Towards a National Integrated and Sustainable Trade and Transport Facilitation Monitoring Mechanism: BPA+

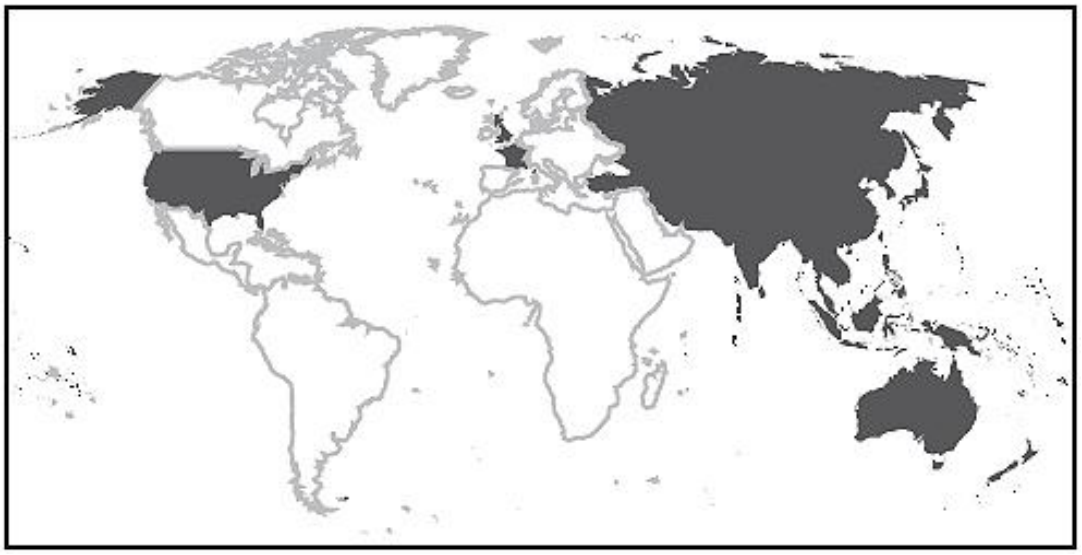
ADB

UNITED NATIONS
ESCAP
Economic and Social Commission for Asia and the Pacific

Towards a National Integrated and Sustainable Trade and Transport Facilitation Monitoring Mechanism: BPA+

UNITED NATIONS
ESCAP
Economic and Social Commission for Asia and the Pacific

The secretariat of the Economic and Social Commission for Asia and the Pacific (ESCAP) is the regional development arm of the United Nations and serves as the main economic and social development centre for the United Nations in Asia and the Pacific. Its mandate is to foster cooperation between its 53 members and 9 associate members. ESCAP provides the strategic link between global and country-level programmes and issues. It supports Governments of the region in consolidating regional positions and advocates regional approaches to meeting the region's unique socio-economic challenges in a globalizing world. The ESCAP office is located in Bangkok, Thailand. Please visit our website at www.unescap.org for further information.



The shaded areas of the map are ESCAP Members and Associate members.

United Nations publication

ISSN:
ST/ESCAP/2683

For further information on this publication, please contact

Mr. Ravi Ratnayake
Director
Trade and Investment Division
Economic and Social Commission for Asia and the Pacific
United Nations Building
Rajadamnern Nok Avenue
Bangkok 10200, Thailand
E-mail: escap-tid@un.org

EXECUTIVE SUMMARY

There is a pressing need for the countries in the Asia-Pacific region to establish their own sustainable mechanism to monitor the effectiveness of trade and transport facilitation reforms and measures and identify solutions to streamline and optimize trade and transport process. Although existing global trade facilitation performance surveys and databases provide useful information on benchmarking and raise awareness, they do not provide sufficiently detailed information to develop or update national trade and transport facilitation action plans. At the national level, most trade and transport facilitation monitoring efforts have been ad-hoc, expensive and dependent on external, rather than national, human and financial resources. Consequently, countries often do not have adequate data or information to support evidence-based policy making and reforms.

In this context, this publication aims to provide guidance to the countries on establishing a sustainable trade and transport facilitation monitoring mechanism (TTFMM). The key functions of the TTFMM are two-fold: (1) to formulate/update and prioritize recommendations for advancing trade facilitation; and (2) to measure and assess progress in trade facilitation. It is emphasized that TTFMM should be anchored with national trade and transport facilitation committee (or an equivalent institution) and rely upon national resources to make it sustainable and affordable. Underpinning TTFMM is the methodology called Business Process Analysis Plus (BPA+) which is built on the Business Process Analysis methodology, supplemented by Time Release Studies (TRS) and Time-Cost-Distance (TCD) methodologies. It is envisaged that establishment of TTFMM would enable the countries to monitor and enhance trade facilitation on a continuous basis and in a sustainable manner.

Although TTFMM was initially designed to cater for the needs from the countries in the Asia-Pacific region, it is also applicable for any countries in the world, considering the fact that monitoring and improvement of trade and transport facilitation are always non-stop activities for not only developing countries but also developed countries.

