



STUDY ON CUSTOMS MODERNIZATION IN THE LANCHANG-MEKONG COUNTRIES



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- Provincial Custom Department in Kunming, China
- Vietnamese Customs Department in Ha Noi, Vietnam

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- Mae Sot (Thailand) - Myawaddy (Myanmar)
- Aranyaprathet (Thailand) – Poi Pet (Cambodia)
- Muddahan (Thailand) – Savarnakhet (Lao PDR)
- Chiang khong (Thailand) - Huay Xai (Lao PDR)
- Lang Son (Vietnam) - Pingxiang (China)
- Ruili (China) - Muse (Myanmar).

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EXECUTIVE SUMMARY

Custom modernization, over the course of the years, has been put forward as a key factor to stimulate economic development in this region. All LM countries have been making great progresses toward becoming National Single Window (NSW) goal. By relying on custom automated system and electronic documentation, custom performances have been significantly improved over the years. Custom automated system has been installed and implemented by every LM customs at the national level since 2013 (some of the LM countries had the systems in place prior to 2013). As the process takes time to fully implement, some of the border checkpoints still have not gotten the system to be completely functioned. However, in most cases, the declaration process is currently available in electronic form and online. Only on the custom payment and clearance procedures which have not been perfectly implemented with the system; i.e., part of that still being handled manually.

This study employs gaps analysis with information provided and obtained from interview meetings with both the central authorities (for custom development plans) and at the selected border custom checkpoints in all LM countries. The results reveal that there are existing custom modernization gaps in all 3 aspects; physical infrastructure gap, custom automation gap, and human resource development gap. To narrow these gaps so that efficient and effective regional custom automated system is created, and the full benefits of custom modernization can be realized by all members, assistance, financially and technically, and custom collaboration, domestically and internationally, will be required. Highlighting on some of the infrastructure investment needs essential for custom development in LM countries is provided as follows;

Custom Procedure Status and Related Infrastructure Investment Required

Custom declaration process status and obstacles:

- Custom automated system has been installed in all LM countries for electronic notification of shipment. However, not all checkpoints are linked with the system.
- The use of electronic document has been partial (in some cases due to the acceptance of electronic document as legal document) and thus, in some of the process, hardcopy version still needed.
- Online communication with other related government agencies is still lacking in most cases. It has been a key barrier to eventually achieve NSW.
- Different custom automated systems have been used by LM members

Custom duty/fee payment process status and obstacles:

- This feature has not been fully implemented electronically (in some LM countries; Lao PDR, Cambodia, Myanmar) due to (i) the level of domestic financial market development and online banking system and (ii) it needs time for users to get accustomed to and adopt to the online custom payment system.
- The development of e-payment system requires an integrated feature of custom functions and financial institution who will handle the automated processes and also an acceptance of the electronic receipts involved.
- Custom e-payment can become more complex as the system is asked to incorporate some important features such as custom refund, incentive schemes, etc.

Custom Clearance process status and obstacles:

- Most of the LM checkpoints provide custom One Stop Service (OSS) and the inspection yards are available with different quality of pavement.
- Adequate custom services have been provided at the border with some improvement over the time based on the time release report which show a reduction of time and costs of trade activities at the gate. However, the services still can be upgraded and improved by transforming into a fully electronic based system. Furthermore, a greater degree of trade and custom information exchange and sharing can be pursued in the next step.

- There are still needs of mobile container X-ray machine in some border custom checkpoints.

LMC technical and financial assistants and cost assessment:

- As the custom automated system has been installed and implemented (partially in some cases), there are needs for upgrading and maintenance of the online custom system in the near future. In general, the system maintenance costs are feature in the custom department budget. However, there are still lack of financial support from domestic budgeting in some LM counties.
- A greater cost can incur when better version of the custom system is needed as more features of custom procedures are in demand due to increasing in volume of trade and activities at the border. In addition, there will be more functions to be handled by the custom officers at the border such as a filling for tariff or domestic tax refund by some trade and investment promotion policy.
- To this aspect, financial assistant is on the back seat to technical assistant as it needs to collaboratively develop software needed for electronic payment system. In addition, to promote the use of e-payment also takes time as traders and authorized custom agencies have to get used to the system and eventually having trust on the system.
- Over the past years, some new custom infrastructure facilities have been built in several border checkpoint where they are deemed important and as a target for national custom development plan. There are some additional financial needs to accelerate the ongoing utilization of the automated custom system. Also, with such an investment in computer hardware (servers) and software as the system requires transformations of information between the central unit and the local units. Lao PDR, Cambodia, and Myanmar are the three countries with greater needs for these type of investment supports. An estimate cost of about \$300,000-\$500,000 annually is appropriate depending on the site and location of the border checkpoints to gradually expand the coverage of the automated custom system. Funding can be operated as a matching fund with the host country budget as in most cases, there are some allocation of budget in the national custom development plan.
- The needs for container x-ray machine are by far most requested by the visited border checkpoints as it provides immediate impacts in terms of custom efficiency improvement. The costs are estimated at about \$20-30 Mil. depending on the model selected.
- Hand-held x-ray machine is also demanded for some custom border checkpoints to better and more effectively handle goods crossing border that are not in containers which sometime can be problems as it creates traffic congestion at the crossing bridge.
- Investment on physical infrastructure to improve pavement in the container parking yard can also be considered especially in the rainy season and the quality condition of cargo trucks are different and it might lead to a delaying custom process at the border. Cost estimation of this type of infrastructure investment will need some on-site structural design and assessment.

Custom Administration Related Infrastructure Investment

- Establishment of collaboration between custom and other related agencies such that some software of online system can be development to link and allow for electronic information and documents exchange or transfer in one integrated system. A key feature for a country to achieve a fully implemented National Single Window (NSW)
- LM data exchange center can help initiate and facilitate the sharing and exchange of custom and trading information as the next step toward custom modernization. ASEAN has been pursuing this purpose and currently in negotiation on several custom related issues, such as custom standardization and harmonization, to connect individual country's NSW into "ASEAN Custom Network" known as ASEAN Single Window (ASW)
- LMC can take a leading initiative to form a LM custom collaboration framework. Creating a special trade facilitation arrangement specifically to response to the needs of LM members, a special lane for LM members for instance, where e-custom and paperless mechanism can be better implemented. In doing so, LM trade and custom data center can serve as an intermediate cooperation organization (as a pilot initiative) and used as a steppingstone toward greater scope of custom modernization and collaboration. In terms of funding needed for such an establishment, physical facility infrastructure need should be at the minimum with some monthly rental cost at the border of \$1,000-\$1,200. Much of the budget will be on getting an automated system to hook up with the existing custom automation at the border. This should

cost about \$100,000-\$200,000 with some annual upgrade and maintenance. The rest would be the cost of staffs to work in the center. Moreover, the soft infrastructure will also be needed as it requires some authorization allowing for the exchange of LM data exchange center can help initiate and facilitate the sharing and exchange of custom and trading information as the next step toward custom modernization.

ABBREVIATION AND SYNONYM

AEC	ASEAN Economic Community
ASYCUDA	Automated System for Customs Data
ASW	ASEAN Single Window
BTOS	Border Trade Online System
CBTA	Cross-Border Transport Facilitation Agreement
CCA	Common Control Area
CUPIA	Custom UNI-PASS Information Association
GDCE	The General Department of Customs and Excise – Cambodia
GMS	Greater Mekong Sub-region
ICD	Inland Container Depot
ICP	Integrated Check Posts
ICT	Information and Communication Technology
JICA	Japan International Cooperation Agency
LM	Lanchang-Mekong
LMC	Lanchang-Mekong Corporation
MACCS	Myanmar Automated Cargo Clearance System
NSW	National Single Window
NTB	Non-tariff Barrier
OGA	Other related government agencies
VCCI	Vietnam Chamber of Commerce and Industry
VCIS	Vietnam Custom Intelligence Information System
VNACCS	Vietnam Automated Customs (Cargo) and Clearance System

TABLE OF CONTENTS

ACKNOWLEDGEMENT	I
EXECUTIVE SUMMARY	II
CHAPTER 1	1
INTRODUCTION	1
1.1. RATIONALE OF THE STUDY	2
1.2. STUDY OBJECTIVES	2
CHAPTER 2.....	4
METHODOLOGY AND SCOPE OF THE STUDY.....	4
2.1. RESSEARCH ACTIVITIES	4
2.1. SCOPE OF THE STUDY	5
CHAPTER 3.....	7
TRADE AND INVESTMENT IN THE LM COUNTRIES	7
CHAPTER 4.....	13
CUSTOMS MODERNIZATION IN THE LM COUNTRIES	13
4.1. LEGAL FRAMEWORKS AND CUSTOMS ADMINISTRATION.....	16
4.2. DEVELOPMENT OF NATIONAL CUSTOMS ADMINISTRATION SYSTEM AND NATIONAL SINGLE WINDOWS TOWARDS PAPERLESS TRADE.....	36
4.3. INTERNATIONAL AND BILATERAL COOPERATION IN CUSTOMS.....	49
4.4. INVESTMENT IN CUSTOMS MODERNIZATION	51
4.4.1. <i>Custom Modernization Gap among LM countries</i>	52
4.4.2. <i>Investment needs for custom Modernization in LM region</i>	53
CHAPTER 5.....	62
SYNTHESIS AND RECOMMENDATIONS	62
CHAPTER 6.....	67
ANNEXURE.....	67
6.1. ANNEX 1: LIST OF REPRESENTATIVES / INTERVIEWEES IN THE LM COUNTRIES	67
6.2. ANNEX 2: PHOTOS OF FIELD VISITS AND MEETINGS.....	72
6.3. ANNEX 3: TENTATIVE FIELD SURVEY SCHEDULE.....	76

CHAPTER 1

INTRODUCTION

International trade and investment have, over time, become the main economic driving force for most developing economies to lift themselves out of poverty and prosper into a better quality of living. Lancang-Mekong (LM) countries are not an exemption. All 6 LM economies have been relying on trading and foreign direct investment to fuel their economic growths. Custom procedures at the border has served as the underlying mechanism to guarantee the free flows of goods across borders. To this end, it is argued that improve efficiency of customs procedures by reducing time spend at the border and hence, reduce trading costs can lead to significant welfare gains. Custom modernization refers to the situation where custom and custom related activities are handled at a more effective manner which most of the time related to the adoption of more advance communication technology allowing for the utilization electronic documents and information exchange. It also includes communication system as a network of related government agencies to coordinate and work together in a synchronization way domestically, and if possible, between customs of both trading nations.

While trading serves as a foundation of the internationalization process and tariff barrier trends to be lower via the mushrooming of economic integrations; multilateral, regional, sub-regional, or bilateral. Non-tariff barriers (NTB) has been on the radar for many who have concerns that many more of NTBs will be implemented to replace tariff. Unfortunately, they seem to be correct as some of recent studies have pointed out in that direction. Numbers of NTBs and types have been increasing over the last decade especially by more advanced economies. The instance reemphasis further a profound role of trade facilitation as a prudent mechanism to both the mitigation of unnecessary damages caused by inefficiency trade administration and in supporting the expansion of trading activities. Unfortunately, this study will only focus more on improving standard custom procedures taking NTB just as another factor to create more or complicated steps in the custom process. Customs modernization has been the key element in trade facilitation and even more so for regional trading activities. ASEAN members have also shown strong commitment to trade facilitation as it appeared in many sub-regional trade agreements, GMS particularly, and regional agreement (such as ASEAN Economic Community: AEC) as it advocates a specific chapter to address this issue. The development of ASEAN 2025 around the idea of “ASEAN Connectivity” further emphasis the role of custom modernization as the member states are pushing forward for greater custom collaboration. Custom harmonization and standardization are among some of the issues in the discussion and negotiation toward exchange (or share) of trading information as long-term achievements.

Border trades have been a significant trade composition in total trade not only for emerging economies but also most of the developing economies during the transition stage into a more internationally oriented economy. Particularly for Thailand, border trade has been playing a significant role in economic growth and development. In the last 5 years, ASEAN has become Thailand's largest export destination. Trading with its ASEAN neighboring countries, which are mostly the Lancang-Mekong countries, is growing at a significant rate of about 7-8% with double digits growth in export. Additionally, there is also an increasing trend of cross border trade between Thailand-Vietnam and Thailand-China (Southern). All of these incidents point to the need of customs modernization not only to facilitate greater volume of trade but also to stimulate greater trading activities so that gains from trade can be more efficiently realized.

1.1. Rationale of the Study

Aligning with the project objectives¹ in promoting trade and logistics development together with efforts to reduce trade costs and enhance connectivity and competitiveness in the Lancang-Mekong countries, the Project had firstly conducted a study on “Improvement to Infrastructure and Regulations for the Border Economic Zones” in 2018. One of the key findings of the study suggested that the Project assist the Lancang-Mekong in implementing the regional initiative and program in trade facilitation to which customs modernization and information and communications technology (ICT) play an important role, especially in the context where digital economies are quickly growth and a number of countries are adopting ICT to boost trade and support their economic development objectives.

According to the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) under United Nations Economic Commission for Europe (UNECE), trade facilitation is defined as the simplification, standardization and harmonization of procedures and associated information flows required to serve the cross-border movement of goods². Improvement in trade facilitation significantly to the country’s competitiveness. In this sense, the revised Kyoto Convention on the simplification and harmonization of customs procedures, and the recommendations No.33 of the (UN/CEFACT) on application of new technologies towards customs modernization, especially e-customs and single window, with the advanced customs procedures, e.g. customs automation, risk management, post-clearance audit, ICT, that aim to better facilitate trade and enhance the countries’ competitiveness.

At the regional level, the Lancang-Mekong countries have cooperated in implementing the Cross-Border Transport Facilitation Agreement (CBTA), which was initiated in 1999. In addition, the ASEAN countries are now implementing the ASEAN Single Window (ASW), which was established as of 2005. The heart of these initiatives in to enhance a regional cooperation and economic integration supported by mechanisms of interoperability and harmonization serving cross-border trade and investments. However, the customs modernization and harmonization process in the Lancang-Mekong countries is still at different levels and progress as a matter of fact.

1.2. Study Objectives

Effectiveness of custom services or procedures is undoubtedly essential to facilitate and creating the ease of international trade and investment transactions. Making it happens though is easier said than done. Custom processes involve with several trade related documents and communications with all, at least, 3 parties; traders (or representative agencies), custom officers, and other (related) government agencies. The introduction of electronic form document and advance telecommunication technology have paving the way for upgrading and improving in the custom works. Over the years, "e-(custom related works such as e-documents, e-manifest, e-tracking, e-tax incentive, etc." has been created as a facilitating mechanism to

¹ ‘Upgrading Border Facilities for Trade and Logistics Development’ project aiming at 1) To promote trade along border trade zones which link the Lancang-Mekong countries 2) To facilitate cross-border trade by increasing the capacity for commerce and reducing the costs faced by traders within the Lancang-Mekong countries 3) To enhance connectivity and improve competitiveness across international border though improvements in infrastructure focused on facilitating cross-border and investment

² United Nations Economic Commission for Europe (UNCEE), Trade Facilitation, <http://www.unece.org/leginstr/trade.html>

enhance custom capability and efficiency. Custom modernization hence, can be perceived as an adoption of advance telecommunication technology to facilitate the necessary custom activities at the entrance/exit gates or ports. To realize such benefits of custom upgrading, both the hardware and software, in many cases including "people-ware" are needed as hard and soft infrastructure to support the process of custom modernization as many of the advance economies have invested in.

For LM countries specifically, despite an ongoing increase in trade and investment activities as engines for growth, customs capabilities are different among members. The existing customs inefficiency at the national level has been persisted and become a major obstacle for the country to further capture on efficiency gains from freely movements of goods as trade barriers are constantly declined. Such differences in national custom modernization have created gaps to which LM countries have to narrow so that the region can prosper together via greater flows for goods and specialization. The study seeks to provide some of the updated status of LM countries' custom modernization, identify some of the existing custom gaps, and come up with some possible infrastructure investment required to allow for custom improvement and collaboration of the region. The major objectives of the study can be highlighted as follow;

- Obtain the country status regarding the process and implementation status of the customs modernization by location specific approach
- Identify gaps in technological advancement; and estimate potential economic benefits of customs modernization based on technology options in specific cross-border check point the Lancang-Mekong countries
- Suggest hard and soft infrastructure investment project to assessing and realize potential benefits of customs modernization
- Establish feasibility analysis with estimated investment costs of the proposed hard infrastructures in customs modernization
- Suggest specific capacity building measures necessary to utilize the potential benefits in hard infrastructure proposed to customs modernization in promoting and facilitating seamless trade among and between the Lancang-Mekong countries

CHAPTER 2

METHODOLOGY AND SCOPE OF THE STUDY

To achieve the objectives set for the project, the study will be carried out in 3 steps; first the current status and problem related to customs procedures will be gathered and reviewed from well documented information and on field information. Several comprehensive interviews will be conducted on selected stake holders. Up to a minimum of 6 on fields custom checkpoints along the Thai border and LM countries are selected in consultation with MI.

2.1. Research activities

Part I. Trade facilitation (TF) status checking for LM countries

Both in depth interview with key informants and review of some documents related to the issue of TF for LM countries will be conducted;

- Reviews of customs procedures for Lancang-Mekong countries current trading activities status especially for frequent traded products.
- In depth interviews with key informants consist of
 - 1) Custom officers in border traded related department. Interview meeting were conducted with the central government of the LM countries;
 - Ministry of Commerce, Thailand
 - Customs Department in Bangkok, Thailand
 - Customs Department in Phnom Penh, Cambodia
 - Customs Department in Yangon, Myanmar
 - Customs Department in Vientiane, Lao PDR
 - Provincial Custom Department in Kunming, China
 - Vietnamese Customs Department in Ha Noi, Vietnam
 - 2) Custom officers in related procedures in the fields at the selected borders for all 6 LM countries (details are provided below in the Scope of the Study)
 - 3) Local exporters and importers (phone interviews mostly in Thailand)
 - 4) Logistic services providers (phone interviews mostly in Thailand)
 - 5) Officers related to sub-regional and regional agreements (clarification and updating on currently going custom related collaboration)

Some of the interviews, especially with the stakeholders related to the custom office, were carried out over telephone interviews.

- The topics for the interviews and document reviewed are as follows;
 - 1) Current customs procedures and status (How long does it takes for a normal good trading activity? What are the regular procedures involved? What the special procedure are for some specific products? These are some of the questions listed in the interview discussions with custom officers at the selected checkpoints)
 - 2) Current activities (or utilization) and procedures for goods in transit
 - 3) Current problems/issues existed related to TF for LM countries both for border trade and goods in transit especially those that leads to a “less than potential” trading activities.

- 4) Review of regional and sub-regional agreements (particularly GMS) related to TF (especially on logistic issues such as permission of vehicles (different types) to go across border and operate in LM countries. What are the limitations?
- 5) Review on the implementation of e-customs and ASEAN Single Window (ASW) progress where are the main issues discuss under AEC 2015 and AEC 2025. The possibility of setting up a common and neutral area at the border checkpoint for simultaneous and collaboration in custom procedures. Some mutual recognition agreement (MRA) for goods in transit. And perhaps some harmonization of custom procedures in support of e-custom and ASW.

Part II. Assessments of needed customs modernization

Quantitative analysis on impact assessment of custom modernization improvement and the assessment of hard and soft infrastructure required for trade facilitation requirements is performed. Gap analysis will be applied in reference to the best customs modernization existed in the region (for realistic and practical purpose) together with some econometrics modeling (Gravity model) if it is needed and the data necessary are available. The costs of identified custom improvement such as the establishment of some e-custom procedures and implementation of ASEAN Single Window (ASW) will be estimated given a set target. To some extent, the analysis in this part aim at;

- Identify the necessary customs improvement and how (what are the options?) to upgrade custom procedures and mitigate some of the current problems exist
- Identify customs improvement needed for good in transit

Part III. Suggestions of what needs to be done

Finally, an analysis and summary of the findings will be provided in a report. Some of the recommendations for further development of customs modernization such as the role of each stake holders both from the private sector and the regulators sides are offered. Suggestions of some further customs collaboration agreement, regionally and sub-regional, are also worth mentioned.

2.1. Scope of the Study

With the given time and budget constraint, the study will focus on customs modernization improvement for all 6 LM trade partners with selected border checkpoints. The custom checkpoints are selected based on the volume of trade activities; both trade in goods at the border and cross border goods in transit, and the most convenient inland logistic connection of most Lancang -Mekong countries. In particular, information gather from the field study covered six border checkpoints in this study includes 1) Mae Sot (Thailand) - Myawaddy (Myanmar) 2) Aranyaprathet (Thailand) – Poi Pet (Cambodia) 3) Muddahan (Thailand) – Savarnnakheth (Lao PDR) 4) Chiang khong (Thailand) - Huay Xai (Lao PDR) 5) Lang Son (Vietnam) - Pingxiang (China) and 6) Ruili (China) - Muse (Myanmar). In addition, interview meetings were conducted with the related central government units for all 6 LM countries for custom development plans and strategies in each of the member states. The study also includes the analysis of TF involve border trade activities as well as goods in transit as both are viewed as a great potential for LM countries collaboration in custom modernization. The study intends to emphasis more on the two aspects of TF namely e-customs and ASW because there are greater possibilities in terms of implementation of such measures and significant degree of short-term benefits can be realized which in turn can serve as a catalyze for further engagements from most of the parties involve. In sum, the detail aspects of the study are as follows;

i) Specific strategic locations:

The study focuses on the major customs checkpoints represent all six LM countries base on trading and potential trading activities. The sites visit are selected according to the volume of trade activities; both trade in goods at the border and cross border goods in transit, for the coverage of most Lancang -Mekong countries. The six strategic sites considered are 1) Mae Sot (Thailand) - Myawaddy (Myanmar) 2) Aranyaprathet (Thailand) – Poi Pet (Cambodia) 3) Muddahan (Thailand) - Savarnnakhet (Lao PDR) 4) Chiang khong (Thailand) - Huay Xai (Lao PDR) 5) Lang Son (Vietnam) - Pingxiang (China) and 6) Ruili (China) - Muse (Myanmar). In addition, the study also covered interview meetings at the central custom department in several LM countries, i.e., customs department in Bangkok (Thailand), Phnom Penh (Cambodia), Yangon (Myanmar), Ha Noi (Vietnam) and Vientiane (Lao PDR). A couple of consultation sessions with the Thai Ministry of Commerce was also included.

ii) Focus scope of customs modernization in the LM countries in connectivity with trade facilitation

- Laws and regulations
- National custom procedure which can be improved by modernization and harmonization in consistency with the international convention
- Customs administration systems
- Investment in customs modernization
- Custom cooperation and integration through establishment and implementation of National Single Window (NSW)
- Jointing the ASEAN Single Window (ASW) as the process is under negotiation and some of the custom diversity and gaps needed to be filled.

iii) Stakeholders in a close connection with customs modernization: this part is specifically design to get some practical lesson learns from government agencies related to customs and traders as well as some logistic providers and authorized custom brokers on custom modernization process in some LM countries; China, Thailand, and Vietnam. Unfortunately, due to some time and budget constraints, the numbers of stakeholders interviewed (mostly on the phone and some local custom brokers at the borders) has been limited

- Authorities include custom administration and related local government (transportation authority and administration, police (related to security issues), etc.)
- Businesses (local enterprise and investors; both Thai and foreigner)
- Local Community and other stakeholders

CHAPTER 3

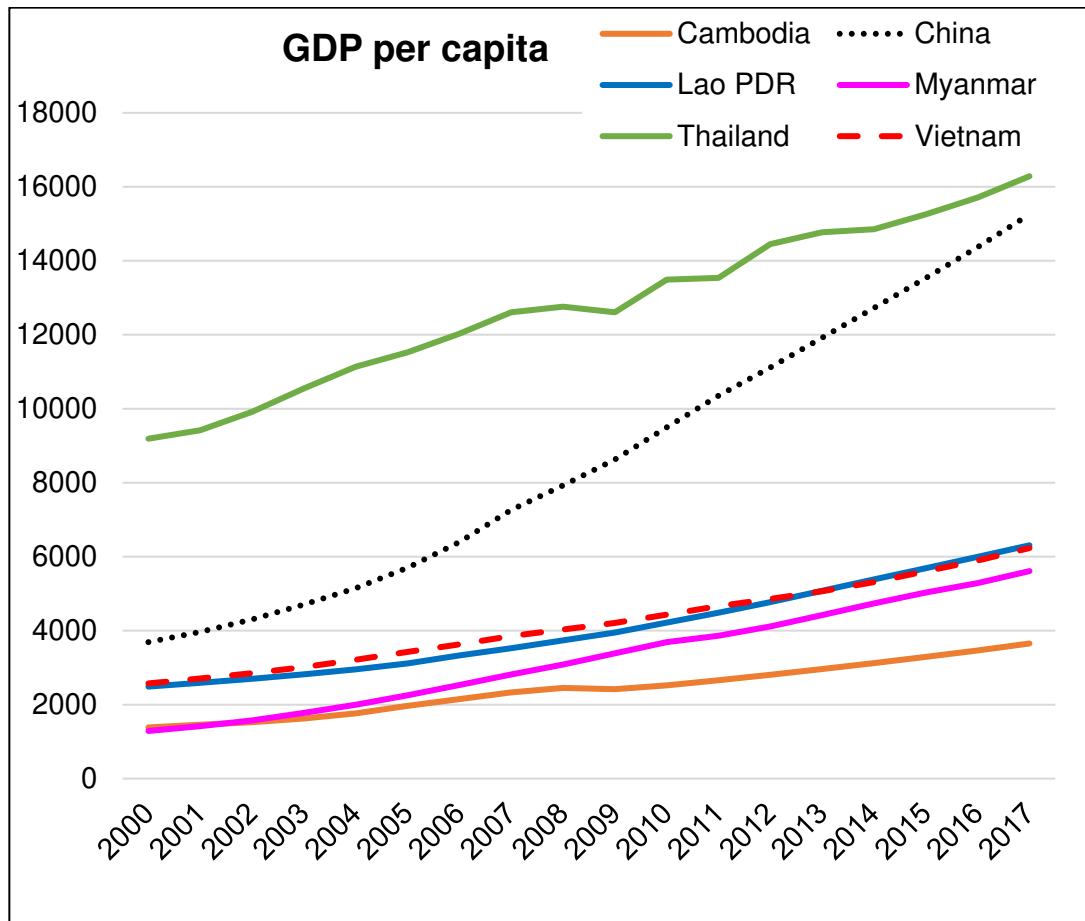
TRADE AND INVESTMENT IN THE LM COUNTRIES

International trade and investment have ever since become a significant driving growth engine for the LM countries. Over the years, trade (as well as border trade) has risen as a percentage of GDP. A series of reforms has led to changes in economic and social structure paving way for national and regional economic development. Foreign investment over the years has also been picking up making LM countries one of the popular destinations. Economic liberalization policy has been the key element fostering the expansion of international economic activities both within the region and linking the region with the world. Those trade and investment transactions has become even more crucial not only from the growth perspective but also in terms of economic stability. To facilitate international trade and investment activities, custom procedure has been pointed out as one crucial area of improvement as many evidences suggest the existence of gaps among LM countries. By narrowing the custom development gaps, LM member states are expected to realize great benefits and further enhance its economic potential. This part of the study will highlight on the key aspects of international trade and investment have to stimulate economic growth and stability in the region. It also implicitly implies how significant trade facilitation, particularly custom modernization, will contribute to the development of the region and how large the size of the benefits can be.

