermeasures in the North East Asia ," *Asia-Pacific Economic Review*, 2013 (6) .

Table 1-1 WTO agreements related to trade facilitation

Sources	Article	specific provision
GATT 1994	No.5	freedom of transit
	No.8	charges and procedures of import and export
	No.10	publication and implementation of trade regulations
Agreement on Customs Evaluation		customs evaluation
Agreement on Rules of Origin		rules of origin
Agreement on Import and Export Licensing Procedures		import license
Agreement on Pre-shipment Inspection		pre-shipment inspection procedures
Agreement on Technical Barriers to Trade		rules of technical standards
Agreement on the Application of Sanitary and Phytosanitary Measures		Sanitary and Phytosanitary Measures
Agreement on Trade-Related Aspects of Intellectual Property Rights		Special requirements related to border measures

Data source: Agreements published by WTO (World Trade Organization)

China and the ASEAN countries improve trade facilitation also through participating in various levels of regional economic cooperation organizations. For example, through participating in APEC, the two sides made great progress in fields such as customs procedures, e-commerce, standard integration, and formulated and implemented Trade and Investment Facilitation Action Plans. In recent years, China and GMS countries have taken connectivity and communicating as a driving force, through the establishment of specialized GMS Carriers Association and a three-party coordination mechanism of Kunming-Bangkok Economic Corridor of China-Laos-Thailand to improve the economic cooperation in fields of Kunming-Bangkok highway transport facilitation, infrastructure construction along Kunming-Bangkok highway, e-commerce platforms construction, trade logistics of bulk commodity and cross-border financial settlement, which has a great promotion to

trade facilitation within the region.

1.2.2. Sign and consummate agreements on promoting trade facilitation

In recent years, China and ASEAN have come to some major agreements related to trade facilitation, which are listed here in Table 1-2.

Table 1-2 List of China-ASEAN agreements related to trade facilitation

Name of Agreement	signing time	Specific Provisions
Agreement on GMS facilitating cross-border transportation of goods and people	1999.11	Transportation facilitation measures, such as cross border formalities, road signs, transport prices, customs inspection, vehicle management, etc.
Agreement On Trade in Goods of The Framework Agreement on Comprehensive Economic Co-Operation	2004.11	A legal document regulating China-ASEAN issues as tariff reduction arrangement and non-tariff measures. It has 23 articles and 3 annexes. Its contents mainly aspects as tariff reduction and elimination, modification of concessions, acceleration of commitments, quantitative restrictions and non-tariff barriers, general exceptions, security exceptions, safeguard measures, institutional arrangement and review, etc.
China-ASEAN maritime agreement	2007.11	Further improve China- ASEAN cooperation on maritime affairs, such as passenger transport and cargo transport
MOU of strengthening cooperation on sanitary and phytosanitary	2007.11	The cooperation on SPS between the two sides will move towards having mechanism, institutionalization and standardization, effectively improve the security of China-ASEAN agricultural products and foodstuff, improve the healthy development of trade of relevant products. Both sides agreed that after the signing of MOU of SPS, the two sides will reach an agreement on TB-MOU as soon as possible, provide technical guarantee for the healthy development of the industrial products trade between the two sides
MOU of China-Vietnam Agreement on Transportation Facilitation	2008.3	bring Youyiguan, the transnational port on China-Vietnam border, and Nanning-Hanoi Economic Corridor into the Framework of GMS Economic Cooperation Cross-border Transportation Agreement
MOU of China-Laos Agreement on Transportation Facilitation	2009.9	Specify the mode and time limit of implementing single window and one stop inspection, and make facilitation arrangements for personnel visa, goods clearance, vehicle entry and license, etc.
China-ASEAN Trade Facilitation Nanning Initiative	2009.10.	Advocate that, according to the initiatives of WTO negotiation, set up national trade facilitation committee, improve the implementation of trade facilitation in one's own country through implementing Global Trade Security and Facilitation Standards Framework of World Customs Organization; strengthen the cooperation of trade facilitation between China and the ASEAN countries, establish cooperation mechanism between customs of China-ASEAN and relevant government authorities, on the basis of consolidating achievements of preliminary cooperation, further strengthen mutual communication and dialogue, improve pragmatic cooperation in terms of information exchange, mutual recognition of supervision, mutual assistance during enforcing the laws, etc.; push customs and relevant government institutions of China and the ASEAN countries to establish closer strategic partnership with their business circles, raise cooperation level, strengthen self-regulation and doing business while abiding by laws, achieve win-win cooperation, jointly promote the development of trade facilitation.
China-ASEAN air transport agreement	2010.11	Promote air transport facilitation between China and ASEAN
General planning of China-ASEAN transportation strategy	2011.11	Determine key areas and comprehensive transportation channel framework in terms of future transport cooperation between China and ASEAN, expect to complete "four vertical and three horizontal" big transport channels.

Data source: Liu Zhuguang: "China ASEAN Free Trade Area Trade Facilitation Research", Guangxi people's publishing house, 2014 edition

1.2.3. Proactively Promoting CAFTA Upgrading and RCEP Negotiation

The Framework Agreement on China-ASEAN Comprehensive Economic Cooperation was signed by the leaders of both China and ASEAN Members (AMS) at the sixth China-ASEAN Summit in Phnom Penh, the capital city of Cambodia in November 2002, by which the initiative to build China-ASEAN Free Trade Area (CAFTA) within 10 years has been put forward. The initially establishment of CAFTA and its positive results in every respect have been achieved through joint effort of all participant members, which makes it become one of the most effective FTA, as admitted by China and ASEAN countries, and also brings it increasing international influence. ^①According to the assessment, export from ASEAN to China has risen by 48% which has fueled the whole GDP of ASEAN by about 0.9%; while export from China to ASEAN has grown by 55%, which has stimulated the growth of GDP of China by 0.2%. With considering in dynamic factors such as capital accumulation, the establishment of CAFTA has driven the growth of GDP of ASEAN by 1.3%, and aggregate welfare increasing USD7.44 billion; 0.9% and USD6.98 billion respectively for China in the same time.^②

^①Yuanbo, Wang Jinbo, WangRui, “comparative study in FTA signed Between ASEAN and other countries”, P42, by China Commerce and Trade press, 2011

^②ShenMinghui, “CAFTA: Achievement and Assessment”, *International Economic Corporation*, Sept.2013(9)

Table 1-3 Comparison of FTA signed by ASEAN and China, Japan, South Korea, India and Australia, New Zealand respectively

CONTENT	China-ASEAN	Japan-ASEAN	South Korea-ASEAN	India-ASEAN	Australia, New Zealand -ASEAN
Time schedule for Tariff of All normal commodities reduce to Zero (year)	2018	2026	2018	2022	2015
Liberalization rate (%)	94.3	64.5	89.9	74.2	100
Sensitive commodities (%)	5.7	35.5	10.1	25.8	0
Origin criterion of normal commodities	Value added criterion, RVC (regional value content) share in FOB value not less than 40%	Arbitrary adopting of Two criterions: 1. Share of RVC not less than 40%; 2. criterion of tariff classification changed: the 4 digit of H.S. Code changed.	Arbitrary adopting of Two criterions: 1. Share of RVC not less than 40%; 2. criterion of tariff classification changed: at least 4 digit of H.S. Code changed.	Satisfied the following two criterions at the same time: 1. Share of RVC not less than 35%; 2. criterion of tariff classification changed: at least 6 digit of tariff lines changed.	Arbitrary adopting the following criterions for 83% of all items: 1. Share of RVC not less than 40%; 2. criterion of tariff classification changed: at least 4 digit of H.S. Code changed.

Note: 1. Normal commodities content those items whose tariff have been or will be reduced to zero. If there are no criterions of track one, track two or more, the time schedule should be for tariff of all normal commodities reduced to zero.

2. Liberation rate refers to the ratio of items of zero tariff to the total in FTA signed by ASEAN with the foresaid countries respectively.

3. Sensitive commodities content those items whose tariff would not reduce to zero ultimately. Whereas the foresaid sensitive commodities listed in the table refers to the share of tariff lines of sensitive commodities to the total in order to measure the opening of FTA.

Data sources: FTA signed by ASEAN and the foresaid countries.

Encouraged by the regional economic corporation between ASEAN and China, other power nations in Asia such as Japan, South Korea and India have successively expressed their desires of reaching into FTA with ASEAN. After nearly 10 years of hard work, ASEAN has achieved 5 agreements of “10+1” FTA with China, Japan, South Korea, India and both Australia and New Zealand respectively, ever increasingly bring them the core and dominant position in regional corporation in Asia. These 5 Agreements of “10+1” FTA have all come into force in cargo trade, a comparison in these 5 Agreements (cargo trade) has been listed in table 1-3.

In 2013, Chinese premier Li Keqiang put forward the China-ASEAN cooperation

Framework of '2+7' under the new circumstances, which is interpreted as the route map drawn by China to construct 'diamond decade' with ASEAN, makes the idea of 'China-ASEAN community of common destiny' more concrete and further promote China-ASEAN cooperation. The second proposal of the '2+7' framework suggests to launch a negotiation on upgrading CAFTA; to promote both sides adopting more opening measures in cargo trade, service trade and investment; improving liberalization and facilitation in trade and investment. China, jointly with ASEAN, intends to step up RCEP (Regional Comprehensive Economic Partnership) negotiations so as to deepen regional economy integration^①. So, promoting trade facilitation within the region becomes one of the essential parts on upgrading CAFTA. Under the framework of CAFTA upgrading, China will implement trade facilitation through different means such as to simplify the application of Certificate of Origin(C/O) and clearance procedure so as to bring more convenience for enterprises of both sides in application for C/O of CAFTA and rise up the utilization of preferential policy; to improve the transparency of policy administration and set up information sharing platform for C/O application and authentication, settle the disputes in the implementing of Rules of Origin of CAFTA; to improve CAFTA agreements and step up relative negotiations as soon as possible so as to accomplish the supplementary chapters on Sanitary and Phytosanitary Standards(SPS), Technical Barriers of Trade(TBT) and trade facilitation^②. The second round negotiation on upgrading CAFTA held in Beijing in February of 2015 made a great progress. The two sides have exchanged opinions deeply in 7 issues of service trade, investment, economy cooperation, customs procedure and trade facilitation, Rules of Origin, standards, technical regulations and conformity assessment procedures (STRACAP) and SPS. In 2012, China took an active part in RCEP negotiation leading by ASEAN^③.

①Address by Li Keqiang at the 16th China-ASEAN (10+1) Leaders' Meeting. *People's Daily*, 2013-10-10.

②Zhu Qing&ZhanTingting, China Will Further Promote the Trade Facilitation in China-ASEAN Free Trade Area, 2011-3-2, <http://news.hexun.com/2011-03-02/127659358.html>.

③RCEP is a trade agreement negotiation with the largest scale and the most members involved in East Asia, which is the integration of existing mature free trade areas. It is aimed at reaching a modern, comprehensive, high-quality, reciprocal regional free trade agreement between ASEAN member countries and ASEAN free trade partners. RCEP covers wide negotiations fields, including not only market access of traditional goods, services and investment, but also many topics about rules in emerging fields, such as trade in goods, trade in services, investment, the

By February 2016, 11 rounds of RCEP negotiation have been completed and is expected to achieve substantive results by the end of 2016. As an essential issue of the negotiation, trade facilitation has been placed at the top of the negotiation agenda. In the first three rounds of negotiations, all participants have reached initial consensus on the issues such as tariff reduction and elimination, rules of origin, customs procedure, trade facilitation and mechanism of rules establishment. In the following rounds, active progress in measures and policies of trade facilitation have been achieved from different aspects such as the framework of agreement, goods, service, investment, competition, intellectual property right (IPR), economy and technological cooperation, rules of law and mechanism. For instance, RCEP negotiation touch not only market access clauses about trade and investment but also many rules in Rule of Origin, SPS, TBT, IPR, competition policies and economy and technological cooperation. One of the main targets is to achieve progress gradually in cargo trade liberalization so as to promote regional trade and investment on the basis of existing liberalization among all participants.

1.2.4. Greatly Promoting China-ASEAN Connectivity

Connectivity is also one of the significant parts in China-ASEAN cooperation and can also provide guarantee for friendly communications, economy and trade cooperation and people-to-people exchange between the two sides. The third proposal in the '2+7' framework suggests speeding up connectivity infrastructure construction, and in view that development in connectivity will promote trade facilitation within the region and enlarge bilateral and multilateral trade scale^①. China-ASEAN connectivity can be embodied in both 'hard-ware', such as infrastructure construction, and 'software'. One of the key aspects is to achieve systematic connectivity. Therefore, to enhance the construction of CAFTA, upgrade trade facilitation by improving policies, infrastructure and procedure to speed up free flow of production factors in the region become essential. The GMS countries represent the key link in China-ASEAN connectivity. In 'GMS Business Council-Kunming Consensus' released by business and industry entities of the GMS countries in 2011, member states called for further strengthen cooperation in the GMS region as well as cooperation under the CAFTA

dispute settlement mechanism, the economic and technical cooperation, intellectual property rights and competition policy, and so on.

①Address by Li Keqiang at the 16th China-ASEAN (10+1) Leaders' Meeting, *People's Daily*, 2013-10-10.

framework; speed up connectivity infrastructure construction of the GMS economy corridor, drive the transformation of transport corridor into economy corridor; and the suggestion of promotion to connectivity of policies of both trade and investment, and market access, push forward GMS trade and investment facilitation, and also settlement facilitation in trade^①.

1.3. Measures for China-ASEAN Trade Facilitation

After the outbreak of the international financial crisis in 2008, governments of various countries took coping measures together and actively coordinated their economic policies, which brought about positive results. Since then, promoting trade facilitation has become a significant issue of common concern by customs and trade entities of various countries. With the continuously deepening of relationship of economic and trade, governments of China and ASEAN have engaged in a more pragmatic cooperation on mutual recognition of customs control, information exchange, and mutual assistance in law enforcement, offered a great contribution to propel the further development of trade facilitation.

1.3.1. Trade Facilitation Measures from China

(1) Construction of Integrated Customs Clearance

In March 2015, China State Council released *Reform Program of Implementing "Three Mutual" and Promoting Construction of Customs Clearance*, aiming at impelling customs clearance collaboration between inland and coastal/frontier areas, and speed up mutual recognition of customs supervision, information interchange, mutual assistance in law enforcement among ports administration authorities, Which becomes a development direction to further advance customs clearance integration construction, and improve modernization of port governance system and capability. Meanwhile, it will also lead to the fast development of China's foreign trade and a new round of high-level opening to the outside world. Joint inspection departments of ports in Guangxi and Yunnan provinces—the two most active areas in cross-border trade with the CLMV countries—have pioneered in working in customs clearance facilitation.

As to the facilitation of customs clearance, the main measures include: ①

①Li Qian, "Kunming Consensus" reached in the Second Meeting for GMS Business Council, *Chinese World*, 2011-8-1.

Implement on-site and external supervision. Goods exported from banner enterprises in Guangxi, and advanced technology, equipment, key spare parts, energy imported are under on-site supervision, which provides convenience for enterprises' import /export activities; Imposing external supervision on leading enterprises' import /export so as to lessens circulation of goods, reduces cost and improves the efficiency of customs clearance; ②Apply "pre-arrival" price audit and classification. Nanning Customs settle these two kinds of applications from enterprises in due course, thus shortening the processing time and improving clearance efficiency; ③enlarge the area of implementing Crossing Great Customs Region Expedited Clearance, apply facilitation measures such as the reform of regional clearance integration. Nanning Customs has signed agreements with other 15 counterpart customs so far, authorizing more than 60 enterprises to apply the mode, which greatly reduces logistics cost and clearance time for import and export enterprises due to across district rapid clearance realized. ④Open fast clearance channel for fresh, live and perishable goods. At Youyiguan Port, fruits of low risk categories products enjoy priority of documents examination, goods inspection. Customs clearance process is simplified by the way of one-day clearance. To promote customs facilitation, Nanning and Kunming Customs also approve on-line payment of tax and margin, and open fast clearance channel during the China-ASEAN Expo^①.

For inspection and quarantine issues, the main measures include: ①Adopt 7-days of 24-hours working time, to provide enterprises with declaration of reservation and pre-arrival to minimizing clearance time costs; ②Apply speediness systems of documents E-declaration, E-examination and E-transfer, to informationalize the inspection and quarantine process. Meanwhile, internal inspection and quarantine information sharing improves the working efficiency; ③ Adopt jointly with customs an on-line system of documents examination instead of transferring paper documents, further improve the efficiency of customs clearance; ④ Inspection and quarantine authorities in Yunnan and Guangxi also make full use of the cooperation mechanism with counterparts of Guangdong, Fujian and other provinces, strengthen the cooperation with origin of export goods, popularize register mode of responsibility by governments of origin while supervision by the inspection

①Lei Wenjing, Research on Guangxi's Participation in the Facilitation of Highway Cross-Border Transport Cooperation of the Greater Mekong Sub-Region, Nanning: Guangxi University, 2013.

and quarantine authorities, so as to facilitate the customs clearance of export goods in Guangxi ports.^①

In terms of frontier inspection, the main measures include: ① Simplify entry-exit inspection procedures. The frontier inspection department simplifies the procedures in vehicular self-service clearance ports. For the vehicle completing self-inspection, there is no re-check to *the entry-exit inspection card for vehicles*, so as to improve the efficiency; ② Establish frontier self-service inspection system. A vehicular entry-exit self-service inspection channel was established at Youyiguan port, using automatic railing-lift equipment. At Dongxing port, the customs clearance speed and capacity has been increased significantly since the implement of entry-exit self-service system; ③ Frontier inspection departments also provides overtime service for the convenience of tourist groups or enterprises who cannot arrive at the port before closing time due to delayed trip. In addition, Guangxi and Yunnan frontier inspection authorities open green channel and emergency channel for clearance facilitation^②

(2) Improve the Rules of Mechanism, Increase Transparency and Outcomes of Operation Reform

Establish and improve fair systems in pricing, customs declaration and inspection, and tax and charging so as to create a favorable market environment. Enhance the government's involvement to prevent market failure and malicious competition so that all parties may achieve their maximum effectiveness. Set up business and information network, lessen auditing and approval procedures to reduce troubles and costs raise from repeated application. For example, the *Standard Regulations of Customs Operations* covers all customs business except anti-smuggling, turns various rules and regulations into law enforcement and performance standards such as job responsibilities, working processes and operating methods according to business category and process, improves the uniformity of law enforcement at the regime construction level.

①Lei Wenjing, Research on Guangxi's Participation in the Facilitation of Highway Cross-Border Transport Cooperation of the Greater Mekong Sub-Region, Nanning: Guangxi University, 2013.

②Lei Wenjing, Research on Guangxi's Participation in the Facilitation of Highway Cross-Border Transport Cooperation of the Greater Mekong Sub-Region, Nanning: Guangxi University, 2013.

Regulatory customs documents are the important pursuant for customs administration. The General Administration of Customs of China (“GACC” herein after) has tried continuous efforts on amendment and cleanup to law and regulations so far, such as making "Intellectual Property Protection" and "Valuation Principles" conform with international rules, and has made an overall investigation on regulatory documents issued and implemented in the past according to the legal and administrative regulations such as *Customs Law*, so that the contradictions between upper and lower, previous and latter , inside and outside can be found, Such as contradictions existed between lower-level and upper-level legislation, abhorrent in previous and latter regulations to same issues, and conflicts in same issues of overlapping business operations

From 2001, all the regulatory documents issued by the GACC requesting relative party of administrative to obey or complete, must be announced in the form of Public Notice of GACC, so as to ensures the convenient acquisition of customs laws, rules, regulations and regulatory documents from the websites of Central Government, GACC and the WTO consulting section.

The GACC has issued a number of rules and regulations to promote the China-ASEAN trade facilitation since 2003 as listed in table 1-4.

Table 1-4 Rules and Regulations Relating ASEAN by the GACC

Ref. No.	Title	Issuing Date
GACC AQSIQ Announcement No.77, 2003	On the Relevant Issues on Preferential Tariff Treatment to the Chinese Products Under "Early Harvest Program" Exported to ASEAN	2003-12-29
GACC Legislation No. 108	GACC Stipulation on Implement of ASEAN-China FTA Origin Regulations under the Framework Agreement on China-ASEAN Comprehensive Economic Cooperation	2003-12-30
GACC MOFCOM AQSIQ Announcement No. 81, 2003	On the Implementation of ASEAN-China FTA Origin Regulations under the Framework Agreement on China-ASEAN Comprehensive Economic Cooperation on January 1, 2004	2003-12-30
GACC MOFCOM AQSIQ Announcement No. 32, 2005	On "Standards of Specific Origin" in ASEAN-China FTA Origin Regulations	2005-7-15
GACC Announcement No. 37, 2009	On Implementation of China-ASEAN FTA Agreed Tariff Rate 2007 on Goods of Philippines Origin upon Application	2009-6-30
GACC Announcement No. 64, 2009	On Implementation of China-ASEAN FTA Agreed Tariff Rate 2009 on Goods of Philippines, Laos, Cambodia Origin	2009-9-27
GACC Legislation No. 199	Announcement of GACC ASEAN-China FTA Origin Regulations under the Framework Agreement on China-ASEAN Comprehensive Economic Cooperation	2010-11-26
GACC Announcement No.89, 2010	On Application of Rules of Origin under the Framework Agreement on China-ASEAN Comprehensive Economic Cooperation	2010-12-30
GACC Announcement No. 11, 2011	On Issuance of Certificate of Flow of Goods under the Framework Agreement on China-ASEAN Comprehensive Economic Cooperation	2011-03-01
GACC Announcement No. 28, 2011	On Relevant Issues on Appliance of Rules of Origin Operation and Management Procedure to the Goods of Union of Myanmar Origin under the Framework Agreement on China-ASEAN Comprehensive Economic Cooperation	2011-05-03
GACC Announcement No. 74, 2011	On Amending "Standards of Specific Origin" in ASEAN-China FTA Rules of Origin	2011-12-7
GACC Announcement No. 66, 2011	On Relevant Issues on Appliance of Operation and Management Procedure of Rules of Origin to the Goods of The Republic of Indonesia Origin under the Framework Agreement on China-ASEAN Comprehensive Economic Cooperation	2012-02-02
GACC Announcement No. 48, 2014	Announcement on Transfer Corresponding Table of "Standards of Specific Origin" under the Framework Agreement on China-ASEAN Comprehensive Economic Cooperation	2014-06-25

Data sources: the General Administration of Customs of China (GACC)

In May 2014, GACC announced *Several Measures to Support the Steady Growth of Foreign Trade*, which detailed the policies and measures involving customs service in the State Council's *Several Opinions about the Support to the Steady Growth of Foreign Trade* into more specific and feasible implementation measures. ^①In May 2014, China Nanning Customs introduced 10 measures to rationalize mechanism administration, reform customs clearance operations, and make innovations in ports services aiming to maintain favorable development in import/export of Guangxi, so as to ensure Guangxi to play a more important role in jointly building 21st century Maritime Silk Road and upgrading CAFTA. In July 2014, China Kunming Customs released the *Kunming Customs on Several Measures to Support the Steady Growth of Foreign Trade of Yunnan*, covering 24 specific measures in 5 aspects such as to deepen customs reform, to improve the policies and measures, to promote the transformation and upgrade of processing trade, to innovate customs service and create a favorable trade environment.