ACKNOWLEDGEMENTS

This publication was prepared by Yann Duval and Tengfei Wang, Trade Facilitation Unit, Trade and Investment Division, United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and Cuong Minh Nguyen from South Asia Subregional Economic Cooperation Unit, Regional Cooperation and Operations Coordination Division, Asian Development Bank, with the support of Ravi Ratnayake, Director, Trade and Investment, ESCAP, Sekhar Bonu, Director and Ronald Antonio Butiong, Principal Regional Cooperation Specialist, Regional Cooperation and Operations Coordination Division, Asian Development Bank.

Constructive comments were provided by Markus Pikart, Takashi Matsumoto, Shyam Dahal, Achyut Bhandari, Mohammad Ehteshmaul Hoque, Prabir De, Florian Alburo, Shanta de Silva, Somnuk Keretho, Sangwon Lim and Salehin Khan, as well as experts from the United Nations Network of Experts for Paperless Trade in Asia and the Pacific (UNNExT).

The work in this publication was also presented at the *Inception Workshop of the ADB-ESCAP Project on Trade and Transport Facilitation Performance Monitoring in the SASEC Countries* held in Bangkok on 26-27 November 2013. This publication incorporates some of the comments and suggestions provided by public and private sector representatives from the national trade and transport facilitation committees who participated in the Workshop.

The opinions, figures and estimates set forth in this document are those of the authors and should not necessarily be considered as reflecting the views or carrying the endorsement of the United Nations or the Asian Development Bank.

ABBREVIATIONS

ADB	Asian Development Bank
BPA	Business Process Analysis
BPA+	Business Process Analysis Plus
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
NTTFC	National Trade and Transport Facilitation Committee
PPP	Public-Private Partnership
TCD	Time Cost Distance
TRS	Time Release Study
TTFMM	Trade and Transport Facilitation Monitoring Mechanism
UML	Unified Modelling Language
UNNExT	United Nations Network of Experts for Paperless Trade in Asia and the Pacific
WCO	World Customs Organization

CONTENTS

Introduction 1

1. Characteristics of a National Integrated and Sustainable Trade and Transport Facilitation Monitoring Mechanism (TTFMM) 2

1.1. Overview of TTFMM 2

1.2. Integrated Methodology: Business Process Analysis Plus 3

1.3. Sustainability of TTFMM 4

1.3.1. Institutional Arrangement 4

1.3.2. National Human Resource and Capacity-building 5

1.3.3. Other Measures towards Sustainability 5

2. Steps to Establish and Implement TTFMM 7

Step 1. Establish or designate the executive body 7

Step 2. Preparation for conducting the (baseline) study 7

Step 3. Implementation of (baseline) study 9

Step 4. Finalize recommendations 9

Step 5. Communicate the results and recommendations 10

Other Relevant Issues 10

Conclusion 11

Annex 1. A Comparison of BPA, TCD and TRS 13

Introduction

Despite the efforts made by many developing countries to facilitate trade and transport, few have effective mechanisms in place to monitor the actual effectiveness of their trade and transport facilitation reforms and identify the trade and transport process and procedures that should be prioritized for simplification or streamlining. The global trade facilitation performance surveys and databases[1] now available are useful benchmarking and awareness raising tools, but they do not provide sufficiently detailed information to develop or update national trade facilitation action plans. In addition, while trade and transport facilitation assessments of various scopes are often conducted in least developed countries or landlocked developing countries, these assessments are typically ad-hoc in nature, with little coordination among development partners and limited buy-in by the governmental agencies concerned.

The need for regularly and systematically monitoring progress and impact of trade and transport facilitation reforms has been widely recognized, as highlighted in the ADB/ESCAP Trade Facilitation Framework (ADB/ESCAP, 2009 and 2013[2]). Measuring performance is essential to not only examine whether progress is made according to plan, but also adapt strategy and its implementation to ever-changing national, regional and global environments. Measuring the actual time and cost involved in completing the wide array of trade and transport procedures involved in import or export is important. However, the trade and transport facilitation monitoring mechanism should also provide sufficiently concrete and detailed information so as to enable identification of specific trade facilitation measures to be prioritized for further improvement. Considerations should also be given to ensuring the sustainability of the performance monitoring and improvement mechanism.

In that context, the concept of a national integrated and sustainable trade and transport facilitation monitoring mechanism (hereafter, it is abbreviated as TTFMM) is developed below, building upon the UNNExT Business Process Analysis (BPA) methodology[3] and other relevant tools and recommendations. The note highlights the need for TTFMM to be as 'integrated' and 'sustainable' as possible and provides a description of the steps involved in establishing and operating TTFMM.

[1] These include, for example, the World Bank Doing Business and Logistics Performance Index databases, the Word Economic Forum Executive Opinion Surveys, and the ESCAP-World Bank Trade Cost Database.
[2] ADB/ESCAP, Designing and Implementing Trade Facilitation in Asia and the Pacific, 2009 and 2013.
[3] UNNExT stands for United Nations Network of Experts for Paperless Trade in Asia and the Pacific. BPA is seen as a first step towards trade facilitation and paperless trade and BPA studies have been conducted in more than a dozen Asian developing countries since 2010 (www.unescap.org/tid/unnext/tools/business_process.asp).