Over the past 20 years, the region has exhibited a dynamic growth and turned the region into some interesting investment destinations. An increase in trade volume in every LM countries contribute to a rising proportions of international trade to GDP as they are moving toward more open and liberalization policy. Economic gains are obvious in many cases; greater proportion of population are lifted out of poverty and the average per capita income has constantly improved. Consequently, it turns the region into not only a larger market for intra-trade but also an area to attract foreign direct investment (FDI) as export-led policy was push forward to replace import-substitution policy. The increasing of FDI in the region as host countries induces further economic benefits including production technology upgrading, more employment, and hence economic growth. Over the past decade, the region has experienced constant growth with persisting economic stability.

From 2000-2017, China has experienced the most impressive growth among LM members. GDP per capita, at constant 2011 price, rose from below \$4000 to higher than \$15,000 in 2017. The rest of LM countries also made a sizable improve on average income. Given the higher purchasing power of the Lancang-Mekong region, economic activities both domestically and internationally are supposed to pick up over the course of the years in the upcoming future. It is also obvious to recognize that further trade facilitation at the national and regional level will collectively benefit all the LM countries as it continues to promote mobility of goods, services, and resources within the region. Greater specialization, more efficiently utilization of resources, and better allocation of resources can together increase quality of living of the LM population. Despite a great success over the years, it is important to point out that there is large gap of GDP per capita among the LM countries. While average income in Thailand and China are above \$15,000 per annum, the rest of the LM countries' income ranges between \$6,200 to \$3,800. Because of such differences, it is argued that by allowing for movement of goods and resources, greater benefits of specialization and better utilization of factor of production can be achieved. This once again highlight the role of trade facilitation which acts like a catalyze to stimulate trade and investment by reducing transaction costs. Custom modernization landed in the heart of this process as a gate keeper. In fact, there are also other trade related functions involve beside shipment inspection and clearance. Making sure that all of the shipment cleared from the border with all the required legal documents and procedures, handling all the necessary process requested for the trade and investment privileges offered by the host country (tax exemption, tax return, etc.) for instance, added to custom obligations which in turn might be, in some cases, the reason for delay at the border.

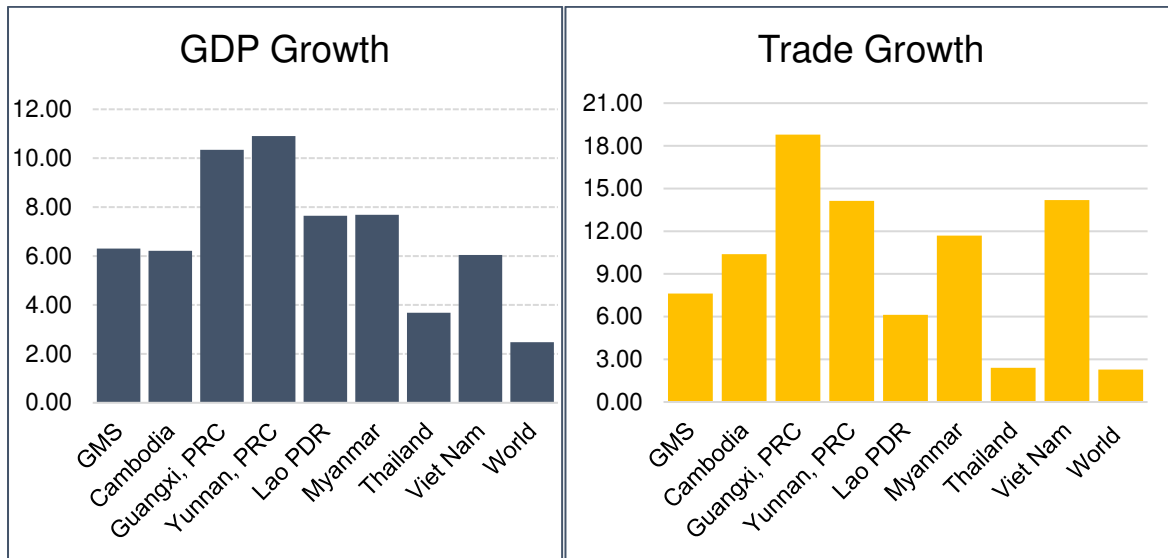
Figure 3.1: Average Income of LM Countries from 2000-2017 (Constant price at 2011)



Source: The Greater Mekong Sub-region Statistical Database

Average GDP growths of the LM countries from 2009-2017 were all higher than world economic growth with the two southern China provinces leading the way. The average growth for Guangxi and Yunnan were above 10%. Supported by trade growth, the region has been making good progress lifting up its population out of poverty and more. Quality of living has been improved and greater potential are expected in the upcoming future. Trade has been growing at a very significant rate for most of LM countries except perhaps for Thailand who has been losing some competitiveness over a period of political instability. However, trade growth in Thailand still in line with the world growth during the same period. The relationship between trade and GDP growth further emphasis that LM countries has received a great deal of benefit from international economic activities. Allowing for exchange of goods and resources by adopting trade and investment liberalization policy has shown to be a successful policy for the region. This also implies that a further improvement in trade facilitation which reduces trade time and costs will provide large economic gains for the region. The surge of trade growths in China, Viet Nam, and Myanmar are observed in Figure 3.2 where trade growth was at an impressive double-digit rate.

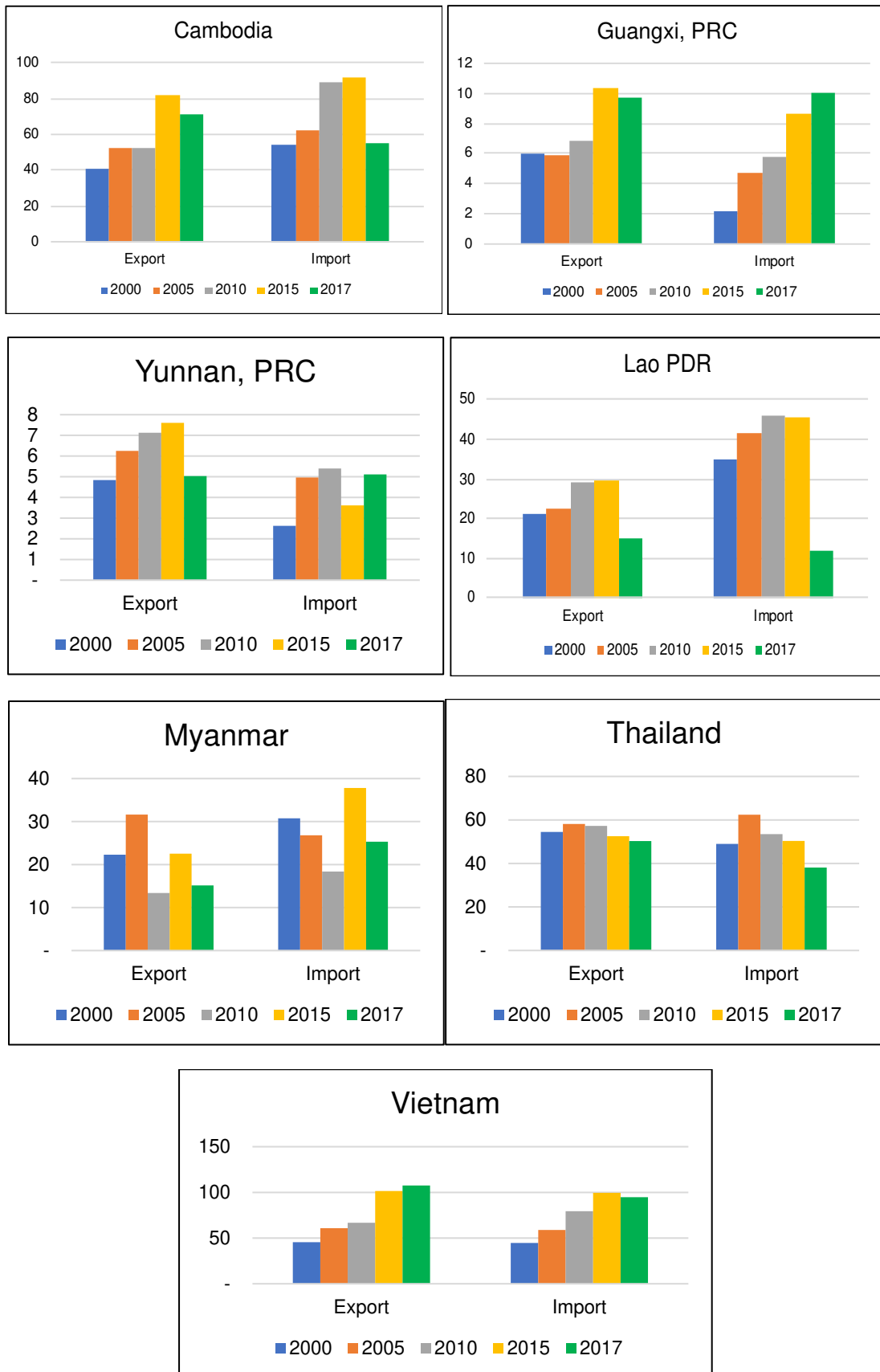
Figure 3.2: Average GDP and Trade Growth of LM Countries from 2009-2017



Source: The Greater Mekong Sub-region Statistical Database

To illustrate the significant of international trade to LM economies, share of export and import to GDP are shown in the following figures. Share of export and import have been growing in most LM countries (two southern China provinces were considered here). Portions of these trade are among the LM economies itself which also exhibit a growing in volume as well as the varieties of products. It has been argued that trade and investment among LM countries can serve as a “New Market” for these countries. It provides diversification for the LM economies as they currently rely heavily on trade with countries outside the region. The experience in Thailand has been obvious when the share of export dropped in 2017 due to the less than expected global economic growth. Thailand’s border trade with its neighboring countries (mostly LM countries) remain to have a steady growth tempting the country to introduce an economic stimulation policy to create special economic zone at the border area. However, the policy has not been very success because of many factors. Part of the reason was that the incentives packages has not been linked with the advantage trade facilitation at the border provided. Lao PDR’s share of export and import declined significantly in 2017. Share of export and import figures for the LM countries in 2015 and after also reveal the value of custom modernization as most countries began their installation of the custom automation system in 2005. With the reduction of trade time and costs as the electronic custom systems were in place, the volume of export and import were risen in the following years. The Viet Nam case, a constant increasing trend of share of export and import is observed with the continuation of custom reforms in the country. Myanmar and Lao PDR are the two LM countries show the consistently increase in share of import as the countries induce foreign direct investment especially from Chinese and ASEAN investors (Singapore, Malaysia, and Thailand). The complementary of trade and investment has once again proven that easing of trade and investment procedures at the borders is major element in economic development process.

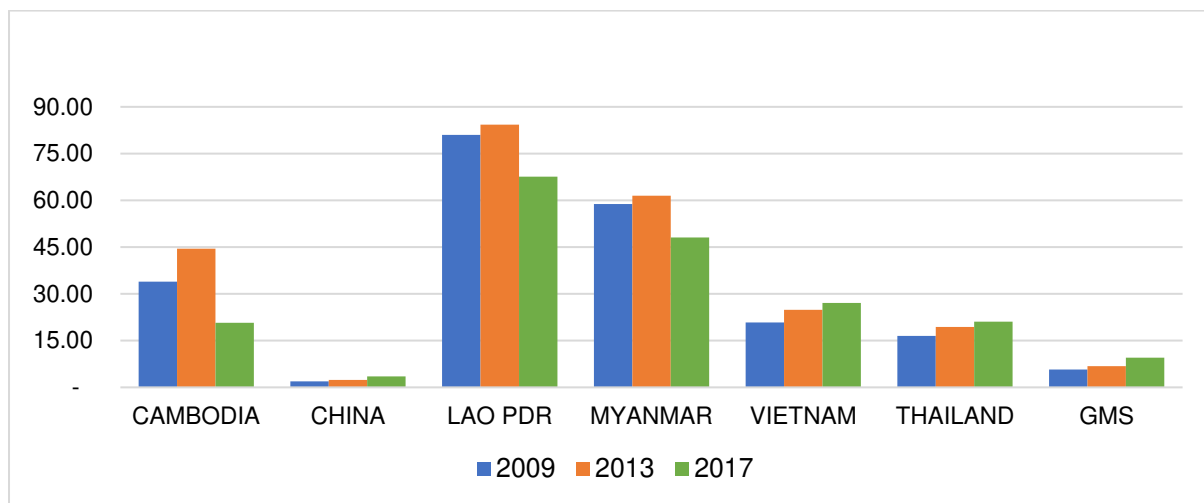
Figure 3.3: Share of Export and Import to GDP of LM Countries



Source: The Greater Mekong Sub-region Statistical Database

International trade diversification has been one of the key features fostering economic development of the region. Intra-regional as a proportion has been gaining ground and become meaningful component for most LM countries. For Lao PDR and Myanmar, intra-regional trade accounted for more than 60% and 45% of total trade respectively in 2017. The growing number of intra-regional trade reemphasizes the crucial role of custom modernization especially at the border checkpoints. Most of the intra-regional trade activities are handled at the border gate as Lao PDR has greater proportion than other due to a situation as a landlock country. It is also pointed out that, with greater degree of intra-regional trade, the country stands to benefit more from custom modernization at the border checkpoint. LM countries, as a group, rely on each other as trading partners. Border trade and hence, custom modernization at the border checkpoint will have a major role to contribute.

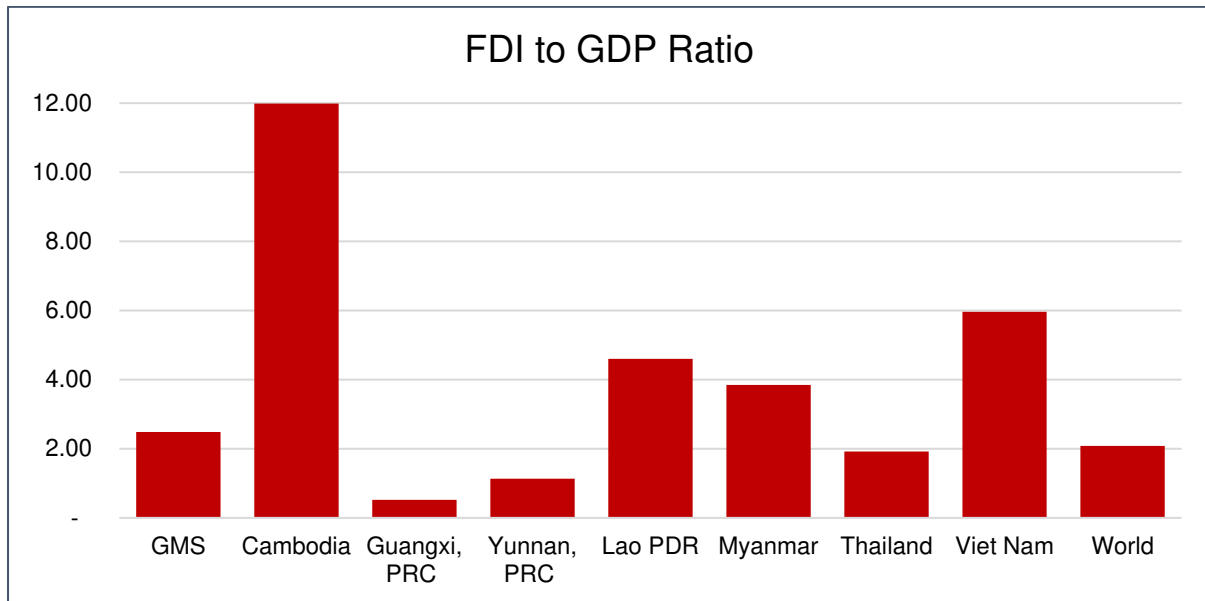
Figure 3.4: LM Countries Intra-regional Trade (Share of Total Trade)



Source: The Greater Mekong Sub-region Statistical Database

The influx of foreign direct investment has been evidenced across the regions with investors from everywhere developing and developed countries included. In complementary with regional trade, foreign direct investment figures reflect both the needs for further improvement of trade facilitation and how much it has been accomplished so far. The rising number of the FDI to GDP ratio suggests that investors have had greater confidence in the region and the movements of goods, intermediate goods as well as raw materials, are at ease to a certain degree. Economic integration and liberalization have transformed the region into one of the most sought investment destinations. Economic opportunities have been opening up and LM market has been widening with higher purchasing power. Cambodia and Viet Nam stand out as the highest FDI to GDP in 2017 while the rest of the LM countries are showing great potential. Custom modernization to this end can be viewed as a supporting cast to enhance trade and investment force. The greater potential for trade and investment stimulation, the more benefits can be addressed to custom upgrading to justify all the necessary costs involved. Special economic zone and free zone have been established in many LM countries as a tool to mitigate some of the trade obstacles particularly those are related with documentation and procedures. These privileges are in fact a very important incentives for foreign investors. Additionally, collaboration in custom modernization is considered to be a better option than providing competing investment incentives by each member countries. Allowing investment to flow according to the comparative advantage offers in different locations will gain more efficiency improvement and minimized the negative effects of trade diversion and misallocation of investment due to incentives provided.

Figure 3.5: The Role of Foreign Direct Investment in LM Countries



Source: The Greater Mekong Sub-region Statistical Database

The trend of FDI in the LM region also highlight the significance of custom modernization in the near future. To become a region for investment destination which host country stand to capture economic benefits, facilitation for the ease of goods and resources mobility is one of the underlining factors. In fact, an increasing FDI in the LM region added more demand pressure for LM members to upgrade their custom system so that more trade and investment activities can be handled more effectively. Delaying process of custom modernization due to avoidable reasons such as lacking of funding needed, lacking of custom collaboration at the border, which create some of the unnecessary gaps will be missing of opportunities for regional economic development. Improving the quality of living for the region population is considered to be the great value accounted for custom modernization.

CHAPTER 4

CUSTOMS MODERNIZATION IN THE LM COUNTRIES

Over the last two decades, trade facilitation has been receiving a great deal of attention as a mean to foster trading activities. Being part of the “Singapore Issues”, many progresses both in terms of domestic and international commitments have led to an improvement particularly customs procedures. In many cases, customs modernization has been incorporated with an upgrading of custom procedures from a manual base to an electronic base, namely e-customs mechanism where information communication technologies (ICT) were introduced. The uses of electronic information have significantly improved the efficiency of custom works leading to a reduction of time and cost associated with the movement of goods across borders. Lancang-Mekong countries (China, Cambodia, Lao PDR, Myanmar, Thailand, and Vietnam) are not an exception. The responsible authorities have put a great deal of affords in an attempt to reform and modernize their respective custom procedures.

Several custom related indicators illustrated in table below suggest that there are differences in custom capability among LM countries. In many custom related indicators, there are gaps among the LM members. Time to import for example, it takes about 44 hours for shipment export from Thailand while the time required for import to Myanmar takes 230 hours. This implies that not only the domestic custom administration has to be improved but also, for the region as a whole to benefit from trade and investment flows, collaboration affords between the neighboring borders are required. Documentary compliance at the border is another area where custom capability gap exists. From the export end, it takes 132 hours in Cambodia while it only requires 8 hours in China. In this aspect, fully implementation of custom automated system as most of the documents are in electronic form will be very useful in reducing the time used in the process. The costs of export and import are positively correlated with the amount of time demand in the custom compliance. Documentary compliance cost is relatively lower than the border compliance cost except for the case of Lao PDR. In part, this has something to do with the implementation of custom automation system in the LM countries since 2005.

Table 4.1: Custom Related Doing Business Indicators for LM Countries in 2018

LM countries	Custom Related Indicators							
	Time to export: Border compliance (Hours)	Cost to export: Border Compliance (USD)	Time to export: Documentary compliance (Hours)	Cost to export: Documentary Compliance (USD)	Time to import: Border compliance (Hours)	Cost to import: Border Compliance (USD)	Time to import: Documentary compliance (Hours)	Cost to import: Documentary Compliance (USD)
China	23	305	8	70	48	335	24	120
Cambodia	48	375	132	100	8	240	132	120
Lao PDR	9	140	60	235	11	224	60	115
Myanmar	142	432	144	140	230	457	48	210
Thailand	44	223	11	97	50	233	4	43
Vietnam	55	290	50	139	56	373	76	183

Source: World Bank Ease of Doing Business and LPI database.