(3) Strengthen the Cooperation on Customs and Inspection between China and ASEAN

To implement the *Framework Agreement on Comprehensive Economic Cooperation between the People's Republic of China and the Association of Southeast Asian Nations* signed by jointly signed by China-ASEAN leaders at their meeting in 2002, China and the ASEAN countries officially started the cooperation in 2003 in fields of customs. In recent years, China-ASEAN customs cooperation has yielded the following positive results under the joint efforts of both sides: ① Establish a regular bureau-level consultation mechanism and expert-level customs coordinating committee consultation mechanism (CCC); ② Promote the China-ASEAN FTA negotiations on rules of origin; ③ Identify 7 priority areas in customs cooperation: determining the origin of goods; coordinating and simplifying customs procedures to expedite the customs clearance of cargos; strengthening law enforcement cooperation, particularly in combating commercial fraud and other violations to customs laws; sharing customs information and intelligence in accordance with international best practices and relevant customs convention, such as risk management, *the Kyoto Convention*, *the Convention on Mutual Administrative*

^①General Administration of Customs of the P.R.C., 20 Measures introduced by GAC of the P.R.C. for Supporting the Steady Growth of the Foreign Trade, 2014-5-23, <http://www.customs.gov.cn/publish/portal0/tab49564/info707366.htm>.

Assistance by the World Customs Organization; Extensively applying modern information technology to build electronic customs and promote trade facilitation; strengthening human resources development and capacity-building; improving the transparency of customs regulations and procedures;^{①④} For 6 consecutive years, China Customs has held 6 different thematic seminars for ASEAN customs such as the revised *Kyoto Convention*, rules of origin, risk management and inspection, trade facilitation, and *Framework of Standards for Security and Facilitation of Global Trade (the Standards Framework)* by the World Customs Organization and customs automation;^⑤ Promote the cooperation in the fields of trade facilitation. Under CAFTA framework, China Customs will actively carry out the cooperation in supervisory mutual recognition, law enforcement assistance, and information exchange, and timely trial cooperation in the programs as "single window", "AEO mutual recognition", and "electronic networking verification of origin". China Customs will provide more efficient service to support enterprises' entry to both markets while regiment intensively. ^②

1.3.2. Trade Facilitation Measures from the ASEAN

In August 2009 in Bangkok Thailand, the 41st ASEAN Economic Ministers Meeting agreed to draw up "ASEAN Framework on Trade Facilitation" and set up "the ASEAN Joint Consultative Committee for Trade Facilitation". The Ministers all agreed to further promote facilitation of trade in goods and liberalization of trade in service, to push foreign direct investment in ASEAN. "the ASEAN Joint Consultative Committee for Trade Facilitation" consists of the officials in departments of trade, customs, standardization institutes of the ASEAN countries, carry out the task of assisting the monitoring of implementation of trade facilitation provisions^③ under the *ASEAN Trade in Goods Agreement*^④.

(1) Unify Standards and Technical Regulations

① Chen Weisong, "Li Kenong: Four Measures to Promote Trade Facilitation," 2009-10-20, http://www.china.com.cn/news/txt/2009-10/20/content_18736413.htm.

② Lu Min: "China-ASEAN Customs Introduce Key Areas of Cooperation," 2009-10-21, http://jjckb.xinhuanet.com/gnyw/2009-10/21/content_186422.htm

③ XuPeng, "AEMM Agrees to Promote Trade Facilitation and Liberalization," 2009-8-26, <http://finance.ifeng.com/roll/20090826/1151463.shtml>

④ ASEAN Trade in Goods Agreement took effect after the convening of the 15th ASEAN summit in October 2009. The agreement includes the issues of tariff reduction and exemption among ASEAN members, and much clearer, fairer and more transparent measures adopted in the aspects of the health quarantine, trade facilities and customs clearance.

ASEAN unified standards and technical regulations are required to be in line with international standards at the first. Now common consensus has been achieved in ASEAN Common Technological Dossier (ACTD) of consumer electrical and electronic products, cosmetics technical papers, pharmaceutical, and uniform administration will be carried out throughout the ASEAN countries. After the implementation of universal standards in ASEAN, products exported to ASEAN only need to go through certification in one of the members, then can be recognized by all other the ASEAN countries. In addition, Mutual Recognition Agreements (MRAs) of conformity assessment implemented by the ASEAN countries significantly reduces products' repeated testing and certification as well as trade costs, and also facilitates the access of products under MRAs into international market.^① At present, MRAs have been widely adopted in electronic appliances, telecommunications, medicine, food and automobiles.

(2) Cooperate in Transportation Connectivity

The ASEAN countries have strengthened cooperation in the transportation of sea, air, road and railway in aims of unification of transport policies and through establishing comprehensive, three-dimensional transportation networks of land, sea and air to facilitate cross-border transit.

In June 2003, the CLMV signed the *Multilateral Cooperation Agreement on Sub-Regional Air Transport*, which laid a foundation for cooperation between 12 airlines in the region. According to the agreement, the airlines in the four countries can make direct flights between the civilian routes, then forming common aviation market to gradually promote cooperation in fields as trade, investment, tourism and enhance the competitiveness of air transport of the four countries and explore international air transport market more effectively.^②

In October 2010, the 17th meeting of ASEAN leaders adopted the *ASEAN Interconnection General Plan*. According to the plan, ASEAN connectivity strategy consists of three pillars as connectivity in infrastructure, mechanism and people-to-people. Among them, mechanism connectivity includes the transport

① Liu Zhuguang, *The Study on the Trade Facilitation of China-ASEAN Free Trade Area*, Nanning: Guangxi People's Publishing House, 2014, p.71.

② Economic and Commercial Counselor's Office of the Embassy of the People's Republic of China in the Socialist Republic of Vietnam: "Multilateral Cooperation Agreement of Air Transportation in Sub-region signed by Cambodia, Laos, Myanmar and Vietnam," 2003-6-6, <http://vn.mofcom.gov.cn/aarticle/jmxw/200306/20030600097231.html>.

facilitation, the free flow of goods, service, investment and personnel, which holds the guarantee of the construction of policy framework and regime of the ASEAN community.^①

In December 2011, the protocol of *the ASEAN Sole Aviation Market and the ASEAN Goods Cross-border Transit Facilitation* was signed at the 17th meeting of ASEAN Transport Ministers, aiming to establish integrated connectivity network of transportation of air, land and water. *Framework Agreement on the ASEAN Sole Aviation Market* includes unified air transport management, opening aviation service and safety etc., aiming to achieve liberalization of regional transportation by 2015. The protocol is a milestone for ASEAN to achieve cross-border facilitation of goods.^②

(3) Eliminate Trade Barriers

From the implement of *Agreement of Common Effective Preferential Tariff* in January 1992, the ASEAN countries have been keeping the tax reduction commitment in the agreement. By 2010, existing tariff of goods reached to 0.89% only, tariff of 98.86% of the goods from four new member countries reduced lower than 5%^③. All measures involving trade in goods have been consolidated into an integrating comprehensive framework, particularly focus on standard-making and uniform of non-tariff barriers, rules of origin, customs and trade facilitation in *The ASEAN Agreement on Trade of Goods*. Among which, the Rules of Origin became more flexible and simple, including the use of electronic C/O in 2012 and the adjustment of rules of origin of dialogue partners according to the Agreement. In order to reduce non-tariff measures, ASEAN plans to lay out guidelines on import licensing and quantitative restrictions by 2014 and put forward a comprehensive category of non-tariff measures of member countries by 2015, so as to identify non-tariff measures, set a timetable for elimination of non-tariff measures, accelerate the establishment of ASEAN trade information bank, unify national standards and assessment procedures, and use ASEAN certification mark. Meanwhile, in order to achieve trade facilitation, lessen the average freight handling time within 30 minutes, ASEAN will adopt modern technology in customs as soon as possible, and implement

① Wang Qin & Li Nan, "The Strategy of ASEAN's Connectivity and Its New Development," *Asia-Pacific Economic Review*, 2014 (2) .

② Zhang Ruiling & Lei Baisong, "ASEAN to Accelerate the Construction of Regional Transportation Network," 2011-12-19, <http://qcyn.sina.com.cn/business/tdm/2011/1219/11360663091.html>.

③ Zhao Chunming, "Evolution and Future Trends of the Trade Policy among ASEAN Countries," *People's Tribune*, 2014 (12) .

the ASEAN Harmonized Tariff Nomenclature and ASEAN Cargo Processing Model.^①

(4) Implement the Single Window Regulation

ASEAN established and implemented single-window plan in 2003. As one of the important objectives in the blueprint of ASEAN Economic Community, ‘single-window’ is a clearance system allows businessmen to make one-time declaration, and relative departments in the ASEAN countries carry out an one-time coherent processing and also one-time approving to the declaration in electronic ways.^② In 2005, Ministers of trade and economy of the ASEAN countries signed the *Agreement on Establishing and Implementing the ASEAN Single-Window Mechanism*, and set a timetable for its implementation.^③ The ASEAN countries began to accelerate the construction of the single-window system after the 15th ASEAN Summit in 2009, including how to integrate national single-windows of member countries into the ASEAN single-window as soon as possible, how to form the basic legal framework regarding cross-nation certification to electronic files etc.

Indonesia, Malaysia, Singapore, Thailand, Vietnam and the Philippines have completed national single-window system so far among the ASEAN countries, and Indonesia, Malaysia, Singapore and Thailand are participating in pilot project of the ASEAN single-window. Myanmar also implemented national single window in 2015.^④ In April 2015, Laos and Vietnam started "single window one-stop" clearance inspection mode at the international port of Lao Bao, Quang Tri (Viet Nam) to Dansawan, Savannakhet (Laos).

(5) Enhance Customs Cooperation

ASEAN customs have set up a working group for customs procedures and trade facilitation to support trade facilitation in member countries and tasked member countries to avoiding implement facilitation respectively but coordinate with each

① Wang Qin & Li Nan, “The Strategy of ASEAN’s Connectivity and Its New Development, ” *Asia-Pacific Economic Review*, 2014 (2) .

② Shang Tianbao, U.S.-ASEAN Business Council: Origin and Function, Guangzhou: Jinan University, 2011.

③ ASEAN member states all agreed that ASEAN single window was carried out in Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand by 2008, and Cambodia, Laos, Myanmar and Vietnam would join the system by 2012.

④ Economic and Commercial Counselor’s Office of the Embassy of the People’s Republic of China in the Republic of the Union of Myanmar: “Myanmar to Promote the Construction of the National Single Window,” 2015-6-15, <http://www.mofcom.gov.cn/article/i/jyjl/j/201506/20150601012929.shtml>.

other to push the project forward consistently. ASEAN customs note that the primary object of trade facilitation is to simplify the laws and regulations of customs coordination, simplify procedures and operations, processes and formalities, risk control, standardization of customs audit, so as to achieve trade facilitation.^① In 2003, ASEAN ensured the gradual implementation of the *WTO customs valuation agreement* in customs of the ASEAN countries through the *ASEAN Customs Valuation Guide (ACVG)*. Trading companies and enterprises have experienced more certainty, predictability and security and trading costs decreased due to the establishment of a unified, stable and transparent classification of goods established by ASEAN customs. In 2004, full implementation of the ASEAN coordinating tariff significantly promote trade facilitation, improve trade environment in ASEAN.^②

1.3.3. Trade Facilitation Measures from CLMV

(1) Cambodia

The authority of implementing trade facilitation in the Kingdom of Cambodia is Cambodian Customs Bureau (GDCE). After signing the CAFTA agreement, the Cambodian Customs Bureau continued to conduct customs modernization, one of the eight strategic objectives of customs modernization is to realize trade facilitation.^③ The main measures taken by Cambodia in the trade facilitation are as follows:

First of all, Cambodia improved customs administration system in the aim of applying simple, efficient, transparent and predictable customs administration. In 2006, Cambodia government adopted the *Sub-Statute on Implementation of Trade Facilitation through Risk Management* and started to carry out risk management system based on trading companies records data bank, that is to operate customs administration by analyzing data of trading companies records, goods and origins through computer; adopt a comprehensive computerized system of customs clearance --automatic customs data system; strive to the implementation of "one-stop service system", and install automatic customs data system terminals at Sihanouk port, aiming

① Liu Zhuguang, *The Study on the Trade Facilitation of China-ASEAN Free Trade Area*, Nanning: Guangxi People's Publishing House, 2014, p.73

② ASEAN Secretariat: Trade Facilitation Measures in ASEAN, 2013-04-20. <http://www.aseansec.org/14261.htm>.

③ General Administration of Customs of the P.R.C. China-ASEAN Customs-Trade Cooperation Forum at the Sixth China-ASEAN Expo: "the Customs of the Kingdom of Cambodia Promotes Trade Facilitation," <http://www.customs.gov.cn/tabid/34738/default.aspx>.

to ease the administrative burden on trade and reducing corruption;^① In June 2010, Cambodia Customs signed the cooperation agreement of trade facilitation with China Customs, consists: strengthen customs cooperation on coordination of dealings of goods between the two countries; enhance information exchange and customs procedures; intensify mutual support in multilateral occasions and simplify customs procedures.^②

Secondly, single-window program has been gradually implemented across the country. Under assistance of from international organizations such as the World Bank, Cambodia has developed and partially implemented the construction plan based on the rule of one-time declaration, one-time process, and one-time clearance. The plan has been implemented step-by-step by General administration of customs of Cambodia basis on the customs automatic data system and participation of all major interested parties. National single-window construction has already been included in the 12-points plan of trade and investment facilitation in 2013 by the Government of Cambodia. Cambodia had completed the following works relating to national single-window construction by 2013: established the National Steering Committee of the Single-Window in May 2008; made a national general plan for the single-window based on existing policies; designed and implemented customs risk management strategies; developed a national blueprint for single-window establishment assorted with the ASEAN single-window; partly implemented the *Action Plan for Framework of Security and Facilitation Standards* by the World Customs Organization; work out an action plan to engage in the amendments to Kyoto Protocol; signed bilateral agreements with neighboring countries for preliminarily simplification of customs clearance procedures; established automatic system of customs data at main ports across the country; introduced one-stop inspection service in ports; prepared for the implementation of the WTO draft agreement on trade facilitation.^③ In 2012, one-stop on-site service provided in single-window service sections, consists of the General

① Economic and Commercial Counselor's Office of the Embassy of the People's Republic of China in the Kingdom of Cambodia: "Cambodian Foreign Trade Regulations and Policies," 2014-4-23, <http://cb.mofcom.gov.cn/article/ddfg/tzzhch/201404/20140400559801.shtml>

② Economic and Commercial Counselor's Office of the Embassy of the People's Republic of China in the Kingdom of Cambodia: "*Cooperative Agreement* signed by the customs of China and Cambodia," 2010-6-23, <http://cb.mofcom.gov.cn/article/ddfg/qita/201006/20100606982705.shtml>.

③ Chen Hongsheng & Li Bihua, "Construction of National Single Window and Customs Clearance Facilitation in the Countries along China-Singapore Economic Corridor," *Around Southeast Asia*, 2014 (11) .

Administration of Customs, Commodity Inspection, the Ministry of Commerce, the Ministry of Labour etc. has been implemented in Bokor Hill special economic zone.

Moreover, the *Customs-Private Sector Partnership Mechanism* (CPPM) has been established. Cambodia officially launched *The Customs-Private Sector Partnership Mechanism* (CPPM) on January 26, 2010. One of its objectives is to promote the effectiveness of trade facilitation in Cambodia. The establishment of this mechanism is part of Cambodia's obligations as a member of the World Customs Organization.^① Finally, trade facilitation projects under construction. In June 2013, the meeting of Ministry of Commerce of Cambodia approved the project of "2013-2018 Diagnoses on Trade Integration Study (DTIS)", established a trade training and research center and other important trade issues, with the aim to facilitate investment environment in Cambodia and promote national economic development. At the same time, there was also "Trade Development Support Project" (TDSP) supported by the World Bank. The project includes: Automated System for Customs Data (ASYCUDA), the certificate of origin, commercial registration, inspection and quarantine certificate, trademark, and national single-window service etc., among which 8 items has been completed during 2013-2015. Once these projects are implemented in the whole, they will further promote trade facilitation development and elimination of non-tariff barriers in Cambodia, and the globalized logistics capacity of Cambodia will be improved at the same time. The project will be completed in August 2016.^②

International organizations such as the World Bank provide assistance to Cambodia in the reform of its customs, border, supervision, import and export procedures and other aspects, which improved logistics environment in Cambodia with its logistics performance index rising by 46 places during 2010-2014, though the clearance charges and time costs for import /export cargos are still on the high side.

① Dr. Pen Siman. Customs Affairs Bureau of Cambodia: "Customs-Private Sector Partnership Mechanism (CPPM)", <http://www.customs.gov.kh/index.php/trade-facilitation/customs-private-sector-partnership-mechanism-cppm>

② "Cambodia Perfects the Commerce Institutions to Promote the Commercial and Trade Development," *The Cambodia Daily*, 2014-12-1.

Cambodia is schedule to accomplish the national single-window by 2018, aiming to improve these two key indicators practically.^①

(2) Laos

First of all, Laos is one of the leading countries along China-Singapore Economic Corridor to apply cross-border one-stop clearance as pilot. Laos, Thailand and Viet Nam signed the cooperation agreement on passenger and freight transport facilitation in 1999, three other countries in Greater Mekong Sub-region joined the agreement successively. For the implementation of the agreement, Laos and Viet Nam started one-stop customs inspection section jointly at Dansawan (Savannakhet, Laos)-Lao Bao(Quang Tri, Viet Nam) in 2005;^② Laos formally started cross border one-stop customs clearance as pilot with Thailand at Savannakhet-Mukdahan port in 2013, and has implemented Thailand-Laos-Viet Nam transnational Customs Transit System (CTS) under Greater Mekong Sub-region system which is being replaced by the ASEAN framework system.^③ Secondly, Laos is striving to the construction of a national single-window project. Lao government is committed to establish national single-window aiming to simply customs clearance of goods, improve trade efficiency, and connect to the ASEAN single-window. By 2013, Laos has achieved progress in the national single-window construction as follows: establishing Laos National Single-window Steering Committee chaired by the Deputy Minister of Finance; building the Secretariat of the National single-window; identifying Laos Customs as the leading department on the construction of the national single-window; making legal gap analysis on national single-window in 2011; holding two seminars about national single-window construction which attended by Laos Customs, relevant government departments and the private sectors; finishing final version of the route map of the Laos national single-window in May 2012; signing a national single-window operating agreement, supplementary agreements and joint venture agreement with France BIVAC company in 2013.^④

① Chen Hongsheng& Li Bihua, "Construction of National Single Window and Customs Clearance Facilitation in the Countries along China-Singapore Economic Corridor," *Around Southeast Asia*, 2014 (11) .

② "One-Stop Customs Inspection System Starts in Laos," *Vientiane Times*, 2005-7-15.

③ Chen Hongsheng& Li Bihua, "Construction of National Single Window and Customs Clearance Facilitation in the Countries along China-Singapore Economic Corridor," *Around Southeast Asia*, 2014 (11) .

④ Chen Hongsheng& Li Bihua, "Construction of National Single Window and Customs Clearance Facilitation in the Countries along China-Singapore Economic Corridor," *Around Southeast Asia*, 2014 (11) .

Furthermore, Laos Customs has continuously promoted the construction of informatization in the aim to improve electronic customs clearance and eventually formed comprehensive implementing framework of the E-customs, E-administration, and E-port. At present, Automated System for Customs Data (ASYCUDA) has been applied at all ports in Laos, and planning to realize electronization of international trade by 2017, including the business and government (B2G) electronization, as well as government to government (G2G) electronization.^①

Finally, the Laos Customs has carried out friendly exchanges with customs in other 9 member countries of ASEAN, as well as China, Japan, Korea and other countries and regions, to enlarge cooperation range, develop cooperation in traditional fields such as statistics, law enforcement, and name of origin, technology cooperation, trade facilitation and non-traditional areas such as intellectual property rights protection. Since July 1, 2012, Laos's government further regulated the issuing and using of certificates related to import and export. The certificates here under are issued by Lao National Business Committee: CAFTA C/O (Form E), C/O under China's Special Preferential Tariff Treatment to the CLMV, ASEAN-Korea FTA C/O, ASEAN-Japan Comprehensive Economic Cooperation Partnership C/O, ASEAN-Australia-New Zealand FTA C/O, and C/O under Most Underdeveloped Countries Preferential Tariff Treatment of Korea. Other certificates of origin are still issued and managed by the Lao Ministry of Industry and Trade.^② And Laos's government also conducts close cooperation with WTO, the World Bank, the Asian Development Bank, the World Customs Organization and other international organizations.

Laos attaches great importance to cooperation with customs and inspection authorities of China. Since China and ASEAN officially launched customs cooperation in 2003, Laos and China have established regular bureau-level consultation mechanism and expert-level consultation mechanism of customs coordinating committee, pushing forward the China-ASEAN (Laos) FTA negotiations

① Chen Hongsheng & Li Bihua, "Construction of National Single Window and Customs Clearance Facilitation in the Countries along China-Singapore Economic Corridor," *Around Southeast Asia*, 2014 (11) .