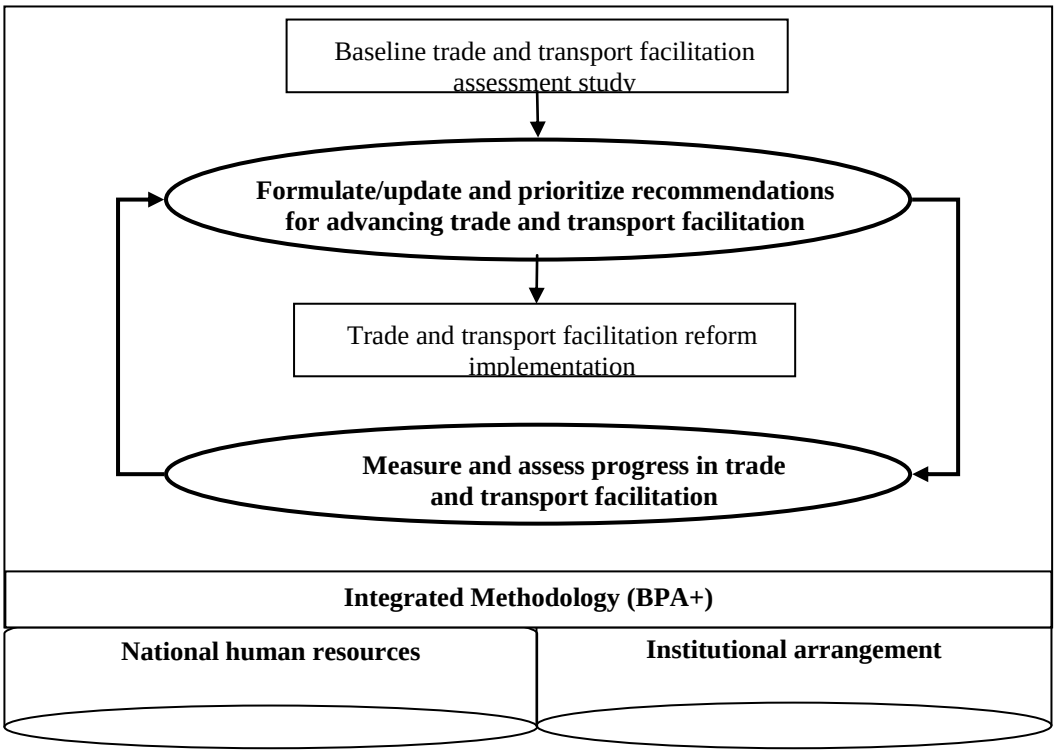
1. Characteristics of a National Integrated and Sustainable Trade and Transport Facilitation Monitoring Mechanism (TTFMM)

1.1. Overview of TTFMM

Core functions

TTFMM aims to support overall implementation of trade and transport facilitation reform and has two inter-related functions: (a) to formulate, update and prioritize recommendations for trade and transport facilitation; (b) to measure and assess progress in trade and transport facilitation. As shown in figure 1, once an initial set of recommendations has been formulated and prioritized for implementation, typically through a first (baseline) assessment study, progress in trade and transport facilitation is measured and assessed on a regular basis. The regular assessments provide the information needed to update or formulate new recommendations to ensure the trade facilitation reform remains relevant and is implemented as effectively as possible.

Figure 1. Key Functions and Components of TTFMM



Key outputs

The key outputs of TTFMM can be categorized as (1) performance indicators; (2) process and procedure descriptions; and (3) recommendations for improvement. Examples of typical outputs generated by TTFMM are shown in table 1.

Relevant data and information collected by TTFMM are saved in two formats: (1) national database and (2) annual report. National database records all data mentioned in Table 1

whilst annual report provides in-depth analysis of key issues on trade and transport facilitation.

As shown in figure 1, the monitoring system outputs are delivered, respectively, (a) using an integrated "whole-of-supply chain" methodology based on international standards and practices, (b) through a multi-stakeholder institutional arrangement, and (c) on the basis of national human resources available and/or to be developed.

Table 1. Typical Outputs of TTFMM

Performance indicators	• Time, cost and number of documents needed to complete the various activities in import/export/transit process (e.g., "obtain import license") for selected/strategic products; • Average time taken from the arrival of the goods to their release (by Customs) and breakdowns of each operation between arrival and release • Average time and cost involved in moving a shipment along a specified route/corridor • Reliability of costs and times of key activities in import/export/transit process • Physical inspection rates for import/export/transit
Process and procedure description and analysis	• Use case and activity diagrams (i.e., standardized process and procedures maps); Time-procedures chart; and Time/Cost -distance charts • Process descriptions, including a list of agencies and stakeholders involved as well as a list of , trade forms and documents and related laws, rules and regulations; • Relevant laws, rules and regulations; and • A list of identified bottlenecks
Recommendations	• An analysis of the bottlenecks and identification of possible solutions to address them • Actionable and prioritized list of recommendations for implementation