Time and costs of custom related activities for the LM countries are investigated next. Three different custom activities; clearance and inspections by custom authorities, clearance and inspections by other authorities, and border handling, from both export and import are documented. The table 4.1 shows, in most cases, time and cost incurs in the border handling activities are different among LM countries with some are more advance (requires less time) and costs are lower. For instance, the time requires for export in Myanmar is 142 hrs. while it only takes 23 hrs. or 9 hrs. to export in China and Lao PDR. Costs of trading, export and import, are also diverse among LM countries making trading activities less efficient. In addition, it incurs more cost (especially administrative costs) for cargos moving across multiple borders among LM countries, shipment from China to Thailand for example, will have to go through China-Lao PDR or China-Myanmar borders before it reaches Thailand.

Table 4.2: Times and Costs of Custom Related Activities for LM Countries in 2018

LM countries		Export: Clearance and inspections required by customs authorities	Export: Clearance and inspections required by agencies other than authorities	Export: Port or border handling	Import: Clearance and inspections required by customs authorities	Import: Clearance and inspections required by agencies other than authorities	Import: Port or border handling
China	Time to Complete (Hours)	6.0	0.0	23.1	11.0	0.0	48.0
	Associated Costs (USD)	30.0	0.0	275.0	45.0	0.0	290.0
Cambodia	Time to Complete (Hours)	28.3	0.0	24.0	4.3	0.0	7.5
	Associated Costs (USD)	275.0	0.0	100.0	240.0	0.0	0.0
Lao PDR	Time to Complete (Hours)	8.0	0.0	1.0	4.0	3.5	3.0
	Associated Costs (USD)	130.0	0.0	10.0	90.0	102.5	31.0
Myanmar	Time to Complete (Hours)	11.0	96.0	48.0	110.0	0.0	120.0

	Associated Costs (USD)	195.0	65.0	171.7	285.0	0.0	171.7
Thailand	Time to Complete (Hours)	12.0	0.0	32.0	28.2	0.0	50.2
	Associated Costs (USD)	90.2	0.0	132.4	106.2	0.0	126.4
Vietnam	Time to Complete (Hours)	5.0	8.0	55.0	16.0	8.0	32.0
	Associated Costs (USD)	60.0	25.0	205.0	85.0	0.0	288.0

Source: World Bank Ease of Doing Business and LPI database.

Table 4.2 looks at more details in the custom procedures including clearance and handling time for LM countries. Clearance and inspection times required by custom authorities both on the export and import sides are different among LM countries. The longer it needs the higher costs it will be. Additionally, for Lao PDR and Myanmar, there are also time and costs for clearance and inspections that required by other government agencies. Time and the associated costs of border handling also suggest room for further custom improvement. Border handling time and cost have been higher than clearance and inspections time and cost in most cases.

Table 4.3: Assessment of Customs Modernization of LM-ASEAN Countries*

	Years	LM-ASEAN Countries				
		Cambodia	Lao PDR	Myanmar	Thailand	Vietnam
Custom Modernization score (100)	2011	64	42.5	38	94	71
	2014	73	43	46	96	84

Note: Based on the survey questionnaire results in ERIA's AEC Scorecard Phase II and Phase IV studies.

* The information illustrated in this table is used for reference of the progress of custom modernization only. It is very well recognized that the most updated and current status of custom modernization process in each of the countries featured in this table are far more advance than those presents in the table.

Source: Ponciano INTAL Jr. (2015), "AEC Blueprint Implementation Performance and Challenges: Trade Facilitation," ERIA Discussion Paper Series.

Table 4.3 above suggests that most of the LM-ASEAN has been consistently upgrading its custom procedures via modernization. Vietnam and Cambodia have demonstrated most significantly improve in customs mechanism. Despite a great afford by each of the country to modernize its custom procedures, the "custom gap" seems to be existed especially for Cambodia, Lao PDR, and Myanmar. This once again point to the fact that further development and assistant might be required in the next step to close down the gap of custom modernization.

4.1. Legal Frameworks and Customs Administration

CAMBODIA

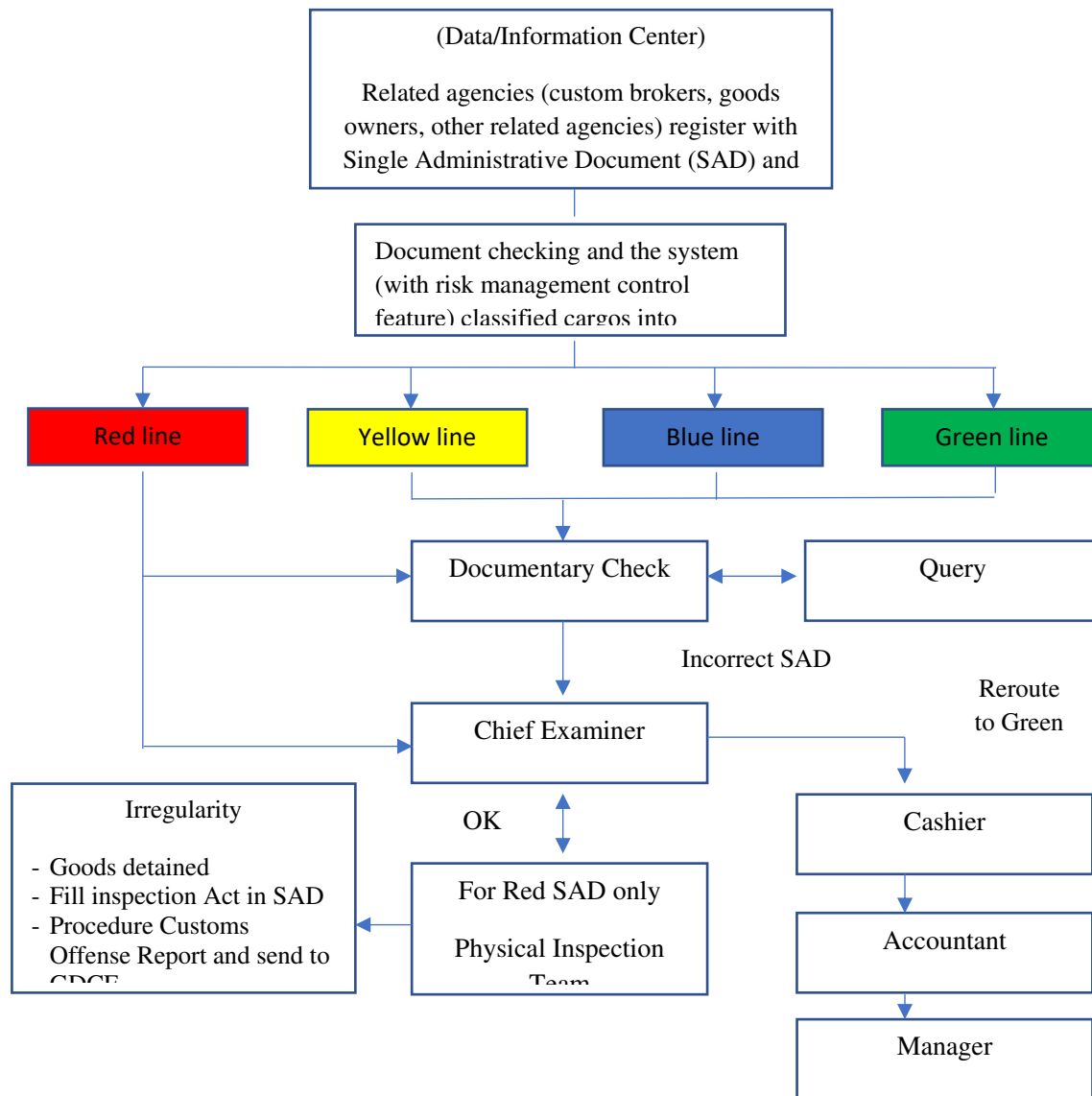
A strong commitment and political wills to modernization of custom procedures by the Cambodia government has pushed forward several reforms over the years. Despite the still strict custom clearance procedures and related domestic industrial regulations, much improvements have been experienced. The Cambodia's Customs Law in 2007 has been a major transform for the country in many aspects including various custom regulations, ministerial decisions, and circulation of director's post. Building upon a custom reform initiative in 2003, the General Department of Customs and Excise (GDCE) realized the need for administrative authority decentralization. Customs related technical decisions can be more effectively made at the branches and sub-branches levels. With key objectives of revenue collection and increase transparency (reduce illegal activities at the borders), GDCE implemented monitoring and control measures to allow for managers decision makings and at the same time impose some accountability to go with it. Another afford put in by GDCE was the issuance of a strategic review of current organizational structure and workload toward custom reform and modernization. Organizational structure changes will also relate to job performances and responsibilities on various tasks such as custom valuation, rules of origin, and risk management. In supporting the ASYCUDA custom automated system implemented, GDCE recognized there are needs for IT capacity of GDCE staff both at the central authority and at the border checkpoints. In 2009, a Customs-Private Sector Partnership Mechanism was established in order to get more involvements from related parties. The registered (licensed) customs broker program was also introduced. In doing so, GDCE created the Custom Training Center for human capital development purpose. However, needs for training programs still exist because of some budget limitation and technical knowledge availability as the automated system requires more IT skills and upgrading. Custom reforms in Cambodia has been replying on assistances from international organizations such as the World Bank, JICA.

The Cambodia General Department for Customs and Excise has adopted automation (available online) system for custom declaration with ASYCUDA system together with some features online e-payment but not a famous choice among traders. ASYCUDA at the current stage supports most of the features recommended for customs modernization progress in Cambodia. The automation system identifies the status of the consignment to be classified as; Green (release), Blue (subject to PCA), Yellow (document check), and Red (require physical examination), as part to risk control which help speed up custom clearance process. A significant portion of the key functions have already been implemented and in operation. Those key functionalities include;

- Standardized commodity HS codes used by the automated systems
- Tariff management
- Valuation system (covers database, verification, and updating)
- Submission and processing of manifest electronically
- Submission and clearance of goods declaration electronically
- Inspection management (except for automated assignation)
- Authorized Economic Operator (AEO) management (handle manually)
- Risk management and selectivity
- Non-intrusive inspection (scanning)
- Post-clearance audit (PCA) (except for automated assignation)

As an example of custom procedures in Cambodia, the flowchart below shows the steps to which cargos both export and import will have to go through at the Poi Pet custom checkpoint.

Custom Procedures Flow Chart (Cambodia)



Other related government agencies (OGA) are not yet linked effectively to the system and still handle documents manually. Other government regulatory agencies integration and the custom clearance process are handled manually for the moment. However, there are plan for future development to connect other government agencies to the custom automation system as the National Information Communication Technology Development Authority has been assigned to establish the national-level information technology framework and standard as the country moving toward NSW (Cambodia might be seen as an early stages of the NSW development).

Scanning system to facilitate custom clearance procedure was installed at the Phnom Penh port but is not available at the border custom checkpoint. In recent year, the important checkpoints, i.e., with high volume of trading activities and those are considered as a strategy point of entry to foster further economic development of the country, has been equipped with scanner facility. For instance, at the Poi Pet border, scanner machine had been installed and in operation. Since then, the custom office has experienced an

improvement in border procedures in terms of speeding the process and reducing in cost of border trade despite the existing traffic problem. There are plans to install the custom automation system (ASYCUDA) and scanner at selected border checkpoints as a plan to achieve NSW.

CHINA

With the accession of China to the World Trade Organization (WTO) in 2001, the country has experienced drastically growth in international trade and investment activities. This is well aware and the process of custom modernization has been in a driving force since 1994. The Chinese central government was in focus and expected an improving customs performance particularly on revenue collection purpose. China's Custom Law adopted in 1987 at the 19th session of the standing committee of the 6th National People's Congress highlighted the four mandatory functions of; (i) Control inward and outward bound means of transportation, goods, and articles (ii) Revenue collection covers custom duties, other taxes and fees (iii) Preventing smuggling and illegal activities and (iv) Collection of custom statistics and coordinate with other custom affairs. The Law later amended in 2000 at the 16th meeting of the standing committee of the 9th National People's congress. China reform toward custom modernization appeared in concrete as the modern custom regime was established in 1998. Two-phasing strategy was adopted; phase I from 1998 to 2003 and phase II 2004-2010. The core element for custom development in phase I was custom clearance system reform and phase II was to establish an enhance a risk management system. Phase I of the custom modernization includes the following initiatives;

- Modern customs legislation
- Modern customs compliance management, computation and application of information and communications technology
- Modern customs processing
- Enhance logistics control and supervision
- Post-clearance audit
- Enhanced internal administration
- Public relations

And the second phase covers;

- Comprehensive revenue collection regime
- Efficient anti-smuggling enforcement
- Modern custom control
- Updated management of customs bonded areas
- Smarter customs statistics
- New model of post-clearance audit
- Management of entry ports

By 2010, most of the phase II custom development strategy key indicators have been met.

China's customs modernization via the process of customs reform has been a continuing process since the adoption of more liberalization policy era. GACC has been the strategic and planning organization to improve customs efficiency as well as transparency. It coordinates with provincial customs to link with local authorities to ensure an upgrading customs administration at the border checkpoints throughout the country. Thus far, successful engagements have been implemented as many improvements in terms of facilities, equipment, customs administrative procedures, and officer capabilities are evidenced.

- China's custom modernization and custom reform started with the establishment of the General Administration of Customs China (GACC) which is the ministerial-level organization in charge of organizing and promoting the construction of electronic system customs clearance.

- The General Administration of Customs China came up with 5-year strategic plan covered 3 important areas for improvement
 - National Integrated Clearance System (Internal) – IT or electronic systems were installed and implemented: 2 centers are created
 - Risk Analysis Management System
 - Revenue Collection (Monitoring onsite)
 - 2018 reform was to combine Customs and Quarantine – a system to link related agencies to speed up custom procedures similar to NSW. Information Technology (IT) improvement to connect and allow for the issuing and viewing of electronic documents required such as export/import permit, related certificate for certain products, etc., has been installed for most of the government agencies involved. Joint inspection of government related to the consignments was also initiated.
 - The third Reform is focus on revenue collection – covering; customs guarantee, self-declaration/self-payment (audit monitoring), and advance ruling. In addition, a system of One Stop Service (OSS) was initiated to foster the development of custom procedures to enhance transparency and increase income from revenue collection.
- China’s IT system to support its custom modernization was self-developed according to the WCO standards. The system allows for interchange of custom information and are built to fit with the One Belt One Road custom information interchanging platform.

Another aspect of China custom modernization is the establishment of Authorized Economic Operator (AEO) Program of China Customs. The program has been running since its first initiation in June 2005 (Letter of Intent of SAFE was introduced) followed by the launching of AEO program in April 2008. In June 2012, the first AEO MRA was signed with Singapore. A total of 8 AEO MRAs³ were signed by December 2017 with 10 more are in the negotiation process. Most recently, the most updated AEO program (MECM) was launched in May 2018. The AEO program focus on 8 areas including; 1) lower inspection rate, 2) exemption of guarantee, 3) reduced auditing, 4) prior declaration, 5) coordinator, 6) AEO MRA benefits, 7) joint incentive, and 8) prior clearance. As an integrated process, the AEO program help improve the efficiency of China customs procedures by reducing import time requires to 24.97 hr. and export to 0.82 hr. according to Kunming custom.

LAO PDR

Lao's custom modernization has been gearing toward a smooth implementation of ASYCUDA custom automated system provided by the World Bank. The preparation started in 2005 when the 1994 Custom Law was amended in an attempt to modernized certain aspects. Unfortunately, the amendment was not adequate to lead to an effectively custom reform and modernization. Despite some significant progress to improve custom administration and custom procedures at the border gates, there are still some existence of unnecessary delays at the custom clearance due to lack of facilitating equipment and infrastructures. The Lao PDR Custom Department has been struggled to effectively implement risk management feature of the automated system with most of the consignments are subject to inspections. The recent implementation of the automated system help improving part of the custom procedures but some supporting facilities and supplementary are needed. In terms of staff capacity and capability, the Lao PDR Department of Imports and Exports under the Ministry of Industry and Commerce has found lacking and become the major obstacle

³ Singapore, South Korea, H.K. China, EU (28 M.S.), Israel, Australia, New Zealand, and Switzerland are partner countries with the AEO MRA signed.

for its customs modernization process. A lacking of proper custom training center with financial limitation for capacity development were cited as requests for assistances from abroad. As a consequence, Lao PDR has been slow in reaching international WCO's commitments.

The ASYCUDA⁴ custom automation system has been put into operations in Lao PDR since 2012, covering 24 international customs check points, and SEZ (Logistics Park) in Savannakhet. ASYCUDA is part of the investment project on Customs modernization funded by the World Bank. Its objectives and results achieved in many of the custom improvement aspects including efficiency of the customs administration and the effectiveness of the custom administration. Reduction of the number of steps for cargo clearance, reduction of the mean of shipment clearance time are just some of the key indicators observed by the World bank study. Moreover, it was also shown that there was an achievement in the reform of custom institutional structure and regulations in supporting e-custom procedures and thus, there is a significant improvement of custom administration and operational capacity in Lao's custom system.

Despite all of the benefits of ASYCUDA implemented, there are some concerns over budget to maintain and upgrade the system. Lacking of a concrete allocation of budget for upgrading the system, it is difficult for custom authorities to be fully efficient and effective as the volume of trade and numbers of linked check points increased.

- ASYCUDA custom automated system has been implemented since 2013 including 24 international customs checkpoints. A “Data recovery center” also established in Vientiane to handle the flows of trade information.
- The aim of Lao's custom modernization at this stage is to achieve the requirements for NSW which in some assessment by international organization such as ERIA sees it is at the early stage of implementation.
- On payment procedures, the “Smart Tax” system was initiated in 17 custom checkpoints with plan to expand to cover 15 traditional domestic checkpoints (only border trade for local passengers) for the facilitation of online payment.
- NACCS and UNI-PASS are considered as upgrades to the electronic Customs clearance system in the upcoming years.
- Scanners and mobile scanners are needed to facilitate custom modernization in Lao PDR

ACTS (ASEAN Customs Transit System). Lao PDR needs to invest in hardware, such as server and computers, and others with the cost estimate of US\$ 200,000. It rolls out to 6 checkpoints, namely Friendship Bridges 1, 2, 4, Vientiane, Nongkhai, Lao Bao–Dansavanh, Nampha–Cau Treo) --- (i) 2 border checkpoints

⁴ The UNCTAD Automated System for Customs Data (ASYCUDA) is an integrated customs management system for international trade and transport operations in a modern automated environment.

Advanced software applications are designed and developed for customs administrations and the trade community to comply with international standards when fulfilling import, export and transit related procedures.

ASYCUDA Programme, UNCTAD aims at:

- Modernizing customs operations and helping to improve revenue collection
- Facilitating trade efficiency and competitiveness by substantially reducing transaction time and costs
- Improving security by streamlining procedures of cargo control, transit of goods and clearance of goods
- Helping fight corruption by enhancing the transparency of transactions
- Promoting sustainable development by cutting down on the use of paper, using electronic transactions and documents

in connectivity with Thailand, (ii) 2 checkpoints with Viet Nam, and (iii) 1 check points in connection with Cambodia. This is funded by state budget (MoF)

Authorized Economic Operator (AEO) –WCO–SAFE Framework: On progress (draft instructions to AEOs). LMC thorough Mekong Institute (MI) can support in capacity development to facilitate the cooperation AEO cooperation between and among the countries. At present, the implementation has not been in operation. The Project may take part in facilitating the negotiation and cooperation in AEO between and among the countries, particularly LM countries.

MYANMAR

Outdated registration and limited adoption of information technology has led to concerns over Myanmar custom administration and procedures. Myanmar has been actively involved in global arena with WCO and WTO (trade facilitation) membership. The two basic (but outdated) Custom legislation in Myanmar are (i) the Sea Customs Act of 1878 and (ii) the Land Customs Act of 1924 which are partly amended in recent year. The amendment was to adopt some of the features to comply with various commitments made with the WCO and WTO status. In addition, Myanmar also made a significant revision of its customs laws such that it meets the requirements of the Revised Kyoto Convention. At the regional level, Myanmar has been actively participating in the GMS and ASEAN agreement with the custom related chapters and articles. MACCS custom automated system was adopted in 2013 with limitation in the risk management feature fully in place. Although Myanmar Custom Administration has not been completely commenced automation, Myanmar's authority realized that electronic custom (by adopting more IT) is a key steppingstone toward its goal of custom modernization. The UNI-PASS custom system and procurement developed by the Korea Custom UNI-PASS Information Association (CUPIA) is under cabinet consideration as future improvement.

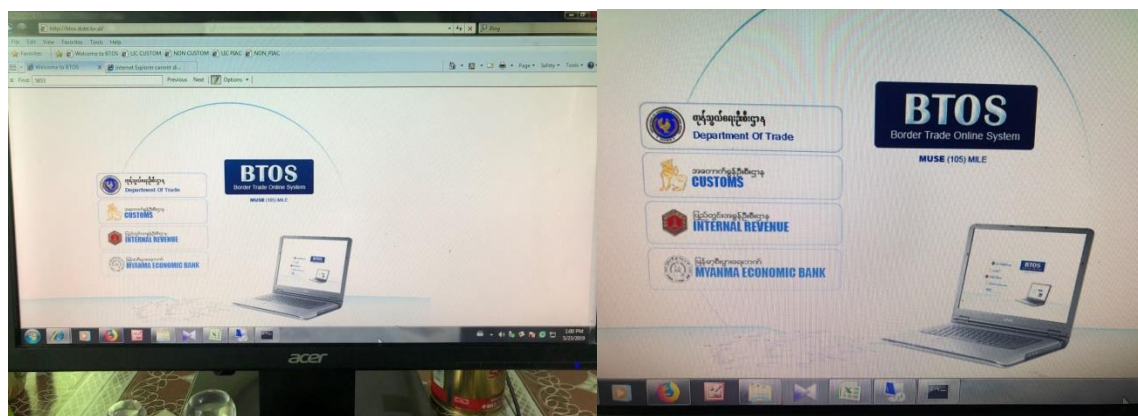
Custom automation system has been initiated since July 2013 and in June 2018 the Nippon Automated Cargo and Clearance System (NACCS) (developed by JICA) was installed. Since the inception of the automation system, custom department has experienced improvement in many aspects including; reduce time and cost of trading, more accurate trade data, establish linkages with and sharing cargo information with other agencies. In addition, there are plans to expand the custom automation services to selected border checkpoint due to limited budget available with plan for Muse in 2021 also at Mae Sai-Thachilieik and Mae Sot-Myawaddy. Expected investment funding to be \$1 million for each custom site.

On the payment system, there are some problems in practice as traders in Myanmar still lacking trust in the online system due to country's security reasons. Familiarity of the previous manual system still consider to be more popular in many borders custom checkpoint. Similarly, for custom clearance, exporters and importers still rely on authorized custom brokers to handle the processes manually despite the availability of the online system

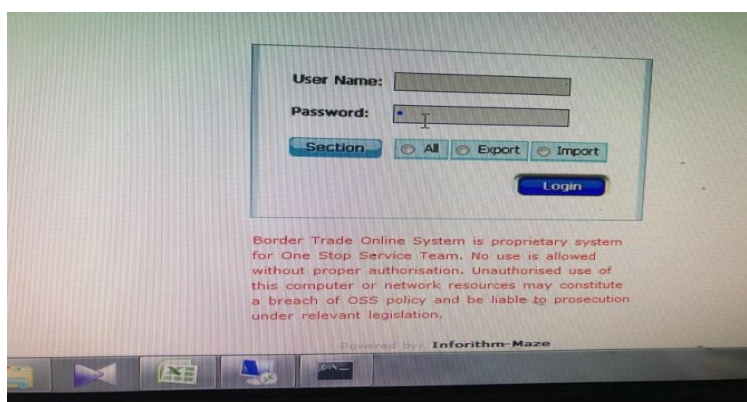
Box: Ruili-Muse Checkpoint as an Example of Myanmar Custom Modernization Status at the China Border

In this study, Myanmar’s Muse custom checkpoint is one of the sites selected to visit for relevant information reflecting the development of Myanmar custom modernization. At the Muse custom checkpoint, With the support of international funding, the Border Trade Online System (BTOS) was developed and administrated by the Department of Trade, Ministry of Commerce to facilitate One-Stop-Service (OSS) at Muse Trade Zone (105 Mile). BTOS is a Local Area Network (LAN) and was used for “development of a customs database and other activities such as trade statistics, duty calculations, data sharing and communication with other customs related trade communities.” Muse’s OSS working staffs are divided into 8 working groups consist of (1) Office (2) Import Inspection Group (3) Export Inspection Group (4) Vehicle Inspection Group (5) X-ray Inspection Group (6) Lashio Gate Inspection Group (7) Pan Saing (Kyu Kote) Gate Inspection Group and (8) Muse Gate Inspection Group. The screenshots of the BTOS automated custom system implemented at the Muse checkpoint are provided below.