② Ministry of Commerce of the People's Republic of China: "LNCCI to Issue Some Certificate of Origin in Laos," 2012-2-7, <http://www.mofcom.gov.cn/aarticle/i/jyj1/j/201202/20120207956227.html>.

on rules of origin, and carrying out extensive capacity-building cooperation.^① For example, the quality supervision, inspection and quarantine departments of China and Laos have effectively promoted bilateral cooperation in the field of quality inspection based on the platform of China-ASEAN Ministerial Meeting on Quality Supervision, Inspection and Quarantine, not only realizing mutual recognition of inspection standards and results, but also progressively eliminating technical barriers to trade through the implementation of TBT and SPS agreements.

(3) Myanmar

In order to promote economic growth and the development of foreign trade, Myanmar government has speeded up the process of trade facilitation in recent years, actively reduce time costs and improve efficiency in import and export approval processing, increase the frequency of import and export commodities pricing meetings, expand the permission in import and export commodities and other positive measures so as to promote the growth of import and export volume.

According to the official of national planning economic development department of Myanmar, new government of Myanmar carried out reform immediately while came into power in 2011, to eliminate various trade barriers, improve national business environment. Trade facilitation measures have been taken, including: cancel import restrictions of some key commodities to private sectors, such as fuel oil and edible palm oil; cancel import restrictions of civil and commercial motor vehicles; cancel export restrictions of some agricultural products to private sectors such as edible oil, edible oil seeds, onion, rice; eliminate export commercial tax; add an office of application for import and export permits in Yangon except Naypyidaw; reduce the number of documents for application of import and export permits. Draft the single-window construction plan by the end of 2015. Implement the national single-window mode as pilot in 2015. Launch officially the nationwide operation, and bridged with the ASEAN single-window in 2016.^②

Myanmar customs will adopt Automated Cargo Clearance System (MACCS) throughout the country in the near future. Under the system, customs clearance

① Chen Weisong, "Li Kenong: Four Measures to Promote Trade Facilitation," 2009-10-20, http://www.china.com.cn/news/txt/2009-10/20/content_18736413.htm.

② Chen Hongsheng & Li Bihua, "Construction of National Single Window and Customs Clearance Facilitation in the Countries along China-Singapore Economic Corridor," *Around Southeast Asia*, 2014 (11) .

processes will become paperless, automated and modernized. The status of cargo clearance can be checked at any time through the system and the relevant clearance procedure can start through the system since the departure of the goods.^①

(4) Viet Nam

Viet Nam piloted E-customs clearance in customs of Ho Chi Minh and Haiphong from October 2005 to November 2009, and then extended to 21 domestic provincial customs with available conditions from December 2009 to December 2012. From January 1, 2013 Viet Nam customs conduct electronic declaration throughout the whole country.^②

Viet Nam customs adopt different clearance channels according to the risk of goods: green channel, yellow channel and red channel. Green channel is consists of unconditional green channel, which is applied to inspection-free commodities and offering rapid clearance, and conditional green channel where some declaring documents are required such as C/O, quality inspection (e.g. plant quarantine), and duty-paid proof etc.; Yellow channel is used for medium-risk items, customs will verify all customs documents (including customs declaration form, sales contract, commercial invoice, packing list and certificate of origin, quality inspection, the certificate of tax payment) before release; Red channel targets high-risk products, those products can be released only after verified all documents and physical inspection. Nowadays, customs clearance only takes an average of 5-10 minutes through the green channel, the yellow channel 20-30 minutes, the red channel 60-120 minutes.^③

Enabled by Vietnam customs in March, 2014, VNACCS/VCIS (Vietnam National Automatic Cargo Clearance System/Vietnam Cargo Inspection System) has greatly improve the efficiency of customs management and facilitate both individuals and enterprises with less time cost in customs clearance, higher accuracy and more stability.

①Economic and Commercial Section of the Consulate General of Myanmar in Mandalay, “Myanmar Customs to Adopt New System for Efficiency Improvement,” 2015-8-29, <http://www.mhwm.com/Ch/NewsView.asp?ID=12686>.

②henHongsheng& Li Bihua, “Construction of National Single Window and Customs Clearance Facilitation in the Countries along China-Singapore Economic Corridor,” *Around Southeast Asia*, 2014 (11) .

③ Chen Hongsheng& Li Bihua, “Construction of National Single Window and Customs Clearance Facilitation in the Countries along China-Singapore Economic Corridor,” *Around Southeast Asia*, 2014 (11) .

In order to implement the related protocol of establishing ASEAN single-window mechanism, Viet Nam established the National Steering Committee of ASEAN Single-window System of 2008-2012. On November 29, 2011, the Prime Minister issued a decision to establish the ASEAN single-window mechanisms and National Steering Committee for Single-window Customs System, whose job is to assist government departments to guide and coordinate the construction of single-window mechanism by ministries, administrations authorities under ministries and other relevant institutes and organizations; and to provide comments to the assessment, research, amendment, cancellation or formulation of law system, so as to ensure the operation and implementation of single-window. In 2013, the Viet Nam Ministry of Industry and Trade, the Ministry of Finance and the Ministry of Transport took the lead in the pilot implementation of single-window mechanism. At present, Viet Nam Ministry of Industry and Trade have drafted a document to clearly define business process, data and formula, and data interchange mode.^①

The Vietnam National Single Window (NSW) was officially launched and connected to ASEAN National Single Window in September, 2015, which makes the administrative procedures more simple and convenient, and promotes Vietnam's development in trade, tourism and investment. By August, 2015, 1936 enterprises in Vietnam have gone through the port by NSW and submitted 9435 items of documents. 1647 items of documents have been submitted to NSW for Certificate of Origin.^②

1.4. A measurement of the whole situation of China - ASEAN trade facilitation

1.4.1. Measuring object and data sources

It is difficult to build an accessing system of trade facilitation indicators to measure trade facilitation among countries because there is not an agreed definition on trade facilitation both domestic and overseas. The calculation herein is based on trade facilitation measures listed in APEC<Trade Facilitation Action Plan> (TFAP) and also Wilson's (2003) idea of the construction of trade facilitation indicator measurement system, to measure trade facilitation of China and the ASEAN countries

① Chen Hongsheng & Li Bihua, "Construction of National Single Window and Customs Clearance Facilitation in the Countries along China-Singapore Economic Corridor," *Around Southeast Asia*, 2014 (11) .

② Economic and Commercial Section of the Consulate General of MOFCOM in Hochiminh, "Vietnam announced to formally starting national single window system"; <http://www.mofcom.gov.cn/article/i/jyjl/j/201509/20150901107825.shtml>

from four aspects such as ports' efficiency, customs circumstance, regulation framework and e-commerce. Due to limitation of available resources, and to insure the comparison of involving countries shall under a unified statistics caliber, all data herein are from: World Economic Forum, The Global Competitiveness Report (GCR), Transparent International and Corruption Perceptions Index (CPI)^①.

1.4.2. The establishment of indicator system

Herein after, the whole trade facilitation indicator system is divided into four aspects which containing secondary indicators respectively so as to assure the overall coverage to trade facilitation, as listed in Table 1-5.

^①ShenMinghui, "The Level Measurement and Thinking of the Trade Facilitation in East Asian Countries," *Journal of International Economic Cooperation*, 2009 (7) .

Table 1-5 First Indicators and Secondary indicators

Name of indicator	description	Secondary indicator
Ports Efficiency	To measure the infrastructure and working efficiency of sea ports, land ports and airports in a country, higher marks means higher efficiency.	1. Quality of sea ports' infrastructure (marks: 1-7), including ports' infrastructure and transportation, mark 1—worst, mark 7—best.
		2. Quality of airports' infrastructure (marks: 1-7), including ports' infrastructure and transportation, mark 1—worst, mark 7—best.
		3. Quality of land ports' infrastructure (marks: 1-7), including ports' infrastructure and transportation, mark 1—worst, mark 7—best.
Customs Circumstance	To measure tariff costs and transparency in import/export levy and transit administration	1. Abnormal payment and bribery (marks: 1-7), whether companies should make abnormal payment or bribery in order to take advantages in import/export, mark 1—always, mark 7—never.
		2. Trade barriers (marks: 1-7), whether competitiveness of importing commodities is weakened by non-tariff barriers in a country, mark 1—very often, mark 7—never.
		3. Customs procedures (marks: 1-7), miscellaneous in customs procedures, mark 1—very complex, mark 7—convenience.
		4. Corruption index (marks 0-100), evaluation from businessmen, scholars and professional consulting institutes on corruption in every country, 0—most corruptible, 100—most incorruptible.
Regulation Framework	To measure the transparency and standardability of policy environment in a country, reflect the macro environment of international trade.	1. Burden of regulations and policies from government (marks: 1-7), whether there are multifarious regulations and policies that should be abided, mark 1—most miscellaneous, mark 7—nil.
		2. Transparency in policy making (marks: 1-7), the procedure of government's policy making is transparent and stable, mark 1—chaotic and unstable, mark 7—transparent and stable.
		3. Control standards (marks: 1-7), mark 1—leniency, mark 7—rigorous
E-Commerce	To measure a country's communication information infrastructure, and the ability to promote commerce efficiency and economic development through informatization.	1. Percentage of e-commerce companies on internet (marks: 1-7), to measure the level of companies selling and purchasing widely through internet in a country, mark 1—lowest level, mark 7—highest level.
		Acquisition of new science and technology (marks: 1-7), mark 1—very difficult, mark 7—very easy.

Data resources: with reference to Fang Xiaoli, Zhu Mingxia 'an empirical research in measurement of China-ASEAN trade facilitation and its effect to export', Journal of International Trade, 2013, 09.

1.4.3. Measurement of trade facilitation

All data in the foresaid four aspects shall be processed so as to become measurable due to different data resources. Data of all secondary indicators of a country shall be sum up and make a simple average firstly, then is divided by the simple average, finally comes the index of secondary indicator of the country. The formula is:

$$\bar{\Pi} = \Pi_j / \left(\sum_{j=1}^{11} \Pi_j / 11 \right)$$

Here the letter ‘j’ refers to country J, and J will count from J=1, 2, ... , 12

The indexes of the foresaid 12 secondary indicators from every country can all be achieved according to the formula. And it is obviously that a country’s secondary indicator is in the middle position in all 11 countries if its index number is 1; and it will be in the leading position if more than 1; and vice versa. Here come all 12 secondary indicators’ indexes of 11 countries. Under the circumstances that it is very difficult to measure the importance of every secondary indicator of the said four aspects, we will measure the said indicators by simple average and get the specific numbers of trade facilitation indexes of all countries accordingly. The results come out as listed in Table 1-6 and Table 1-7

Table 1-6 Trade Facilitation Indicator Index System of Every Country in 2014

Country	Ports Efficiency	Customs Circumstances	Regulation Framework	E-Commerce
China	1.09	1.01	1.06	0.97
Vietnam	0.85	0.87	0.81	0.84
Laos	0.83	0.87	0.92	0.90
Cambodia	0.87	0.79	0.83	0.95
Singapore	1.53	1.65	1.42	1.28
Indonesia	0.97	0.93	1.04	1.11
Brunei	--	--	--	--
Malaysia	1.32	1.26	1.29	1.22
The Philippines	0.84	0.95	0.97	1.10
Thailand	1.11	0.98	0.97	1.03
Myanmar	0.59	0.70	0.69	0.60

Note: Absence of data of Brunei.

Data resources: Global Competitiveness Report (GCR)、Transparent International (TI)

Table 1-7 Trade Facilitation Indicator Index System of Every Country in 2013

Country	Ports Efficiency	Customs Circumstances	Regulation Framework	E-Commerce
China	1.04	1.00	1.06	0.97
Vietnam	0.83	0.83	0.81	0.80
Laos	0.85	0.89	0.90	0.92
Cambodia	0.91	0.76	0.88	0.99
Singapore	1.53	1.64	1.429	1.27
Indonesia	0.93	0.89	1.028	1.08
Brunei	1.12	1.27	1.10	1.06
Malaysia	1.28	1.18	1.20	1.19
The Philippines	0.81	0.88	0.98	1.11
Thailand	1.15	0.95	0.98	1.05
Myanmar	0.56	0.70	0.64	0.55

Data resources: Global Competitiveness Report (GCR)、Transparent International (TI)

According to the initial calculating results, measurement to level of trade facilitation among China and the ASEAN countries can be considered. And the indicator system of the four foresaid aspects shall be weighted for that purpose. The

final function of trade facilitation lies on cutting down trading costs and promoting international trade, so it is very reasonable to put different weight to the four aspects of trade facilitation according to their roles in promoting trade volume. Wilson, Mann and Otsuki (2003) have measured how trade facilitation effected trade volume among APEC members. According to their calculation, 1% of fluctuate in variable of tariff or trade facilitation has caused the following swing to trade flow (100% as total) respectively: tariff 9.9%, ports efficiency 55.5%, customs circumstance 5.6%, regulation framework 20.7%, E-commerce 8.3%. With the reference to their report, herein we put weight to the four aspects of trade facilitation respectively as followed: ports efficiency 50%, customs circumstances 10%, regulation framework 25%, E-commerce 15% and finally comes the Trade—Weighted Trade Facilitation Indicators of China and the ASEAN countries, as listed in Table 1-7.

1.4.4. Analysis to the empirical result

As the empirical data in Table 1-8, Singapore ranks the top position among China and the ASEAN countries in trade facilitation for two consecutive years. Myanmar, Vietnam, Cambodia and Laos are at the lowest level in the same period, among which, trade facilitation in Myanmar stays at last, keeps an obvious margin behind the others. Trade facilitation in such a low level in the CLMV will strongly hinder the development of their international trade.

Table 1-8 Trade Weighted Trade Facilitation Indicator (TWTFI) in every countries

2014		2013	
Country	TWTFI	Country	TWTFI
Singapore	1.48	Singapore	1.47
Malaysia	1.29	Malaysia	1.24
China	1.05	China	1.12
Thailand	1.05	Thailand	1.07
Indonesia	1.00	Indonesia	1.03
The Philippines	0.92	The Philippines	0.97
Laos	0.87	Laos	0.90
Cambodia	0.87	Cambodia	0.90
Vietnam	0.84	Vietnam	0.88
Myanmar	0.63	Myanmar	0.82
Brunei	--	Brunei	0.59

Note: Absence of data of Brunei in 2014

Data resources: Global Competitiveness Report (GCR)、Transparent International (TI)

China is at the medium, just the same as Thailand, close to Indonesia and slightly higher than The Philippines, but still needs some more promotion compared to Singapore and Malaysia in trade facilitation. Thus, to improve China's trade facilitation become an effective approach to promote the escalation of corporation of trade and economic between China and ASEAN, and also one of the important objects in CAFTA upgrading. Data in the said table also shows that trade with the CLMV countries is difficult 1.5 times than trade with Singapore and Malaysia for China, which means huge challenge in trade facilitation when China intents to further develop and improve corporation in trade with Cambodia, Laos, Myanmar and Vietnam.

2 Problems

According to the aforementioned empirical analysis, even though China and its ASEAN counterparts have made unremitting effort to develop trade facilitation and yielded achievements over the last decade, the overall level remain low. In particular, Cambodia, Laos PDR, Myanmar and Vietnam are at infant stage and leave a lot of improvement being achieved. At the same time, as a country with large amount in foreign trade, China should further promote its trade facilitation. In this part, we have, by referencing to trade facilitation assessment indicators set up by international organizations such as the World Bank, APEC and the World Economic Forum, analyzed problems facing China and ASEAN in trade facilitation.

2.1. Customs Clearance Environment

It is generally acknowledged that favorable customs clearance environment is of great importance to make one country's trade and investment environment better. In many cases, the customs environment is more important to importers rather than exporters because exporting countries always implement improving and encouraging measures to most of their exporting commodities. By building gravity model, the researchers have checked the influence brought about by trade facilitation between China and ASEAN and concluded that trade flow raises 0.745% if customs efficiency raises 1%.^① In 'The Global Enabling Trade Report' issued by the World Economic Forum in 2014, 'border control' is used as a first-class indicator to describe one country's customs environment, mainly to measure customs administration and service efficiency and transparency. Statistics from "Ports Clearance Efficiency Assessment System" of GACC indicate that, in 2015, the average time cost in ports clearance of export in China reaches to 2.54 hours, 0.55 hours less than that in 2014; and import , 28.15 hours, which is 5.13 hours less than last year.

According to the latest report issued by the World Economic Forum in 2014, ranking of China and ASEAN in border control efficiency and transparency is listed in

① As described above, the research group established the evaluation index system of trade facilitation by setting customs clearance efficiency, customs environment, policy environment and E-commerce as the first-class indicators to evaluate the trade facilitation level of China and ASEAN countries. On this basis, they also evaluated each first-class indicator's influence on China-ASEAN trade facilitation by establishing the gravity model. Please refer to the appendix after the report for the evaluation process.

Table 2-1. In accordance with the Table 2-1, China, Singapore and Malaysia have strong border control capacity and Singapore ranks the highest - No. 1 in the world. However, the CLMV have weak border control capacity. In particular, Cambodia, Laos PDR and Myanmar rank almost the lowest in the world. Here comes the comparison of the average time cost of customs clearance between Guangxi and China in 2015: in export, 2.48 hours for Guangxi, slightly faster than that of China which is 2.54 hours; and import, 36.77 hours for Guangxi, a little more than that of China, which is 28.15 hours.^①

Table 2-1 Comparison between China and ASEAN in border control efficiency and transparency

Country	First-class indicators	Second-class Indicators										
		Customs Service Indicator	Customs Clearance Efficiency	Time Cost of Import	Number of Documents Needed in Import	Import Cost	Time Cost of Export	Number of Documents Needed in Export	Export Cost	Irregular Payments in Export and Import	Predictability of time on following import procedure	Customs Transparency Index
China	48*	53	38*	91	27*	6*	90	108	12*	55	41*	39*
Cambodia	108	66	70	91	101	33*	96	108	31*	119	82	113
Laos PDR	114	--	95	99	115	103	101	130	114	101	66	--
Myanmar	117	--	133	101	101	9*	105	121	19*	128	123	--
Vietnam	86	94	60	83	82	5*	90	40*	9*	123	97	92
Thailand	56	30*	36*	42*	27*	21*	56	40*	5*	89	73	91
Singapore	1*	1*	3*	1*	3*	1*	1*	3*	2*	3*	3*	9
The Philippines	71	31*	45*	47*	57	9*	59	65	3*	103	92	102
Indonesia	69	24*	53	90	82	9*	71	16*	10*	86	70	101
Malaysia	33*	84	27*	16*	11*	2*	35*	16*	1*	44*	23*	59*

Note 1: Absence of data of Brunei

Note 2: '*' indicates the country's advantages in this indicator

Data resource: 'The Global Enabling Trade Report 2014', World Economic Forum

① Data source: Nanning customs, China

2.1.1. Customs Administration Efficiency

According to the World Economic Forum, customs service indicators and customs clearance efficiency are used to assess customs administration efficiency. However, Table 2-2 indicates that the CLMV do not have any advantages in the two indicators, but appear their disadvantage as a whole, and China has advantage only at ‘customs clearance efficiency’^①. Among the CLMV countries, ^②Myanmar ranks with the 133rd in the world with the lowest clearance efficiency.

Customs clearance efficiency is of great importance to reduce cost of international trade, especially the cost of logistics. Table 2-2 tells that for exports to the GMS, multiple inspection conducted by customs has fallen prominently and customs clearance facilitation has been remarkably improved in Laos PDR and Myanmar. According to the research to the Chamber of Commerce and Industry of Laos by the research group, some enterprises still claim that time and cost of customs clearance have been increased due to non-mutual recognition between customs of China and Laos.

① According to *The Global Enabling Trade Report 2014* released by the World Economic Forum, the comprehensive rankings of the global enabling trade index (ETI) of CLMV are as follow: Cambodia ranked No. 93, Laos ranked No. 98, Myanmar ranked No.121, Vietnam ranked No. 72 and China ranked No. 54. According to the evaluation criterion of advantage index, for economies with ETI ranking below 50, if rankings of any one of its sub-indexes are equal to or above 50, the index would be regarded as the economy’s advantage index; if rankings of any one of its sub-indexes are below 50, then the index is regarded as disadvantage index.

② Before the war, there were approximately 900 trucks running from Myanmar into China and about 500 trucks from China into Myanmar every day. However, after the Northern Burma Kokang war broke out, the trading ports were almost stagnant, Customs officer of Muse Port said. According to the Burma’s ministry of economy and trade, commercial exchanges along the Qingshui River border trade route which ranks second in terms of the Myanmar-China border trade volume are suspended for the war.

Table 2-2 Multi-inspection of exports and imports and on-spot inspection of imports in China and ASEAN

Country	The rate of multi-inspection of exports and imports	The rate of on-spot inspection of imports
China	2 (5)	7 (17)
Cambodia	3 (3)	17 (11)
Laos PDR	1 (75)	75 (75)
Myanmar	3 (75)	75 (75)
Vietnam	7 (8)	53 (8)
Thailand	2 (2)	3 (5)
Singapore	3 (1)	5 (1)
The Philippines	4 (2)	10 (6)
Indonesia	3 (18)	8 (31)
Malaysia	1 (3)	2 (6)

Note: Inside the brackets are data of 2012

Data resource: *Logistics Performance Index (LPI) Report, 2014 in Connecting to Compete 2014: Trade Logistics in the Global Economy*, World Bank

Nevertheless, in regard of on-spot inspection of imports, selective examination rate is as high as 75% in Laos PDR and Myanmar even though the ASEAN countries have taken measures to cut it down. Moreover, comparing with the figures in 2012, on-spot inspection of imports in Cambodia and Vietnam has been increased to different extent and the amplification of Vietnam was as high as 90%. Therefore, to set up effective monitoring system by applying hadoop technology and informationization become important means to improve customs clearance efficiency among China and the CLMV.^①

^① The development experience of the newly industrialized countries such as Singapore and developed countries has shown that with the development of information technology and scientific

2.1.2. Import and Export Procedure Efficiency

One of the main measures to achieve trade facilitation is to simplify customs procedure, improve import and export procedure efficiency to reduce trading cost. Each year, the World Bank investigates business environments in countries in the world and issues ‘Doing Business Report’ periodically. In the report, a range of hard indicators, such as ‘the number of documents needed in export and import procedures’, ‘import and export cost’ and ‘days on following import and export procedures’ are selected to evaluate one country’s cross-border trade facilitation.