1.2. Integrated Methodology: Business Process Analysis Plus

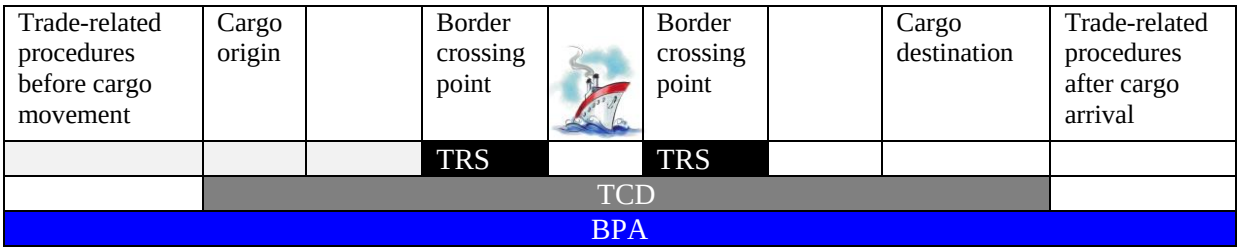
It is now well recognized that a "whole-of-supply-chain" approach to trade and transport facilitation is key to making progress in reducing the time and cost of trade transactions.[4] On that basis, it is important that TTFMM is developed to assess trade and transport facilitation progress and generate recommendations for further improvement covering the entire set of trade processes/procedures (including those related to transport and payment). There is a need to integrate various methodologies and tools to achieve its purpose and to ensure maximum reliability of data and information generated by it. To the extent possible, it should use methodologies based on international standards – such as Unified Modeling Language (UML) to map trade procedures – so that relevant outputs of TTFMM may be more easily shared with relevant trade or transit partners, e.g., as part of a collaboration to facilitate trade and transport along a given subregional corridor.

In that context, a Business Process Analysis Plus (BPA+) approach is proposed, which is built on the UNNExT Business Process Analysis methodology,[5] supplemented by ESCAP

[4] For example, refer to the UN/CEFACT international supply chain (Buy-Ship-Pay) model.
[5] http://www.unescap.org/tid/unnext/tools/business_process.asp.

Time-Cost-Distance (TCD) and WCO Time Release Studies (TRS) methodologies. Indeed, while BPA was initially designed to document and evaluate an import/export process at a given point in time, its relative simplicity, combined with the fact that it specifically includes measuring the time and cost of the complete range of procedures as one of the main output of the analysis, makes it suitable as the basis /core of a trade facilitation monitoring and improvement system. TCD and TRS methodologies, which focus on a subset of procedures covered by BPA (See Figure 2) and provide for alternative data collection methods,[6] would be used to verify and supplement the data and outputs from the standard BPA. [7] A comparison of the three methodologies is provided in Annex 1.

Figure 2. Trade and Transport Procedures Covered by BPA, TCD and TRS Methods



Source: developed by the authors

Another difference between BPA and other two methodologies (TRS and TCD) lies in that BPA not only provides indicators but also provides a 'standard'[8] method for analyzing trade procedures and diagnosing trade barriers; while the other two methods mainly provide indicators. This further justifies the usefulness and strength of BPA+ which not only provides comprehensive set of indicators (encompassing all indicators yielded by BPA, TRS and TCD) but also uses a standard analytical method to identify trade barriers.

Depending on each country's specific need and context, other trade facilitation assessment and monitoring methods may also be integrated into TTFMM.

1.3. Sustainability of TTFMM

As TTFMM aims to support and guide continuous improvements in trade facilitation over the long-term, it is essential to design it with sustainability in mind. Anchoring it with a multi-agency / multi-stakeholder institutional arrangement and taking steps to ensure that its outputs can be delivered using national human resources will be crucial to its sustainability.

1.3.1. Institutional Arrangement

Institutionalizing TTFMM is a prerequisite to ensuring its sustainability. To this end, an executive body is required to be established. In principle, the executive body should

[6] BPA data is typically based on key informant interviews verified through stakeholder consultation(s), while TCD is often based on accumulation of information provided by drivers moving single shipments along a selected route, and TRS is based on time forms filled by Customs officers (or electronic time stamps when available) for a sample of shipments/customs declarations.

[7] TCD and TRS form two pillars of the Corridor Performance Measurement and Monitoring (CPMM) initiative implemented by ADB in CAREC countries as part of its trade and transport facilitation programme in that region.

[8] In a BPA analysis, all analysts are required to develop 'Use Case' and 'Activity' diagrams together with description of trade process and procedure. This indeed provides a standard analytical method.

comprise representatives of all stakeholders related to trade and transport facilitation. As such, the executive body should be the – or under the - National Trade and Transport Facilitation Committee (NTTFC) or similar institution, if already in place. In fact, operation of TTFMM should be a core function of such Committee because TTFMM will provide the information needed to make decisions and drive the trade facilitation reform. If such a national Committee or institution is not in place, an inter-agency trade facilitation performance assessment and monitoring Committee could be initiated by/under the trade facilitation lead agency – to be eventually upgraded and integrated into a National trade facilitation body as described in details in ADB/ESCAP (2009; 2013).

1.3.2. National Human Resource and Capacity-building

As part of ensuring the sustainability of TTFMM, national human capacity needs to be developed and maintained. National experts, rather than international experts, should be used to conduct the assessment and performance studies, with project resources available for establishment of TTFMM allocated essentially to building national capacity.