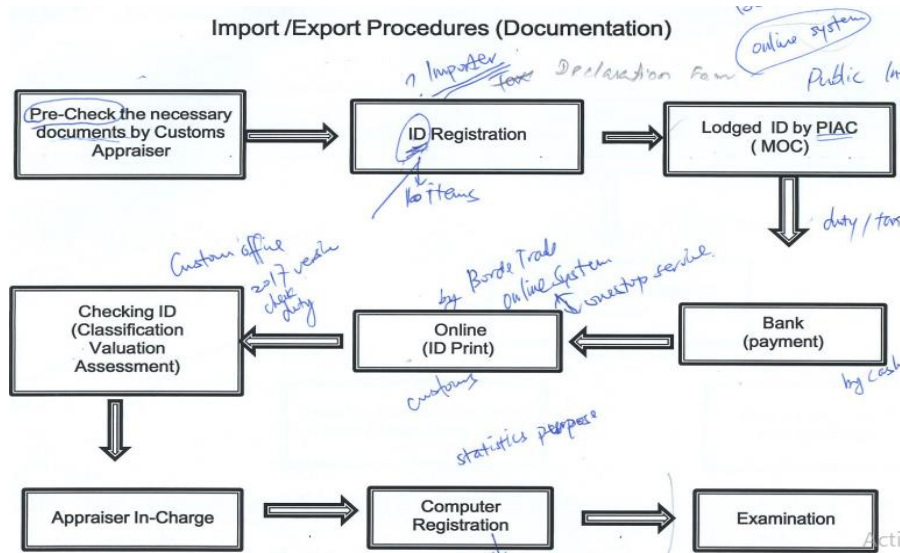
Picture 4.1: Some Screenshots of the BTOS Homepage for OSS Team at Muse 105 Mile Trade Zone ([Http://btos.dobt.local/](http://btos.dobt.local/))



Picture 4.2: Log in Interface for each OSS authority at Muse Custom Checkpoint

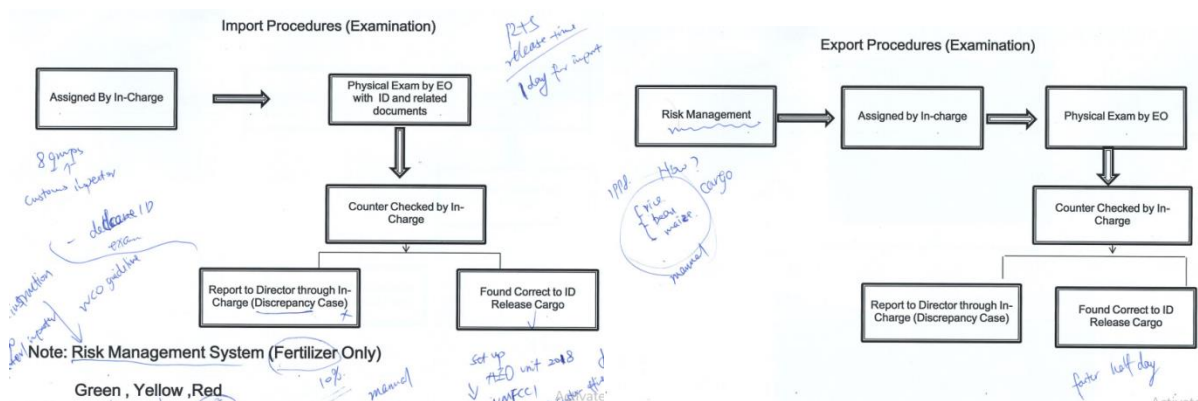


A flowchart of custom procedures to show custom documentation flows can be summarized in the following picture. Registration of the exporter, importer, or custom broker (users of the system) is required in priority to get access to the system so that the custom department can have an initial screen and get some general information for further assessment.



Source: Customs Department, Ministry of Planning and Finance, Myanmar, May 23, 2019 ⁵

Inspection process is a crucial part in custom clearing. The automated system allows for an integration of submitted information to be cross check with physical appearance of the goods in the consignment. Risk management scheme is employed to make sure that the custom system can operate effectively; less costly, minimize illegal activities, and preciseness of valuation and revenue collection.

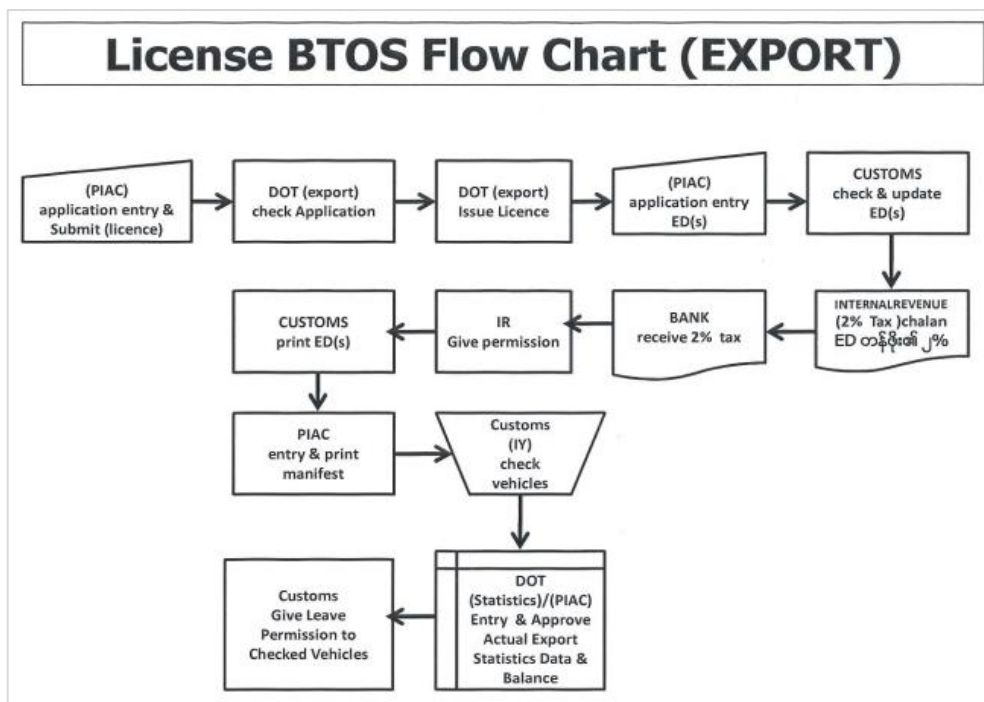


⁵ ID: Import Declaration; PIAC: Public Internet Access Center

Muse customs applied Risk Management System for imported Fertilizer only. The inspection guideline was prepared to instruct related officers to categorize the imported fertilizer cargo into Green, Yellow and Red label. For those fertilizer cargos listed into Green label, the cargos will be released without open-up inspection. For Yellow category, it needs to be further inspected by X-Ray machine; whereas the Red label needs to conduct open-up inspection manually. As introduced by the officer in charge, on average, about 10% of fertilizer cargo required physical inspection manually.

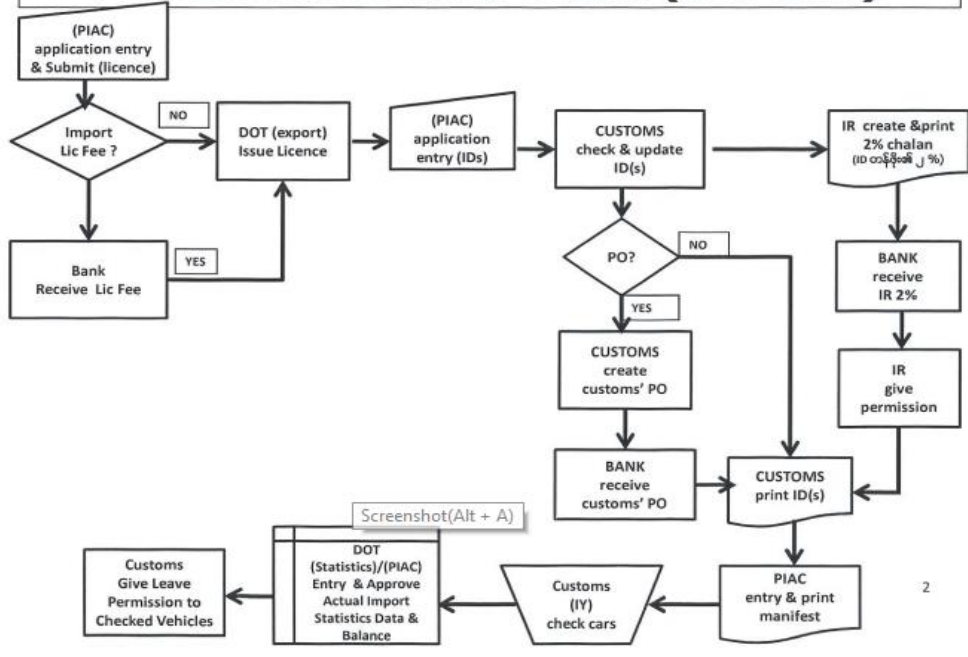
For exported products, the Risk Management System mostly focuses on cargos carrying Rice, Bean, and Maize where the destination is mostly Thailand. The **average release time** for importing cargos will take one day while for exporting cargos will take half a day.

Picture 4.4: BTOS Flow Chart for Export and Import ⁶

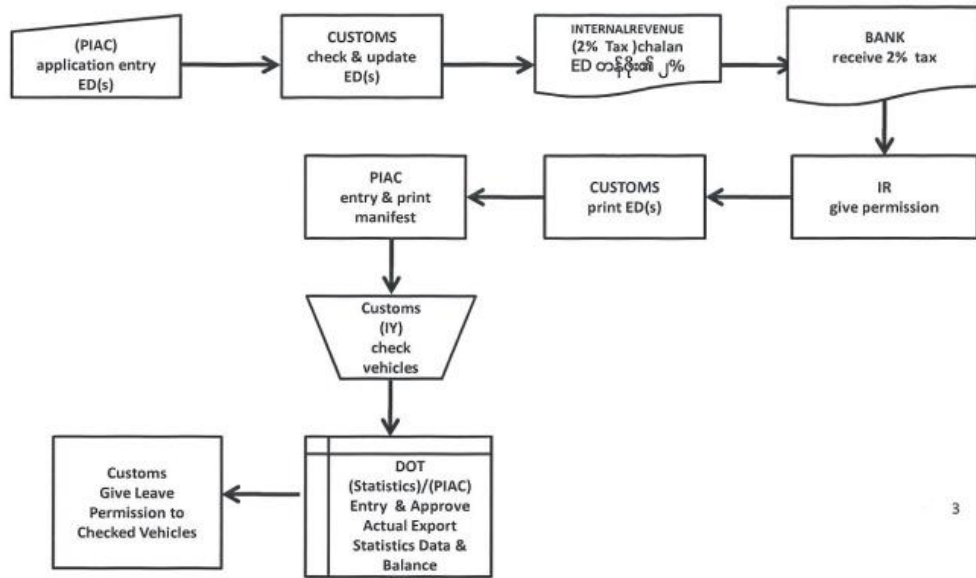


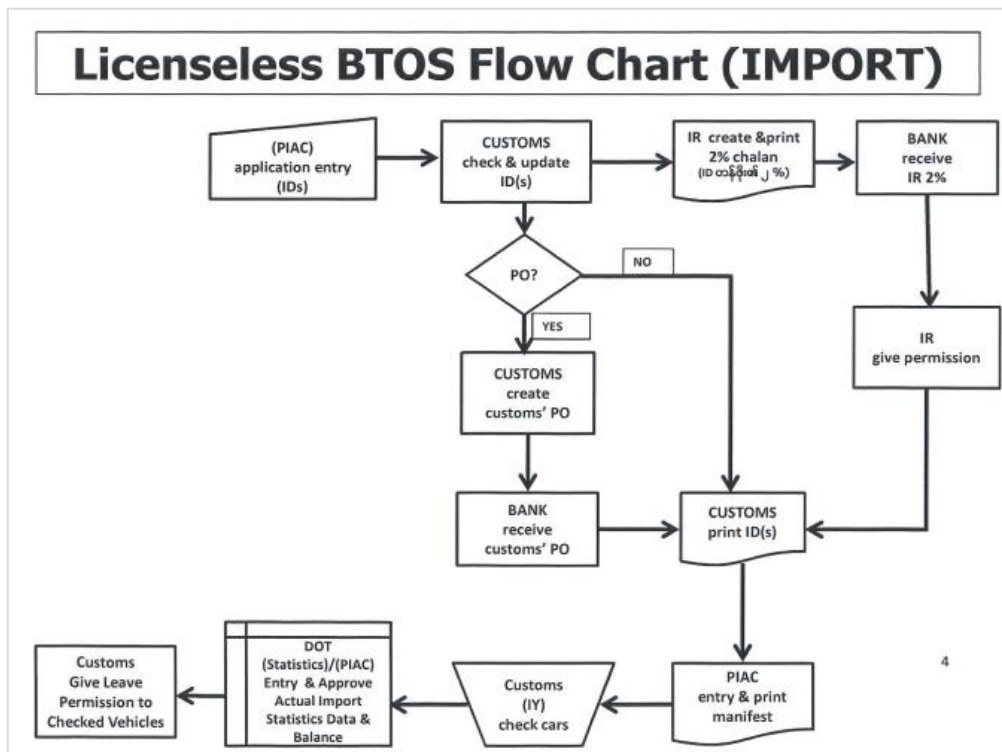
⁶ ID: Import Declaration; ED: Export Declaration; PIAC: Public Internet Access Center; IR: Internal Revenue; PO: Payment Order; IY: Inspection Yard; DOT: Department of Trade.

License BTOS Flow Chart (IMPORT)



Licenseless BTOS Flow Chart (EXPORT)





Myawaddy is another custom checkpoint the research team visited. Summary of information obtained are very useful and consistent with the custom procedures observed from other Myanmar checkpoints. Some of the Myawaddy custom checkpoint background information are provided as follows;

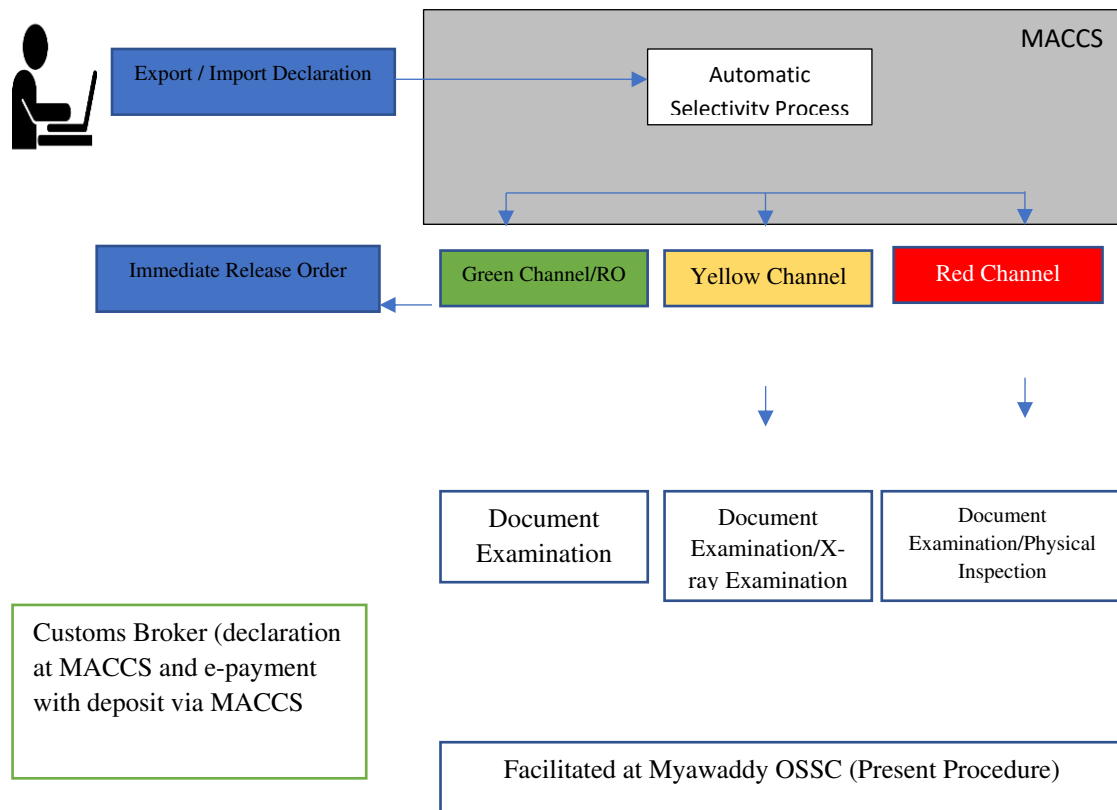
- The Myawaddy is a connecting gate to Kayin State's Myawaddy township with the town of Mae Sot, in Thailand's Tak province and it is the second largest land border trade for Myanmar behind Muse border gate.
- The Myawaddy Trade Zone was established in 2006. The total area of the Zone is 315 acres. It is located 12 kilometers from Myawaddy on the way to Thin Gan Nyi Naung, more importantly on the EWEC heading to Thilawa SEZ, Yangon.
- Warehouses are mostly located within three to five kilometers from the Thai-Myanmar Friendship Bridge. These warehouses are available for rent to private local entrepreneurs and broker trading companies. Broker companies can also arrange their own warehouses.
- The custom checkpoint is one of OSSC established in the Myawaddy Trade Zone.
- Myanmar's main exports to Thailand through Myawaddy are agricultural, fishery and forestry products while its main imports are batteries, milk powder, and consumer products like toothpaste and soap. Recently, maize export to Thailand has been increasing due to high demand in Thailand.
- Top Thai exports to Myawaddy are sugar, mobile phones and accessories, carbonated drinks, beer, energy drinks, printed cotton fabrics, farm machinery, motorcycles, oil and televisions. Top imports from Myawaddy are cattle, antimony, wooden products and second-hand goods.
- Average about 1,200 cargo trucks per month from Thailand cross the gate to Myawaddy.



Customs Procedures and Challenges

- MACCS Border Trade System was launched in March 2018 as a pilot program at Myawaddy border gate, the second largest trade city in Myanmar. A full-fledged operation was deployed in June 2018. It helps to digitalize the border customs procedures. The system was recently upgraded with the technical assistance of JICA experts in June 2019. Since operated in June 2018, the system has been running smoothly apart from sometimes facing interruptions of internet connection and electricity. Referring to the director of the Myawaddy Customs Department, the speed of the customs services has been much better with MACCS and it plans to undertake regular upgrading the system as required. The schedule maintenance and upgrading are planned by the main custom department office. Technical assistant is available upon request as problems with the system persists.
- MACCS registered users can access to the system online using their own computer and upload supporting documents for the customs declaration. The system facilitates the automation of declaration process and includes support function on import/export declaration, automatic check of declaration contents, automatic calculation of tax, automatic examination and e-payment (only with deposit at Myanmar Economic Bank). The system's automatic selectivity process will identify documents and determine channels (green, yellow and red). To the green channels, immediate Release Order (RO) will be granted once the payment is done. For yellow channel, documents and X-ray examination are required to obtain RO. And to red channels, documents and physical inspection by custom officer are required. Consequently, it needs document resubmission or RO will be issued afterwards. Percentages of automatic selectivity process account for 60% for the green channel, 30% for the yellow and 10% for the red.
- Registered yellow card holders of the customs brokers are usually the users of the MACCS and receive training from the Customs.
- Customs brokers receive trainings on how to utilize the MACCS from the Customs in order to obtain authorized registration number and access to the system. They are called as "Yellow Card Holders". The customs organize trainings and workshops for private sectors when the system is upgraded, or the procedures are adjusted.

Picture 4.5: Custom Flowchart at the Myawaddy Custom Checkpoint



- Myanmar customs at Myawaddy border gate uses the temporary admission paper that allows Thailand cargo trucks to go from the gate (No. 1 Thailand–Myanmar Friendship Bridge) to warehouse areas within the Myawaddy trade zone, where they load and unload. There is no customs warehouse so that importers/exporters are using private own warehouse in the trade zone.



- It is noted that the customs conduct occasional inspections to trucks and warehouses as needed. Physical examination to goods is done at OSSC center according to results of the MACCS system.

Future Plan

- No. 2 Thailand–Myanmar Friendship Bridge is set to open in 2019. At the bridge No 2, full customs operations are planned to be done including inspection, examination and scanning. JICA supports for operation facilities such as equipment and infrastructure in setting up the new customs points at the No 2 bridge.
- The Myawaddy customs house plan to organize capacity building trainings for the customs officers as well as private sector such as the customs brokers. These trainings will be more necessary when the MACCS system is upgraded.
- At the No 2 bridge, VCCS (Vehicle Cargo Control System) will be installed to monitor the movement of the vehicles entering the trade zone through the gate and featured as a mobile app. Trucks will be viewed and recorded in the app in order to know their border crossing activities and destinations. It will be technically and financially supported by JICA.
- To support future advancement of the customs at the Myawaddy gate, the following equipment and facilities are considered to be installed:
 - o Handheld Trace Detector
 - o HI-Scan 100100T – for the art X-ray inspection system for the scanning of objectives up to a size of 100 x 100 cm.
 - o A customs lab at Myawaddy gate – to detect the dangerous goods.
 - o Walk through Metal detector
 - o Security camera and equipment (CCTV)
 - o Customs warehouse construction and related facilities

THAILAND

Thai Custom Act has gone through series of amendments as the country underwent the process of custom modernization. The amendments allow Thai Customs Department to adopt numbers of best practices set out in the Revised Kyoto Convention. In general, custom laws and regulations amendments has been paving way for the transformation from manual to electronic custom and to online custom automated system. In 1998, a system of electronic custom data interchange was implemented to control all custom operations for export. The system was expanded to covers importation and fully implemented nationwide (at seaports and airports) in 2000.

Thailand's custom automation system has been developed in according to the World Custom Organization (WCO) guidelines. The system has been in place and implemented to all border checkpoints. All three custom procedures covering 1) Custom Declaration 2) Custom Payments and 3) Custom Clearance, are engaged in electronic form under Thailand e-custom program initiated as a stepping stone toward National Single Window (NSW) practice. At the current stage, the Thai NSW has already been established and fully implemented. And the next step is to work toward ASEAN Single Window (ASW) in according to the related agreements signed by the government. It was pointed out in the discussion that there is a possibility of some problems in the harmonization process as custom related information need to be exchanged among customs officers and other related agencies. By recognizing the difference custom automation software are used in

the LM countries; i.e., ASYCUDA⁷ in Lao PDR, Cambodia, and Vietnam but Thailand is using the Thai developed custom automation system⁸.

Implementation of Customs Modernization and Procedures in Thailand

The Thai Customs Department began employing a paperless e-customs procedure in January 2005 and fully implemented in 2007. Specific targets were set by Thailand Customs Department on customs clearance times as follows;

- i) For consignment requires a physical inspection, customs clearance time is no longer than 30 minutes and
- ii) For consignment requires an X-Ray inspection, the customs clearance time is no longer than 15 minutes.

Import and Export Procedures are as follows;

Importation/Exportation

Under the Thai custom regulations, all goods import to/export from Thailand are subject to reported to the Customs department. The following 5 steps are required for all import/export shipments.

Step 1 – Registration to access the e-customs system

Traders/Authorized custom brokers or agencies need to acquire a “digital certificate” (an electronic signature file used to confirm the identity and authentication of sender of related electronic documents. This is required for an access to any online operations. It is essential because the Thai e-custom system is a

Registration for the use of e-custom system either directly by the company or through an authorized agent. The following procedures are required.