(1) The number of documents needed in export and import procedures

Based on the latest report issued by the World Bank in 2015, the number of documents needed in export procedure in the GMS is 5 to 10 files. Laos PDR requires the most with 10 and is followed by Cambodia, 9, and China, 8 files. The number of documents needed in import procedure in the GMS is 5 to 10 files. Laos PDR and Cambodia require the most with 10 files both and the next, Vietnam, 8 files. Hence, China and the CLMV are both at a weak position in terms of the number of documents needed in export and import procedures. Excessive documents and procedures have undoubtedly raised potential risks and cost of cross-border trade for enterprises and impede the development of trade facilitation. Table 2-3 tells the details^①.

(2) Days cost in import and export procedures

Table 2-4 shows days cost in import and export procedures in China and ASEAN from 2009 to 2014. The data demonstrates that time cost in import have been reduced to some extent with trade facilitation reform going on in the region. The time cost in Cambodia and Laos PDR fell from 30 days in 2009 to 24 days in 2014 and 50 days in 2009 to 26 days in 2014 respectively, the largest improvement gained by Laos PDR. For Myanmar, data absent before 2014 and the time cost in 2014 was 22 days, which is relatively less in the CLMV but higher than the average of ASEAN (16.7 days). However, the time cost of import in China and Vietnam failed to shorten sharply in recent years, which were 24 days and 21 days respectively in 2014, more than that of

and technological means, customs inspection departments gradually reduce the proportion of on-site sampling and adopt automatic data monitoring.

① Liu Zhuguang, *The Study on the Trade Facilitation of China-ASEAN Free Trade Area*, Nanning: Guangxi People’s Publishing House, 2014, p.129

average of ASEAN and were 5 to 6 times of that of Singapore, whose time cost of import was the lowest (4 days) among the ASEAN countries. This demonstrates that shortening the time cost of import and improving import efficiency should be an important part of the effort made by China and the CLMV in promoting trade facilitation.

Table 2-3 Cross-border Trade in China and ASEAN in 2014

Country	Number of export document	Time cost of export (days)	Export cost (\$/FCL)	Number of import document	Time cost of import (days)	Import cost (\$/FCL)
China	8	21	823	5	24	800
Cambodia	8	22	795	9	24	930
Laos PDR	10	23	1950	10	26	1910
Myanmar	8	20	620	8	22	610
Vietnam	5	21	610	8	21	600
Thailand	5	14	595	5	13	760
Singapore	3	6	460	3	4	440
The Philippines	6	15	755	7	15	715
Indonesia	4	17	572	8	26	647
Malaysia	4	11	525	4	8	560
Brunei	5	19	705	5	15	770

Data resource: *Doing Business Report 2015*, World Bank

As to time cost of export, the CLMV have realized that cutting down time cost for export promotes trade and they have taken measures accordingly. The time cost of export tends to be less and the best result have been achieved in Cambodia and Laos PDR. The time cost of export in Cambodia reduced from 37 days in 2008 to 22 days in 2009 and has been maintained till now; ^①In Laos PDR, the time cost of export decreased by 2 days in 2011, 4 days in 2012, 18 days in 2013 with the drop of 41% in 2013. In 2014, time cost for export was further reduced to reach 23days.

The time cost of export in China is 21 days, which is 4.3 days longer than that of average of ASEAN. Statistics show that 37.9% foreign enterprises think time cost of custom clearance in China is too long and 77.5% feel too much documents are

^① According the survey to the companies, Cambodia customs suffers relatively low efficiency and inadequate manpower. Especially during the holidays, the phenomenon of being detained in the customs is much more prominent. Because of lacking single window and electronic customs clearance, declaring documents can't be sent back within a month which causes great inconvenience to business companies.

required by Chinese government^①. According to the research in Vietnam by the research group, enterprises are in strong hope that strengthen cooperation should be carried out by bilateral ports authorities to improve clearance efficiency so as to encourage the import and export of products, agricultural products and by-products especially.

Table 2-4 Time Cost of Import/ Export in China and ASEAN from 2009 to 2014
Unit: day

Country	2009		2010		2011		2012		2013		2014	
	Import	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import	Export
China	24	21	24	21	24	21	24	21	24	21	24	21
Singapore	3	5	3	5	4	5	4	5	4	5	4	6
Malaysia	14	18	14	18	14	18	14	17	8	11	8	11
Brunei	19	28	19	28	20	25	15	19	15	19	15	19
Indonesia	27	21	27	21	27	20	27	17	23	17	26	17
The Philippines	16	16	16	16	14	15	14	15	14	15	15	15
Cambodia	30	22	30	22	26	22	26	22	26	22	24	22
Vietnam	23	24	21	22	21	22	21	22	21	21	21	21
Thailand	13	14	13	14	13	14	13	14	13	14	13	14
Laos PDR	50	50	50	50	50	48	46	44	26	26	26	23
Myanmar	--	--	--	--	--	--	--	--	--	--	22	20

Data resource: *Doing Business Report 2015*, World Bank

(3) Cost of import and export

Table 2-1 indicates that China and ASEAN have competitive advantages due to comparatively low cost of import/export. However, Laos PDR is apparently disadvantaged at this indicator since it lags far behind other ASEAN countries and China. Through data analysis in Table 2-4, the cost of import/ export in Laos PDR is 3 times higher than that of Myanmar and Vietnam, 2 times more than that of Cambodia

^① Data source: the questionnaire survey carried out in foreign enterprises in Cambodia, Laos, Myanmar and Vietnam by the research group.

and China. The disadvantage of Laos PDR at the cost of import/export has dramatically affected their trade facilitation.^①

2.1.3. Transparency of Border Management

Transparency of border management is mainly measured by “non-routine payment of import and export”, “predictability of the time cost of import and export”, and “customs transparency index”. According to table 2-1, China gains advantages in “predictability of the time cost of import and export” and “customs transparency index”. And the CLMV lag far behind in the above three indexes, and even worst in terms of the “non-routine payment of import and export”--they cannot step into top 100, making it becomes the biggest obstacle in trade facilitation among regional countries.

2.2. Policy Environment

Policy environment refers to sound macro environment for international trade in a country and its government, usually consists of the evaluation of the transparency and normalization of law, policy and institution, which play a pivotal role in the development of trade facilitation. With the construction of the Gravity Model, the research group tested and analyzed the influence of policy environment on trade facilitation between China and ASEAN. The result indicates that with every 1% improvement of policy environment, the trade flow will increase by 0.501%. According to the criterion of the World Bank, this report analyzed policy environment based in China and ASEAN’s through the transparency of government policy and corruption (corruption index) of government.

2.2.1. Transparency of Government Policy

Classical political economic theory of international trade believes that the higher transparency of government policy, the better for enterprises to access to restrictions or preferential policies of import/export, so as to prepare customs clearance documents in advance to reduce time cost of customs clearance. Therefore, the transparency of government policy is critically important for trade facilitation.

① According to the staff in the Economic and Commercial Counselor’s Office of the Embassy of the People’s Republic of China in Laos, the Laos is located in the inland of Indo-China Peninsula. Many negative factors such as no access to the sea, very backward infrastructure and small domestic market are important causes of the high cost of import and export.

According to the data of World Economic Forum (table 2-5)^①, the transparency of China and the ASEAN countries can be divided into four groups: Singapore and Malaysia have the highest transparency; China, Brunei, and Indonesia are in the upper-middle level; the Philippines, Thailand, Laos, Cambodia and Vietnam are in the middle level; Myanmar has a comparatively low transparency of government policy. Through longitudinal comparison the research group has found out that although the transparency of policy of CLMV is still low, the four countries have been trying to improve it by adopting relative measures, and their indexes keep rising up as a result though the raise is slowly. Therefore, the CLMV still have a long way to go.

Table 2-5 Transparency of government policy of China and ASEAN

Country	2010	2011	2012	2013	2014
China	4.8	4.7	4.5	4.4	4.5
Cambodia	3.6	3.8	4.0	3.6	3.2
Laos	--	--	--	3.8	3.5
Myanmar	--	--	--	2.9	2.9
Vietnam	4.3	4.0	3.9	3.6	3.5
Thailand	4.3	4.2	4.0	3.9	3.7
Singapore	6.3	6.3	6.2	6.1	6.1
The Philippines	3.6	3.6	4.0	3.9	3.8
Indonesia	4.1	4.1	4.2	4.2	4.2
Malaysia	4.8	5.0	5.2	5.0	5.2
Brunei	4.1	4.1	4.2	4.4	--

Note: Some data of Laos, Myanmar, and Brunei absence

Source: *The Global Competitiveness Report*

During the visit to both domestic and Chinese enterprises in the CLMV, enterprises claim that they could not reach out to polices and their adjustments about government administration in import/export in time, and lack of access to reach them at the same time. Result in policy lag or even missing, which hinder the circulation of goods. Some goods were not found to be restricted to export/import until they went into customs clearance.

^① The government transparency was evaluated for countries around the world in *The Global Competitiveness Report* annually issued by the World Economic Forum. The government's policy transparency index score ranges from 1-7 points, that is to say, the higher the score, the more transparent the policy is.

2.2.2. Non-Tariff Trade Barrier

Non-tariff trade barrier is an important index used to measure market access and domestic market protection of a country, including trade policies such as procedure barrier in customs clearance, import license, technical barriers to trade and foreign exchange control etc. Non-tariff trade barriers will become a major obstacle to trade facilitation under the circumstances that further tariff reduction among CAFTA and deeper participation in global trade for low income countries such as the CLMV.

During interview by the research group, many Chinese and foreign enterprises claim that they encountered various non-tariff barriers in bilateral trade such as: failure in entirely implementing MFN treatment, foreign exchange restriction, and “market information consultation (35.7%)”, “financial services (31%)”, “logistics and transportation (26.2%)”, “legal protection (19%)” and policy intervention (19%).^①

2.3. Ports Efficiency

Ports are the important passageway for international trade. Ports efficiency will affect flow speed of importing/exporting goods, trading time and trading cost. The higher ports efficiency is, the quicker the customs clearance and the more convenience trade facilitation will be. Ports efficiency refers to the quality of infrastructure and working efficiency of sea, land and air ports. According to WTO standard, the quality of infrastructure includes the quality of transportation infrastructure, accessible index (from hardware facilities), service quality of transportation, and accessible index (from software facilities).^②Based on the empirical analysis, the research group discovered that every 1% increase of the quality of infrastructure can bring 0.326% increase of trade flow. Therefore, the connectivity of infrastructure is the precondition of trade facilitation of China and ASEAN, and China and GMS countries in particular. Ports efficiency can be measured by level and capability of logistic of a country.

2.3.1. Logistics Standard

By combining national standard and industrial standard, China has formed a comprehensive logistics standard system including its basic, public and professional

① Data source: the questionnaire survey carried out in foreign enterprises in Cambodia, Laos, Myanmar and Vietnam by the research group.

② Li Xuan, “ Study on Trade Facilitation Status, Challenges and Countermeasures in the North East Asia,” *Asia-Pacific Economic Review*, 2013 (6) .

logistics standards that covering every aspect of logistics. There are all together 306 terms of public logistics standard and 285 terms of professional logistics standards which are divided into 13 categories. Although there are near 600 terms of logistics standards covering every aspect of logistics, the promotion of the standard system is unsatisfactory due to the following reasons: overlapping management and difficulty in coordination during the implementation of the standards, and lack of mandatory laws and regulations.^①

The logistics standards are not comprehensive and there's still lack of a complete logistics standard system in most of the ASEAN countries. The ASEAN countries pay more attention to setting up logistics standards where they have comparative resource advantages ^②than the improvement of those where they do not have advantages. ^③ Table 2-6 summarizes the standard making authorities and the formation of logistics standard system in the ASEAN countries.

Due to different regime and economic development level, the logistics standards of China and the ASEAN countries have not yet been unified. As the result, the logistics process can be discontinued by technical obstacles (e.g. vehicle transfer, loading and discharge etc.) so that the efficiency of high speed logistics drops down and the cost climbs up then hindered the convenience of bilateral logistic. Therefore 47.6% enterprises suggest the implementation of “international logistics standard” between China and CLMV as soon as possible.^④

Take pallet as an example, China mainly apply two specifications in the use of pallets: 1200×1000mm and 1100×1100mm, and the former one is more frequently used. However, in the ASEAN countries, only Malaysia, the Philippines, Cambodia and Thailand use the same specification as that of China. Singapore adopts six different standards of pallet. Brunei, Indonesia, Vietnam, Laos and Myanmar apply various pallet specifications.

① Li Dongling, *The Research on Trade Facilitation between China and ASEAN*, Nanning: Guangxi University, 2014.

② For example, Malaysia pays more attention to the logistics standard related to electronic products and oil, while Thailand to the logistics standard related to agriculture and Brunei to halal food.

③ Li Dongling, *The Research on Trade Facilitation between China and ASEAN*, Nanning: Guangxi University, 2014.

④ Data source: the questionnaire survey carried out in foreign enterprises in Cambodia, Laos, Myanmar and Vietnam by the research group.

Another example is in road transportation. Due to different logistics standard, a 4 axis truck of 40t loading limit can encounter troubles like: go through entry-exit procedures at least four times; unload 14.8t of goods before entering Laos to avoid fines as the maximum loading limitation of 4 axis trucks in Laos is 25.2t.^①

Table 2-6 Standard Making Authorities and Formation of Logistics Standard System in the ASEAN countries

Country	Standard Making Authorities	Formation
Singapore	Spring Singapore (SG)	Logistics standard system formed, with 80% of international standard.
Malaysia	Department of Standard Malaysia (DSM)	Logistics standard system formed, with 59.8% of international standard.
Brunei	Brunei Construction Planning and Research Unit (CPRU)	Logistics standard system not formed.
Indonesia	BadanStandadisasiNasional (BSN)	Logistics standard system not formed.
The Philippines	Bureau of Product Standards (BPS)	Logistics standard system formed, with the highest adoption rate of international standard.
Cambodia	Institute of Standards of Cambodia (ISC)	Logistics standard system not formed, no logistics standard
Vietnam	Directorate for Standards Metrology and Quality (STAMEQ)	Initial formation of port logistics standard system
Thailand	Thai Industrial Standards Institute (TISI)	Few national logistics standards
Laos	Department of Intellectual Property, Standardization and Metrology (DISM)	No logistics standard
Myanmar	Scientific and Technological Research Department (MSTRD)	Logistics standard system not formed, almost no logistics standard

Data Source: Logistic Standard Making Authorities in ASEAN countries

In terms of the difference in logistics infrastructure, discrepancy in the railway is highlighted. The rail gauge of Chinese railway is 1435mm while ASEAN countries use 1067mm and 1000mm rail gauges. If goods of international trade in CAFTA are

^① Wu Yanfeng, "Study on Strategy for Development of Trade Logistics in China-ASEAN Free Trade Area," *Logistics Technology*, 2012 (9) .

transported by railway serves, extra expenses incurred by vehicle transfer, loading and discharging, and damage rising in transfer result in the trading cost increase. That's why logistics between China and Vietnam still uses road transportation rather than the cheaper, faster railway with larger capacity.

2.3.2. Logistics Network

Logistics passages in land, sea and air between China and ASEAN countries have been connected preliminary; however, uneven development and disparities in construction grades and technology disequilibrium have blocked distribution of goods and lowered logistics efficiency. Stereo network consisting of ports, air, rails and road transportation have not yet taken shape between China and ASEAN, and is short of the application of advanced transportation methods represented by containers, lack of effective connection and configuration of rails, roads, sea and air in logistic transportation; There's no integrated planning and design in network nodes and ligatures connecting passages of logistics. Every country has its own logistic network system which does not match to each other, the design of railway, road, air and sea transportation are failure to form an integrated logistics system and achieve modern logistics advantages of one bill to destination, multimodal transport and high efficient operation, result in international logistics cost significantly increasing for both parties.^①

2.3.3. Quality of Transportation Facilities

According to the report released by World Economic Forum (WEF), 'quality and accessibility of transportation facilities' is always used to measure transportation condition of a country, which including air transportation density, percentage of paved road, marine transfer station, quality of transportation modes etc. Table 2-7 indicates that the overall construction level of transportation facilities of the CLMV is on the low side, in which Cambodia and Myanmar rank outside top 100. Infrastructure facilities in Vietnam being the best among the CLMV but still ranks lower by 58 behind China and 72 behind Singapore. China still lag far behind Singapore and Malaysia in infrastructure facilities, although holds an obviously leading position over the CLMV. The uneven quality of infrastructure facilities between China and the CLMV consequently narrows the connectivity efficiency; hamper the maximization of

^① Zhao Guoli, Research on Facilitation of International Logistics between China and ASEAN, Nanning: Guangxi University, 2014.

passage function. Therefore, 54.8% of the enterprises surveyed considered it necessary to strengthen the ‘connectivity of the China-ASEAN transportation infrastructure facilities.’^①

Among the 7 secondary indicators hereunder, the least advantage indicators of China are the percentage of paved road and quality of aviation infrastructure facilities. Among the CLMV, Laos performs poor transportation facilities by disadvantages in percentage of paved road, airport density and quality of port infrastructure^②. Then, Myanmar shows weak performance in percentage of paved road, quality of air transportation infrastructure, quality of road and port infrastructure. Cambodia has barely satisfactory liner connectivity index and percentage of paved road. The quality of transportation infrastructure of Vietnam is relatively high in CLMV, but still has much room for improvement. During the research, Vietnamese enterprises expressed their urgent need to build inter-provincial roads; Lao enterprises are looking forward to the completion of China-Laos railway and the domestic North South Expressway (with priority given to completion of the section from Vientiane to Moten)^③. Cambodian enterprises hope the following four expressways will be built: Cambodia-Thailand border to Phnom Penh (north west), Cambodia-Laos border to Phnom Penh (north), Cambodia-Vietnam border to Phnom Penh (east) and Phnom Penh to Sihanoukville (south, most important).

Table 2-7 Global Rankings of Quality and Accessibility of Transportation Infrastructure of China and ASEAN

Country	Primary	Quality and Accessibility of Transportation Infrastructure
---------	---------	--

① Data source: the questionnaire survey carried out in foreign enterprises in Cambodia, Laos, Myanmar and Vietnam by the research group.

② The transport infrastructure in Laos is extremely backward for there are no railways so far. The grade of existing highways, including the north-south artery—the No. 13 highway is not high enough. In the mountainous areas of the north of Vientiane, vehicles basically run at a speed of 40 kilometers per hour on the No. 13 highway. The construction of an expressway running from north to south to transfer a landlocked country into a land-linked country is the aspiration of the Lao government for many years.

③ Lao north-south expressway is divided into south section and north section. The Yunnan Construction Engineering Group takes charge of the preliminary feasibility study and route survey work in the northern section where is 450 km long between Boten of the Lao border with China and Vientiane, while Construction Work Group of Hunan, Hunan Provincial Communications Planning Survey & Design Institute and Hunan Road & Bridge Construction Group jointly are responsible for the relevant preliminary work of the southern section which is 800 km long between Vientiane and Pakse. The BOT mode will be employed to the future construction, and the project feasibility study has been activated recently.

	Indicator	Airport Density	Liner Connectivity Index	Percentage of Paved Road (%)	Quality of Air Transportation Infrastructure	Railway Infrastructure	Quality of Road	Quality of Port Infrastructure
China	16	6*	1*	65	60	19*	50*	54
Cambodia	113	85	97	135	85	83	72	74
Laos	91	122	--	117	71	--	60	128
Myanmar	138	91	91	123	136	96	129	127
Vietnam	74	37	27*	70	87	55	94	90
Thailand	28	12*	35*	21*	32*	66	39*	51
Singapore	2	10*	3*	1*	1*	--	7*	2*
The Philippines	96	29*	64	91	105	81	79	107
Indonesia	60	28*	47*	62	63	42*	70	82
Malaysia	14	21*	5*	44*	19*	17*	23*	23*

Note: 1. Data of Brunei are missing; some data of Laos and Singapore are missing.

2. ‘*’ indicates advantage indicators of the country, otherwise is the disadvantage indicator.

Data Source: *The Global Enabling Trade Index 2014* of the World Economic Forum

The system of transportation infrastructures along borders of Guangxi and Yunnan, China are still away from sound situation, statistics indicate that 30.3% of enterprises have experienced difficulties in “cargo connection and distribution”, 24.2% of enterprises have encountered difficulties in “the coverage of transportation network” and “the timeliness of logistics”.^①

① Data source: the questionnaire survey carried out in foreign enterprises in Cambodia, Laos, Myanmar and Vietnam by the research group.

2.3.4. Service Quality of Transportation

Service quality of transportation is used to measure the condition of a country's transportation software facilities including convenience and affordability, logistics capacity, timeliness of goods delivery, tracking, efficiency of postal service, mode transfer efficiency etc.

Table 2-8 Global Rankings of Service Quality and Accessibility of Transportation of China and ASEAN Countries

Country	Primary Indicator	Service quality and accessibility of transportation					
		Convenience and Affordability	Logistics Capacity	Tracking	Timeliness of Goods Delivery	Efficiency of Postal Service	Mode Transfer Efficiency
China	31	22*	35*	29*	36*	57	40*
Cambodia	97	78	87	71	122	111	89
Laos	107	115	124	132	127	58	70
Myanmar	133	135	137	121	113	124	125
Vietnam	50	42*	49*	48*	59	45*	75
Thailand	39	39*	38*	33*	29*	43*	67
Singapore	1	6*	8*	11*	9*	6*	3*
The Philippines	84	35*	61	64	91	117	106
Indonesia	58	73	41*	57	51	56	71
Malaysia	26	10*	32*	23*	31*	34*	22*

Note: 1. Data of Brunei are missing

2. '*' indicates advantage indicators of the country, otherwise is the disadvantage indicator.

Source: *The Global Enabling Trade Index 2014* of the World Economic Forum.