Instead of relying on individual experts, it may in fact be best to involve an existing national think-tank or research institution that already has a mandate for trade or economic development, and which could therefore support the trade facilitation performance studies under its existing – or a slightly expanded - mandate.

To further increase sustainability, a "training of trainer" mechanism may be established, whereby those receiving initial training (from international experts/consultants) to conduct the BPA+ study as project leaders or analysts, are asked to commit to sharing knowledge gained and training others. The ultimate goal is to create a pool of proficient local experts (or institutions) to conduct all the essential studies.

Priority for participation in capacity building activities should be carefully thought out and given to those most likely be involved directly in the implementation of the BPA+ studies and related activities, including, e.g., NTTFC members and Secretariat staff (or those of the Lead Agency), Customs officers, personnel from trucking associations, and staffs of trade-related research institutions.

1.3.3. Other Measures towards Sustainability

In the long term, the operation of TTFMM is likely to be underpinned by national resources, as well as external assistance from development partners or donors. While an adequate and separate budget may be provided by the Government for operation of TTFMM given its broad social and economic benefit, innovative solutions towards system sustainability may be examined, such as key government agencies providing qualified staffs on a part-time or full-time basis to conduct the studies. While this latter solution may raise issues regarding neutrality of the outputs of TTFMM, this approach could be useful in building capacity of officials that will continue to serve - or ultimately return to - their original agency.

A Public-Private Partnership (PPP) modality could also be envisaged: part of the resources of TTFMM may come from private sector organizations such as Chambers of Commerce or Industry Associations considering the benefits TTFMM can bring to the business community. The private sector contribution may come in the form of an in-kind contribution (e.g., staff or staff time to collect and/or analyze data). In that context, communicating with the general

public on the benefits of TTFMM, presenting useful results on a regular basis and showcasing the achievements will be important to win continuous and broad-based support – including financial support - from a wide range of public and private stakeholders.

Once the usefulness of TTFMM is fully recognized by all relevant stakeholders (it is envisaged that this process takes two to three years), development partners/financing institutions/international donors are also likely to support the operation of TTFMM. This would be particularly useful for the least developed countries and landlocked developing countries with limited resources.

2. Steps to Establish and Implement TTFMM

This section proposes a step-by-step approach to establishing and implementing TTFMM. While Step 1 "Establish or designate the executive body" takes place only once, all other steps (2 to 4) should be repeated on a regular basis. One important decision to be taken, once the first baseline BPA+ study has been conducted, is how often to conduct follow-up BPA+ studies and update performance indicators.[9]

Step 1. Establish or designate the executive body

A country can either designate or establish an executive body for TTFMM. Although it may be led by one existing agency (or one public agency and one private sector organization), the body should comprise representatives of all key stakeholders in trade and transport facilitation, such as ministry of commerce, ministry of transport, customs, chamber of commerce, industry associations, traders, logistics and transport operators, freight forwarders and customs brokers. Therefore, if a National Trade and Transport Facilitation Committee (NTTFC) – or a similar institutional arrangement - is functional in the country, the NTTFC may be designated to be the executive body of TTFMM.[10] If there is no NTTFC in a country, the lead agency for trade and transport facilitation can be designated to be the executive body of TTFMM and establish a multi-stakeholder committee to oversee the operations of TTFMM.[11]

The executive body should in principle be assisted by a technical secretariat, which may be composed of at least one qualified staff from the lead agency, as well as of other technical staffs "on loan" from key stakeholder organizations.

Step 2. Preparation for conducting the (baseline) study

Once the executive body of TTFMM is set up, it needs to make a detailed plan to undertake the (baseline) BPA+ study. The following sub-steps are often important, especially when the countries conduct studies for the first time.

2A. Define the scope of study

The executive body needs to decide the detailed scope of the BPA+ study. This includes, among others, (1) selection of products for which import or export processes will be evaluated; (2) selection of specific trade and transport corridors/routes or/and mode of transport; (3) border-crossings to be covered. If this is the very first time BPA is conducted, the country may start with two to four products which are strategically important for national

[9] This should be based on the expected pace of reform, but updating the BPA+ study results on annual basis may be considered initially.
[10] If a country is in the process of establishing a NTTFC, it is proposed that one of the core functions of the NTTFC should be to operate the 'System'.
[11] See ADB/ESCAP 2009 (page 142/143) for a discussion on lead trade facilitation agencies. If there is no clear lead agency for trade facilitation, the National Planning Commission or other similar agency under the direct supervision of the Prime Minister's office may be designated.

development, and analyze the time and procedures involved for their import or export along one route leading to - or starting from – the most important border-crossing point.[12]

If a national trade facilitation strategy already exists, it should be taken into account when deciding on the scope. If BPA studies have been already conducted earlier, the executive body may consider taking these studies as a first baseline, and focus on updating the results (and time and cost estimates), including by conducting TRS and TCD.