- Installation of the e-custom software with digital certificate verification
- Trader must register with the Thai Customs via one of the following portals; the Registration and Customs Privileges Sub-Division, Customs Procedures and Valuation Standard Bureau, or the General Administration Division at each of the custom office.
- Testing for the accuracy and readiness of messages exchange with e-customs system
- With a successful test, the communication and IT Bureau issues e-customs registration ID

⁷ The UNCTAD Automated System for Customs Data (ASYCUDA) is an integrated customs management system for international trade and transport operations in a modern automated environment.

Advanced software applications are designed and developed for customs administrations and the trade community to comply with international standards when fulfilling import, export and transit related procedures.

ASYCUDA Programme, UNCTAD aims at:

- Modernizing customs operations and helping to improve revenue collection
- Facilitating trade efficiency and competitiveness by substantially reducing transaction time and costs
- Improving security by streamlining procedures of cargo control, transit of goods and clearance of goods
- Helping fight corruption by enhancing the transparency of transactions
- Promoting sustainable development by cutting down on the use of paper, using electronic transactions and documents

⁸ Vietnam currently has a plan to develop its own custom automate system so that it can be complied with the Vietnamese custom development features.

Step 2 – Review and Control of Goods

- Identification of Control Requirements;
 - o To identify if import permit is required
 - o To identify if goods are classified as “red line”
- Import Permits
 - o Permissions to import/export is required for various products which are issued by other government agencies such as Department of Foreign Trade - Ministry of Commerce, the Food and Drug Administration - Ministry of Health, etc. The list of products that requires permission to import/export is available online. Officials are working to integrate the permit application process into the e-customs system. Currently, about 50% of the related government agencies have been equipped with electronic permit applications.
- Red line classification
 - o The imported/exported products classified as red line are considered to be high risk or it requires additional certification or verification upon arrival. The e-custom system will automatically identify the imported/exported cargo on Import/Export Declaration submitted based on risk management scheme provided in the automated system. More of the following supporting documents are needed for importation/exportation of such product;
 - Bill of Lading (B/L) or Air Waybill
 - Invoice
 - Packing List
 - Import/Export License (if required)
 - Certificate of Origin
 - Other related document (e.g. list of ingredients, technical standard certificates, Food and Drug Administration approval, destination information, etc.)

Step 3 – Submission and verification of declaration

Submission of an Import/Export Declaration can be proceeded when all the required documents are ready. All of the documents and information will enter into the e-custom system together with an arrival report which provides information on the carrying vessel. The system will check and verify on any discrepancies then classify whether the consignment is green or red line.

Step 4 – Payment of Duties, Taxes, and Fees

For imported/exported products that are subjected to duties (tariff), taxes, and any applicable fees, the payment can be made at the Customs Department of the port of entry or via e-Payment feature of the e-Customs system. More complicated procedures can be applied for shipments that request for some tax exemptions or refunds (via investment promotion incentives or other government incentive schemes).

Step 5 – Inspection and Release of Cargo

Inspection before releasing the shipments;

- The inspection procedure of shipments classified as green line cargo is simply an online document screening which only takes a few minutes.
- For red line cargos, physical examination by the custom officers is required together with all of the necessary supporting documents.

After the implementation of Thailand's e-custom and Thailand NSW (initiated in December of 2005), improving in customs procedures has been experienced together with an increasing in trading activities especially at the border customs checkpoints. The main objectives of the creation of NSW has been recognized covering 1) an upgrading to facilitate trade (exports and imports) and logistics 2) improvement of facilities to support inland and cross-border movement of goods 3) Reduction of national logistic cost and 4) increase national competitiveness. Cross-border trade volume has increased significantly over the last decade and the efficiency of customs procedures was seen as a key contributing factor.

VIET NAM

Viet Nam has reviewed and amended its Customs Law in the last 10-20 years. The prevailing law is the Customs Law 2014. The under-law documents, i.e. degrees, circulars were issued to guide the implementation of related laws and regulations. In this regard, the national law internalizes the international customs standards under the international conventions and agreements to accelerate its integration process to better facilitate international trade in parallel with effective custom administration in terms of prevention of smuggling and illegal trade, and securing the government revenue.

In brief, the issues on customs reform on customs procedures and administration, customs modernization, internalization of international customs standards to meet the requirements of economic integration, trade facilitation, control of illegal trade and smuggling, and government revenue are critical to the national law and regulatory framework on customs in Viet Nam.

Vietnamese custom has gone through a degree of custom upgrading as international trade and investment activities have become the major features stimulate its economic growth over the years. Current custom strategic development plan announced in 2016 for 2016-2020 set three strategic objectives of customs reform and modernization including:

- (1) Facilitation and control of traders, related entities, and individuals in custom transactions
- (2) Improve quality and efficiency of nation management in custom related areas by enabling information exchange and cooperation with related ministries, government agencies as well as other domestic and international organization.
- (3) Supporting capacity upgrading of custom administration at all level with a gradual development of e-custom administration under the national framework of e-ministerial and e-government.

The custom strategic development plan for 2016-2020 highlight what has been achieved for Vietnam custom over the last decade as the volume of international trade, both inland and marine, has been rising significantly.

1. National legal and institutional framework (Laws and Regulations on Customs)
2. National customs administration and procedures:
3. National Strategies on Customs Development
4. Regional Customs Cooperation Initiatives / Programs
5. National Trade Facilitation Initiatives
6. Regional Trade Facilitation Agreement

To cope with international commitment and standard in custom related issues, VN Customs has committed to implementation of the international conventions and agreements: Revised Kyoto Convention (WCO), WTO TFA, Istanbul Convention (ATA Carnet), ASEAN Customs Cooperation Agreement, GMS CBTA, ASEAN Single Window, and Free Trade Agreements (FTAs).

An international custom standardization and commitment have also been pursued in an effort to further improve on custom modernization. Viet Nam has negotiated with WTO on trade facilitation measures and will include them in the national law. At present, VN Customs has cooperated with the development partner, i.e. USAID, to prepare and implement the WTO TFA with a focus on customs-related measures in line with the timeframe under this commitment.

As a matter of fact, Viet Nam Customs has prepared for joining the ATA Carnet under Istanbul Convention⁹ since 2017. Joining the ATA Carnet, e.g. (i) granting ATA Carnet mechanism, (ii) guarantee, (iii) implementation procedures, and (iv) coordination mechanism between the related agencies with customs officers and Viet Nam Chamber of Commerce and Industry (VCCI) will help the Customs Department to better facilitate enterprises' trade activities, especially trade in transit.

e-Commerce Standards

The demand for e-commerce custom standard stems from the two simple facts; (i) the improvement of enabling technologies, such as a higher internet penetration and the development of e-payment systems, and (ii) an increase in consumers appetite for online services especially a potential rising of cross-border e-commerce. Development of new platform to facilitate e-Commerce is needed in line with economic development progress. The project on Cross-Border e-Commerce Facilitation is now under preparation and will be implemented by the country itself. One of the key objectives is to secure the Government revenue while facilitating trade in an effective manner.

Customs Task Force at Co Sau Border gate. Co Sau is a secondary border gate located outside Dong Dang - Lang Son border economic zone (Cao Lau commune, Cao Loc district, Lang Son province). It is about 15 km far from Huu Nghi border gate, and in connectivity with Pac San border gate, Guangxi Province, China. The customs task force was established in 2012 to serve cross-border trade in these locations. The implementation of the task force aimed to promote import and export activities and socio-economic development in Lang Son province; and

⁹ (The ATA Carnet is jointly administered by the World Customs Organization (WCO) and the International Chamber of Commerce (ICC) through its World Chambers Federation)

- Customs Task Force at Po Nhung border gate

Huu Nghi is an international border gate in Lang Son province. There are five (05) Customs Branches in the province:

- **Huu Nghi** Border Gate Customs
- **Chi Ma** Border Gate Customs
- **Coc Nam** Border Gate Customs
- **Dong Dang** (Rail Station) Customs
- **Tan Thanh** Border Gate Customs

Customs reform has improved the management processes and customs operations in line with the objectives of institutional reform, and customs modernization in terms of simplification of customs procedures, and application of information technology for customs automation.

At present, all customs task forces under the management of Huu Nghi Customs are connected one another through the VNACCS/VCUS.

About 100 customs officers work at Huu Nghi Border Gates.

Import – Export

- The key products exported via Huu Nghi border gate are agricultural products from Viet Nam and Thailand, including durian, longan, custard apple, mango, tonal chilly, handicraft, and wooden products.
- Trade volume: 100–200 trucks per day on average [It is not clear about the tonnage of agricultural products per truck]. The export volume of agricultural products from Viet Nam is subject to market demand in China [Guangxi province]. In order to facilitate and accelerate customs clearance of agricultural products, the Vietnamese customs task force coordinate with the Chinese customs task force in prioritizing customs clearance processes for perishable goods. Doing so, it normally takes 05–10 minutes for each truck to finish customs clearance procedures.
- The key products imported via Huu Nghi border gates are machineries, equipment, trucks and specialized trucks, chemicals, and consumer goods mainly from China. They include goods in transit. As for temporary import for re-export, the destined countries are Lao PDR, and Cambodia. The border gates in Viet Nam for goods in transit to Lao PDR and Cambodia are Cha Lo, Sa Mat, Cau Treo Border Gates.

Taxes and Fees [for the Government revenue collection]

- Customs is responsible for collecting taxes and fees imposed on traded goods. Annually, Huu Nghi Customs collects from VND 2,000 – 3,000 billion on average (US\$ 86 million – US\$ 128 million equivalent).
- As for 2019, the revenue target for Huu Nghi Customs is VND 2,200 billion equivalent. By the end of May 2019, 50 percent of the said target was achieved.

4.2. Development of National Customs Administration System and National Single Windows towards Paperless Trade

Custom modernization is an ongoing process and dynamics. It requires a great affords internally from each member states as well as collaboration between countries. It has been shown that custom authorities are always faced with a challenge to overcome limited resources. Seung Hyun Cha (2017), highlights the gaps between custom workload and resource exists and the "partnership" gap; among privates, between private and public, and between countries, is the widest in recent year. Automation gap has been narrowed over time. There are also gap in risk management and law compliance gap.

Obstacles leading to the delay of customs procedures and hence, time consuming and unnecessary cost, have to a greater extend involved with operations of other government agencies. This is also related to an increasing trend of non-tariff measures being deployed by the state members. In general, the clearance process does not take long because of the automated system installed and if all of the required documents are available in electronic forms and online.

CHINA

China over the course of the years has been very successful in customs modernization through several version of custom reforms. Customs procedures have been more standardized according to the international practice. Custom administration and information exchange between related parties are linked with an up to date information technology system. Revenue collection and custom transparency remain the two priority objectives for the custom reforms and modernization. More decentralized system but linked via electronic networking has been the crucial change at the policy level and leading to the accomplishment in custom efficiency improvement.

Planning and Management Capacity of Customs

- China's for future development of custom modernization is to move forward from the phase II of the strategic plan set out earlier which emphasized on effectively risk management scheme. The plan is to further improve in efficiency and effectiveness at the border via more advance technology in custom function handling. The need for cross-border e-commerce equipment and establish standard custom procedures to be applied.
- International custom collaborations are part of the next step of custom modernization for China where agreements both at the regional and multilateral levels of custom standardization, harmonization, and information sharing are essential. Custom Departments in China for the most part is ready to engage in these further steps highlighted.

CAMBODIA

Most of the customs checkpoints interviewed and visited in Cambodia have the automated declaration system as the ASYCUDA software was adopted. There are plans to expand the coverage of the system to cover most of the identified as important checkpoint. This has to be handled in a phasing manner due to the lack of supporting resources and personnel. The evidences suggest there are still needs for both physical as well as soft (both technology and skill development) infrastructure to support Cambodia's customs modernization process. In an attempt to closing down the LM countries' custom modernization gap, a speedy custom upgrading and updating is crucial such that for the more advanced country to move toward another

step of custom advancement which requires some certain degree of harmonization of the system and exchange of information.

Planning and Management Capacity of Customs

- There are plans for future building up of custom capacity to support growing or potential rise of trading activities at the border. For instance, the need for container x-ray for random inspections under customs risk management is identified.
- Preparation of more customs officers for better and more effectively handle customs duties. Capacity building both in terms of training and information or specific knowledges exchange will be greatly useful especially when NSWs are more implemented. Also, further upgrading into ASEAN Single Window requires more understanding of the member's NSW such that it could lead to greater implementation of CCA and harmonization or standardized of customs procedures.

LAO PDR

In addition to the progress of the Lao government has done toward custom modernization as mentioned above, several related custom standards and mechanisms to support the process toward national single window has also been put in a pipeline.

On the implementation of CCA (SWI/SSI) mechanism as part of customs modernization, working offices and facilities (e.g. CQI) have built, but not in use. It implied that non-physical or software barriers are the main reasons to impede the CCA (SSW/SSI) implementation. Thus far, it has been difficult for both sides to work collaboratively to utilize to CCA physical infrastructure due to some legal and regulatory issues. In addition, it is also reassured that setting up of CCA could be another useful mechanism for custom modernization only that the implementation of such procedures requires greater collaboration and understanding from both sides. Harmonization of custom procedures and exchange of information can support further improvement of CCA and closing the gap by upgrading custom practices can be further explored. To foster CCA, at least three key features need to be improved; 1) each side need to form a permanent and authorized committee 2) the two committees need to set up meeting on a regular basis to strengthen the relationship and collaboration and 3) a certain degree of bilateral or regional agreement needs to be reached in terms of exchange of information and harmonization of related documents and regulations. It was also noted that the implementation of CCA at Lao Bao–Dansavanh border crossing points have also faced certain challenges in terms of multiple physical inspection of cross-border cargos; and data/information sharing mechanism.

Customs Infrastructure and Facilities and Automation

X-Ray Container Scanners are allocated intermational border gates, including Nongkhai, Bokeo (biggest border check point), 04 Friendship Bridges (the 4th Friendship bridge is located at Houaxay in connectivity with Chiang Khong, Thailand), At present, there are 8 scanners in the Laos Customs system with the loans provided by of the Chinese government. Laos Customs will cooperate with a private company (Scanner Manufacturers) to procure two more scanners in the upcoming year in response to an increasing demand at the border.

Backscatter (Mobile scanner type) to inspect vehicle and cargo, especially in far and remote areas. This is not yet in operations. Laos Customs is now cooperating with JICA on this investment. One mobile scanner is requested from JICA. The cost is lower than that of container scanner.

National Single Window (NSW)

At present, the Lao Customs Department and 2 other ministries take part in the operations: (i) Transport Department under MPWT issue permit to vehicle; and (ii) Import and Export permit under MoC. The investment cost of NSW is about US\$ 2 million (75 percent is invested by private company) in either a Public Private Partnership (PPP) scheme or 10-year Joint Venture project. The agreement was signed in 2013 between MoF and BIVAC; a private company. To fully enhance the implementation of the custom automated system toward NSW, there are still problems with coordination between related agencies. To get everyone on board to the same and synchronize system will help improve custom services toward better utilization of NSW framework.

MYANMAR

Revenue collection has been the key objective of custom department as a performance measurement. Myanmar custom has recognized the significant to the important role in facilitating the growing volume of international to foster domestic economic development. Custom reform has been in the plan as the automated system is adopted in 2013. The upgrade of Myanmar's custom procedures has targeted mainly on revenue generation and thus, the procedures are focus on reducing illegal smuggling activities, and more carefully handle custom valuation. Allocation of budget and equipment are arranged with some revenue collection target in mind; i.e., the border checkpoint with greater opportunity to deliver higher revenue has the priority to get supports for modernization. The Muse Customs collected duty dropped down in February 2019 which was mostly affected by Chinese New Year. During this month, there are less trading transaction at the border.

Planning and Management Capacity of Customs

There are plans for future building up of custom capacity to support growing or potential rise of trading activities at the border. For instance, the need for container x-ray for random inspection under customs risk management is identified.

Preparation of more customs officers for better and more effectively handle customs duties. Capacity building both in terms of training and information or specific knowledges exchange will be greatly useful especially when NSWs are more implemented. Also, further upgrading into ASEAN Single Window requires more understanding of the member's NSW such that it could lead to greater implementation of CCA and harmonization or standardized of customs procedures.

Customs Infrastructure and Facilities and Automation

With greater degree of liberalization of the country and an increasing in international economic activities, Myanmar government received some financial assistant to improve customs facilities. For instance, at the Muse (105 Mile) Border Trade Zone in 2017, Ruili government sponsored 10 million CNY¹⁰ to support the construction of the concrete roads in the export goods inspection yards. According to the Muse Costumers, road inside of the import goods inspection yards will be paved with concrete surface soon in 2019 with continuing supports from the Ruili government.

¹⁰ <http://www.globalnewlightofmyanmar.com/roads-to-be-paved-at-muse-105-mile-trade-zone/>, 2017

Another example of custom infrastructure upgrading is presented by the Joint Inspection Building for One Stop Service (OSS) at Muse (see in picture below). The physical custom infrastructure depending more on the significant of the border checkpoint as the volume of trading activity pick up. Additionally, it is also relying on the financial support received from the trading partner aiming at using the checkpoint as main gate to access Myanmar. Part of the budget used for the construction of the Joint Inspection Building at Muse checkpoint was funded by the Ruili government. Mutual benefits can be realized once the more upgraded custom system has in place. Trading volume at the Ruili-Muse border has increased significantly and more investments can be seen at the site.



Picture 4.6: The Joint Inspection Building for One Stop Service at Muse Checkpoint



The newly constructed building is the home for custom's One Stop Service (OSS) and it has made a significant custom procedures improvement in all aspects. In the Muse Joint Inspection Building, Customs office, Bank, Internal Revenue, Department of Trade, Quarantine Inspection, Immigration, Police, Security and other related authorities are working together to provide a collaborative one-stop service at one location. The joint meetings are regularly arranged at least two times a week (every Tuesday and Friday) to exchange information and communicate for better management of the import and export work at Muse.

In Muse Trade Zone, there are 2 X-ray Scanning Machines; one was donated by PRC government in 2005, while another one purchased by Ministry of Planning and Finance from Germany in 2014. As it shown in the picture below, despite the availability of the equipment necessary for custom works, it is obvious that an upgraded version and maintenances will be useful. Physical infrastructure to go with the X-ray machine also need to be improved so that custom efficiency can be achieved.

Picture 4.7: X-ray Scanning Machines in Operation at Muse Checkpoint

No.(1) X-Ray Scanning Machine		No.(2) X-Ray Scanning Machine																																																					
<table border="1"> <thead> <tr> <th colspan="2">No.1 X-Ray Scanning Machine</th> </tr> </thead> <tbody> <tr><td>Name</td><td>TH SCAN MT 1213LT</td></tr> <tr><td>Company</td><td>Nuctech</td></tr> <tr><td>Country</td><td>China</td></tr> <tr><td>Type</td><td>Mobile</td></tr> <tr><td>X-Ray Energy</td><td>2.5 MEV</td></tr> <tr><td>Penetration</td><td>200MM/180MM of Steel</td></tr> <tr><td>Detector Arm</td><td>Fully-Remote Control</td></tr> <tr><td>Scanning Type</td><td>One Side Scanning System</td></tr> <tr><td>Max Truck</td><td>Width 2.5 M Height 4.2 M Length 11.4M</td></tr> <tr><td>Installation</td><td>27-11-2005</td></tr> <tr><td>Starting</td><td>11-4-2006</td></tr> <tr><td>Value</td><td>2.645 Million Euro</td></tr> </tbody> </table>		No.1 X-Ray Scanning Machine		Name	TH SCAN MT 1213LT	Company	Nuctech	Country	China	Type	Mobile	X-Ray Energy	2.5 MEV	Penetration	200MM/180MM of Steel	Detector Arm	Fully-Remote Control	Scanning Type	One Side Scanning System	Max Truck	Width 2.5 M Height 4.2 M Length 11.4M	Installation	27-11-2005	Starting	11-4-2006	Value	2.645 Million Euro	<table border="1"> <thead> <tr> <th colspan="2">No.2 X-Ray Scanning Machine</th> </tr> </thead> <tbody> <tr><td>Name</td><td>HCVF 3025</td></tr> <tr><td>Company</td><td>Smiths Heimann System</td></tr> <tr><td>Country</td><td>Germany</td></tr> <tr><td>Type</td><td>Fixed X-Ray System, Cargo Move Trough the Portal</td></tr> <tr><td>X-Ray Energy</td><td>3.4MEV</td></tr> <tr><td>Penetration</td><td>260-270 MM in low Speed Mode of Steel</td></tr> <tr><td>Detector Arm</td><td>Fixed</td></tr> <tr><td>Scanning Type</td><td>One Side Scanning System</td></tr> <tr><td>Max Truck</td><td>Width 2.5 M Height 4.2 M Length Up to 30M</td></tr> <tr><td>Installation</td><td>26-2-2014</td></tr> <tr><td>Starting</td><td>16-4-2014</td></tr> <tr><td>Value</td><td>2.9 Million Euro</td></tr> </tbody> </table>		No.2 X-Ray Scanning Machine		Name	HCVF 3025	Company	Smiths Heimann System	Country	Germany	Type	Fixed X-Ray System, Cargo Move Trough the Portal	X-Ray Energy	3.4MEV	Penetration	260-270 MM in low Speed Mode of Steel	Detector Arm	Fixed	Scanning Type	One Side Scanning System	Max Truck	Width 2.5 M Height 4.2 M Length Up to 30M	Installation	26-2-2014	Starting	16-4-2014	Value	2.9 Million Euro
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Max Truck	Width 2.5 M Height 4.2 M Length 11.4M																																																						
Installation	27-11-2005																																																						
Starting	11-4-2006																																																						
Value	2.645 Million Euro																																																						
No.2 X-Ray Scanning Machine																																																							
Name	HCVF 3025																																																						
Company	Smiths Heimann System																																																						
Country	Germany																																																						
Type	Fixed X-Ray System, Cargo Move Trough the Portal																																																						
X-Ray Energy	3.4MEV																																																						
Penetration	260-270 MM in low Speed Mode of Steel																																																						
Detector Arm	Fixed																																																						
Scanning Type	One Side Scanning System																																																						
Max Truck	Width 2.5 M Height 4.2 M Length Up to 30M																																																						
Installation	26-2-2014																																																						
Starting	16-4-2014																																																						
Value	2.9 Million Euro																																																						
 <p>No. (1) X-Ray ဖိုရိုဝေတာ</p> <p><i>donated by china</i></p>		 <p>No. (2) X-Ray ဖိုရိုဝေတာ</p> <p><i>Installed by MOP</i></p> <p><i>Auth + Admin</i></p>																																																					



No. (1) X-Ray စစ်ဆေးရေး



No. (1) X-Ray ကာမျာဝစ်ဆေးရေး



Close shot of No. (1) X-Ray Scanning Unit of Muse, by MI study team, May 23, 2019

National Single Window (NSW)

NSW has been the goal set by the Yangon Custom Department as a national policy focus. The country has committed to the achievement of NSW under several regional and sub-regional trade agreement. Form the implementation aspect however, there are still some delay caused by lacking of funding and some reform of legal procedures.

THAILAND

To improve on what has already existed, the Thai customs department identified 3 key areas; upgrading and maintaining of the custom automation system, an expansion of the utilization of the online system especially for SME, improving of some aspects related to customs activities in preparation for an expansion of trading activities and format such as custom risk management, post monitor, and cross-border e-commerce.