Table 2-8 indicates that China has a competitive advantage in service quality of transportation with only efficiency of postal service to be improved. In the CLMV, Vietnam enjoys competitive advantages, and other three countries need to improve in fields such as "convenience and affordability, tracking, timeliness of goods delivery". According to a Cambodian enterprise, the warehouse of the company which located in Kampong Chhnang is only 90 km away from Phnom Penh. However, the normal

freight time is more than 5 hours and could be 10 hours or more in case of traffic peak or accident.

2.3.5. Logistics level

Table 2-8 shows that China's apparently competitive advantage of in logistics level (logistics capacity), Vietnam is the only country among the CLMV which has a slight advantage in logistic level, but the other countries all facing disadvantages. To deeper study the development of logistic of China and the ASEAN countries, here we quote Logistics Performance Index (LPI) of the World Bank to rank them, as shown in Table 2-9.

Table 2-9 Ranks of LPI of China and ASEAN Countries

Country	LPI ranks	Country	LPI ranks
China	28	Thailand	35
Cambodia	83	Singapore	5
Laos	131	The Philippines	57
Myanmar	145	Indonesia	53
Vietnam	48	Malaysia	25

Data Source: *Connecting to Compete 2014: Trade Logistics in the Global Economy*, issued by World Bank, Reporting sample: 160 countries/regions

The research group has classified all LPI of the 160 samples in the World Bank report by every 30 countries as a hierarchy. As shown in table 2-10, Singapore (5), Malaysia (25), China (28) enjoy a higher logistics level, ranking into top 30; the second level ranking from top 30-60, including Thailand (35), Vietnam (48), Indonesia (53) and the Philippines (57), are above the average. Vietnam ranks the top position in logistics development among the CLMV. Cambodia is in the medium; Laos and Myanmar facing a poor logistics level. Therefore, uneven logistic development exists among China and CLMV. Although Cambodia has climbed from the medium-low level in 2012 up to the medium level in 2014, its rank is still at a low side. Laos and Myanmar experienced an obvious decline compared with 2012^①. In

① According to the survey report *Connecting to Compete 2012: Trade Logistics in Global Economy* released by the World Bank, Cambodia ranked No. 101 in the 2012 LPI, making it the low-to middle-level country, while Laos and Myanmar belonged to the low-level countries for they respectively ranked No. 109 and No.129.

general, the CLMV have a long way to go in developing and upgrading their logistics ability.

To further analyze the restriction factors lead to low logistics level, the research group adopted the evaluation method of the World Bank to study the time and cost of the logistics supply chain, ship capacity, and liner delivery capacity in import/export between China and the ASEAN countries.

(1) Export time and cost of the logistics supply chain

Table 2-10 Export Time and Cost of the Logistics Supply Chain in China and ASEAN countries

Country	Port and Airport Supply Chain			Land Supply Chain		
	Distance (km)	Delivery Time (day)	Cost (USD)	Distance (km)	Delivery Time (day)	Cost (USD)
China	198	2	494	248	2	683
Cambodia	186	1	469	335	1	707
Laos	750	2	2000	-	-	-
Myanmar	25	1	250	-	-	-
Vietnam	36	1	237	43	1	274
Thailand	25	1	250	-	1	1000
Singapore	30	2	323	-	2	909
The Philippines	-	2	572	-	2	1000
Indonesia	133	3	579	255	2	579
Malaysia	12	1	3000	-	-	-

Data Source: *Connecting to Compete 2014: Trade Logistics in the Global Economy*, issued by World Bank, Reporting sample: 160 countries/regions

According to table 2-10, it takes 2 days to export Chinese goods through port, airport or land supply chain; but by the port supply chain, 30% of the cost can be saved. In the CLMV, the delivery time of port and airport is just 1 day in Cambodia, Myanmar and Vietnam. Taking the cost factor into consideration, Myanmar and Vietnam have an obvious competitive advantage, while Laos facing competitive disadvantage. In terms of land supply chain, Vietnam enjoys in competitive advantage.

(2) Import time and cost of the logistics supply chain

According to Table 2-11, it takes 1-3 days for China and the CLMV to import through port or airport supply chain, among them, China has the longest import time cost by 3 days- Vietnam offers the shortest land import delivery time of 1 day through land supply chain, and that means China and other CLMV countries still have much room to improve in shortening delivery time. Myanmar provides the lowest cost by port or airport supply chain, while Vietnam ranks the second; when using land supply chain, Laos suffers an extremely high cost while Vietnam enjoys the lowest. In

general, Vietnam is at the position of obviously advantages while Laos facing the most disadvantages by all means of supply chain. China has no advantage in both delivery time and cost. Therefore, China should make great efforts to improve import supply chain by reducing delivery time and cutting down delivery cost so that trade facilitation can be promoted.

Table 2-11 Import Time and Cost of the Logistics Supply Chain in China and ASEAN countries

Country	Port and Airport Supply Chain			Land Supply Chain		
	Distance (km)	Delivery Time (day)	Cost (USD)	Distance (km)	Delivery Time (day)	Cost (USD)
China	172	3	683	137	2	514
Cambodia	150	1	397	302	2	465
Laos	-	-	-	750	2	2000
Myanmar	25	1	150	-	-	-
Vietnam	-	1	281	-	1	354
Thailand	-	1	500	-	1	2000
Singapore	-	2	266	-	2	783
The Philippines	-	2	630	-	2	1000
Indonesia	94	4	568	189	5	1233
Malaysia	512	1	3000	-	-	-

Data Source: *Connecting to Compete 2014: Trade Logistics in the Global Economy*, issued by World Bank Report sample: 160 countries/regions

(3) Transport Capacity of Ships

As shown in Chart 2-1, among all the registered ASEAN ships, oil tankers have the largest capacity followed by bulk cargo ships, and container ships are tied with common cargo ships (dry cargo ships). Chart 2-1 shows the capacity condition of ASEAN ships in the past 5 years. The capacity of bulk cargo ships are shooting up while that of container ships climbs up steadily. The capacity of the other ships is hovering around the same. The capacity of oil tankers drops evidently during 2014-2015.

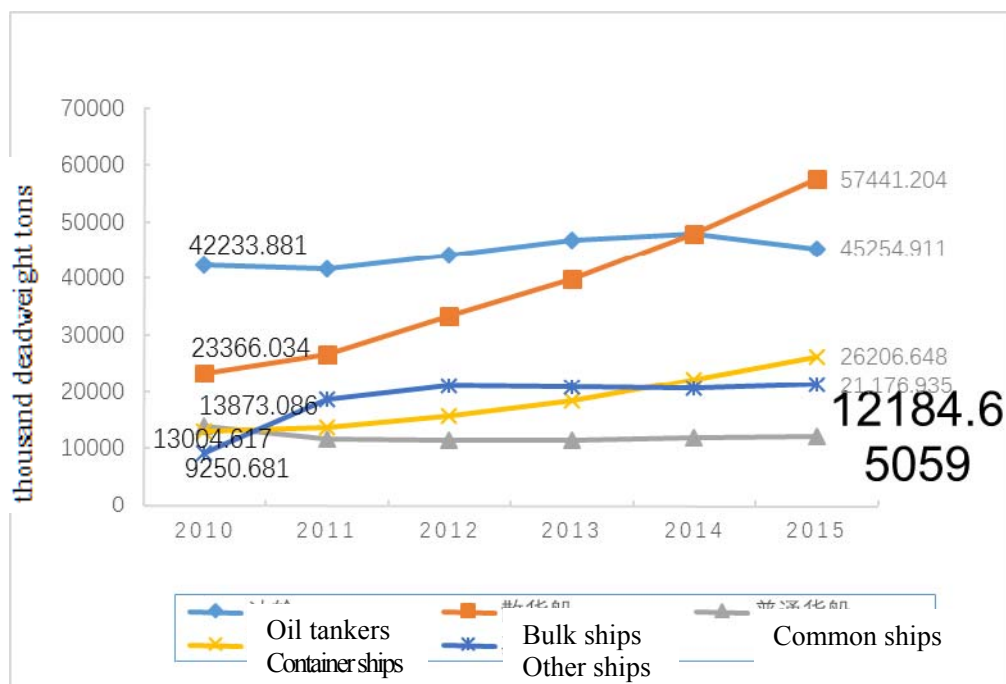


Chart 2- 1Conditions of Registered Ships in the ASEAN countries from 2010-2015

Data Source: UNCTADstat (United Nations Conference on Trade and Development Statistics)

As shown in Chart 2-2, in China, the bulk cargo ships play a leading role in transportation. From 2010-2015, the capacity of bulk cargo ships has increased by 110% from 23030.57 thousand deadweight tons to 48390.945 thousand deadweight tons. On the other hand, the capacity of oil tankers, container ships and common cargo ships is much lower and grows slowly.

To conclude, the transporting capacity of Chinese and ASEAN ships is growing in recent years. However, the ASEAN countries prefer to improve the capacity of oil tankers while China is more inclined to develop bulk cargo ships. The single growth mode of ASEAN and China leads to the shortage of the transportation capacity of general goods in Southeast Asia countries despite their good transportation capacity of oil and petroleum products. On the contrary, in terms of water transport, China has good bulk carrier transportation but the transportation capacity of petroleum products such as oil and natural gas needs to be improved. Besides, both China and the ASEAN countries lack modern transportation modes like container ships, which weakened their water transportation ability. Therefore, it is necessary to change the traditional

single mode transportation and increase the use of modern vehicles like container ships so that the trade facilitation of China and ASEAN (CLMV) can be realized.^①

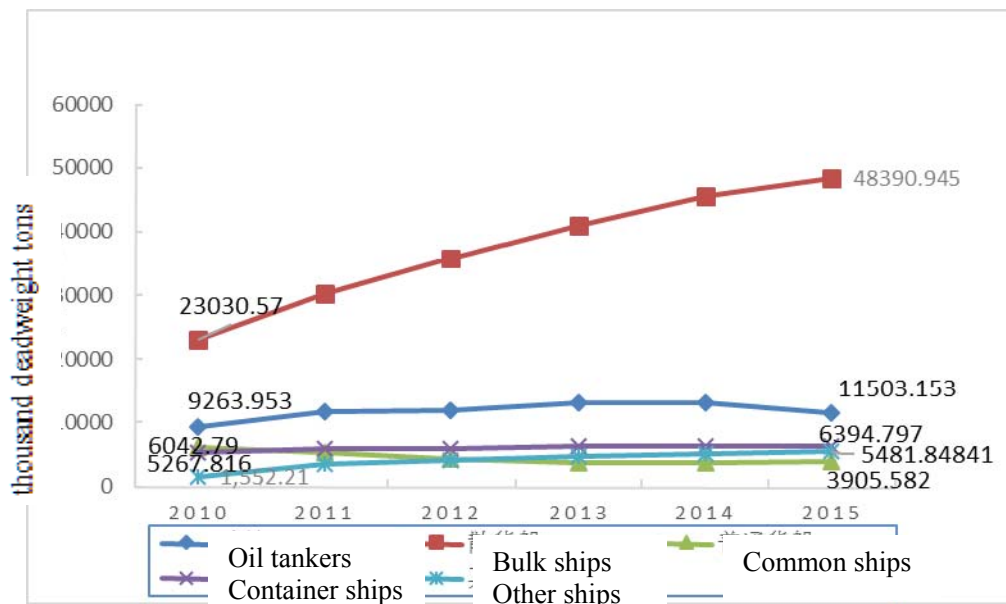


Chart 2- 2 Transportation Capacity of Registered Ships in China from 2010-2015

Source: Consolidated from UNCTADstat

(4) Delivery Capacity of Ships

The connectivity of liner ships of a country directly affects the delivery of import and export and then indirectly affects the overall water transportation capacity. Chart 2-3 indicates that China and Vietnam have competitive advantage in liner connectivity. However, Myanmar and Cambodia are far behind China and Vietnam with their ranks outside top 100.

^① Liu Zhuguang, *The Study on the Trade Facilitation of China-ASEAN Free Trade Area*, Nanning: Guangxi People’s Publishing House, 2014, p.150.

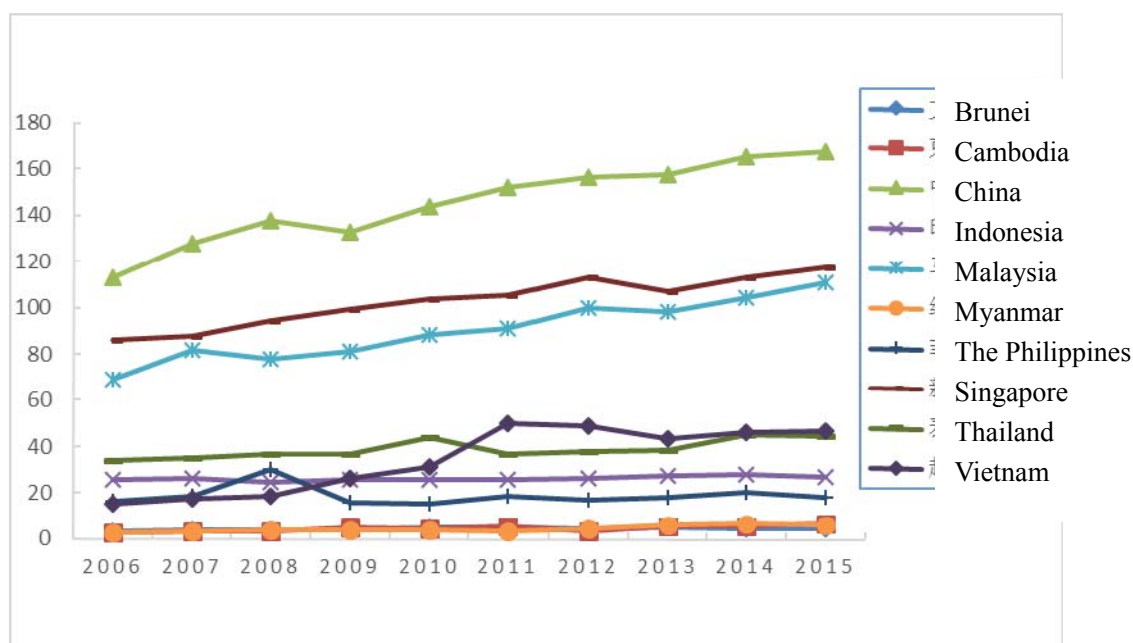


Chart 2- 3 Liner Connectivity of CAFTA Countries from 2006-2015

Source: Consolidated from UNCTADstat

The liner connectivity of China and CLMV are distributed in three levels. China is in the top with its liner connectivity index growing steadily from 110 to 160 from 2006 to 2015; Vietnam stays in the second level. Its liner connectivity index grows rapidly between 2006 and 2011 and maintains above 40 since 2011; the index of Cambodia and Myanmar is below 10 making them distributed in the third level. Besides, the Chart also shows nearly no improvement of the delivery capacity of Cambodia and Myanmar^①. Therefore, in the wake of upgrading CAFTA, low delivery capacity of Cambodia and Myanmar will affect the process of China-ASEAN trade facilitation.

2.4 E-Commerce

After the international financial crisis, affected by the slump of global economy, traditional methods of foreign trade grow slowly. However, the rapid growth of e-commerce especially cross-border e-commerce has brought new growth point for international trade. According to the calculation of American economists, e-commerce as a stimulation to trade facilitation can contribute 40.8% to global trade increment^②. With the help of gravity model, the research group tested the influence of e-commerce

^① Liu Zhuguang, *The Study on the Trade Facilitation of China-ASEAN Free Trade Area*, Nanning: Guangxi People's Publishing House, 2014, p.151.

^② Wilson J S, Mann C L, Otsuki T. Assessing the benefits of trade facilitation: a global perspective. *The World Economy*, 2005, 28(6):841-871.

on trade between China and ASEAN during the China-ASEAN trade facilitation. The empirical result indicates the trade flow will increase 0.122 percentage points as long as the e-commerce develops 1%. E-commerce is a primary indicator in the trade facilitation evaluation system of World Bank and is used to examine whether a country has adequate communication information infrastructure and whether the information application can be used to improve business efficiency and economic development. The indicator can be further divided into two secondary indicators: ‘the proportion of company carries out e-commerce through internet (percentage of e-commerce activity)’ and ‘availability of new technology’. WEF takes the availability of information and communication technologies (ICTs) as an important criterion to measure e-commerce development of a country.

2.4.1. Internet Users

According to Chart 2-4, Vietnam is tied with China in terms of internet users per hundred people, which is 49.3 in 2014, far ahead of the other three CLMV countries. It is worth mentioning that the internet users of Vietnam grow rapidly in the past five years. The number increases from 26.55 in 2009 to 48.31 representing a growth rate of 81.96%. The number of internet users in Cambodia, Laos and Myanmar is still at a low level; Myanmar has the lowest number of 2.1 in 2014. As shown in the Chart, the growth trend of Myanmar is almost a straight line indicating that Myanmar has not only few internet users but also low growth rate. Compared with Myanmar, Cambodia and Laos have an evident growth of internet users since 2009 and is expected to catch up with the medium level of the ASEAN countries in five years.

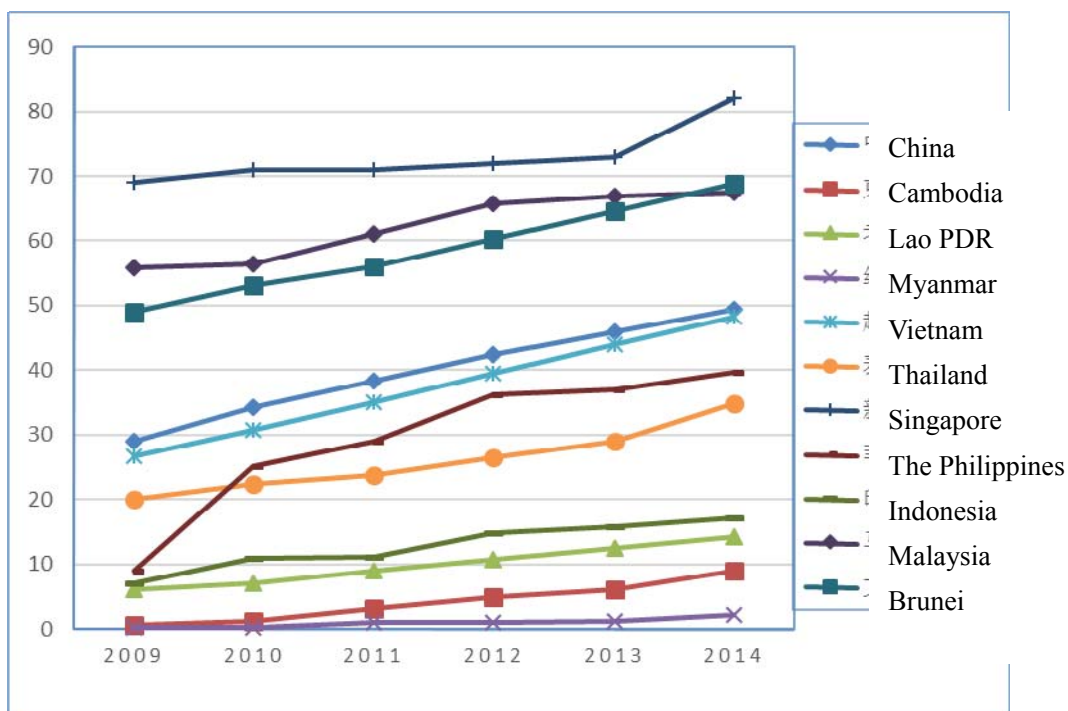


Chart 2- 4 Internet Users per 100 people in China and ASEAN

Data Source: collected from *The Global Competitiveness Report*.

2.4.2. The Use and Availability of ICT

According to Table 2-12, the application and availability of information and communication technology (ICT) in China and CLMV do not see any advantages.

Moreover, China and CLMV all perform poorly in an important index of trade facilitation which is “the online service of government”, the ICT application of enterprise and online service of government in China and CLMV are expected to be further improved.

Table 2-12 Global Ranking of Application and Availability of ICT in CAFTA Countries

Country	Primary Indicator	The Application and Availability of ICT						
		Mobile Subscribers	Personal Internet Use	Fixed Broadband Internet Subscribers	Mobile Broadband Internet Subscribers	Application of ICT in B2B	Application of Internet in B2C	Online Service of Government
China	82	108	73	48*	72	64	40*	59
Cambodia	95	34*	122	113	89	78	103	126
Laos	122	119	114	117	108	93	92	123
Myanmar	135	138	137	130	123	131	125	131
Vietnam	64	22*	78	74	69	32*	38*	86
Thailand	71	36*	90	66	121	71	49*	64
Singapore	8*	18*	29*	21*	1*	14*	29*	1*
The Philippines	85	75	82	87	100	50*	62	67
Indonesia	81	58	104	96	52*	61	31*	67
Malaysia	38	25*	38*	64	78	28*	22*	20*

Note: 1. Data of Brunei absence.

2. ‘*’ indicates advantage indicators of the country, otherwise is the disadvantage indicator.

Data Source: *The Global Enabling Trade Index 2014*, the World Economic Forum.

2.5 Mobility of business personnel

Freer mobility of business personnel is an important precondition of trade facilitation. Currently, frequent visa application and collection of immigration information hinder the mobility of business personnel in the region^①. Statistics show that 50% of surveyed enterprises think their mobility of business personnel is free while the other 50% hold the opposite view. Businessmen from SOE of China are in the hope that their application procedures for going abroad could be simplified enough to satisfy the need of carrying out transnational business operation.

① Liu Xiaolong & Dai Jie, Chinese Business Mobility Problem under the Strategic Action Framework of the Trade and Investment Facilitation in Greater Mekong Sub-region, *Contemporary Asia-Pacific Studies*, 2006 (6) .

According to the interview by the research group, business and industry entities in the CLMV agree that Chinese regulations and procedures related to mobility of business personnel are standard and without non-routine charge. However, the procedure is complex, tedious and takes long time. Surveyed Chinese enterprises thought that Laos has provided much relaxed visa issuing policy and hoped that Cambodia and Myanmar could streamline their visa handling procedure. They also told the research group that Vietnam visa policy for Chinese businessmen is not very convenient.

3 Suggestions

3.1. Custom Circumstances

For China and the ASEAN countries, custom circumstances among the 4 first-class indicators of trade facilitation can promote trade flow most obviously. Quantum of trade will increase by 0.745% when circumstance of customs clearance is improved by 1%. Aiming at promoting trade facilitation between China and the ASEAN countries, the initial entry point is to establish an efficient, convenient and unified customs clearance strategy, conduct the customs clearance integration reform in the region so that the sound custom circumstances can be achieved .