2B. Set up the study team(s)

While BPA+ study will generate an integrated set of output, three (sub-) teams need to be set up to conduct BPA, TRS and TCD studies, respectively, in a coordinated manner. For BPA study, the study team typically comprises a project leader and process analyst(s).[13] The BPA project leader may also be tasked to coordinate the work of the three (sub-)teams, under the overall supervision of the Executive Body and related inter-agency committees.

For the TRS, the World Customs Organization (WCO) Guide on TRS[14] suggests that a TRS working group be established and include the following members.

- A Custom official at the senior management level should head and chair the working group.
- The working group should consist of between 5 to 10 members (often custom officers) to make it efficient
- There should be one or two specialists in each of the following fields in the working group: 1 specialist in Customs procedures; 1 specialist in organizational matters and administrative structures; 1 statistician; and 1 computer specialist.

For the TCD, the key issue is to record the data of cargo movement, which is often conducted by drivers along the corridor. The study team typically includes:

- One specialist in TCD who is in charge of the design of the form for data collection (that form will be given to the drivers to record the data). The specialist can also undertake the task of data analysis.
- A number of drivers, depending on the number of shipment to be traced.
- At least one senior management staff from trucking association who coordinates data collection (e.g., communicate with drivers and their companies, hand out the forms for data collection).

To the extent possible, at least some of the study team members should be part of one or more other teams, as this will facilitate coordination and synergies among the studies. Similarly, data analysis for all studies may be conducted by the same (group) of specialists. Finally, subject to adequate capacity building, the specialists to be included in the study team may come from relevant national agencies or research institutions – including the NTTFC Secretariat or Chamber of Commerce.

[12] Scope may then be expanded, depending on feedback received and the resources available to support the studies.

[13] The number of project analysts varies depending on the scale of the project. For a small scale project, the project manager and process analyst can be the same resource person/consultant/expert, while for a large project with time constraint, several analysts may be required.

[14] See Guide to Measure the Time Required for the Release of Goods, Version 2, 2011, World Customs Organization.

2C. Train the Study Team(s)

This is an important step, at least in the early stage of implementation of TTFMM. Adequate time and resources should be allocated to this. For reference, standard national BPA, TRS and TCD workshops each take 2 to 4 days.

2D. Test run

If the study is conducted for the first time in the country, it is recommended a test run should be arranged. This is important to ascertain that the data collection is done exactly as prescribed. It also provides an opportunity to remedy any problems that might be encountered due to a lack of understanding by the personnel collecting and recording the data.

For a TRS, the WCO Guide recommends half-day test run for data collection, although more time will be needed to analyze the data collected and check whether it was collected exactly as prescribed. For the TCD, the duration of test run may be at least one journey time from cargo origin to destination. Overall, 2 to 7 days may be required for test runs.

2E. Review and finalization of study design and planning

Based on test run, the initial study design and planning may have to be revised, improved and finalized.

Step 3. Implementation of (baseline) study

Implementation of the BPA+ study should generally follow the Guides of the underlying three methodologies, as shown in table 2.

Table 2. Implementation Guides of BPA, TRS and TCD studies

Methods	Guide
BPA	Business Process Analysis Guide to Simplify Trade Procedures, Updated September 2012, (http://www.unescap.org/tid/publication/tipub2558new.asp)
TRS	Guide to Measure the Time Required for the Release of Goods, version 2, 2011 (http://www.wcoomd.org/en/topics/facilitation/~/media/WCO/Public/Global/PDF/Topics/Facilitation/Instruments%20and%20Tools/Tools/Time%20Release%20Study/Time_Release%20_Study_ENG.ashx)
TCD	Transport Route Analysis and UNESCAP's Time/Cost Methodology (http://www.unescap.org/ttdw/index.asp?MenuName=RouteStudiesWelcome)

It would generally be preferable that these activities take place within a similar time period so the results of TRS and TCD in particular can be compared and used to verify relevant time and cost estimates identified during the BPA. Three months may be needed to generate and compile all final draft study outputs.[15]

Step 4. Finalize recommendations

The study team leaders together with the Executive Committee of TTFMM should work together to ensure that a consistent set of recommendations emerges from the analysis of the data collected through BPA, TRS and TCD.

[15] The is just an indicative time frame as actual time needed for study implementation will depend on scope as well as experience and resources available to those conducting the study and operating the System.

While the conduct of BPA itself involves a significant amount of consultations with a wide array of stakeholders, it is strongly recommended that national consultation(s) be also held to validate the results of BPA+, with a focus on endorsing prioritizing recommendations put forward by the Executive Committee.

Recommendations emerging from BPA+ should be linked to on-going and planned trade facilitation reform and projects to increase the likelihood that they will be implemented in a timely manner. While the Executive Committee of TTFMM should have a good and comprehensive understanding of the various trade facilitation reforms taking place in the country, specific consultations with trade and transport facilitation project managers and organizations supporting them (including bilateral donors and international financial institutions) may be particularly useful at that stage.

Step 5. Communicate the results and recommendations

Once the study is finalized, the Executive Committee of TTFMM (e.g., the NTTFC) needs to communicate relevant results and recommendations to target audiences and stakeholders. In line with the general principle of transparency, as much of the study results as possible should be made publicly available. At the same time, the Executive Committee, in consultation with the relevant study teams and working groups (e.g., TRS working group) may decide to only release part of the results and performance data - or to release them in a more aggregated form.