- NSW has already been implemented in Thailand since 2017 with 36 out of 39 related agencies are linked to the customs automated system. An extension to Thailand e-custom initiated earlier which covers all three main areas for custom procedures; Customs declaration, Customs payment (duty and fee), and Customs clearance.
- Possibilities of customs improvement or modernization are to encourage the use of online system for greater audiences particularly SME who currently relies more on authorized custom brokers to handle all the processes at the checkpoints (advance procedures are available online but only utilized by large corporates)
- Additionally, there are attempts to better use some of the Common Control Area (CCA), Inland Container Depot (ICD), and One Stop Services (OSS) more effectively which requires further collaboration both domestically (among domestic agencies) and internationally.
- Future goal is set to achieve ASEAN Single Window (ASW) as was mentioned in the regional trade agreement; ASEAN Economic Community (AEC) 2025 and some sub-regional agreement on particular issues related to custom such as the early harvest of Cross Border Transit Agreement (CBTA).

Customs System and Procedures

Table 4.4 highlights what has been achieved in custom modernization in Thailand. With the automated system, despite not a fully paperless system yet, the mechanism allow for such an improvement in custom procedures in terms of time and cost reduction for trading activities at the border. Aranyaphathet among others that were visited (Mukdahan, Mae Sot, Chiang Khong), as an example for Thailand custom border checkpoint (others custom checkpoints are used as a case study in some other aspect below), it has been one of the busiest custom checkpoints bordered to Cambodia's Poi Pet. The time release study has shown that the amount of time needed for custom documentation and procedure is kept to the minimum. Most of the time spent is for waiting time (due to traffic), document preparation, and waiting time at the warehouse. Trade volume as well as traffic at the border have picked up significantly over the years and there was recently infrastructure investment in building a new facilities and friendship bridge to provide an alternative for traders and passengers. It is not clear at the moment how the new facility will be utilized; i.e., which will be used for passengers and which will be for goods trading.

Table 4.4: Average Release Time of Inland Import at Aranyaphratet Custom Checkpoint 2017

Unit: Hr.Min.Sec

Activities	Type of Import Shipment Document		Total Import Shipment Document
	Green Line	Red Line	
Procedure by Importer or Import Broker	0*	0*	0*
1. Place consignment in the designated area or in the depot			
Inspection by Other Government Agencies (OGA)	-	-	-
2. Inspection of immigration police			
Custom Procedures			
3. Sending/Receiving electronic information	00.02.00	00.02.00	00.02.00
4. Duty and fee payment			
5. Document inspection/Assessment/Consignment inspection/ Clearance	00.02.00	00.05.00	00.04.00
	00.01.00	00.07.00	00.06.00
Average time spent in the custom procedures (3-5)	00.05.00	00.15.00	00.12.00
6. Leak Time**	01.39.00	02.24.00	01.59.00
Average time spent in all activities including Leak Time	01.44.00	02.39.00	02.11.00

Note: * For inland export/import, truck loaded with containers arrives at the border checkpoint and starts custom procedure at arrival without placing the containers at the depot.

** Refer to the time spent that is not in the custom processes such as waiting time, documents preparation time, time that goods are remained at the custom warehouse and not yet released.

Source: Thailand Time Release Report 2017.

Planning and Management Capacity of Customs

There are plans for future building up of custom capacity to support growing or potentially rising of trading activities at the border. For instance, the need for container x-ray for random inspection under customs risk management is identified. Particularly, at the Arunyaphratet custom checkpoint, there is a plan to have a container X-ray machine installed in the last quarter of 2019. The building facility had already been constructed in the truck inspection yard not far from the border clearance point. Although the inspection process has not taken long time at the moment, having the X-ray machine will be useful as the X-ray image can help custom officer to identify some of the wrong doings. Shortening the inspection volume will speed up the custom clearance process as the trade volume increases.

Preparation of more customs officers for better and more effectively handle customs duties. Capacity building both in terms of training and information or specific knowledges exchange will be greatly useful especially when NSWs are more implemented. Also, further upgrading into ASEAN Single Window

requires more understanding of the member's NSW such that it could lead to greater implementation of CCA and harmonization or standardized of customs procedures.

Box: Example of Custom Modernization in Thailand from the Border Checkpoints Visited

Thailand has undergone the process of custom modernization by the inception of e-custom system. Since then, Thai custom has been equipped with the self-developed custom automated system and the performance has been significantly improved. Currently, Thailand National Single Window has already been well established with all but 3 out of 39 other related government agencies are linked with the online electronic custom system. Some of the example of custom modernization and infrastructure upgrade at the border as case studies for investment required (many are already in place).

Mukdahan custom border checkpoint is one of the locations experiences an increasing trend of trading activities especially among LM countries. Custom facilities had been upgraded and Common Control Area (CCA) has been built as part of custom modernization. Unfortunately, the CCA has not been able to put in practice due to some registration issues. This is one of the examples of custom modernization gaps exists along the LM custom border checkpoint. In this case, soft infrastructure in the forms of custom collaborations are needed to standardize and harmonize custom procedures. Prior conditions are to make sure that there are not too many custom capacity differences between the trading partners. Custom modernization on this particular circumstance, soft infrastructure investment might be more essential than the physical infrastructure investment needs. Similar situations are discovered along the LM borders in Mae Sot and Aranyaphet in Thailand where newly custom facilities were invested and ready for operation. However, there is a delay in the process due the readiness of trading partners. This once again point to the important of soft infrastructure investment related to the implementation of the online automated system and international custom collaboration.

To add to the problem of custom gaps along the LM border, the increase in volume of trade has been sufficiently handled at the current stage as typically the products are similar to the past; only an increase in quantity. There are concerns raised at the borders over the possibility of delay when customs at the border are asked to handle much more varieties of products. This post another challenge for the dynamics of custom modernization especially for the LM to improve as regional picking up and becoming more and more reliance on each other.

There have been some discussions about how the setup of CCA between Thailand and its neighboring countries to be better implemented and utilized. Obviously, greater benefits are foresighted by the CCA initiations. However, less than expected of trading activities has been benefited due to lack of practical implementation at the customs checkpoint area. Problems such as differences of regulatory protocols among related agencies from both sides, lack of understanding in terms of information exchange, and some sense of distrust in collaboration between the two sides (sometimes it is not the customs officers but other related authorities with good intention of protecting national interests) are afore mentioned. In addition, technical issues such as the difference of the level of product harmonize system code used by the two countries making sharing of information difficult.

National Single Window (NSW)

December 2005, the Customs Department was assigned as the leading agency for the establishment of Thailand's National Single Window by Thai cabinet resolution. In the same period, the ASEAN agreement to establish and implement member states' National Single Window were signed by ASEAN ministers. Since then, the process toward NSW was moving forward and became fully implemented. Further development

has already been pursued aiming for ASW as the next goal. May 2017, the National Logistic Development Committee agreed to establish the sub-committee on the NSW Administration and Development. An official bureau has also created under the Custom Department to undergo an administration and monitoring of the NSW development. Simplification of procedures and NSW implementation was the main target for the driving sub-committee to achieve 1) reduce and eliminate unnecessary and meaningless procedures 2) reduction of the papers (hardcopies) used for the application form and supporting documents 3) reduce the time required for the export/import procedures and 4) reduce trade related costs.

Thailand Single Window has been implemented with 36 out of 39 Other Government Agencies (OGAs) related to custom activities are linked to the online system where export/import permission document can be issued electronically. With the online system, custom officer at the checkpoint can review all the necessary document on a monitor on site. The other 3 agencies are expected to join into the system soon, maybe in 2019 or next year. Custom declaration processes are all done in electronic format and connected online which means trader (exporter or importer) can fill in the form from anywhere. The system allows for 21 days advance declaration (filled in the custom declaration form up to 21 days before the container truck reach to border checkpoint).

An automated and online system has been installed with co-development of necessary software between authorities and related financial institutions including private commercial bank. The system is in place and currently uses on a regular basis although the majority of the users are large corporates. Few SMEs are utilizing the system with an increasing number of users as it becomes more convenient and cost effective. Custom valuation remains to be the major impediment as more cases were found over the years in miscalculation, intentionally and unintentionally, making post customs monitoring become increasingly important for customs modernization.

Progress of paperless trade

For Thailand in its further development of customs modernization, i.e., to become truly paperless, a couple steps can be initiated. First, and much easier to implement especially for some extension of the responsible border area; Aranyapathet and Chiang Khong for instance, personal device, an iPad like equipment, and related software will allow custom officers conveniently do their work onsite without printing out all the required documents to take along. Once all the custom and related documents are in electronic form and online with the existing network system, custom officer with authorized password can get access via a personal device anywhere and perhaps with some communication features can consult with his/her superior for advice and suggestion without delaying the process. The investment will become more and more benefit as volume of trade and the varieties of good are moving across borders. Secondly, maybe to a greater extent, as the regional agreement on trade facilitation is gearing toward the goal of ASEAN Single Window (ASW), negotiations and affords for harmonization of many custom related forms and documents as well as some degree and mutual recognition of custom procedures will be such a crucial challenge. Developing soft infrastructure such as capacity building in training allows officers (maybe not only custom officers but also other related government agencies) from both sides of the borders to get to know each other and understand each other better. A Knowledge Management (KM) program can be organized for all LM countries to share their knowledge about their customs procedure and modernization.

Integrated check posts (ICPs) and ICDs

The need for ICD stem from the fact that the agreement on border transit has been delayed both in the negotiation process and the implementation process. Part of the problems is that difference government agencies, related and in charge, of the negotiation have difference concerns and hence, reluctant to accept conditions in the negotiating table. With greater trade volume, there are an increase number of containers which are classified as high risk (red) and requires a physical inspection by custom and other related government officers. The area for ICD needs to be established. In addition, since the truck from one country are not allowed to go into another country, the containers have to be unloaded and reloaded on to the domestic truck at the checkpoint after custom clearance.

- i) Modern customs laboratories and customs laboratories network
- ii) Renovation of customs infrastructure
- iii) Other technology-led physical facilities

Physical and soft infrastructures to effectively handle cross border E-commerce also mentioned in the interviews. Although there are few e-commerce activities at the border checkpoints for the moment but there is an increasing trend of requests about how and what are the customs procedure involve for e-commerce shipments as different steps and inspections are required.

VIET NAM

Customs System and Procedures

With the plan targeted at becoming an e-custom administration, national policy management units related to custom administration was assigned as the leading agency incorporation with other state agencies to provide efficiently and effectively public custom services and creating partnership internally and externally. In doing so, state of the art and advance technology facilities has been installed to meet with rising demand in custom services as the country grows more and becomes more integrated internationally. Vietnamese customs system [VNACCS/VCIS] is a centralized and integrated system, which includes: (i) Vietnam Automated Cargo and Port Consolidated System or Vietnam Automated Customs (Cargo) Clearance System (VNACCS) is an automatic customs clearance of goods system; and (ii) Vietnam Customs Intelligence Information Systems (VCIS), a professional information database serving as a background operation of the National Single Window (NSW). The VNACCS/VCIS system has officially been in operation on April 1st, 2014. The system consists of major software (satellite systems in connection with VNACCS, namely:

- Electronic Declaration (e-Declaration)
- Electronic Manifest (e-Manifest)
- Electronic invoice (e-Invoice)
- Electronic payment (e-Payment)
- Electronic C/O (e-C/O)
- Streaming (selectivity)
- Risk management
- Management of import-export enterprises
- Clearance and release of goods, and
- Monitoring and control

The system operates 24/7 (24 hours and 7 days) and integrates all information and data from customs office all over the country.

In response to MI's question on data sharing, VN customs clarified that the system does not connect to WCO. However, specific information is shared with few trade blocs under FTAs, e.g. EURASIA economic community (under some cooperation programs). As for GMS and ASEAN, the NSW is connectivity with 4 ASEAN countries through exchange of SPS and C/O certificates. However, there exists technical problem(s), which is the languages. For this reason, Customs have selected some information parameters for customs declaration and clearance, such as, SPS classification, certification, valuation, C/O. To solve the technical issue, an alphabet system should be used.

In summary, VN customs system is effectively linked to the NSW that is in connection with the target toward ASW.

As for the ASEAN Customs Transit System (ACTS). The origins of ACTS are in Protocol 7, 'Customs Transit System' of the ASEAN Framework Agreement on the Facilitation of Goods in Transit (AFAFGIT). All protocols have are signed and ratified. The implementation will be in place by the end of 2019

In the future, VN customs wants to have a self-control custom automation system. In order to pursue this purpose, Vietnamese custom department has planned for development of a comprehensive system incorporation with the strategy to achieve e-Government target which is also in association with e-Commerce development.

As for investment in custom modernization and sources of fund, VN customs clarified that all investment projects are funded by state budget with the fact that the country does not want to rely on donors' fund whose financial cost becomes more and more expensive.

As for adoption of new technologies, and e-Government and digital Government development, Viet Nam has also cooperated with the Government of Korea to incorporate the new blockchain technology for the application of the custom automated system. The newly developed system will allow Viet Nam custom to edge closer to the target of being e-government.

Customs Procedures

VN customs briefly illustrated the current customs procedures and inspection. 99% of customs clearance is done electronically. Risk Management has been adopted and implemented. Doing so, cargo clearance is subject to risk classification, i.e. the enterprise profiles and associated information on the cargo collected. In this connection, [i] green lane – low risk cargo (no physical inspection); [ii] yellow lane - moderate risk cargo subject to documentary review without physical inspection; and [iii] high risk cargo subject to physical inspection.

Summary of customs clearance and inspection status in Viet Nam:

- Green lane: 60%–70 %
- Yellow lane: 24%
- Red lane: 6%

The system also classifies types of shipment, e.g. e-Commerce versus the normal cargoes, functions customs valuation, and so on.

At the Huu Nghi Border Checkpoint

- Customs procedures at Huu Nghi Border Gate applied for goods and people, i.e. facilitating and managing the movement of goods and people.
- As for the movement of goods via Huu Nghi Border Gate: Cargo trucks from Viet Nam cross border to unload the cargo at the designated parking lots in China side (in border areas). The same procedures and practices are applied to cargo trucks from China.
- The GMS Early Harvest permits have yet to be accepted at Huu Nghi Border Gate, or in Lang Son in general. In this connection, Huu Nghi Customs will surely implement the CBTA EH upon receipt of direction from Viet Nam Customs.
- Procedureally, customs declaration and clearance are mainly processed through the automation system (VNACCS/VCIS). Both e-customs (in connection with the NSW) and paper-based declaration and clearance procedures are accepted by Huu Nghi Customs.
- Number of documents required for submission for customs declaration and clearance include: (i) Customs declaration form (printed out from VNACCS), Commercial Invoice, Packing List, Bill of Lading (B/L) / Landway Bill or so, Certificate of Quality, SPS Certificate, IP-related documents under WTO TRIPS. In this connection, the number of required documents is subject to types of traded goods.
- Huu Nghi Customs has adopted and applied Risk Management mechanism that generates the customs clearance results and classifies risk-based lanes, i.e. green, yellow, and red, respectively.

Summary of customs clearance and inspection status at Huu Nghi Border Gate:

- o Green lane: 40%–50% on average at present as compared to the previous channeling result (70%).
- o Yellow lane: Increasing (at present)
- o Red lane: Increasing (at present)
- The actuality in customs administration and inspection at Huu Nghi Border Gate is subject to various factors, such as exported goods with originals from the third countries, i.e. other than Viet Nam, requirements for pre-physical inspection by the Chinese customs, and so on.
- About 2,000 enterprises nationwide conduct trade via Huu Nghi Border Gate.

Customs Cooperation

- Huu Nghi Customs coordinates with Immigration, Border Management, SPS in Viet Nam, and cooperates with the Chinese Task Force in facilitating customs clearance.

- Sharing information on customs clearance results between the Vietnamese and Chinese Customs has not been in place yet.
- Risk management in China and Viet Nam may be different in terms of procedures

Cross-Border e-Commerce Cooperation (Viet Nam and other countries)

Under negotiation between both sides. Viet Nam expects to learn more experience in e-Commerce management. In this connection, Viet Nam is now implementing the WTO TFA with regards to e-Commerce facilitation. To do so, VN Customs has prepared for the project e-Commerce platform. But no further information was provided afterwards.

Planning and Management Capacity of Customs

New platforms are needed, e.g. e-Commerce platform and risk management systems. VN Customs refers to successful model(s) from developed countries, e.g. Singapore model (Tradenet, Tradeexchange).

- There are plans for future building up of custom capacity to support growing or potential rise of trading activities at the border. For instance, the need for container x-ray for random inspection under customs risk management is identified.
- Preparation of more customs officers for better and more effectively handle customs duties. Capacity building both in terms of training and information or specific knowledges exchange will be greatly useful especially when NSWs are more implemented. Also, further upgrading into ASEAN Single Window requires more understanding of the member's NSW such that it could lead to greater implementation of CCA and harmonization or standardized of customs procedures.

Customs Infrastructure and Facilities and Automation

- Huu Nghi Customs Working Complex offers offices to Customs Agents / Brokers (about 10 companies are based in Huu Nghi office), commercial banks to assist traders and/or customs brokers to pay taxes and fees for customs clearance procedures
- The (i) CCTV systems, and (ii) container scanner (US\$ 2 million/scanner), which is known as a big step in customs modernization (all inspection was implemented manually before 2019), have been in place.
- Logistics services (parking and warehousing). As part of equitization process, VN customs issue license to the two private logistics companies, namely Xuan Cuong and Viet Trung Companies to invest and operate two parking and warehousing areas of 50 ha and 05 ha, respectively. At present, there are two main areas: (i) exported goods area, and (ii) imported goods area.
- Huu Nghi Customs has also used ICT, a warehouse management software. In future, the C/O and Intellectual Property softwares will be implemented by Huu Nghi Customs so as to better integrate customs operations into the central system (VNAACS/VCIS).

4.3. International and Bilateral Cooperation in Customs

In relation to trade facilitation in the sense of trying to move goods internationally at ease and less costly, customs modernization stands as a key and main element. WTO's Trade Facilitation Agreement (TFA), as the first multilateral trade agreement reached since the Uruguay Round, was concluded (in 2013) and entered into force on 2017. This once again reflects the essential of the role played by trade facilitation and hence customs modernization. Additionally, the issue is also widely accepted as a fundamental area to enhance trade and competitiveness. In doing so, the WTO's TFA emphasizes much more on customs and custom related activities aiming at speeding up the movement, release and clearance of goods. Enhanced transparency, good governance, upgrading and modernizing border procedures and control techniques, and fostering the movement of goods in transit are pointed as the areas for improvement. The core provisions of the TFA consists of 12 articles¹¹

1. Publication and Availability of Information
2. Opportunity to Comment, Information Before Entry into Force, and Consultation
3. Advance Rulings
4. Procedures for Appeal or Review
5. Other Measures to Enhance Impartiality, Nondiscrimination, and Transparency
6. Disciplines on Fees and Charges Imposed on or in Connection with Importation and Exportation and Penalties
7. Release and Clearance of Goods
8. Border Agency Cooperation
9. Movement of Goods Intended for Import under Customs Control
10. Formalities Connected with Importation, Exportation, and Transit
11. Freedom of Transit
12. Customs Cooperation

Special and Differential Treatment (SDT) are also provided in the TFA for developing and least-developed countries (LDCs) where three categories for country's commitment. Category A refers to implementation of provisions when TFA enter into force (one year after for LDCs) Categories B and C allows for some transition period and transition period which requires assistance and support respectively.

Table 4.5: Summary of LM country Notification for TFA Implementation, as at May 2017

Country	Percentage of measures that will be fully implemented
China	
Cambodia	0 (ratified but has not notified measures for implementation yet)
Lao PDR	36
Myanmar	0 (ratified but has not notified measures for implementation yet)
Thailand	83

¹¹ source: WTO (updated) "https://www.wto.org/english/tratop_e/tradfa_e.htm"

Vietnam	33
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Source: ISEAS Yusof Ishak Institute, Singapore, no 47, ISSN 2335-6677, 2017

For 5 ASEAN member states as part of LM country, AEC 2025 highlights some keys implementations of trade facilitation measures as a Consolidated Strategic Action Plan (CSAP) in the AEC 2025 blueprint. Customs procedures and processes are covered in the ASEAN Trade Facilitation Framework (ATFF) adopted in 2017 which has a scope broader than WTO TFA; for instance, standards and conformance are included in ATFF but not TFA. The action plan under CSAP demands full implementation of ASEAN Single Window (ASW) which aims at combining AMS NSW to expedite cargo clearance and fostering the electronic exchange of border documents. Despite to intention of AMS to improve trade facilitation especially in relation to custom modernization as was emphasized in WTO's TFA, it is still very much in doubt whether all of that suggested in the agreements can be reached without a great deal of assistant and collaboration domestically and internationally. As an example, the following is a table summarizes notification of implementation for specific articles related to custom procedures by the 5 ASEAN-LM countries. At the current stage according to the table summary, the 5 ASEAN-LM countries are not committed for the implementation of NSW except for Thailand. Thailand stands ready for the implementation of NSW upon the ATFF entry into force. This once again shows the different level of readiness of LM members moving forward in custom modernization process.

Table 4.6: Summary of Custom Related Articles for 5 ASEAN-LM Countries as of May 2017

Article	Cambodia	Laos	Myanmar	Thailand	Vietnam
1.1 (Publication)	None	A	None	A	None
1.2 (Information available through the internet)	None	A	None	A	None
10.4 (National Single Window)	None	None	None	A	None
11 (Transit)	None	None	None	B	B

Note: A = to be implemented upon entry into force, B = to be implemented after 60 days of transitional period.

Source: Source: ISEAS Yusof Ishak Institute, Singapore, no 47, ISSN 2335-6677, 2017

The assessment of NSW implementation of LM-ASEAN countries was conducted by Ponciano (2015) illustrated that Thailand is most ready followed by Viet Nam. Viet Nam and Cambodia have made a good progress toward implementation of NSW from 2011. As in 2014, there were still gaps to be filled for very LM-ASEAN countries except for Thailand to become NSW. Every LM-ASEAN country had made an improvement toward NSW from 2011 to 2014 according to the assessment. Out of 100 score, it was shown that Thailand is ahead to the group with Vietnam taking a huge leaping forward (from a score of 22 in 2011 to 65 in 2014). Lao PDR and Myanmar seems to have lacked behind in this process. Implementation of NSW in these countries was assessed at only 18 and 27 scores in 2014. It is also important to note that the adoption of custom automation system in Myanmar in 2013 has contributed to the improvement from 2011.

Table 4.7: Assessment of National Single Window Implementation of LM-ASEAN Countries*

	Years	LM-ASEAN Countries				
		Cambodia	Lao PDR	Myanmar	Thailand	Vietnam
Implementation of NSW score (100)	2011	28	14	14	89	22
	2014	43	18	27	97	65

Note: Based on the survey questionnaire results in ERIA's AEC Scorecard Phase II and Phase IV studies.

* The information provided here is for reference purpose only. As ASEAN has its goal set for the completion of National Single Window and ASEAN Single Window, dynamic improvement toward the goal has been shown in many areas. Therefore, the most current status of the score for implementation of NSW is much higher than what they appear in the table.

Source: Ponciano INTAL Jr. (2015), "AEC Blueprint Implementation Performance and Challenges: Trade Facilitation," ERIA Discussion Paper Series.

4.4. Investment in Customs Modernization

At a broader picture, trade facilitation and logistic performance index in the part that are specifically related to custom procedures indicates the existence of custom gaps among LM economies. Despite a great improvement of custom activities in every LM countries, the needs for custom modernization persist to an extent that even further benefits can be realized over the course of the years. Automated custom procedures have been widely adopted in every country and most of the declaration filing processes are done electronically. However, table 4.8 reveals the gaps of trade facilitation performance particularly those indicators that are related to custom procedures and activities. It has been reaffirmed that further custom related infrastructure investment, both hard and soft, are remained to be a key component for regional custom development. China rank first among the LM countries in Logistic Performance Index (LPI) in 2017 with a score of 3.61 out of 5 followed by Thailand and Viet Nam at 3.41 and 3.27 respectively. Some custom performance indices are also present and similar patterns are found. Lead time and the documentary compliance costs are different across the LM members suggests that there are some gaps to be filled to modernize regional custom system.