3.1.1. Enhance Cooperation and Policy Coordination among Customs

For the same business, difference in customs clearance procedures and explanation of relevant laws and regulations, together with great discrepancies in technical standard severely affect trade facilitation. In 2004, World Customs Organization (WCO) signed the document of “The Framework of Standards to Secure and Facilitate Global Trade” in Jordan, Amman. One of the pillars is that “in order to ensure security of cargo and containers in international trade supply chains as much as possible, Customs-to-Customs cooperation under the agreeable standards should be enhanced”^①. Therefore, China and the CLMV need to strengthen customs-to-customs cooperation: policies coordination needs to be reinforced while speeding up the integration with international standard. Suggestions come as followed:

- (1) Establish a Consultative Institution of China-ASEAN (the CLMV) Trade Facilitation

At present, the ASEAN countries have established the Joint Consultative

^① Lin Li, *The Problems and Countermeasures of Customs in the Process of Trade Facilitation*, [Shanghai: Shanghai Jiaotong University, 2009.

Committee of Trade Facilitation of ASEAN. China and the CLMV should conduct efforts in establishing trade facilitation coordination system under the framework of CAFTA, overall implement the signed agreements about trade facilitation such as China-ASEAN Trade Facilitation Initiatives (Nanning Initiatives) and strengthen the consultative system of customs of member countries.

(2) To Build Information Sharing Platform

An important element of customs clearance facilitation is “information exchange”. It is suggested that by applying modern information and communication technology, China and the CLMV countries should structure an information sharing platform of virtuality, openness and publicity which consists of E-government platform and enterprise communicating platform. The platform should link to the original information systems of government or enterprises of various nodes by internet communication technology, integrate existing information resources to realize interconnection and data exchange, so that it can improve the low efficiency of customs clearance resulted from the obstructed information communication between the customs and enterprises.

With the platform, cargo clearance information in China and the CLMV countries can be processed, analyzed and fed back safely, quickly and effectively. In this way, China and the CLMV countries can arrange reasonably and optimize international logistics operation, improve resource utilization and strengthen the logistics cooperation among various nodes. Therefore, logistics information of China and the CLMV can be interacted and shared in real time smoothly, effectively and cheaply; information channel for government to business (G to B) and business to business (B to B) can be transparently seamless integrated and shared; and misunderstanding of information communication can be removed. Finally, a smooth and efficient channel bridge is built for the information flow occurred in custom clearance so as to promote trade facilitation between China and CLMV.

(3) To Accelerate the Integration to International Standard

China and the CLMV should fully cooperate to accelerate the integration to international standard which can not only solve trade barrier resulted from difference of law-enforcement standards and procedures in the region, but also improve the policy predictability of the traders. This is one of the effective means to promote GMS

regional trade facilitation. ^①For example, international standards and conventions should be adopted as much as possible to simplify customs formalities and formulate unified customs file format. File format in other international organizations nowadays also can be referred to, e.g. Writing criteria in European Union, Declaration List of Dangerous Cargoes of United Nations, GSP Certificates Form A of UN Conference on Trade and Development (UNCTAD), certificate of origin of World Customs Organization (WCO) and model bill of lading of International Chamber of Shipping (ICS).^②To take another example, the customs clearance efficiency will be improved greatly if China and the CLMV countries adopt WTO Customs Valuation Agreement with consistency, build unified customs valuation system so as to rationalize duty-paying value of imported goods. ^③

As most international standard are stipulated by developed countries, some standards do not apply to the CLMV countries which are relatively underdeveloped in economy. Under the circumstances, when selecting which international standards to adopt, customs in all countries should seriously analyze their own conditions, consult with each other actively, select and stipulate the international standards which conform to regional features.

^① Liu Zhuguang, *The Study on the Trade Facilitation of China-ASEAN Free Trade Area*, Nanning: Guangxi People's Publishing House, 2014, p.160.

^② Song Qilin, *The Status, Problems and Countermeasures of the Trade Facilitation between Yunnan Province and Neighboring Countries*, Kunming: Yunnan University of Finance and Economics, 2014.

^③ Song Qilin, *The Status, Problems and Countermeasures of the Trade Facilitation between Yunnan Province and Neighboring Countries*, Kunming: Yunnan University of Finance and Economics, 2014.

3.1.2. Transfer from “Series” to “Parallel” and Adopt “Single Window” Service

To realize the reform of customs clearance supervision featuring trade facilitation as main thread, the following measures need to take. First, to simplify the customs clearance procedures, cut the unnecessary formalities, quit and re-plan the repeated content within the formalities. Meanwhile, to structure a unified information platform to support the operation of “single window” service, improve customs clearance efficiency and realize the information intercommunication domestically or even among the FTA. At present, there are 3 modes of “single window” service. (1) Single Authority Mode represented by Sweden and the Netherlands featuring unique authority and single system, of which the Single Authority Mode in Sweden is the highest form. According to the customs statistics of Sweden, enterprises can spend 55% less on government issues and save 22% working capital. (2) Single Automated System Mode represented by the US and Japan featuring several authorities and single system. (3) Automated information Transaction System Mode represented by Singapore featuring several authorities and system integration. China and the ASEAN countries should adopt the experience of single window service of other countries and combine their own actual situation to establish a public information platform with characteristic of China and ASEAN, transfer “single window” service from “series” to “parallel”. (**Chart 3-1 is the chart of Unified Information Platform Construction Process**). China should strengthen cooperation with the CLMV, and the CLMV should fully push the construction of domestic E-port or continue to update the existing E-port in order to realize high efficiency of single window service.

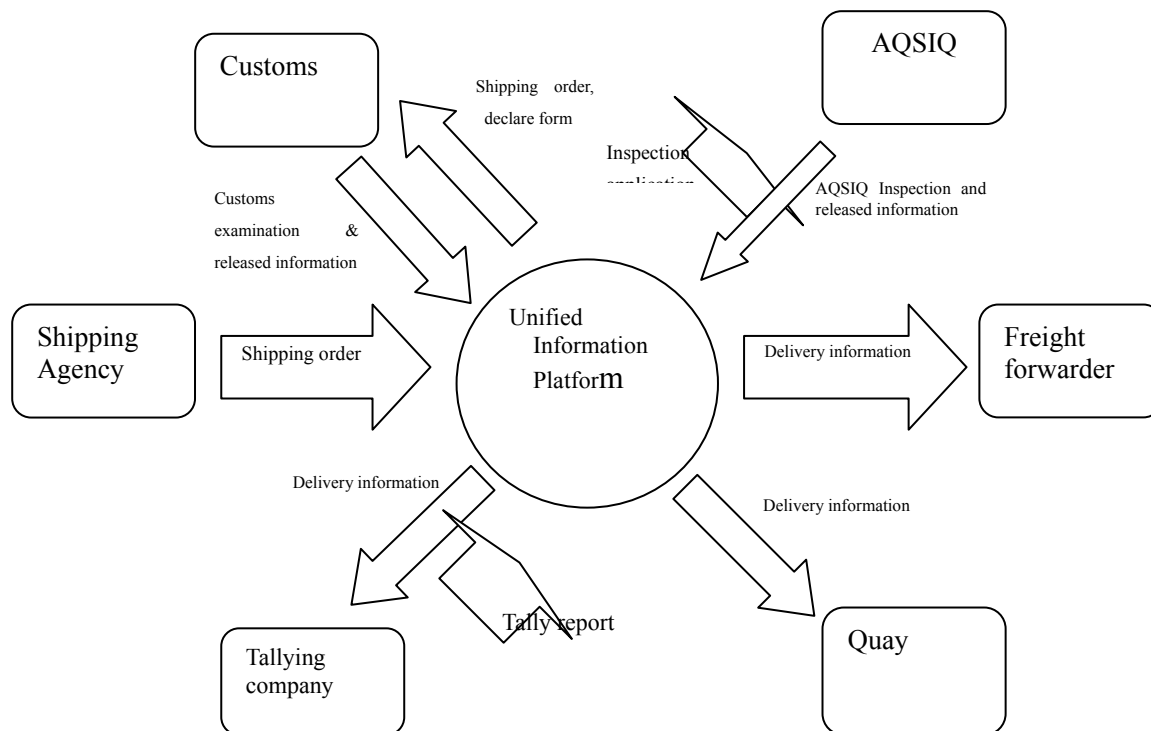


Chart 3- 1 Unified Information Platform Construction Process

3.1.3. Promote Mutual Recognition of AEO System and Standards

There are contradictory but also mutual promoting between trade facilitation and trade safety. Risks on exit-entry administration will increase if a country puts emphasis on facilitation reform, and the facilitation reform will be restricted if a country puts emphasis on exit-entry administration. In another respect, reasonable exit-entry security administration will promote facilitation reform while scientific facilitation reform will also promote security administration. Trade facilitation will bring significant welfare effect to a country and will benefit developing countries much more. It is also the trend of international trade development in the future. Therefore, during the trade facilitation reform of custom circumstances, China and the ASEAN countries should reconcile contradiction in security and reform of trade facilitation; play their roles of mutual promotion effectively, and create safe and convenient custom circumstances.

AEO stands for Authorized Economic Operator. AEO system means that being authorized by customs, honest, trustworthy and lawful running operators will enjoy the preferential policies such as simplified procedures, advance exam and release and

rapid release for the cargos they declared which are regarded as trustworthy and low risk^①. By means of classification, AEO system classifies the economic operators into 3 types: low-risk and fast -release operator, medium-risk and document-examination operator, high-risk and emphatic inspection operator. The classification standards include law abiding record, E-system linked to custom system, security requirement^② and financial solvency. On one hand, the implementation of AEO will improve the custom efficiency, enable developing countries to focus their examination on high risk cargos with more purposive by their limited resources; on the other hand, it will speed up cargos logistics of the law abiding operator, and shorten their time of custom clearance. So win-win situation can be achieved through mutual trust relationship between law abiding operators and customs.

It is suggested by the research group that customs cooperation among China and the CLMV is to be strengthened, and AEO mutual recognition is to be put into practice in order to improve clearance efficiency.

3.1.4. Pilot New Clearance Mode of “supervising results mutual-recognition”

In the course of research, the research group found out that enterprises hit hard upon the issues such as non-unified inspection standard, complicated inspection procedures, and double inspection in custom clearance. It is suggested by the research group that supervising results mutual-recognition mode should be introduced to customs among China and the CLMV, explore new approaches to standard unification, procedures simplification, results mutual recognition, as well as efficiency improvement. At present, new clearance mode of “supervising results mutual-recognition” has practical basis at home and abroad^③. It is estimated that compared with the custom clearance mode nowadays, after the implementation of “supervising results mutual-recognition”, the enterprises will save declaration and

① Chen Liang, *China Customs System Reform and Management Innovation from the Perspective of Trade Facilitation*, Nanjing: Nanjing University, 2012.

② The security requirements are in line with WTO requirements, including setting up specialized agencies to take charge of security affairs, the demand for trading partners, the security management of goods, goods yards and workplace, the cooperation with customs and other government departments, crisis management, educational training and internal audit, etc.

③ In August 2014, according to the *Protocol on Launching the Mutual Recognition of Customs Supervision Results of Specific Goods implemented by customs of China and Russia*, the pilot of mutual recognition was activated in the transitional zone of Suifenhe-Pogranichny port, which greatly improved the customs clearance efficiency. Besides, "One-stop" customs clearance service mode was launched in the port of Laobao of Vietnam--Densavan of the Laos in February 2015 with the customs clearance time cut in half.

examination at the inspection station by once respectively. When dealing with declaration of non-express bus, the new mode can simplify the lightening procedures, reduce time cost and realize seamless coupling of logistics in cross-border clearance, which will save 50% of time on customs clearance for the enterprises. Thus the efficiency of clearance improves greatly while cost drops sharply. Meanwhile, as the examination departments need not re-examine on the cargos in import and export processes, the new clearance mode can reduce inspection personnel allocation, lower administrative cost, and create a predictable, low-cost and high efficient circumstance in clearance for import/export enterprises at the same time, and then, finally, the combination of regional economic benefits and social benefits will be realized.^①

With the principle of “negotiating equally, mutual benefit, considering local conditions, highlighting unique features, giving priority to the easy, implementing step by step”, experience from home and abroad can be learned so as to explore the mode of “supervising results mutual-recognition”.

3.1.5. Standardize and Simplify Import/Export Documents

The standardization of documents will enable traders to be acceptable to different countries, and significantly ease trade stagnation caused by wrong documents. The standardization of documents includes form of document, paper specification, number of original and copy and unified data demand. To unify customs clearance and the form, content of attached documents as well as the filled information among CAFTA which help to simplify import/export formalities and reduce import/export documents. To simplify documents is not only convenient for traders to fill in information, shorten their time in filling, but also convenient for the authority to audit the documents. The research group suggests that China and the ASEAN countries to actively develop documents standard unification in the region, or advocate adopting international standard copy, so as to easy the meeting with the international standard in future trade.^②

3.2. Regulatory Environment

For China and the ASEAN countries, regulatory environment among the 4 first

① Wei Zhaohui, “A Preliminary Study on the Mode of ‘Two Countries-One Inspection’ in Customs Clearance,” *Around Southeast Asia*, 2015 (3) .

② Liu Zhuguang, *The Study on the Trade Facilitation of China-ASEAN Free Trade Area*, Nanning: Guangxi People’s Publishing House, 2014, p.162.

-class indicators of trade facilitation becomes the second strong promotion to trade flow, next to customs environment only. Quantum of trade will increase by 0.501% when circumstance of regulatory environment is improved by 1%. Among the second class indicators in regulatory environment, average score in corruption index, policy and regulation transparency of China and the ASEAN countries are in a low level. The research group found out that enterprises in China and the CLMV complained a lot upon such problems as the lack of transparency and frequent change of policies, unreasonable expenses in trade and corruption in government, to improve policies transparency and strike against corruption, China and the ASEAN countries are suggested to make efforts in the following four aspects:

3.2.1. Further Improve the Trade Legal System

Legal system is a basic problem. Free trade will be realized only if legal system of foreign trade is improved. Improved and normalized laws and regulations in foreign trade help to higher the efficiency of custom clearance and clear up bugs which could be probably taken advantage. Laws and regulations of foreign trade opened to the public can direct social supervision and help them to be re-improved. To coordinate the regulations of ports management so as to implement unified and high efficient management mode in authorities such as customs, inspection & quarantine, ports, tax administration and foreign exchange. Meanwhile, joint inspection departments should strengthen publishing of government affairs, and be honest, trustworthy, high efficient, transparent, unified and fair. Business circles should perfect classified management of enterprises, and stay lawful and trustworthy. Customs could adopt differential management based on the credit rating of enterprises and provide the lawful and trustworthy enterprises with the most convenience in customs clearance.^①

To normalized foreign trade activities and customs administration, in accordance with the relevant laws such as *Foreign Trade Law* and *Customs Law*, as well as the demand on the import and export trade and customs daily work made by the government, the customs should improve laws, regulations and policies continuously, enhance the feasibility and practicality of law, and enable the law to serve trade activities really. In practice, the governments should manage the international trade

① Song Qilin, *The Status, Problems and Countermeasures of the Trade Facilitation between Yunnan Province and Neighboring Countries*, Kunming: Yunnan University of Finance and Economics, 2014.

activities and customs service by law, increase transparency of the relevant policies and measures of trade, cut down the search cost of our law for the international trading partner and provide a legal environment of openness, impartiality, fairness and transparency for international trade activities.

The governments should establish and improve fair pricing system, custom and inspection system, taxation and charging system in order to create good market environment, enhance government participation to prevent market failure, malicious competition so as to offer maximum utility to all involving principals. The governments should establish business and information network, streamline the approval procedures and service process, and minimize declaring repetition and its cost. For example, primary services of the customs have been covered in the “Customs Operation Standardization Criterion” by customs, in which various policies and regulations have been transformed into law enforcement standards such as job responsibilities, work flow and operating methods based on business classification and procedures, thus improve integration of law enforcement in the aspect of institution construction.^①

3.2.2. Establish Supervision Mechanism to Improve Reliability of Law Enforcement

In international trade, existing phenomenon such as irregularities and corruption should not only be restrained by sophisticated law system but also call for effective supervision of all participants. Information about public servants in governments and relative authorities need to be published timely by various approaches and under the supervision of enterprises and industry associations. As to traders’ irregularities arising from misunderstanding of regulations and procedures, a certain extent of “qualified error rate” should be tolerable to customs, but as to the violation to the law, involved enterprises deserve severe punishment once testified thoroughly so as to raise the illegal cost and encourage enterprises to be law-abiding and self-disciplined at the same time.^②

① Li Huiling, *The Studies on Impact of Customs Clearance Efficiency on Agricultural Products Logistics Cost*, Urumchi: Xinjiang Agricultural University, 2013.

② Jiang Yafei, *A Research on the Trade Facilitation of China-ASEAN Free Trade Area*, Tianjin: Tianjin University of Finance and Economics, 2013.

3.2.3. Increase Transparency and Availability of the Law, Regulation, Policy and Information

Transparency of laws, regulations and trade procedures will help to decrease trade corruption as well as time cost in information searching and acquisition for all trade participants, so that they can go through the procedures correctly and rapidly according to the relevant stipulations and save time cost of trade. Therefore, all countries should make good performance on transparency and availability of law, regulation, policy and information. And it is necessary to build a unified approach to acquire trade polices of every country or provide a centralized trade system for communication.^①

The customs of each country should advocate “transparent customs” concept, publish the administrative procedures together with their deadlines. Governments should enlarge the availability of law, regulation, policy and information. Apart from publishing relevant information on the website of national customs, customs of all countries can make publicity on new media as well as by brochures for businessmen for their reference. Governments should improve national trade consultative agency and provide 24- hour hot line and online consulting services, conduct review systems on new legislative plans, draft regulations and procedures related to border measures jointly with trade stake-holders.

3.2.4. Enhance Legal Coordination to Settle Disputes properly

The applicable law of trade disputes is the problem facing legal coordination of trade facilitation. As members of WTO, China and the CLMV can apply not only *The Framework of Standards to Secure and Facilitate Global Trade* of WTO, but also *China-ASEAN Free Trade Agreement* in order to settle disputes in trading law.

China and the CLMV should seize the opportunity of RCEP negotiation and CAFTA updating construction, based on international standards, to stipulate unified rules of trade disputes settlement of the region.

3.3. Ports Efficiency

For China and the ASEAN countries, ports efficiency ranks the third as strong promotion to trade flow among the 4 first -class indicators of trade facilitation.

^① Liu Zhuguang, *The Study on the Trade Facilitation of China-ASEAN Free Trade Area*, Nanning: Guangxi People’s Publishing House, 2014, p.173.

Quantum of trade will increase by 0.326% when circumstance of ports efficiency is improved by 1%. The enhancement of port efficiency has a significant impact on the improvement of trade facilitation between China and the CLMV, which includes “hardware” and “software”. In hardware, it should focus on ports infrastructure construction; while in software, it should construct regional integrating logistic network and form a unified logistics standard system.

3.3.1. Actively Promote Infrastructure Construction of Logistics, Perfect Construction of Logistics Channel

Reaching the goal of improving trade facilities demands reinforce coordination and unification by China and the CLMV, especially increase investment in and improve of infrastructure of ports in the CLMV under the frameworks such as Asian Developing Bank, Asian Infrastructure Investment Bank and Silk Road Fund so as to construct the international logistics great passageway between China and the ASEAN countries in Indo-China Peninsula.

Land passageway: to establish the highway transport distribution of “4 vertical lines and 1 horizontal line” between China and ASEAN, and “4 vertical lines” consists of Nanning-Bangkok-Singapore highway, Nanning-Ho Chi Minh-PHOM PENH highway, Kunming-Bangkok-Singapore highway, and Kunming-Ruili-Yangon highway, while “1 horizontal line” refers to Nanning-Yangon highway. Railway passageway: To push forward the connection of the Trans-Asian Railway (Yunnan, China-Singapore) and International Railway in Nanning-Hanoi-Singapore economic corridor.^① China and ASEAN should coordinate and cooperate positively, enhance technology cooperation and experience exchanges in road construction, planning and design to achieve complementary advantages and improve road construction. Financing of the ASEAN countries can be strengthened by means of loans on credit, concessional loans and BOT, etc. with the aim of promoting construction of China-ASEAN highway so as to form the main channel of road transportation connectivity network. Water passageway: by utilizing natural advantages of water transport corridors which link countries together such as Lancang- Mekong River and The Irrawaddy, increase input into the construction of

^① Zhao Guoli. Research on Facilitation of International Logistics between China and ASEAN. Nanning: Guangxi University, 2014.

fairways and ports and improve navigation condition and capacity by further communication and cooperation. Efforts should be reinforced to push forward the connection of fairways, highway network and railway network so as to construct a joint land-and-water transportation channel between China and ASEAN. China and ASEAN should continue to strengthen cooperation on international marine transportation, increase marine lanes, improve capacity and scale of marine transportation, and enhance radiation and function of ports.

Air passageway: China and ASEAN should beef up aviation transportation arrangement; further expand international airlines network between China and ASEAN based on existing airlines; and build modern aviation corridors of convenient, conformable and safe to connect China with large and medium-sized cities of the ASEAN countries. The two parties should further discuss aviation rights of Opening of Regional Aviation Agreement (ORAA) under the multi-section framework on win-win principle and progressively open aviation points; strengthen cooperation on sharing the third, fourth aviation rights and third country code in the region; gradually improve the aviation rights arrangement between China and the ASEAN countries, and achieve facilitation of aviation passageway in the region.

3.3.2. Construct Integrated Logistics Network

China and ASEAN should coordinate overall planning of logistics channel and construction of nodes so as to effectively allocate point, line and surface of logistics network; to realize the seamless connection mutually between main logistics network and regional main logistics nodes; to form the interchange logistics network by ports, airlines, railways and highways, and to form the integrated logistics network in which the regional transportation is with same regulation, plan is with same network, channel is with same path and information is with same sharing platform.