Key recommendations and brief summary of study report should be presented to high-level policy and decision makers. The buy-in and political support from them is not only essential for sustainability of TTFMM but also to ensure that the recommendations generated by TTFMM can be translated into concrete actions and reforms (see Box 1).

Other Relevant Issues

Some countries, especially least developed countries and landlocked developing countries, may face difficulties in putting TTFMM in place on their own and may need to be provided technical and financial assistance, at least in the first few years of establishment and operation.

While TTFMM is of national scope, some countries, particularly landlocked developing countries, are very much dependent on other countries in facilitating trade (e.g., transit countries). In such cases, bilateral or sub-regional mechanisms will be needed to enable sharing of information and to conduct cross-border BPA+ studies for monitoring progress and identifying reforms needed along the trade route.

Conclusion

Whilst most existing global database cannot generate detailed information to develop or update national trade facilitation action plans, TTFMM enables the countries to develop their own database to support evidence-based policy making and reform.

Compared with most ad-hoc trade facilitation performance monitoring methods applied in countries in the Asia-Pacific region, TTFMM provides the countries with a continuous, affordable and sustainable monitoring mechanism. This is achieved through two cornerstones of TTFMM including institutional arrangement and national human resources. TTFMM should be under the auspices of national trade and transport facilitation committee (or an equivalent institution). National experts and human resources need to be used to support all activities under the framework of TTFMM to reduce the costs and develop national capacity.

Underpinning TTFMM is the methodology called BPA+. It draws strengths from three proven methods, namely, BPA, TRS and TCD. As such, its outputs are more comprehensive and its method for data collection and analysis is more robust. In practice, BPA+ provides international organizations/financial institutions/development partners with an avenue for collaboration: instead of supporting single method such as BPA, TRS or TCD, these organizations may pool the resources to support the comprehensive BPA+ studies and establishment of TTFMM.

Although TTFMM was initially designed to cater for the needs from the countries in the Asia-Pacific region, it is also applicable for any countries in the world, considering the fact that monitoring and improvement of trade and transport facilitation are always non-stop activities for not only developing countries but also developed countries.

Box 1. Lessons learnt in implementing BPA: Cambodia experience

Among many successful stories, output of BPA projects in Cambodia was instrumental in raising awareness and building political will for on-going trade facilitation reform. In 2010, with the support of UNESCAP and UNECE, a project on BPA was implemented in Cambodia to assess trade process and procedures related to export of rice to Europe, cashew nuts to India and silk to Europe, as well as the import of pharmaceuticals from Indonesia. The project was carried out by a team of eleven people, comprising the lead national consultant, officials from several government agencies responsible for customs control, goods inspection and port management, and private sector representatives, in particular, from the freight forwarding industry. A visual presentation of the rice export procedure, as one of the outputs of the projects, provided direct feedback for senior policy makers to effect trade facilitation reform, which, in turn, decreased the costs of rice exports, and thus had a great impact on Cambodia's external trade.

The lessons learnt in implementing the above-mentioned projects:

1. Political will: The strong political windfall from the BPA initiative drove a smooth cooperation between local consultants and potential interviewees. It fostered engagement from the potential interviewees from the beginning of the project to the end.

2. Sense of ownership from within the country: the Permanent Vice Chairman of the Supreme National Economic Council sought to identify where the country was in terms of trade facilitation and what had to be done to improve this. His decision was supported by the Minister attached to the Prime Minister, the Delegate of the Royal Government of Cambodia in charge of the General Directorate of Customs and Excise, and the Secretary of State, Ministry of Commerce. A strong sense of ownership from within the country effectively helped implement the project.

3. Verification of data and information: Stakeholder meetings held towards the end of the project provided an effective mechanism for consultants to validate information about procedures, times and related costs associated with the export and import of products. They also helped to increase stakeholders' awareness of various complexities embedded in the procedures, and thus created momentum for trade facilitation reform.

Source: http://tfig.unece.org/cases/Cambodia.pdf , accessed on 27 March 2013.

Annex 1. A Comparison of BPA, TCD and TRS

Figure 2 indicates the information on parts of the supply chain covered by BPA, TCD and TRS. Table 1A provides more detailed information on these methods. To summarize,

BPA: the scope and areas of trade and transport procedures covered by BPA are stretchable. BPA can cover the entire import/export process or scope and level of details tailored to the specific needs of the countries (e.g., in terms of products or trade routes/corridors of interest). Data is collected (and verified) in an interactive manner from key informants through individual interviews and stakeholder consultations. Key quantitative indicators resulting from BPA are costs and time associated with each procedure included in the analysis. However, compared with TCD and TRS, the output of BPA are more comprehensive as they also include standard graphical descriptions of existing individual procedures for diagnosing the bottlenecks and coming up with process improvements/re-engineering.