Table 4.8: Trade Facilitation Performance for LM Countries 2017

LM countries	LPI 1-5 (worst to best)	Burden of customs procedures 1-7 (worst to best)	Lead time		Documentary Compliance		Liner Shipping Connectivity Index 2004 = 100	Quality of port infrastructure 1-7 (worst to best)
			To export (days)	To import (days)	Cost of export	Cost of import		
China	3.61	4.6	3	5	84.6	170.9	169.6	4.6
Cambodia	2.58	2.9	3	4	100	120	8.7	3.7
Lao PDR	2.70	3.8	2	-	235	115	-	2.3
Myanmar	2.30	3.0	1	1	140	210	7.4	2.6
Thailand	3.41	4.0	1	1	97	43	44.6	4.3
Vietnam	3.27	3.7	3	3	139	183	65.6	3.7

4.4.1. Custom Modernization Gap among LM countries

An important aspect of custom modernization is not only to focus on an individual upgrading of national custom procedures but also to allow for harmonization, information exchange, and cooperation between custom border checkpoints. To some extent, the differences between LM custom checkpoints have been existing due to domestic conditions and lacking of resources. In terms of commitment to custom improvement, there might not be much of the different which means that all of the LM members agree to the direction and have positive perception of potential benefits. Implementation of custom modernization process however has shown some lacking behind in many countries. Both budget and technical capacity limitations are mentioned as the crucial obstacles. There are gaps to be filled in order for the LM member states to better realized the potential of (regional) economic integration leading to sustainable development. In this section, some of the "custom gaps" will be brought to attention and hence, some necessary infrastructure investments can be discussed.

Physical infrastructure gap

In general, the differences of custom physical infrastructure among LM countries has existed because of the stage of economic development and lacking of supporting budget. It is not so, to a certain degree, on availability of building, office space, and custom related equipment required in the implementation of the custom automated system. Road condition and traffic management and control between the inspection area, clearance and the area of shipment released are some of the concerns. Improve the pavement surface can help speed up the custom process. Physical infrastructure gaps have also been observed at the LM borders where some of the checkpoints are well-equipped than others. Paved surface for road and parking areas for the inspection and clearance purposes are at different quality.

Based on the information obtained from the visits at the checkpoints, the needs for major physical infrastructure improvement are not urgent. Most of the border checkpoints seems to have adequate physical facilities to handle the workload at the current stage. Some of the new custom building has just been built with the expansions of gateway to facilitate increasing trade volume and solving some traffic problems. New bridges had been completed between the border of Thailand-Cambodia and Thailand-Myanmar for instance. Custom spaces have been sufficiently provided at the border with plans to installed the necessary equipment in the upcoming months. Unfortunately, unequal budget allocation capabilities between the two side of the borders can lead to a delay of the project implementation.

Custom automation gap

To this end, it is referred mainly on custom related information technology gap. As mentioned earlier, advancement of custom procedures reply so much on how much the custom system becomes more automated and electronic documents. Reducing time and costs at the borders reflects more efficiency of the custom procedures which almost surely requires an introduction and adoption of related technology. Advanced technology in custom automated software allow for greater scope and more complex custom requirements to be handle with ease and also open to information transfer and exchange between related government agencies domestically and internationally in the future. Various custom automated software (or systems) are currently employed among LM members with China, Thailand, and potentially Viet Nam are utilizing self-developed technology with WCO custom guidelines and standards. Moreover, the versions of the custom systems can be different which also incur costs for training when the system needs to be upgraded.

Human resource development gap

With the custom procedures become more and more technology oriented, custom officers need to be training regularly to catch up with the improvement of the automated system implemented. Technological knowledges and capabilities have been identified as another key success factor for custom modernization. For LM countries, the gaps of human resource development have also existed because of the different stage of economic development and custom automated system used.

4.4.2. Investment needs for custom Modernization in LM region

The needs of custom modernization assistants can be classified into 3 groups; (1) needs for physical infrastructure investment (2) needs for technical and collaborative support (soft infrastructure) and (3) needs for capacity building to foster the process of custom modernization

Needs for Physical Infrastructure Development

Needs for some physical infrastructure investment were mentioned by some custom checkpoints. In the majority of the checkpoints visited, the main infrastructure is adequate for the current custom workload. Some facilities improvement might be needed to increase the effectiveness of the custom process such as paved surface in the inspection yard especially in the rainy season and trucks are crowded queueing up for inspections, some road upgrading into a concrete road to reduce transit time. Subsequently, to reduce the inspection and clearance time, container X-ray scanner installation is useful for many border checkpoints. In some checkpoints, there are plans for installation of the machine in the near future, other are subject to availability of budget.

Investment of computer hardware and servers were mentioned in the interviews as the country has to expand the adopted custom automation system to cover all the border checkpoints. An estimation of US \$ 200,000 funding is need for Lao PDR with similar figure or higher for Cambodia and Myanmar because of greater numbers of checkpoints. The needs for computer hardware equipment are expected to be constantly increase with the rising volume of trade activities and hence, the amount of data handled.

To speed up the custom clearance, establishment of One Stop Service (OSS) or Single Stop Inspection section has been mentioned by customs department in these countries. Scanners will be needed as another investment infrastructure to improve custom release time. This includes both container scanner and individual or personal scanners at the border gates for passenger passage and supporting (in the future) cross-border e-commerce activities. Numbers of small packages put together in a container for logistic delivery provider (express service) has been inquired to some custom checkpoints in Thailand (Chiang Kong for example) about the procedures to be conducted at the border. Same procedure as it is handled in the air cargo shipments can be applied by there are needs of similar equipment to be install at the border gate.

Common Control Area (CCA), Inland Container Depot (ICD), and Distribution center might be needed in some customs checkpoints as further collaboration agreements still needed, for example the implementation of CBTA early harvest agreement. Some countries are utilizing Special Economic Zone for these specific needs (Savannakhet, Phnom Penh, Ruili)

Consideration for an improved and upgrade system of custom automated system such as what is offering in UNI-PASS which has already transform into the latest version of being a “Smart Clearance System” has been in the future plan for in many countries. However, financial aspect of the improvement is still a big concern for most LM-ASEAN members namely; Lao PDR, Myanmar, and Cambodia. In addition, the more up to date technological installation, both in terms of required version of custom automated software and

complementary equipment, can facilitate the future custom collaboration of the LM region. It set up as a fundamental groundwork to build up on custom harmonization and synchronization. Upgrading and Maintenance of the system so that the appropriate version and feature of custom procedures are effectively performed at minimum cost possible has always in the planning. Unfortunately, to have those plans implemented can be much more difficult.

Needs for Technical and Collaborative Supports

Technical supports are necessary for custom modernization as the process involves some upgrading in automation equipment and documents. To be able to effectively utilize the system, technical assistants have to be provided on a timely basis and regularly. Electronic documents will be used and accepted legally which requires regulatory affords and funding supports.

Collaborative agreement on custom and cross-border transit are also significant for custom modernization. Beside a broader commitment on multilateral (WTO's TFA), regional (ATFA and AEC), and sub-regional (GMS-CBTA) agreements, there are needs for a more details sub-regional or bilateral corporation like LMC to facilitate some delay implementation of the existing commitments. Agreement and implementation of cross border transit is a plus to facilitate custom modernization. Unfortunately, to achieve that might be difficult in a short term as non-custom government agencies are taking the leading role in the negotiation. There are concerns over the differences of quality and type (size) of truck use in each country. In addition, there are some disagree over the maintenance cost to the transportation system upon the road usage. Insurances, both the vehicle and cargo, are also the related issues on how the coverage will be handled and who should be providing the needed services when injuries and damages occur. Therefore, a short-term solution might be provided by a settlement on standard size of container and standard practice on the transportation system.

Two levels of collaboration, domestically and internationally, involved in order to further enhance custom modernization processes. As pointed out in the previous section, the most difficult part to fully achieve NSW and later on paperless trade is to get all other (but related) government agencies on board and merge into the custom automated system where all of the trade documents are handled electronically. Once that in place, international collaboration for standardization and harmonization of the system can be discussed as different countries are using different set of custom automation system. Moreover, exchange of trade information and profiles will be a big step toward merging into one single regional custom network. That requires a great international collaboration affords similar to what has been targeted to become ASEAN single window under AEC.

Harmonization and coordination have been illustrated as a key success for more advance custom modernization. An initiation of a LM trade data center as an international organization in charge of collecting business and regulatory meaningful information under the support of LM authorities would be a big step forward. The LM trade data handling center can serve as a catalyze for regional custom harmonization and synchronization which will benefit greatly as a long-term target. It is recognized that there are currently regional and sub-regional or even bilateral efforts of the LM states toward this goal. Exchange of (custom) information and custom standardization are just a few examples of issues in the discussions. Unfortunately, not as much progress has been done as it is expected to be due some difficulty over custom gaps. The data center can also act as a pilot project for the implementation (a policy sandbox in a sense) of some certain area of custom activities the LM members would like to try on.

Needs for Capacity Building to Foster the Process of Custom Modernization

Custom procedures as it becomes more and more technology oriented and electronic based in order to improve efficiency. It demands staffs (or custom officers) to better equipped with information communication technology (ICT) skills as well as a fully understanding of some custom technical procedures which over time becomes more complex. Advance ruling, custom valuation, custom risk management, are among topics in which training can be needed to effectively implement along with an upgrading technology, equipment, and custom automated software. The ability to connect not just within the department but also with other government and nongovernment agencies are very essential skill to have. Moreover, further custom development especially those to comply with international standards and commitment requires a substantial sharing and exchange of information (trade and custom). Development custom capability has been an integrated part of custom modernization these days. Several areas of capacity building and training are suggested;

- Custom risk management (as trade volume increases and also there are an increasing trend for cross-border E-commerce in China)
- Custom control for cross-border E-commerce
- Post custom monitoring
- Custom valuation
- Advance Ruling
- Training of Authorized Economic Operator (AEO)
- Technical upgrading on the automated customs system especially there is a use of an upgraded custom automation software
- Language (English) training for border communication between officers in both sides of the border

Some of the international assistants for LM custom development and the possibility of LMC fund roles are provided as an example.

Strategic plan and a national policy guideline to modernize its custom procedures and administration are toward the commitment of each country to WCO-TFA and particularly the establish NSW and later ASW under AEC 2025 (for LM-ASEAN states). The underlying benefits are clearly stated in previous quantitative assessments empirical studies. The estimation of an improvement in trade facilitation on the economy illustrates that there are obvious and significant economic value gains, both in terms of trade creation and efficiency improvement, from reductions of time and costs of trade as a result of trade facilitation upgrade. For GMS particularly, Dee (2014) applied a Computable General Equilibrium (CGE) model to estimate the impact of trade facilitation assuming a 20% reduction of time and trade cost. The results indicate large benefits in terms of GDP growth especially for countries with lower per capita income. This in a sense suggests that custom modernization as a significant part of trade facilitation improvement has a crucial role to play in narrowing down development gaps in the region. However, because of the differences in the stages of economic development and custom modernization among LM members, infrastructure investment needs and the capabilities to response to the needs are varied across countries.

Infrastructure investment needs profile for the LM countries are provided below;

Custom Procedure Related Infrastructure Investment Requirements	
Type of infrastructure investment	Estimation of infrastructure investment funding
<ul style="list-style-type: none"> • Investment in custom automation infrastructure such as computer server and software to connect border custom officers to the custom central online system 	<ul style="list-style-type: none"> • Computer server unit and some related equipment about \$ 30,000-40,000 per border checkpoint needed.
Investment: Custom Automated Infrastructure	
Estimated Cost: US\$ 30,000-40,000 per site	

To connect border custom operations at the checkpoint on to the central automated system which allows for transfer and exchange of electronic document not only among custom officers but also with Other (related) Government Agencies (OGA). The installed equipment will facilitate the adoption of custom automated system in the remote border custom checkpoint.

Equipment including installation cost

- Computer server
- Computer unit (2 units) per site (can be desktop or notebook computers)
- Printer (1 unit)

Benefits

- reduces releasing time
- Increasing data and information accuracy (data collection and analysis)
- Increase transparency (providing public information on trade activities)
- Increasing trade activities at the border

- Container mobile X-ray system and the facility (building for installation of the machine)

- Depending on the series and version of the machine which is estimated at about \$ 20-30 mil. excluding the installation facility per site

Investment: Container X-ray Machine

Estimated Cost: US\$ 20-30 mil. (Excluding supporting facility such as building)

Container X-ray machine is mostly requested for LM customs except for China, Thailand, and Viet Nam where the systems have been either installed (in most border checkpoints) or in some cases are already in a set plan for installation in the near future. The X-ray system allows custom officers to be more effectively prevent smuggling which is the major concern for custom administration. By providing clear images of cargos in the container and can be shared with other related government authorities allows for faster clearance of trucks at the border. This viewed as a necessary improvement especially for agriculture products, which is the significant products trading among LM countries, where it is required by laws in many LM members that the containers are sealed with agriculture authority after inspection form the export and import countries. With X-ray, the containers can be inspected and sealed before reaching the border and do not have to be opened again at the border gate for physical inspection and clearance.

Benefits:

- Reduce proportion of cargos that are required to have physical inspection and hence, speed up custom clearance process at the border
- The installation of the X-ray is a preparation to handle an expected increasing volume of trade activities at the border and for the growing demand for cross-border e-commerce trading activities
- Further custom collaboration among LM countries that allows for sharing of cargo X-ray images will facilitate custom efficiency improvement at the border; another upgrade of custom modernization

- Mobile hand-held scanning machine supporting inspection of smaller size of packages or cargo (in some case to support an increasing demand for cross-border e-commerce shipments) and passenger inspection at the border

- Mobile hand-held scanner price varies between \$2,000-5,000 approximately. About 2-3 units for each LM border is suitable with the current work loads

Investment: Hand-held scanning machine

Estimated Cost: Scanner price varies between US\$ 2,000-5,000 per unit (about 2-3 units required for each LM border)

Hand-held scanner is used for both passengers and small cargo packages which are very useful especially for border with smaller size trading activities. The units are regular use at the border mostly for passengers at the current state but in an increasingly demand as some of the small packages are expected with a raising trend of cross-border e-commerce activities. The scanner is also use for scanning of some illegal substances that are smuggling into the importing countries as well as some of the products with higher tariff rate. Availability of hand-held scanners can help reduce the number of physical inspections required by the border custom officers and thus, reduce the releasing time and facilitate cross-border trade activities.

Benefits:

- Reduce proportion of cargos that needs physical inspection and hence, speed up custom clearance process at the border
- Facilitate smaller packages inspections

- Installation of the CCTV system to improve transparency at the border

- Investment funding can varies depending on the area covered at the border custom but an approximate of \$10,000-20,000 per site is appropriate.

Investment: CCTV System

- CCTV units (hardware) depending on the area covered at the site
- Corresponding software for the operation of the CCTV unit and communication links

Estimated Cost: Approximately US \$ 10,000-20,000 per site depending on the area covered

An investment in CCTV has proven to be one of successful features in custom modernization in China as it facilitates custom administration in custom monitoring and transparency. Gaining custom efficiency and reduction of custom administration costs are parts of the benefits expected from such investment. In fact, transparency has been one of the key elements in custom modernization under WCO's Trade Facilitation agreement and at the national level has been the foundation for custom upgrading at the border. The extended of security and monitoring system also support electronic custom procedures and documentations. With the system that is more reliable and resilient, it paves a way for further development and adoption of advance technology for custom modernization.

Benefits:

- Improve custom transparency and predictability of the custom procedures and the time required for custom clearance
- Facilitate the establishment of Common Control Area (CCA)
- Supporting e-custom and paperless custom in the custom modernization process

Custom Administration Related Infrastructure Investment Requirements

- Developing of software that will allow for electronic documents to interchange with the main custom online automated system

- Budget for developing the software can varies and the more important part is to get collaboration and commitments from the related authority agencies (Soft infrastructure)

Investment: Software Development

Estimated Cost: Varies and depending on the type of software

<p>One of the significant obstacles for custom modernization among LM countries is the lack of electronic data communication between custom and other related government agencies. In order to effectively achieve the implementation of custom modernization, it is obvious that technology advancement to connect all of the related agencies is required. For many of the LM countries, development of a software system to allow for electronic transfers of data and documents were not synchronized with the pace of custom improvement. Providing supports both financially and technically will accelerate the process of National Single Window (NSW) which can be viewed as a major steppingstone of custom modernization.</p> <p>Benefits:</p> <ul style="list-style-type: none"> • Create an electronic networking of custom related agencies by allowing exchange of trade data and documents • Reduce waiting time for the availability of related government agencies at the border • Increase effectiveness of custom regulation in screening for illicit trade and smuggling 	
<ul style="list-style-type: none"> • Upgrading and maintaining of the custom automated system 	<ul style="list-style-type: none"> • Depending on the availability of the local national budget, the increasing volume of trade, and scope of custom and custom related works.
<p>Investment: Custom Automated System Upgrade</p> <p>Estimated Cost: Varies based on the type and the capability of the software</p> <p>Despite some custom simplifications and attempts for standardization, there is an increasing trend of custom functions and complexities. Software for custom automated system has been greatly improved to cope with more complex issues and scopes of work. Better and sophisticated automated software which is up to date and most adopted by trading countries can facilitate further development of international custom collaboration. To encourage constant upgrading of custom automation is essential for the preparation toward an expansion of custom activities due to rising trade volume and variety of trading products at border checkpoints.</p>	
<ul style="list-style-type: none"> • Negotiation of custom collaboration bilaterally, regionally, and multilaterally for further custom modernization such as standardization, cross-border transportation agreement, custom harmonization system, exchange of custom and related information, etc. 	<ul style="list-style-type: none"> • Soft infrastructure is needed to initiate and foster the regular meeting and negotiation of LM custom authorities and policy makers
<p>Investment: Creation and Initiation of Forums for Custom Modernization Meetings and Negotiations</p> <p>Estimated Cost: Meetings and Negotiation Costs (Traveling, Venue, Rooms and Board, etc.)</p> <p>Custom collaboration has been the fundamental element in custom modernization and to narrow custom development gaps among LM members. Providing a forum for regular meeting, updating, and negotiating for issues related to custom procedures and custom administration allow LM custom to learn from each other and channels for custom technology and knowledge transfer. This is considered as a part of investment in soft infrastructure which is essential for custom improvement of the LM countries. Further negotiation of more advance custom issues such as agreement on sharing of information, cross-border transportation, custom standardization, etc. will be a plus at the early stage of development.</p>	
<ul style="list-style-type: none"> • Initiation of LM custom information exchange center is a setup of a collaborative intergovernmental agency 	<ul style="list-style-type: none"> • Cost estimation of the initiation of LM custom information exchange center will be approximately \$1-2 mil. and annual

among LM countries in preparation (laying groundwork) for further step of custom modernization where a certain degree of custom standardization and information are required	operating cost of about \$400,000-500,000 depending on the scale and scope of work
<p>Investment: Setting Up a LM Custom Information Exchange Center</p> <p>Estimated Cost: About US \$ 1-2 mil. for facility and annual operating cost of about US \$ 400,000-500,000 based on the scale and scope of work</p> <p>Exchange and sharing of trade information are very important features of custom modernization which requires region collaboration agreement. An initial step toward that goal is to establish trust among members such as common information can be share between trading partners. In this case, it is a good opportunity for LM countries to form a regional custom collaboration as a center for trade information. Sharing of information allows for advance custom procedures such as advance valuation, advance ruling, etc., as well as reduce repeating custom procedures. Thus, it improves custom efficiency and reduce custom releasing time at the border. In addition, the information exchange center can provide and release some of the trading data and analysis to the public and useful information for policy makers for planning.</p>	
<ul style="list-style-type: none"> Capacity building assistances as custom modernization required more ICT skills to merge with custom skills 	<ul style="list-style-type: none"> Regularly training for communication and custom automation and collaboration skills requires an approximate annual spending of about \$0.5-1 mil. plus some of the technical training as the custom automated system needs upgrading.
<p>Investment: Capacity Building Programs</p> <p>Estimated Cost: Annual Spending of about 0.5-1 mil.</p> <p>Capacity building is crucial for custom modernization both in terms of providing forum for regular meeting and consultation about custom officers of the LM members. Learning from each other and knowledge transfers can help narrowing some of the custom gaps among and between custom officers. Moreover, it is also essential to lay a groundwork for further custom collaboration such as custom valuation, advance ruling, post monitoring, risk management, etc., just to name a few, so that further understanding and custom standardization can be established. Some of the training on technical aspects of the custom automated system also helpful when upgrading is needed. The common practice is that technical training is offered by the company who supply the automated system. However, it is also benefit for custom officers of the trading partner to understand how custom automated system of the trading partners works at the border.</p>	

(i) Projects funded by bilateral and multilateral donors

For some LM countries, customs modernization has been relying heavily on financial and technical assistant from international organization as well as other countries in some bilateral agreement. Myanmar's Muse checkpoint for instance, to serve as a main gate for trade and investment between the two countries, China via Ruili government had provided several assistances to upgrade customs administration in Muse. ASYCUDA custom automated system implemented in Lao PDR in 2012 is another example of custom upgrading that was funded by multilateral donor; the World Bank in this case. In addition, there are some requests for assistance along with the plans for custom modernization in Lao PDR which can be used as an example.

SmartTax. This is self-financed project by PDR. The development of SmartTax aimed to serve electronic payment of customs duty, taxes, and fee charges at checkpoints. The SmartTax system is now in live

operation for 18 checkpoints (international and local checkpoints) where the ASYCUDA in operation with a direct live link and revenue conciliation between customs checkpoints to participating commercial banks and the National Treasury. In this connection, the study team was concerned about the business working hours in Lao PDR, e.g. Laos National Treasury is normally closed at 16:00 PM, so that related transactions, including tax payment cannot be processed, may affect customs clearance process. For further development in the future, Lao custom is considering acquiring a new automate payment system ordered by Japanese agency (JI CA); Nippon Automated Cargo and Port Consolidated System (NACCS), which is also used in Vietnam and Myanmar toward NSW. The UNI-PASS (4th generation) of customs information system has also been in the radar for the development of Lao's custom to support the establishment of NSW process. Though the investment might cost over 70 mil. US dollars.

(ii) Potentials for LMC Fund to Assist the LM Countries in Customs Modernization

To illustrate some ideas of how the role of LMC be in assisting the custom modernization process in the region sufficiently and effectively, some useful information to identify the areas of need and the necessary means are suggested. Following are some of the examples provided in the case of Viet Nam who suggests that direct intervention might not be an appropriate measure in the country where the plan for custom modernization had already existed and implemented in phasing manner. It might be better suit to break down some of the assistance packages into partially to incorporated with the existing plans via some regional cooperation such as MI to facilitate the needs. Moreover, prioritization of the supporting packages can be crucial as well to deliver the technical and financial supports as countries are at different stages of custom development and having different affords in pursuing its national custom modernization process.

According to some personal views of custom officers interviewed, it may not be as effective for LMCSF to intervene in the national customs reform, modernization, and development plans or strategies. In fact, national custom development plan is a comprehensive package under the national master plan which cannot be separated into parts and request for donors' support in pieces. Instead, jointly work in collaborative way to prioritize the donors' supports to the sub-regional cooperation and development with a focus on appropriate intervention might be more effectively. For instance, fostering the operation of the border checkpoints between and among the LM countries, e.g. harmonization of working hours at the border gates, reduction in non-physical barriers to cross-border trade, etc. which is consistent with trade and transport facilitation initiative in the GMS is possible. Also, establishment of a data sharing platform (data on trade volume, commodities, tariff, C/O, certification, and so on) between and among the LM countries), given that the countries have not agreed to share information, e.g. customs clearance results even the case of Lao Bao–Dansavanh border check points under the GMS-CBTA, is worth considering for a further development.