3.3.3. Advance logistic standardization jointly, establish a united logistic standard system

Uneven economic development among China and the ASEAN countries causes imbalance development in construction of logistic infrastructure which leads to variations in logistic standard in different countries. The variations of logistic standard have hindered the interflow of commodities and materials, driven up trading costs through increasing logistic spending. Governments of China and the ASEAN

countries are suggested to establish a coordinating and administrating mechanism of unified logistic standards aiming to conduct and coordinate the construction of logistic standards unification.

3.4. E-commerce and E-government

Promotion of trade facilitation has inseparable relations with information communication technology. Under the circumstances that the network technology is not that popular, the field which can benefit from trade facilitation will be restricted greatly. For China and the ASEAN countries, when circumstance of E-commerce, as one of the 4 first -class indicators of trade facilitation, is improved by 1%, quantum of trade will increase by 0.122%. At present, the electronic information technology application in the field of trade can be divided into two parts, the E-commerce and the E-government. E-commerce means that electronic information technology is used to handle their own trade business by enterprises, while E-government, using electronic information technology to manage trade transactions by governmental departments such as ports authorities. As the further enhancement of the trend of global "single window" service, "E-ports" and paperless customs clearance, China and the CLMV need to realize extensive and efficient application of E-commerce and E-government as soon as possible in the region.

3.4.1. Establish and perfect the E-government system

In the process of "supervising results mutual-recognition", China and the CLMV need to mutual opening administrative affairs of customs, as well as to explicit the conduction of administration guidance standards, enlarge and detailing their relative content so as to extend the opening of administrative affairs, such as clearances and quality inspection, to specific operational procedures. And to establish an information platform by which precise information about law, regulation and other measures can be offered to enterprises and individual. To satisfy the demand of normalized openness of administrative affairs.^①

3.4.2. Increase the penetration of E-commerce in enterprises

Through E-commerce, enterprises could reduce their cost in reaching for potential foreign customers, shorten trade periodic time and greatly facilitate their

① Wu Min: "The American Facilitating System in FTZ and Its Enlightenment to China's Bounded Port Area," Legal System and Society, 2010 (3) .

trade by online trading, financing, logistics, insurance, customs declaration, inspection, etc., The cross-border E-commerce is still in its infancy currently, desires for policy guidance and support from the governments. A China-ASEAN cross-border E-commerce platform need to be constructed with jointly participant of customs, quality inspection, taxation, logistics, insurance, finance, business and other related parties to create a new model of E-commerce customs clearance is encouraged.

3.4.3. Improve the information network construction

China and the CLMV should continue to improve the construction of information network infrastructure to achieve a smooth inter-regional network, which could meet the requirements of connectivity of trade facilitation.

3.4.4. Build E-commerce supervision system, safeguard network security

Governments in the region should create an E-commerce network monitoring system in light of their own situation, crack down crimes of destroying internet environment and other cyber crime to maintain the healthy and stable operation of the cross-border electronic commerce system.

3.5. Speed up the mobility of business personnel

APEC has been committed to the promotion of regional trade facilitation since its establishment, and mobility of business personnel has become one of the important aspects in such area.

3.5.1. To improve and simplify visa system, relax approval authority

“The Plan of Business Travel Card” is the most representative and successful corporation program carried out by APEC in the fields of mobility of business personnel.^① It is suggested that China and the CLMV, with reference to APEC business travel card, to issue multi-entry visa valid for 1~3 years to business personnel on the basis of government communication and reciprocal treatment; to conduct E-visa system; to relax approval authority, simplify the procedure of visa

① According to “the Plan of Business Travel Card”, the business travel card holder can take a business travel no longer than 60 days in member countries without applying for the visa or entering approval. It is the fact that “the Plan of Business Travel Card” not only has promoted interchange and communication of information among members, but also has improved transparency in examination and admittance, results in great convenience for the mobility of business personnel.

application in the region for citizens of CAFTA who involving in business activities. And accelerating the negotiation among governments on the CAFTA business personnel visa-free agreement, increasing visa-free certificates, applying system of multi-entry visa to one country or to more countries in the region of CAFTA for business personnel are suggested, either.

3.5.2. Applying information technology to facilitate business personnel's outbound travel

The construction of departments of visa-granted-upon-arrival in ports should be enhanced, and technology of machine readable visa should be wide application so as to shorten time cost in exit and entrance for business personnel. Also to update/upgrade business travelers' information processing equipments and equipments applied for personnel inspection/testing in customs clearance; expend the implementation of the latest bio-technology in areas such as travelers' ID confirmation, information prediction and previewing.^①

TAG

Since the establishment of CAFTA, trade volume between China and the ASEAN countries has increased rapidly, composition of trade has been continuously improved, and trade facilitation has been focused by business and industry communities. Trade facilitation is conducive to faster development of economic and trade among China and ASEAN. Nowadays, the initiatives of "The Belt and Road" has brought more and more opportunities in cooperation and development for China and the CLMV. Aiming to further promote trade facilitation between China and the CLMV, coordination among nations should be strengthened and infrastructure facilities construction should be enhanced. In view of the importance of procedures simplification of ports regulatory authorities to trade facilitation, firstly, push forward the strategy of customs clearance integrity so as to strengthen the cooperation among ports regulatory authorities in member countries and improve efficiency of customs clearance; Secondly, financing support through various approaches such as the Asian

① Hu Xin & Liu Chenyang. The Development of APEC Business Mobility Cooperation and China's Strategic Choices. Practice in Foreign Economic Relations and Trade. 2011 (8) .

Infrastructure Investment Bank, Asian Development Bank and Silk Road fund could be offered to the construction of ports infrastructure in regional countries, improve logistics system and the efficiency of border inspection and quarantine, speed up ports efficiency in customs clearance; thirdly, foreign trade legal system should be advanced in order to improve transparency and availability of policies, laws and regulations and information, reinforce legal coordination in law enforcement and settle disputes adequately; at the same time, actively steps should be taken to promote the development of E-government and E-commerce, cross-border E-commerce should be encouraged to promote trade facilitation. And finally, mobility of business personnel needs to be speed up.

Under joint efforts of governments and enterprises from China and CLMV, trade facilitation in the region will certainly reach the purpose of faster improvement of regional trade environment and better development in trade and economic cooperation.

Bibliography

- [1] Liu Zhuguang. The Study on the Trade Facilitation of China-ASEAN Free Trade Area [M]. Nanning: Guangxi People's Publishing House, 2014.
- [2] Chen Hongsheng, Li Bihua. Construction of National Single Window and Customs Clearance Facilitation in the Countries along China-Singapore Economic Corridor [J]. Around Southeast Asia, 2014 (11) .
- [3] Hu Xin, Liu Chenyang. The Development of APEC Business Mobility Cooperation and China's Strategic Choices [J]. Practice in Foreign Economic Relations and Trade. 2011 (8) .
- [4] Li Demin. A Strategic Consideration of Guangxi Undertaking the Industrial Transfer of the Economically Developed Eastern Areas [J]. Guihai Tribune, 2008 (3) .
- [5] Li Xuan. Study on Trade Facilitation Status, Challenges and Countermeasures in the North East Asia [J]. Asia-Pacific Economic Review, 2013 (6) .
- [6] Liu Xiaolong, Dai Jie. Chinese Business Mobility Problem under the Strategic Action Framework of the Trade and Investment Facilitation in Greater Mekong Subregion [J]. Contemporary Asia-Pacific Studies, 2006 (6) .
- [7] Ren Na. US Involvement in the Greater Mekong Sub-region and China's Countermeasures [J]. Dongyue Tribune, 2014 (12) .
- [8] ShenMinghui. The Level Measurement and Thinking of the Trade Facilitation in East Asian Countries [J]. Journal of International Economic Cooperation, 2009 (7) .
- [9] Wang Qin, Li Nan. The Strategy of ASEAN's Connectivity and Its New Development [J]. Asia-Pacific Economic Review, 2014 (2) .
- [10] Wei Zhaohui. A Preliminary Study on the Mode of "Two Countries-One Inspection" in Customs Clearance [J]. Around Southeast Asia, 2015 (3) .
- [11] Wu Min. The American Facilitating System in FTZ and Its Enlightenment to China's Bounded Port Area [J]. Legal System and Society, 2010 (3) .

- [12] Wu Yanfeng. Study on Strategy for Development of Trade Logistics in China-ASEAN Free Trade Area [J]. Logistics Technology, 2012 (9) .
- [13] Zhang Xinyu, LuoXianchun. E-government and International Trade Facilitation [J]. Information Management and Informatics, 2009 (3) .
- [14] Zhao Chunming. Evolution and Future Trends of the Trade Policy among the ASEAN countries [J]. People's Tribune, 2014 (11) .
- [15] The Fourth-Quarter Report on the 2014 China-ASEAN Free Trade Area Released in Beijing [J]. The Chinese Certified Public Accountant, 2015 (4) .
- [16] "Kunming Consensus" reached in the Second Meeting for GMS Business Council [J]. Chinese World, 2011 (8) .
- [17] Cambodia Perfects the Commerce Institutions to Promote the Commercial and Trade Development [N].The Cambodia Daily, 2014-12-1.
- [18] One-Stop Customs Inspection System Starts in Laos and Vietnam [N]. Vientiane Times, 2005-7-15.
- [19] Li Jianchao. 11 Countries Together Promote the Connectivity Cooperation [N]. Nanguo Morning News, 2011-8-24.
- [20] Address by Li Keqiang at the 16th China-ASEAN (10+1) Leaders' Meeting [N]. People's Daily, 2013-10-10.
- [21] Li Hongmei. Regional Trade Facilitation is in Progress [N]. International Business Daily, 2009-10-23.
- [22] Chen Liang, China Customs System Reform and Management Innovation from the Perspective of Trade Facilitation [D]. Nanjing: Nanjing University, 2012.
- [23] Jiang Yafei. A Research on the Trade Facilitation of China-ASEAN Free Trade Area [D]. Tianjin: Tianjin University of Finance and Economics, 2013.
- [24] Lei Wenjing. Research on Guangxi's Participation in the Facilitation of Highway Cross-Border Transport Cooperation of the Greater Mekong Sub-Region [D].Nanning:

Guangxi University, 2013.

[25] Li Dongling. The Research on Trade Facilitation between China and ASEAN [D]. Nanning: Guangxi University, 2014.

[26] Li Huiling. The Studies on Impact of Customs Clearance Efficiency on Agricultural Products Logistics Cost [D]. Urumchi: Xinjiang Agricultural University, 2013.

[27] Lin Li. The Problems and Countermeasures of Customs in the Process of Trade Facilitation [D]. Shanghai : Shanghai Jiaotong University, 2009.

[28] Shang Tianbao. U.S.-ASEAN Business Council: Origin and Function [D]. Guangzhou: Jinan University, 2011.

[29] Song Qilin. The Status, Problems and Countermeasures of the Trade Facilitation between Yunnan Province and Neighboring Countries [D]. Kunming: Yunnan University of Finance and Economics, 2014.

[30] Sun Zhongying. The Studies on the Trade Facilitation of the Regional Economic Organizations [D]. Tianjin: Nankai University, 2010.

[31] Zhang Peng. The Studies on the Legal Regulations of the Trade Facilitation [D]. Chongqing: Southwest University of Political Science and Law, 2007.

[32] Zhao Guoli. Research on Facilitation of International Logistics between China and ASEAN [D]. Nanning: Guangxi University, 2014.

[33] Chen Weisong. Li Kenong: Four Measures to Promote Trade Facilitation [EB/OL].(2009-10-20)[2015-9-01]http://www.china.com.cn/news/txt/2009-10/20/content_18736413.htm.

[34] He Xuli. Trend Analysis of the Import and Export of Major Products between China and Cambodia in 2014[EB/OL].(2015-2-13)

[2015-9-01]<http://customs.caexpo.com/data/country/2015/02/13/3640541.html>.

[35]General Administration of Customs of the P.R.C. China-ASEAN Customs-Trade

Cooperation Forum at the Sixth China-ASEAN Expo: the Customs of the Kingdom of Cambodia Promotes Trade Facilitation [EB/OL].

[2015-9-01]<http://www.customs.gov.cn/tabid/34738/default.aspx>.

[36] Liu Chang. AEMM Agrees to Promote Trade Facilitation and Liberalization [EB/OL].(2009-8-26)[2015-9-01]http://news.xinhuanet.com/world/2009-08/14/content_11883848.htm.

[37] XuPeng. China-ASEAN Customs Introduces Key Areas of Cooperation [EB/OL].(2009-10-21)[2015-9-01]http://news.xinhuanet.com/fortune/2009-08/14/content_11883936.htm.

[38] Zhang Ruiling, Lei Baisong. ASEAN to Accelerate the Construction of Regional Transportation Network [EB/OL]. (2011-12-19)

[2015-9-01]<http://qcyn.sina.com.cn/business/tm/2011/1219/11360663091.html>.

[39] Economic and Commercial Counselor's Office of the Embassy of the People's Republic of China in the Kingdom of Cambodia. Cambodian Foreign Trade Regulations and Policies [EB/OL]. (2014-4-23)

[2015-9-01]<http://cb.mofcom.gov.cn/article/ddfg/tzzhch/20140420140400559801.shtml>.

[40] Economic and Commercial Counselor's Office of the Embassy of the People's Republic of China in the Kingdom of Cambodia. Cooperative Agreement signed by the customs of China and Cambodia [EB/OL].

(2010-6-23)[2015-9-01]<http://cb.mofcom.gov.cn/article/ddfg/qita/201006/20100606982705.shtml>.

[41] Economic and Commercial Counselor's Office of the Embassy of the People's Republic of China in the Republic of the Union of Myanmar. Myanmar to Promote the Construction of the National Single Window [EB/OL].

(2015-6-15)[2015-9-01]<http://www.mofcom.gov.cn/article/i/jyjl/j/201506/20150601012929.shtml>.

[42] Economic and Commercial Counselor's Office of the Embassy of the People's Republic of China in the Socialist Republic of Vietnam. Multilateral Cooperation Agreement of Air Transportation in Sub-region signed by Cambodia, Laos, Myanmar and Vietnam [EB/OL]. (2003-6-6)

[2015-9-01]<http://vn.mofcom.gov.cn/aarticle/jmxw/200306/20030600097231.html>.

[43] General Administration of Customs of the P.R.C. 20 Measures introduced by GAC of the P.R.C. for Supporting the Steady Growth of the Foreign Trade[EB/OL].(2014-5-23)[2015-9-01]<http://www.customs.gov.cn/publish/portal0/tab49564/info707366.htm>.

[44] Ministry of Commerce of the People's Republic of China. LNCCI to Issue Some Certificate of Origin in Laos [EB/OL].(2012-2-7)

[2015-9-01]<http://www.mofcom.gov.cn/aarticle/i/jyj/j/201202/20120207956227.htm>.

[45] Zhu Qing, Zhan Tingting. China Will Further Promote the Trade Facilitation in China-ASEAN Free Trade Area [EB/OL]. (2011-3-2)

[2015-9-01]<http://news.hexun.com/2011-03-02/127659358.html>.

[46] Economic and Commercial Section of the Consulate General of Myanmar in Mandalay. Myanmar Customs to Adopt New System for Efficiency Improvement [EB/OL].(2015-8-29)[2015-09-01]<http://www.mhwm.com/Ch/NewsView.asp?ID=12686>

[47] ASEAN Secretariat, Trade Facilitation Measures in ASEAN [EB/OL]

.(2013-04-20) [2015-9-01]<http://www.aseansec.org/14261.htm>.

[48]Dr. Pen Sima, Customs-Private Sector Partnership Mechanism (CPPM) [EB/OL].[2015-9-01]<http://www.customs.gov.kh/index.php/trade-facilitation/customs-private-sector-Partnership-mechanism-cppm>.

[49]Robert Z. Lawrence, Margareta Drzeniek-Hanouz, Sean Doherty, The Global Enabling Trade Index 2012,

[EB/OL].[2015-9-01][http://www.weforum.org/reports?fliter\[issue\]=48264](http://www.weforum.org/reports?fliter[issue]=48264).

[50]Wilson J S, Mann C L, Otsuki T. assessing the benefits of trade facilitation: a global perspective [J] the World Economy, 2005, (6).

Appendix I Terminology

1. Greater Mekong Sub-Region (GMS)

The Greater Mekong Sub-region (GMS) is a natural economic area bound together by the Mekong River, covering 2.6 million square kilometers and a combined population of around 326 million. The GMS countries are Cambodia, the People's Republic of China (PRC, specifically Yunnan Province and Guangxi Zhuang Autonomous Region), Lao People's Democratic Republic (Lao PDR), Myanmar, Thailand, and Viet Nam. In 1992, with assistance from Asian Development Bank (ADB), the six countries entered into a program of sub-regional economic cooperation, designed to enhance economic relations among the countries, improve sub-regional economic and social development, and achieve common prosperity. (www.adb.org)

2. Regional Comprehensive Economic Partnership (RCEP)

The RCEP is a regional trade agreement plan put forward and driven by ASEAN in 2011, with its members including 10 ASEAN countries and China, Japan, ROK, Australia, New Zealand and India which have signed Free Trade Agreement with ASEAN. The RCEP is the trade agreement negotiations with the most members and largest scale in East Asia, which is an integration of the existing Free Trade Areas, with the negotiation goal of reaching a modern, comprehensive, high quality and reciprocal free trade agreement between ASEAN and its free trade partners. (www.mofcom.gov.cn)

3. ASEAN Economic Community (AEC)

The 2009-2015 Road Map of ASEAN consisting of the three Community Blueprints – Economic (AEC), Political-Security (APSC), Socio-Cultural (ASCC) -shall form the basis of the overall ASEAN Community, and ASEAN Economic Community (AEC) has been established by the end of 2015. The ultimate goal of ASEAN Economic Community is to conduct the free flow of goods, services, investments, and skilled labor, and more free movement of capital across the region.

ASEAN Community is a substantive organization by which ASEAN countries, on the basis of common interests and regional identify, acting as an integral one in international communication in order to stand up for rights and benefits of member countries.

4. The “Belt and Road” (B&R)

The “Belt and Road” refer to the Silk Road Economic Belt and the 21st Century Maritime Silk Road. The initiative of the “Belt and Road”, adopting the historical symbol of the ancient silk road, taking full advantage of the existing bilateral and multilateral mechanisms between China and involving countries, with the help of existing and effective regional cooperation platform, is aiming to jointly build a community of shared interests, destiny and responsibility featuring mutual political trust, economic integration and cultural inclusiveness through flying up the flag of peace and development, positively enhancing economic corporation partnership with countries along the Belt and Road.

5. Trade Facilitation

Trade Facilitation means the construction of a coordinating, transparent and predictable international trade environment through simplifying procedures and formalities, coordinating applicable laws and regulations, standardization and improvement of infrastructure facilities.

6. Integration of Customs Clearance

Integration of Customs Clearance System is implementing by the General Administration of Customs of China (GACC) with the goal of simplifying customs procedures and reducing trade cost. This new system allows companies registered at one region to choose the Customs office for declaration based on its commercial needs and the local customs will send instructions to the ports to release the cargo directly. “Declaration at local customs, inspection and release at port”, through which companies could go through Customs procedures at their localities in advance So as to realize the benefits of successful cross-region Customs Clearance.,

7. Customs valuation

Customs valuation is a customs procedure applied to determine the customs dutiable value of imported/exported goods, in accordance with the unified valuation rules stipulated according to the laws and regulations of the country. If the rate of duty is ad valorem, the customs value is essential to determine the duty to be paid on imported/exported goods. Customs of a country would examine the transaction value of imported/exported goods declared by the importer /exporter and determine of evaluate the dutiable value.

8. Single Window Systems

Single window systems allow international traders and transporters to submit all import, export and transit standard information and documents required by regulatory agencies via a single electronic gateway.

9. Non-tariff barriers to trade (NTB)

Non-tariff barriers to trade (NTBs) or sometimes called "Non-Tariff Measures (NTMs)" are trade barriers that restrict imports or exports of goods or services through mechanisms other than the simple imposition of tariffs, including all policies and measures adopted by governments of a country to coordinate, manage and control its foreign trade aiming to protect the domestic market and industry.

10. Most favored nation treatment (MFN)

Most Favored Nation (MFN), sometimes called “non-discrimination treatment”, is a status or level of treatment accorded by one state to another by trade treaties or agreements, by which the granting country promise to provide favored interest, necessary convenience and advantages in economic aspects such as import/export, tax, sailing to the granted country. Generally, a country that has been accorded MFN status may not be treated less advantageously than any other country with MFN status by the promising country.

11. Logistics Performance Index (LPI)

The Logistics Performance Index (LPI) was first published in 2007 by the World Bank. Based on a worldwide survey of global freight forwarders and express carriers, the Logistics Performance Index is an interactive benchmarking tool that measures performance along the logistics supply chain within a country. Allowing for comparisons across 155 countries, the index can help countries identify challenges and opportunities and improve their logistics performance. The World Bank conducts the survey every two years. The index ranges from 1 to 5, with a higher score representing better performance.

The World Bank conducts an LPI Survey every two years to help countries identify the challenges and opportunities in their trade logistics performance by measuring the logistics friendliness. LPI measures performance along the logistics supply chain within a country and offers two different perspectives: International and Domestic. The International LPI is a summary indicator of logistics sector performance, combining data on six core performance components into a single aggregate measure: Customs, infrastructure, international shipment, logistics quality and competence, tracking and tracing, timeliness. Domestic LPI provides both qualitative and quantitative assessments of a country by logistics professionals working there. It includes detailed information on the logistics environment, core logistics processes, institutions, and performance time and cost data.

12. Logistics Supply Chain

Logistics Supply Chain refers to the chain formed by all activities involving in logistic among the economic operation beginning from the demand of products or service, ending by the satisfaction to such demand.

13. Authorized Economic Operator (AEO)

In “Framework of Standards to Secure and Facilitate Global Trade” published by World Customs Organization in 2005, Authorized Economic Operator is a party involved in the international movement of

goods in whatever function that has been approved by or on behalf of a national Customs administration as complying with WCO or equivalent supply chain security standards. Authorized Economic Operators include, inter alia, manufacturers, importers, exporters, brokers, carriers, consolidators, intermediaries, ports, airports, terminal operators, integrated operators, warehouses and distributors.