TCD: TCD looks specifically at the physical movement of cargoes from origin to destination along a given route. Relevant data are often collected by hiring truck drivers to record times along the route. The strength and weaknesses of this approach is its simplicity, depending on the perspective and the users. Requirements for training on data collection are minimal. The results are straightforward and can be easily understood by policy makers and other stakeholders. However, the output of TCD includes only information on transport time and costs (as well as distance, which is often not a primary concern of the sellers or shippers). While TCD can help supplement or verify some of the information obtained on cargo-movement procedures through BPA, it provides little information on why a cargo stay at a border or port for x hours, and whether this amount of time is too long, or too short. TCD may be used to measure and compare the segments of costs and time associated with cargo movement and preliminarily assess the potential bottlenecks along transport routes.

TRS: TRS is particularly focused on the customs clearance time, or the time between arrival of the goods (at a sea or airport) until goods are released. TRS typically relies on a sample of actual and individual declaration made and for which times have been recorded. The strength of this approach is that it can capture precise performance of Customs (and possibly other agencies) at the border-crossing points, including sea and airports. It can therefore be seen as a useful tool to both verify and complement the information collected as part of a BPA on procedures at borders. However, implementation of TRS and the usefulness of its outcome crucially depend on the collaboration of Customs (which have to provide the basic data and access) as well as the willingness of Customs and other agencies operating (e.g., port authorities) to cooperate and share information.

To date, BPA, TCD and TRS have been separately applied in different countries, often on an *ad-hoc* basis. For example, BPA has been applied to Bangladesh, Cambodia, China, India, Japan, Lao People's Democratic Republic, Myanmar, Nepal, Sri Lanka and Thailand. TRS has been applied in Australia, China, Indonesia, Japan, Malaysia, Philippines, Republic of Korea, New Zealand and Thailand while TCD has been applied to CAREC corridors as part of Corridor Performance Monitoring and Monitoring system (CPMM)[16].

[16] More information is available on http://cfcfa.net/cpmm/.

Table 1A. A comparison of BPA, TRS and TCD

	Definition or description	Major objectives	Coverage of the supply chains	Types of data and information collected	Data collection methods	Outputs
BPA	A systematic examination of business processes in order to gain better understanding and to develop improvement strategies.	• The analysis of activities, documents, and information flow in international trade procedures; • The identification and prioritization of problematic areas that cause the delays in moving goods from seller to buyer; and • The design of improvement measures to address these problematic areas (e.g. simplifying processes and data, and eliminating redundancies).	whole supply chain before and after the physical movement of cargoes, or part of it depending on the scope set by the project	• Activities that come in a specific order and decision points; • Actors who perform those activities; • Defined inputs and outputs of each activity; • Criteria for entering and exiting the business process; • How actors relate to one another; • How information flows throughout the business process; • Associated rules and regulations; and • Quantitative indicators such as number of steps, as well as time and cost required to complete a particular business process.	• interview of relevant stakeholders • collect Forms and documents associated with each action/activity	• Use case diagram showing the scope of the business process analysis project; • Activity diagrams; • Process descriptions, including a list of trade forms and documents, as well as a list of trade-related laws, rules and regulations; • Integrated activity diagram; • Time-procedure chart; • A list of identified bottlenecks; and • Recommendations to improve the business process and/or to-be business process models.
TRS	The WCO TRS is primarily designed to measure the time required to release goods, although the principle of the TRS could potentially be used for other purposes such as time required for commercial procedures, transport procedures or trade related financial procedures.	• To measure time from the arrival of the goods at the port/airport/land border until their release to the importer or to a third party on their behalf • To measure the average time taken for the release of goods from their arrival to their release; • To measure the average time taken for each activity in the release process, for example, the time taken for physical inspections; • To identify the weaknesses in the release process (including at each individual activity in the process); • To identify the constraints affecting	The key nodes of the supply chains, such as port/airport/land border	• Date and time of the arrival • Date and time of the beginning of unloading • Date and time of the end of unloading • Date and time of delivery to temporary storage • Date and time of lodgement of declaration • Date and time of acceptance of the Goods declaration • Date and time of the beginning of documentary control • Date and time of the end of the documentary control • Date and time of the beginning of inspection • Date and time of the end of inspection • Date and time of intervention made by other agencies • Date and time of authorization granted by other agencies • Date and time of payment of duty • Date and time of release • Date and time of the removal of the goods	• often a combination of available data for previous transactions, supplemented by additional data which may be collected by survey, information generated by computer system, or customs officer record the relevant data for the TRS project	• The average time taken from the arrival of the goods to their release and breakdowns of each operation • Recommendations for improvement

		release; and • To suggest corrective/remedial measures to improve the time required for the release of goods.				
TCD	The graphical representation of cost and time data associated with transport processes.	• To capture the information of costs, time and distance of physical movement of cargoes from cargo origin to cargo destination, • To identify inefficiencies and isolate bottlenecks along a particular route by looking at the cost and time characteristics of every section along a route.	Cargo origin to cargo destination, or part of it depending on the scope set by the project	• time, costs and distance of cargo movement	• Record and track the movement of cargoes, for example, by drivers and other transport operators, by GPS navigators	• Visual representation of the transport process from origin to destination, which plots distance (x-axis) against either cumulative time or cumulative cost (y-axis).