(iii) Capacity Development Needed with Support from LMC Fund

Customs work has always been facing difficulties both internally and externally such that custom automation system was seen as the key solution to cope with those problems. Internally, custom unit has to deal with limited human resources (staffs and performances), inadequate capital, and complaints about lack of transparency to name a few. In addition, there are external factors such as a drastically rise in trade volume (especially at the border checkpoints), a demand to deter illegal trade, the essential of trade promotions or incentives for economic development, the need for information exchange between national and international government agencies, and in many cases revenue collection target. As a result, customs modernization in most aspect often refers to the adoption of custom automated system such that as much as possible the use and acceptance of electronic documents. While ASYCUDA ++ is widely used among LM countries

checkpoints, upgraded software such as UNI-PASS was introduced in 2013. ASYCUDA as a custom automation system allows and facilitates e-document process including customs declaration through server-based system. There are weaknesses in terms of limited integration to the customs administration and thus, small logistic cost saving. UNI-PASS on the other hand based on centralized nationwide system so that it can be fully integrated with the custom administration and fully support internet-based e-document. It is argued that installation of the automated system will provide significantly logistic cost savings. Therefore, for most LM countries, despite the current implementation of the customs automated system, an update and upgrade of the system will soon be a prioritize step for further needs especially when a greater volume of trade is experienced. Also, there will be a greater demand for data sharing and data harmonization as the ASEAN member states moving toward ASW.

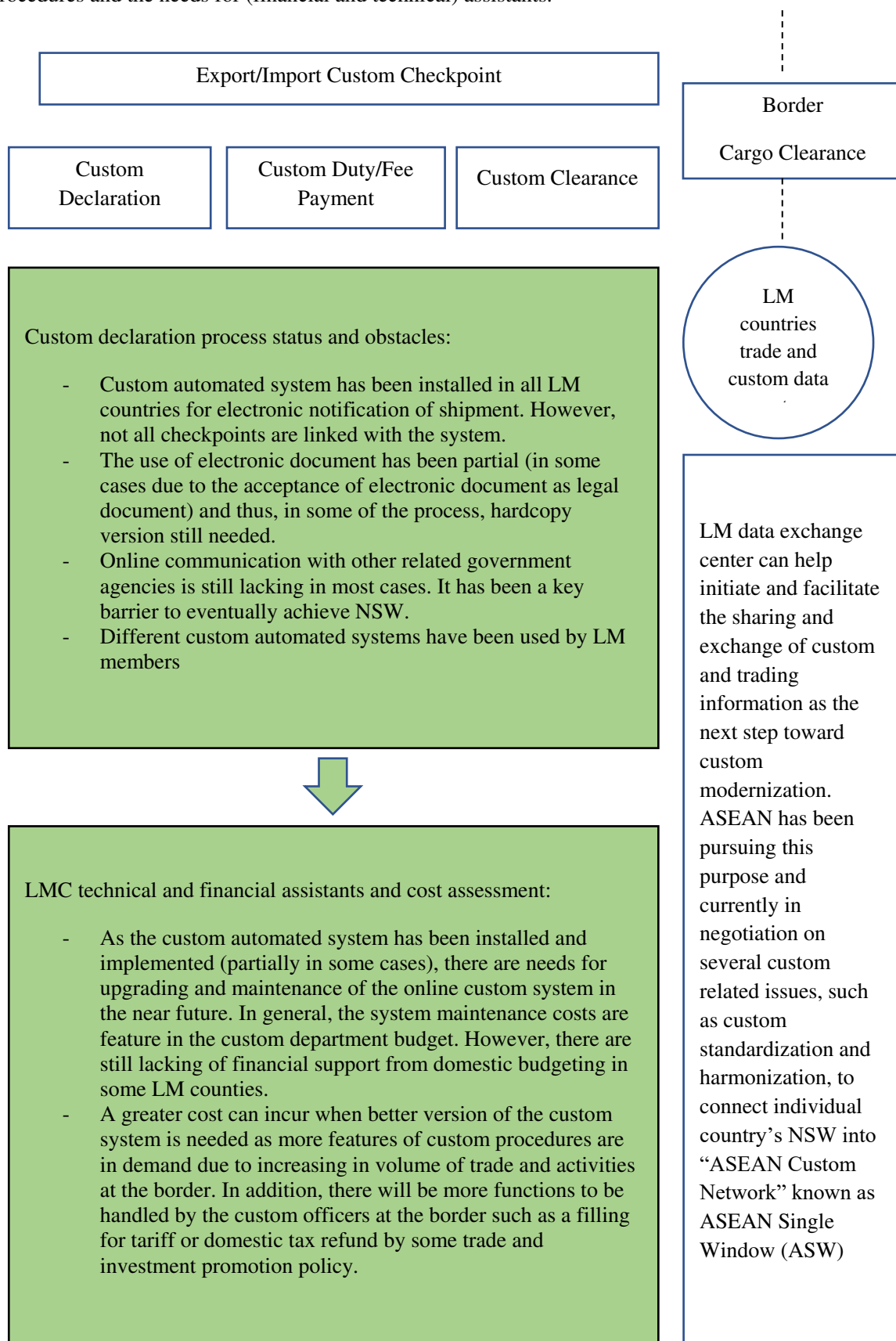
CHAPTER 5

SYNTHESIS AND RECOMMENDATIONS

Despite the installation of the custom automation system, the implementation level has been different in the LM countries. Custom automation systems are self-developed version in China, Thailand and Viet Nam. The rest of the LM members employ the system developed by international organization. For Cambodia, Myanmar, and Lao PDR, there still be some significant needs for investment in computer servers and some information technology equipment (computers, high quality printers, etc.) to handle greater amount of information exchange and sharing as more agencies are involved in the custom procedures at the checkpoint.

While recognizing the great benefits promised by custom improvement both nationally and regionally, there are persistence custom modernization gaps among LM members. To narrow these gaps, international assistances both financially and technically are in demand as some of the LM countries are currently rely on. Additionally, upgrading and maintaining investment of the current custom automation system and perhaps (in the future) harmonization or synchronization of the system as difference members are implementing difference systems. To achieve this, there are needs for physical infrastructure investment, technical and collaborative supports, and capacity building to foster the process of custom modernization as summarized by the chart below.

The following chart is developed to illustrate the structure of custom modernization related to custom procedures and the needs for (financial and technical) assistants.



Custom duty/fee payment process status and obstacles:

- This feature has not been fully implemented electronically (in some LM countries; Lao PDR, Cambodia, Myanmar) due to (i) the level of domestic financial market development and online banking system and (ii) it needs time for users to get accustomed to and adopt to the online custom payment system.
- The development of e-payment system requires an integrated feature of custom functions and financial institution who will handle the automated processes and also an acceptance of the electronic receipts involved.
- Custom e-payment can become more complex as the system is asked to incorporate some important features such as custom refund, incentive schemes, etc.



LMC technical and financial assistants and cost assessment:

- To this aspect, financial assistant is on the back seat to technical assistant as it needs to collaboratively develop software needed for electronic payment system. In addition, to promote the use of e-payment also takes time as traders and authorized custom agencies have to get used to the system and eventually having trust on the system.

Custom Clearance process status and obstacles:

- Most of the LM checkpoints provide custom One Stop Service (OSS) and the inspection yards are available with different quality of pavement.
- Adequate custom services have been provided at the border with some improvement over the time based on the time release report which show a reduction of time and costs of trade activities at the gate. However, the services still can be upgraded and improved by transforming into a fully electronic based system. Furthermore, a greater degree of trade and custom information exchange and sharing can be pursued in the next step.
- There are still needs of mobile container X-ray machine in some border custom checkpoints.

LMC can take a leading initiative to form a LM custom collaboration framework. Creating a special trade facilitation arrangement specifically to respond to the needs of LM members, a specially lane for LM members for instance, where e-custom and paperless mechanism can be better implemented. In doing so, LM trade and custom data center can serve as an intermediate cooperation organization (as a pilot initiative) and used as a stepping stone toward greater scope of custom modernization and collaboration. In terms of funding needed for such an establishment, physical facility infrastructure need should be at the minimum with some monthly rental cost at the border of \$1,000-\$1,200. Much of the budget will be on getting an automated system to hook up with the existing custom automation at the border. This should cost about \$100,000-\$200,000 with some annual upgrade and maintenance. The rest would be the cost of staffs to work in the center. Moreover, the soft infrastructure will also be needed as it requires some authorization allowing for the exchange of



LMC technical and financial assistants and cost assessment:

- Over the past years, some new custom infrastructure facilities have been built in several border checkpoint where they are deemed important and as a target for national custom development plan. There are some additional financial needs to accelerate the ongoing utilization of the automated custom system. Also, with such an investment in computer hardware (servers) and software as the system requires transformations of information between the central unit and the local units. Lao PDR, Cambodia, and Myanmar are the three countries with greater needs for these type of investment supports. An estimate cost of about \$300,000-\$500,000 annually is appropriate depending on the site and location of the border checkpoints to gradually expand the coverage of the automated custom system. Funding can be operated as a matching fund with the host country budget as in most cases, there are some allocation of budget in the national custom development plan.
- The needs for container x-ray machine are by far most requested by the visited border checkpoints as it provides immediate impacts in terms of custom efficiency improvement. The costs are estimated at about \$20-30 Mil. depending on the model selected.
- Hand-held x-ray machine is also demanded for some custom border checkpoints to better and more effectively handle goods crossing border that are not in containers which sometime can be problems as it creates traffic congestion at the crossing bridge.
- Investment on physical infrastructure to improve pavement in the container parking yard can also be considered especially in the rainy season and the quality condition of cargo trucks are different and it might lead to a delaying custom process at the border. Cost estimation of this type of infrastructure investment will need some on-site structural design and assessment.

In addition, there are custom modernization related to custom administration and the needs for (financial and technical) assistants as follows;

LM Custom Administration Status and Obstacles:

1. Developing of software that will allow for electronic documents to interchange with the main custom online automated system
2. Upgrading and maintaining of the custom automated system
3. Negotiation of custom collaboration bilaterally, regionally, and multilaterally for further custom modernization such as standardization, cross-border transportation agreement, custom harmonization system, exchange of custom and related information, etc.
4. Initiation of LM custom information exchange center is a setup of a collaborative intergovernmental agency among LM countries in preparation (laying groundwork) for further step of custom modernization where a certain degree of custom standardization and information are required
5. Capacity building assistances as custom modernization required more ICT skills to merge with custom skills



LMC Technical and Financial Assistants and Cost Assessment:

1. Budget for developing the software can varies and the more important part is to get collaboration and commitments from the related authority agencies (Soft infrastructure)
2. Depending on the availability of the local national budget, the increasing volume of trade, and scope of custom and custom related works.
3. Soft infrastructure is needed to initiate and foster the regular meeting and negotiation of LM custom authorities and policy makers
 - Cost estimation of the initiation of LM custom information exchange center will be approximately \$1-2 mil. and annual operating cost of about \$400,000-500,000 depending on the scale and scope of work
 - Regularly training for communication and custom automation and collaboration skills requires an approximate annual spending of about \$0.5-1 mil. plus some of the technical training as the custom automated system needs upgrading.

CHAPTER 6

ANNEXURE

6.1. Annex 1: List of Representatives / Interviewees in the LM countries

Cambodia			
	Meeting Location	Cambodia Customs Department, Phnom Penh, Cambodia	
	Date	May 16, 2019	
No.	Name	Position and Organization	Contact Details
1.	Dr. Mauk Pheakdei	Deputy Chief of Statistics and Information Technology Office, General Department of Customs and Excise of Cambodia	Email: pheakdei@gmail.com Tel: 00855-17 750 578
2.			
Cambodia			
	Meeting Location	Poipet Customs Department, Poipet, Cambodia	
	Date	July 26, 2019	
No.	Name	Position and Organization	Contact Details
1.	Mr. Kadul Kandarith	Deputy Chief of Poipet Customs and Excise Office, General Department of Customs and Excise of Cambodia	Email: kandarith@gmail.com Tel: (855)12 866 671
China			
	Meeting Venue	Kunming Customs Department, Yunnan Province, P.R. China	
	Date:	May 22, 2019	
No.	Name	Position and Organization	Contact Details
1.	Ms. Gao	General Office 办公室	
2.	Ms. Kang,	Division of General Operation 综合业务处	
3.	Ms. Gao	Division of Port Control 口岸监管处	

4.	Mr. Che	Division of Statistics and Analysis 统计分析处	
5.	Mr. Wu	Division of Science and Technology 科技处	
6.	Mr. Ji	Customs of Central Yunnan New Development Zone 滇中海关	
7.	Ms. Huang	Foreign Affairs Section Office, General Office 办公室对外事务科	
	Meeting Venue	Ruili Customs Department, Yunnan Province, P.R.China	
	Date:	May 22, 2019	
No.	Name	Position and Organization	Contact Details
1.	Mr. Jian Wan	Section Chief, Ruili Customs, Kunming Customs, No.84, Ruihong Road, Ruili City, Yunnan, Province, P.R.C	Email: chinawj@126.com Tel: 0086-6924110397 Mobile: 0086-13887877553
2.	Mrs. Jiali Liu	Deputy Section Chief, Ruili Customs, Kunming Customs, No.84, Ruihong Road, Ruili City, Yunnan, Province, P.R.C	Email: 981287929@qq.com Tel: 0086-6924110397 Moblie: 0086-13608768199
	Myanmar		
	Meeting Venue	Myawaddy Customs, Myawaddy Trade Zone	
	Date:	May 22, 2019	
No.	Name	Position and Organization	Contact Details
1.	Mr. Hla Min Htway	Director, Myawaddy Customs	Email: hlaaminhtway0273@gmail.com , Tel: +9595001952
2.	Mr. Tun Tun Htet	Assistant Director, Myawaddy Customs,	Email: myawaddycustomsoss@gmail.com , Tel: +9599768646333
3.	Mr.Hla Myo Aung	Assistant Director	

4.	Mr.Aung Thura Tun	Staff Officer	
5.	Mr.Than Zaw	Staff Officer	
6.	Ms.Ohn Mar Aung	Staff Officer	
	Meeting Venue	Muse Customs, Joint Inspection Building, Muse (105 Mile) Border Trade Zone, Myanmar	
	Date:	May 23, 2019	
No.	Name	Position and Organization	Contact Details
1.	Ms. May Su Aung	Assistant Director, Muse Customs Department, Muse Trade Zone, Myanmar	Tel:09 5009342
2.	Ms. Thinzar Kiang	Staff Officer, Assistant Director, Muse Customs Department, Muse Trade Zone, Myanmar	Email: mmcustoms.intsec@gmail.com Tel: +9595400630 Fax: +951 380731
	Lao PDR		
	Meeting Venue	Laos Customs Department, Ban Hatsady, Sysattanak District, Vientiane	
	Date	July 18, 2019	
No.	Name	Position and Organization	Contact Details
1.	Mr. Canda Sinpaseuth	Acting head of ASEAN Section, International Cooperation Division, Lao Customs	
2.	Mr. Sompasong Amphaengphai	Deputy Director of the Legislation Division, Lao Customs Department	
	Meeting Venue	Huay Xai Customs Checkpoint	
	Date	July 22, 2019	
No.	Name	Position and Organization	Contact Details
1.	Mr.Khamphai	Head of International Friendship Bridge 4 Customs checkpoint, Huay Xai, Borkeo	Tel: +8562055583359
	Thailand		

	Meeting Venue	Royal Thai Customs Department, Bangkok	
	Date	May 10, 2019	
No.	Name	Position and Organization	Contact Details
1.	Mr. Krisada Chinavicharana	Director General of Thai Customs Department	Tel. +66-2667-6000, +66-2667-7000
2.	Mr. Sapphasuk Wijaiworakit,	Computer Technical Offer,	+66 89-125-4399, Email: Sapphasuk_wi@customs.go.th
	Meeting Venue	Ministry of Commerce, Bangkok	
	Date	August 14, 2019	
No.	Name	Position and Organization	Contact Details
1.		Director, Department of Foreign Trade, Ministry of Commerce, Bangkok, Thailand	Email:
2.	Mr. Srangsook	Technical Officer, Professional Level, Department of Foreign Trade, Ministry of Commerce, Bangkok, Thailand	Tel: 081 821 1010, 02 547 4886 Email: srangsook.dft@gmail.com
3.	Ms. Poon	Technical Officer, Professional Level, Department of Trade Negotiation, Ministry of Commerce, Bangkok, Thailand	Email: w.ph.poon@gmail.com
	Meeting Venue	Chiang Kong Customs Checkpoint, Chiang Kong	
	Date	July 22, 2019	
No.	Name	Position and Organization	Contact Details
1.	Ms. Rung Phaporn,	Admin, Chiang Kong Customs Department, Chiang Rai, Thailand	Tel: +66634694294
	Meeting Venue	Aranyaprathet Customs Checkpoint, Aranyaprathet, Thailand	
	Date	July 22, 2019	
No.	Name	Position and Organization	Contact Details

1.	Mr. Kittisanta Sukhaprabhabhorn	Customs Technical Officer, Aranyaprathet Customs House	Email: 106453@customs.go.th Mobile: 089-229-9536 Line: Kittisanta Sukhapra
	Meeting Venue	Mukdahan Cusotms House Checkpoint, Mukdahan, Thailand	
	Date	July 22, 2019	
No.	Name	Position and Organization	Contact Details
1.	Mr. Mohachai Thanapong	Customs Officer, Professional Level, Mukdahan Cusotms House	Mobile: 087-6704955
	Vietnam		
	Meeting Venue	Vietnam Customs Department, Hanoi	
	Date	May 27, 2019	
No.	Name	Position and Organization	Contact Details
1.	Mr. Nguyen Anh Tai	Deputy Director General, International Cooperation Department (ICD).	
2.	Mr. Tien Trinh	Deputy Head of Viet Nam Customs Modernization Board	
3.	Ms. Nguyen Thu Huong	Official of International Cooperation Department (ICD).	
	Meeting Venue	Huu Nghi (Friendship) Border Customs Branch	
	Date	May 28, 2019	
No.	Name	Position and Organization	Contact Details
1.	Mr. Nguyen Cong Tuan	Deputy Head of Huu Nghi Border Gate Customs Branch.	
	Mr. Vy Manh Hong	Deputy Manager, Customs Administration and Supervision Office	
2.	Ms. Nguyen Dieu Linh,	Deputy Task Team of Customs Procedures	Tel: +84 982 949 515
3.	Ms. Nguyen Kim Phuong,	Officer, Customs Administration and Supervision Office	

6.2. Annex 2: Photos of Field Visits and Meetings

Meeting with Kunming Customs Department, Kunming, Yunnan Province, P.R.China



Meeting with Ruili Customs Department, Kunming, Yunnan Province, P.R.China



Meeting with Myawaddy Customs Department



Meeting with Muse Customs Department



Meeting with Laos Customs Department, Vientiane, Laos



Meeting with Thai Customs Department, Bangkok, Thailand



Meeting with Mukdahan Customs House Checkpoint, Mukdahan, Thailand



Meeting with Hanoi Customs Department, Hanoi, Vietnam



Meeting with Lang Son Customs Department, Lang Son, Vietnam



6.3. Annex 3: Tentative Field Survey Schedule

**STUDY ON CUSTOMS MODERNIZATION IN THE LM COUNTRIES:
TENTATIVE FIELD SURVEY SCHEDULE
(CAMBODIA / CHINA / MYANMAR / LAO PDR / THAILAND / VIETNAM)**

(May 10 – June 08, 2019)

25 Working Days

I. SURVEY IN CAPITAL CITIES [May 10 – May 16, 2019] = 7 working days

Destination	Bangkok	Vientiane	Yangon	Phnom Penh
Date	10-May-19	13-May-19	14-May-19	16May-19
Morning	Meeting with Customs in Bangkok Time: 9:30-11:30	Meeting with Customs in Vientiane Time: 9:30-11:30 or 13:30-15:30	Meeting with Customs in Yangon Time: 10:30-12:30	Meeting with Customs in Phnom Penh Time: 9:30-11:30
Afternoon				

Note		<p>Travel from Bangkok, on 12 or 13 (morning) May, upon meeting confirmation</p> <p>(1) Night Stop in Vientiane if meeting is at 9:30 am on 13 May,</p> <p>Flight back to BKK on 13 May</p> <p>Study Team: Dr. Santi and Hao Wen</p>	<p>Flight back BKK in evening around 6 pm on 14 May.</p> <p>Flight to PNP in evening on 15 May</p> <p>Study Team: Mr. Dutta and Dr. Santi</p>	<p>Flight to BKK on 16 May</p> <p>(1) Night Stop in PNP on 15 May.</p> <p>Study Team: Mr. Dutta, Dr. Santi and Sokim</p>
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II. SURVEY IN BORDER CHECK POINTS IN CHINA – MYANMAR [MAY 22 – 25, 2019] = 4 working days

Destination	Kunming	Ruili (China) – Muse (Myanmar)	
Date	22-May-19	23-May-19	24-May-19
Morning	Interview meeting with Chinese Customs in Kunming Time: 9:00-11:30 am	Interviews meeting with Ruili Customs Officers Time: 9:00-11:30 am	Travel back to Bangkok
Afternoon		Interviews meeting with Muse Customs Officers Time: 13:00-15:30 pm	
Note	Flight to Kunming from BKK on 21 May. (1) Night Stop in Kunming on 21 May. To Ruili: Flight to Mangshi Airport (LUM) from Kunming and take van for 2 hours to Ruili on 22 May. Study Team: Mr. Dutta, Dr. Santi and Hao Wen	By Van: 02-night stop in Ruili, Yunnan on 22 and 23 May (night stop should be near LUM airport on 24 May) Study Team: Mr. Dutta, Dr. Santi and Hao Wen	

III. SURVEY IN BORDER CHECK POINTS IN THAILAND–MYANMAR–CAMBODIA–LAO PDR [MAY 27– June 04, 2019] = 9 working days

Checkpoints	Mae Sot (Thailand) – Myawaddy (Myanmar)	Chiang khong (Thailand) - Huay Xai (Lao PDR)	Aranyaprathet (Thailand) – Poipet (Cambodia)	Mukdahan (Thailand) - Savannakhet (Lao PDR)
Date	27-May-19	29-May-19	31-May-19	03-June-19
Morning	Interview meeting with Mae Sot Customs Officers Time: 10:00- 12:30 am	Interview meeting with Chiang Khong Customs Officers Time: 9:00-11:30	Interview meeting with Aranyaprathet Customs Officers Time: 9:00-12:00	Interview meeting with Mukdahan Customs Officers Time: 11::00-13:00
Afternoon	Interview meeting with Myawaddy Customs Officers Time: 14:00-16:00	The interview meeting with Huay Xai, Laos Customs Officers Time: 13:00-15:30	Interview meeting with Poipet Customs Officers Time: 13:00-15:30	Interview meeting with Sayannakhet Customs Officers Time: 14:30-16:30
Note	Flight on 27 May to Mae Sot 01–night stop in Mae Sot and flight back to Bangkok on 28 May Study Team: Dr. Santi and Joe	Flight to Chiang Khon on 28 May (1) Night Stop in Chiang Khong on 28 May and flight back to BKK with late flight on 29 May Study Team: Dr. Santi and Joe	Van travel to Aranyaprathet on 30 May and (1) Night Stop in Aranyaprathet and van travel back to BKK on 31May Study Team: Dr. Santi and Sokim	Flight to NKP from BKK and take van to Mukdahan on 3 June (1) Night stop in Mukdahan on 3 Jaun and take flight on 04 June to BKK Study Team: Dr. Santi and Joe

IV. SURVEY IN BORDER CHECK POINTS IN CHINA – VIETNAM [June 04 – 08, 2019] = 5 working days

Destination	Ha Noi	Lang Son	Pingxiang	Pingxiang
Date	05-June-19	06-June-19	07-June-19	08-June-19
Morning	Interview meeting with Vietnam Customs in Ha Noi Time: 09:00–11:30 am	Interview meeting with Lang Son Customs Time: 9:00–11:30 am	Interview meeting with Pingxiang Customs Officers Time: 9:00–11:30 am	Travel back to BKK from Hanoi
Afternoon				
Note	Flight to Hanoi from BKK on 04 June and Take van to Lang Son on 05 June 2019 (1) Night stop in Lang Son on 05 June Study Team: Mr. Quan and Dr. Santi	Border crossing (1) Night stop in Pingxiang on 06 June Study Team: Mr. Quan and Dr. Santi	Border Crossing and take van to Hanoi from Lang Son 01–Night stop in Hanoi on 07 June Study Team: Mr. Quan and Dr. Santi	