14. APEC Business Travel Card Program

APEC Business Travel Card Program has become the most representative and most significant achievement of cooperation program carried out by APEC in the fields of business personnel mobility. The card program allows business travelers precleared, facilitated short-term entry to participating member economies which is no longer than 60 days, removing the need for card holders to apply for visas or entry permits. Multiple entries are allowed with the card's three-year valid period.

Appendix II Empirical Analysis of the Impact of Trade Facilitation on Bilateral Trade Volume between China and ASEAN: Based on Gravity Equation

At present, there are three empirical research methods for trade facilitation to economic welfare: survey analysis, computable general equilibrium model analysis and quantitative analysis based on gravity equation model. Table 1 indicates the summary of empirical analysis methods of trade facilitation and the main research results.

Table 1. Summary of Empirical Analysis Methods of Trade Facilitation

Survey Analysis	
Cecchini Report (1988)	The potential benefits of trade facilitation can reach to 1.6% to 1.7% of the transaction volume
APEC (1999)	Through the analysis to the 21 member countries, it is considered that the cumbersome customs clearance will seriously hinder the development of trade.
Computable General Equilibrium Model Analysis(CGE)	
Dee (1988)	Through CGE model, the actual revenue growth of APEC arising from trade facilitation can reach to 5% of total trade volume of APEC.
APEC (2002)	Using the CGE analysis method to study mutual trade between member countries: a reduction of 5% in transaction costs can increase the overall GDP by 0.9%.
François (2005)	Based on the CGE model, come to the conclusion: if the transaction costs of trade in goods decreases by 1.5%, the world annual income will increase u.s.\$72 billion; if the transaction costs of trade decreases by 3%, the world average annual income will increase by u.s.\$151 billion; most of the benefits fell on developing countries.
Quantitative Analysis Based on Gravity Equation Model	
Freund, Weinhold (2000)	The empirical analysis reach the conclusion: if the E-commerce penetration rate increases by 10%, the volume of trade will increase by 1%.
Fink, Mattoo and Neagu (2002)	Using gravity model to estimate the exchange cost of bilateral trade, found out that with bilateral communication costs decreasing by 19%, bilateral trade volume will increase by 8%.

Wilson, Mann and Otsuki(2004)	Using the gravity model to analysis affection of trade facilitation, trade facilitation is divided into four areas of port efficiency, customs environment, rules and regulations, and infrastructure construction of services departments. The contribution of four areas to trade growth rate is 28%, 9%, 10% and 41% respectively.
-------------------------------	---

Among the three empirical research methods of trade facilitation, survey analysis focuses on the qualitative analysis; the emphasis of CGE model lies on transaction cost; gravity model divided trade facilitation into specific indexes, to analyze the influence of various aspects of trade facilitation through quantization of these indexes. Our study will adopt gravity model, carry out empirical analysis to impact of trade facilitation on trade volume by adding Trade Facilitation Index (TF) into the gravity model.

1. Construction of Model

The gravity equation derived from Newton’s law of universal gravitation. Tinbergen (1962) and Poyhonen (1963) initiated the pioneering work of applying gravity equation to the research of international trade. They used the gross domestic product (GDP) of two countries to replace the quality of two substances in the original gravity model, and the distance between the two countries instead of the centroid distance between the two substances. And stated that bilateral trade flow was in direct proportion to the economic aggregate of the two countries, while was inversely proportional to their distance. The economic aggregate reflects the potential demand or supply capacity, while the distance might create trade resistance.

The fundamental form of gravity equation of trade is as follow:

$$T_{ij}=A(Y_i Y_j)/D_{ij}(1)$$

T_{ij} indicates trade flow between country i and country j , Y_i and Y_j is the nominal GDP of country i and country j respectively, D_{ij} is the distance from the economic center of country i to that of country j . A is the constant.

After natural logarithm to both sides, here goes the log-linearizing equation:

$$\ln T_{ij}=\beta_1+\beta_2\ln(Y_i Y_j)+\beta_3\ln D_{ij}+\mu_{ij} \quad (2)$$

In equation (2), β_1 is a constant, β_2 , β_3 are coefficient and μ_{ij} is the random error.

Our research is going to adopt the classical gravity model. At the first step, Trade Facilitation Index (TF) is added to the model to study the effect of trade facilitation on bilateral trade flows empirically. In the gravity model, the export flow between China and ASEAN are sourced from the UN COMTRADE database, with counting unit as US dollar; GDP in 2010, 2011 and 2012 of all countries sourced from the database of the World Bank's "world development indicators" with the single unit as million US dollars. Distance variable of the two countries is chosen from measurements in website of www.indo.com. It is the shortest distance between capitals of the two countries with kilometer as counting unit.

After adding the TF index, the gravity equation goes as follow:

$$\ln T_{ij} = \beta_1 + \beta_2 \ln Y_i + \beta_3 \ln Y_j + \beta_4 \ln D_{ij} + \beta_5 \ln TF_j + \mu_{ij} \quad (3)$$

In equation (3), T_{ij} is the trade value between country i and country j , Y_i and Y_j is the nominal GDP of country i and country j respectively, D_{ij} is the distance from the economic center of country i to country j . TF_j is the trade facilitation level of country j . β_1 is the constant, β_2 , β_3 , β_4 and β_5 are coefficient and μ_{ij} is the random error.

Table 2. The Expected Symbol and Theoretical Explanation of Variables explained in the model

Explanatory Variables	Implication of Variables	Expected Symbol
Y_i	Exporting country's size of economic	+
Y_j	Importing country's size of economic	+
D_{ij}	Distance between 2 countries	-
TF_j	Trade facilitation level of country j	+

2. Empirical Results and Analysis

Using SPSS (Statistical Product and Service Solutions) software, we have done multiple linear regression based on 2010, 2011, 2012 panel data, and the results of computation are listed in table 3. The empirical results and equations are as follows:

$$\ln T_{ij} = 3.970 + 1.343 \ln Y_i + 1.119 \ln Y_j - 1.719 \ln D_{ij} + 0.645 \ln TF_j + \mu_{ij}$$

Table 3. Output results of regression

Explanatory Variables	Y_i	Y_j	D_{ij}	TF_j
Regression Coefficient	1.343	1.119	-1.719	1.545
T value	21.150	17.500	-9.640	21.305
Significance probability	0.000	0.000	0.000	0.002
R	0.863			
R^2	0.746			

Data resources: calculated through SPSS

According to the results of the gravity model output in table 3, the empirical results of the model are identical to the expectations in Table 2. The significant probability is less than 0.05, which means regression equation is effective.

The correlation coefficients resulted from calculation in the model indicate that both the economy size and the distance between the two countries are still playing a major role in bilateral trade flows. When exporter's economy (GDP) growth increases by 1%, the bilateral trade flows will increase by 1.343%, while importer's economy (GDP) grows by 1% will lead to 1.119% increasing of bilateral trade flows. This means that the increase of economies size in the two countries will enlarge the market demand. Frequent cross-border flow of commodities leads to the volume increase of mutual trade. In addition, the correlation coefficient of the exporter' economy (1.343)

is greater than the importer's economy (1.119), indicating that the effect of Y_i on bilateral trade flows is greater than that of Y_j .

Bilateral trade flow is inversely proportional to the distance between the two countries. When the distance between the two countries increases by 1%, bilateral trade volume will decrease by 1.719%. The farther the distance between the two countries, the higher the cost of freight, i.e. the rising cost of goods exports drives the prices of export commodities rising. According to the demand theorem, commodity prices rising results in the decrease of demand for the commodities, and consequently leads to the decline of trade flows between the two countries.

Trade facilitation is directly proportional to bilateral trade flows. The development of trade facilitation has a significant effect on the increase of trade flow. When trade facilitation increases by 1%, trade flow increase by 1.545%. The correlation coefficient of the trade facilitation (1.545) is higher than that of economic sizes of importing and exporting countries' (1.119, 1.343) but lower than that of the distance between them (1.719), which indicating that the impact of trade facilitation on trade flows is stronger than that of their economic sizes but weaker than that of the distance between the two countries. The correlation coefficient calculation results of the explanatory variables in table 3 show that the distance between the two countries has become the biggest inhibitors to trade between China and the ASEAN countries. Part of the reason is that the trading commodities between China and the ASEAN countries are mainly mechanical and electrical products and agricultural products. These two kinds of commodity are labour intensive products whose value and added value are relatively low and are consequently more sensitive to transportation cost arising in distance.

Different from the trade liberalization measures like tariff and quota, the influence of trade facilitation on trade flow and trade cost involves many different fields. China and most of the ASEAN countries are developing countries, which have limited resources for infrastructure construction and trade development. In order to obtain the maximum benefit from limited resources, among all the aspects of trade

facilitation, which one needs to be improved urgently? And its improvement could benefit China and ASEAN the most? Therefore, the four assessing indicators of trade facilitation are brought into the gravity model to be linear regressed by SPSS. By comparing the impact of different aspects of trade facilitation on trade flows, the answer to the question that which aspects of trade facilitation should be the first to get investment in order to maximize the benefits of the country comes out.

The gravity equation of adding the four indicators of trade facilities is as follow:

$$\ln T_{ij} = \alpha_1 + \alpha_2 \ln Y_i + \alpha_3 \ln Y_j + \alpha_4 \ln D_{ij} + \alpha_5 \ln B_j + \alpha_6 \ln C_j + \alpha_7 \ln R_j + \alpha_8 \ln E_j + \mu_{ij} \quad (4)$$

In equation (4), B_j refers to infrastructure construction of country j , C_j , the customs environment of country j , R_j , rules and regulations environment of country j , E_j , the E-commerce of country j . α_1 , the constant, α_2 , α_3 , α_4 , α_5 , α_6 , α_7 , α_8 are coefficients, μ_{ij} is random error.

Here comes the calculating results:

$$\ln T_{ij} = 4.043 + 1.320 \ln Y_i + 1.044 \ln Y_j - 1.577 \ln D_{ij} + 1.7261 \ln P_j + 10.713 \ln C_j + 8.160 \ln R_j + 0.122 \ln E_j + \mu_{ij}$$

Table 4. Output Results of Regression

Explanatory Variables	Y_i	Y_j	D_{ij}	B_j	C_j	R_j	E_j
Regression Coefficient	1.320	1.044	-1.577	0.326	0.745	0.501	0.122
T value	21.004	14.298	-8.669	1.323	2.973	3.166	0.853
Significance probability	0.000	0.000	0.000	0.008	0.003	0.002	0.006
R	0.871						
R^2	0.758						

The significance probability of each explanatory variable in Table 4 is less than 0.05, so the effective regression equation can be established. After taking the four indicators of trade facilitation into consideration, the model's determination

coefficient R2 is raised. The impact of the four indicators of trade facilitation on trade flow is various. They are the customs environment, laws and regulations, infrastructure construction and E-commerce, listed in descending order of value.

For China and the ASEAN countries, the greatest impact is imposed on trade flows by customs environment. Normally, the term “customs environment” is specific to importing countries, because exporting countries will apply actively promotion and measures of encourage on most of their exporting products. According to the model output results, the coefficient of customs environment is 0.745, that is to say, when the customs environment of importing country improves by 1%, trade flows will increase by 0.745%. Rules and regulations environment is the second greatest influencing factor. When it is improved by 1%, trade flows will increase by 0.501%. Transparency of policy system is conducive to exporters to understand import related legal provisions of the importing countries, so that the enterprises could prepare the required related documents for import formalities in advance. Meanwhile, improvement of government efficiency can also help to cut down time cost of cross-border flows, as well as the cost of warehousing. Lower costs will stimulate the enthusiasm of exporters, thereby increasing trade between countries. The impact of Infrastructure and E-commerce on trade flow is relatively weak. When infrastructure quality improved by 1%, trade flows will increase by 0.326%. While E-commerce development is raised by 1%, trade flow will increase by 0.122%.

From the above mentioned empirical research results, trade facilitation development and trade flows have positive relationship obviously. The improvement of trade facilitation can effectively enlarge trade flow. For China and the ASEAN countries, the improvement of customs environment and rules and regulations plays the most important role in promoting bilateral trade flows, while the role of infrastructure and E-commerce is relatively faded.

Appendix III Questionnaire about China—CLMV Trade Facilitation

All the information supplied will be properly managed and used only by China-ASEAN Business and Investment Summit (CABIS) Secretariat and the national chambers of commerce and industry in CLMV. Thank you for your cooperation.

1. Some information about your Company:

1) Your company established in _____ (Year)

2) Type of your company:

state-owned foreign capital private/collective-owned

3) Industry of your company:

manufacturing service other: _____

4) Number of staff in your company:

below 50 50-100 500-1000 above 1000

5) Turnover (unit: USD 1 million) of your company in 2014:

0-5 5-25 25-100 above 100

Among the above, trade volume with China (unit: USD 1 million):

0-5 5-25 25-100 above 100

6) Business scope for trade of your company (could be more than one answer):

mining and quarrying rubber and plastics

energy products timber and furniture

machinery and equipment textile, garment and footwear

electrical and electronics paper and printing

transport equipment metal products

processed Food fruits other: _____

2. Main barriers in trade with China according to your company (could be more than one answer):
- cultural differences market information consultation
 - non-tariff barriers logistics and transportations
 - legal protection social stability
 - bilateral relationship financial services
 - political intervention intellectual property protection
 - other: _____
3. What is the most difficult problem about Customs clearance efficiency of China according to your company:
- complicated formalities (papers) long processing time
 - high cost poor service
 - other: _____
4. What is the most difficult problem about Customs clearance efficiency of your country according to your company:
- complicated formalities (papers) long processing time
 - high cost poor service
 - other: _____
5. Have your company ever met miscellaneous documents, formalities and procedures required by Customs in trade with China:
- always sometimes never
6. Could your company obtain timely information about import & export rules and regulations as well as their updated versions in trade with China:
- always sometimes never

7. Have your company ever met the following difficulties relating to the publication and implementation of laws and regulations in China:

	always	sometimes	never
serviceability and availability of laws and regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
mutable requirements of documents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
financial loss due to mutable requirements of documents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
influence of unpublished laws and regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Have your company ever met the following difficulties relating to trade facilitation in your country:

	always	sometimes	never
import licensing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
pre transshipment inspection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
nomenclature and customs valuation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
rules of origin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
technical requirements, such as packaging and labeling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. What is your evaluation on facilitation and accessibility of financial service in trading with China:
- very convenient convenient average
inconvenient very inconvenient
10. What is the influence of logistics efficiency to your company's business:
- very important important
average not important
11. Please name the most important procedures need to be improved for trade facilitation. (could be more than one and please rank your answers)_____
- A. customs' Clearance Procedures
B. inspection and Quarantine
C. foreign Exchange Settlement
D. tax Administration
E. supporting Facilities
F. other: _____
12. Please tick the most effective measures which could be helpful for cutting down clearance fees and simplifying customs clearance procedures. (no more than three answers please)
- optimizing procedures especially for regular traders
adopting international norms to coordinate and simplify Customs procedures
convenient clearance for small amounts of cargo
simplify and standardize Customs clearance procedures
single service window
mutual recognition of business information and documents
simplify and standardize the requirements of documents
consolidating and reducing charge items
other: _____

13. Please tick the most effective measures which would improve the transparency of laws and regulations in import & export. (no more than three answers please)
- adjustment period for companies for updating laws and regulations
 - acquiring information timely for foreign companies
 - more convenient supply of information
 - setting up information desk
 - improvement of the ways of acquiring laws and regulations
14. The difficulties your company have ever met according to infrastructure standardization in your country are: (could be more than one)
- clearance equipment post and telecommunication
 - logistics and warehousing energy supply
 - technology services business services
 - other: _____
15. What are the most effective measures to improve standardization of infrastructure according to your opinion: (could be more than one)
- strengthening connectivity of China-ASEAN infrastructure
 - formulating and improving standards of technology and business service, acting on international conventions
 - Customs standardization construction about rules, institution and procedure
 - adopting international logistics standardization
 - other: _____
16. Please give a typical case of being blocked by Customs clearance of your company in brief.

Appendix IV The adoption according to the suggestions from experts of the CLMV and China on the review of the Survey Report of China-ASEAN (Cambodia, Laos, Myanmar and Vietnam) Trade Facilitation, dated Mar. 23, 2016

1. Ms. Le Thi Mai Anh, Deputy Head of Division, Asia Pacific Market Department, Ministry of Industry and Trade of Vietnam

(1) With reference to chapter 1.2.3 in the survey report, under the title of “Proactively Promoting CAFTA Upgrading and RCEP Negotiation”, the development of CAFTA and other FTA agreements signed by ASEAN with countries other than China, such as South Korea, Japan, and also the comparison among these FTA agreements should be supplemented.

With reference to the foresaid suggestion, the overall evaluation on CAFTA and the comparison among 5 of “10+1” FTA agreements signed by ASEAN with countries such as China, Japan and South Korea have been supplemented into the first paragraph of chapter 1.2.3 under the title of “Proactively Promoting CAFTA Upgrading and RCEP Negotiation”.

(2) With reference to chapter 1.2.3 in the survey report, under the title of “Proactively Promoting CAFTA Upgrading and RCEP Negotiation”, the information (data) about the RECP negotiations should be updated to the year of 2015, but is just by 2014 in the report.

With reference to the foresaid suggestion, the relative data has been updated in the last paragraph of chapter 1.2.3 under the title of “Proactively Promoting CAFTA Upgrading and RCEP Negotiation”.

(3) With reference to chapter 1.3.3 in the survey report, under the title of “Trade Facilitation Measures from CLMV”, in the fourth section-“Vietnam”, information about some important measurements in trade facilitation adopted by Vietnam from the year of 2014 should be updated, especially measurements such as National Single Window and its connection to ASEAN Single Window.

With reference to the foresaid suggestion, the latest achievements in fields such as automatic clearance of cargo, National Single Window in Vietnam have been added in the corresponding section.

(4) With reference to chapter 3.1.1 in the survey report, under the title of “Enhance Cooperation and Policy Coordination among Customs”, in the first section, the wording “China-ASEAN Consultative Center of Trade Facilitation” seems to be inappropriate. In 2011, ASEAN-China Centre has been established by China and ASEAN countries. As a one-stop information service center, for the promotion of ASEAN-China cooperation in trade, investment, tourism, education and culture. Regarding this, we should not waste resources to establish a new center; furthermore, the proposal of establishing such a consultative center in order to manage clearance policies of all member countries in this part is improper.

With reference to the foresaid suggestion, the proposal of establishing the China-ASEAN Consultative Center of Trade Facilitation has been amended as “To establish an additional Institution of the China-ASEAN (CLMV) Consultative of Trade Facilitation under the ASEAN-China Centre”, and the purpose of the said center has been amended as “to coordinate” instead of “to manage” clearance policies of member countries.

(5) There should be an “outline” or “abstract” so as to enable readers to get a rough understanding about the content of the report. There is so much information contained in the report, and a catalogue of tables and charts would be very helpful for readers.

With reference to the foresaid suggestion, “outline” and catalogue of tables and charts have been added into the front part of the report in the report for readers’ references.

2. Mr. Li Shiping, Director, Office of ASEAN Affairs of Guangxi Entry-Exit Inspection and Quarantine Bureau, China

(1) With reference to chapter 1.3.1 in the survey report, under the title of “Trade Facilitation Measures from China”, about the first section of “Construction of Integrated Customs Clearance”, the wording “Integrated Customs Clearance” should refer to the clearance integration of not only customs but also other joint inspection departments of ports, so the expression needs to be more clear and definite; the wording “cooperation between customs and inspection” in the third paragraph is more likely refer to the business of inspection and quarantine; for the third (3) part in the same chapter, cooperation between customs and inspection authorities has been involved, but not the international cooperation among customs only.

With reference to the foresaid suggestion, the wording “customs” in the corresponding part has been amended to read “joint inspection departments of ports”; the wording “cooperation between customs and inspection” in the third paragraph has been amended to read “In inspection and quarantine issues”; the title of the third (3) part in the same chapter has been amended to read “Strengthen the Cooperation of Customs and Inspection Authorities with ASEAN”.

(2) With reference to chapter 1.3.3 in the survey report, under the title of “Trade Facilitation Measures from CLMV”, in the last paragraph of the second section--“Laos”, the expression of “the China and Laos customs have effectively promoted bilateral cooperation in the field of quality inspection based on the platform of China-ASEAN Ministerial Meeting on Quality Supervision, Inspection and Quarantine” is inappropriate, it should be the Quality Inspection Departments of China and Laos who promote bilateral cooperation in the field of quality inspection.

With reference to the foresaid suggestion, the wording “the China and Laos customs” has been replaced to read “the Quality Inspection Departments of China and Laos” in the corresponding part in the report.

(3) With reference to chapter 2.1.2 in the survey report, under the title of “Import and Export Procedure Efficiency”, the second section “Days cost in import and export procedures”, the description on the procedure of applying CAFTA C/O is at odds with the existing situation due to great reform has been carried out by AQSIQ on the applying procedure for C/O from 2015.

With reference to the foresaid suggestion, the corresponding part in the report has been deleted.

3. Mr. Wang Hongbin, Deputy Director, Customs Control and Inspection Division, Nanning Customs, China

(1) With reference to chapter 1.3.1 in the survey report, under the title of “Trade Facilitation Measures from China”, in the first section of “Construction of Integrated Customs Clearance” discussing main measurements in clearance facilitation, to the third measurements, the wording “crossing great customs region” should be better than “crossing district”; the following expression of “adopt facilitation measures such as declaration in local place and inspection at port” does not conform to the current reform mode.

With reference to the foresaid suggestion, the wording “crossing great customs

region” has been adopted in the corresponding part, and the expression of “apply facilitation measures such as declaration in local place and inspection at port” has been amended as “adopt facilitation measures such as the reform of regional clearance integration.”

(2) With reference to chapter 2.3 in the survey report, under the title of “Ports Efficiency”, there is no statistics about data of ports efficiency which could be obtained from the Ports Clearance Efficiency Evaluation System developed by customs. As a result, the supplement of some data in the relevant part is suggested.

With reference to the foresaid suggestion, the relevant data of ports efficiency mentioned by the expert should actually be the data of ports clearance efficiency involved in chapter 2.1 of “customs clearance environment”. And chapter 2.3 of “Ports Efficiency” refer to the construction of quality and working efficiency of ports infrastructure. As a result, the supplement of relevant data has been adopted in chapter 2.1 of “customs clearance environment”.