



# ASEAN Single Window Task Order

**Final Report**

**October 2013**

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## Final Report

ASEAN Single Window Pilot Project

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Nathan Associates Inc.

USAID/Regional Development Mission For Asia

**October 2013**

The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.



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# Acronyms

ACDD	ASEAN Customs Declaration Document
ADVANCE	ASEAN Development Vision to Advance National Cooperation and Economic Integration (ADVANCE) Project
AEC	ASEAN Economic Community
AEO	Authorized Economic Operator
ASEAN	Association of Southeast Asian Nations
ASEC	ASEAN Secretariat
ASW	ASEAN Single Window
ASWSC	ASW Steering Committee
ATIGA	ASEAN Trade in Goods Agreement
AusAID	Australian Government Overseas Aid Program
BPA	Business process analysis
CASSANDRA	Common Assessment and analysis of risk in global supply chains
CBP	Customs-Business Partnership
CLMV	Cambodia, Laos, Myanmar, and Viet Nam
ITAIDE	Information Technology for Adoption and Intelligent Design for e-Government
LWG	Legal Working Group
NSW	National Single Window
TWG	Technical Working Group
UN/CEFACT	United Nations Center for Trade Facilitation and Electronic Business
WCO	World Customs Organization



# Executive Summary

ASEAN leaders are committed to transforming ASEAN into a single market and production base and a highly competitive economic region, fully integrated into the global economy and characterized by equitable economic development—all by 2015. The ASEAN Single Window (ASW), or the technical and legal systems necessary for the smooth and secure electronic exchange of trade, customs, and transport data among traders and government agencies in ASEAN, is critical to this transformation. The ASW will facilitate the free flow of goods, promote the harmonization of standards and conformance procedures, enhance intra-ASEAN procedures for preferential rules of origin procedures, accelerate cargo release, and reduce trade transaction costs and time for ASEAN member states. It will also facilitate ASEAN's participation in global and regional supply chains, which is imperative for the realization of the ASEAN Economic Community.

Transforming the ASW from concept to reality involves five broad components, which were supported through this task order: laying a technical foundation, creating a legal framework, supporting national single windows, integrating input and feedback from the private sector, and incorporating trade security considerations into the system.

From 2008 to 2013, the USAID-funded ADVANCE ASW Project (“the project”) helped ASEAN

- Put in place the fundamental technical, legal, and institutional components of the ASW.
- Design and implement a pilot project for the exchange of trade and customs data among seven member states. Over a million messages were exchanged among member states on a test basis during the pilot.
- Develop the ASEAN data set, which is critical for the exchange of standardized and harmonized electronic data among member states, and two software applications to support the data exchange.
- Develop a legal foundation for the electronic exchange of data among member states. The memorandum of understanding for the ASW pilot project, which the project helped ASEAN draft, was signed by all member states' top Customs officials.
- Launch two national single window (NSW) efforts in Laos and Vietnam through a combination of awareness workshops, fact-finding missions, and roadmap development.
- Conduct ground-breaking single window legal gap analyses in Laos, Philippines, and Vietnam.
- Plan and implement an ASW public-private consultation program, including through private sector association roundtables, an ASW/NSW symposium, an ASW web portal, and extensive communication material.

- Conduct nearly 40 workshops, roundtables, and other capacity building events on ASW and NSWs involving over 1,200 participants.
- Incorporate trade security and compliance considerations in the electronic exchange of data among member states through a stock-take in six member states; training in risk management, customs-business partnerships, and strategic trade management; and legal drafting support.

### ***Laying the Technical Foundation for Harmonized and Secure Electronic Exchange of Data***

Integrating the national single window systems of 10 ASEAN Member States into an ASW is technically complex—requiring careful decisions about data and documents to be exchanged, data formats, messaging standards, communication systems, and routing mechanisms. The project helped member states review the ASW value proposition, analyze the system’s financial feasibility, and explore technical options. The project then recommended the most feasible technical options and institutional structures for sustaining ASW regional operations. In all, the project contributed to technical establishment of the ASW as follows:

- Designed, implemented, and evaluated a pilot project involving seven member states.
- Identified, analyzed, and prioritized trade, customs, and transport data to be exchanged electronically among member states.
- Analyzed the ASW’s value proposition, financial feasibility, business model, governance aspects, and transition path for live implementation.
- Developed the ASEAN data set, analyzing 13 cargo clearance forms to settle on common data formats for the electronic exchange of forms.
- Developed two software applications for processing and exchange of ASEAN certificates of origin and customs declaration data.
- Conducted capacity building workshops in business process analysis and data harmonization.

### ***Establishing the Legal Framework for a Predictable Rules-based Environment for the Electronic Exchange of Data***

The best technical set-up for electronic data exchange means little without a sound legal framework. Such a framework ensures that confidential information is protected when exchanged, that information security standards are adequate, that electronic data can be accessed and used in case of disputes, and that a dispute settlement mechanism is in place. Without other regional legal benchmarks to refer to, the project helped ASEAN understand the intersection of law and technology and translate that understanding into legal agreements. Accomplishments included the following:

- Drafted a memorandum of understanding signed by all member states that provided basic legal coverage for the ASW pilot project.
- Drafted text for a legal framework agreement that will govern the exchange of data among member states.
- Developed a compendium of legal material to deepen member states’ understanding of legal aspects of single windows.
- Conducted capacity building workshops focused on the legal aspects of the ASW.

### ***Supporting National Single Windows for National Streamlining of Cargo Clearance***

As part of their ASW commitment, ASEAN Member States agreed to establish NSWs where traders meet trade and transport requirements through one entry point. The project helped some member states launch single window development, conduct legal gap analysis, and draft single window legislation. Specifically, the project

- Helped Laos and Vietnam begin developing their single windows by raising awareness, conducting fact-finding missions, and developing a single window roadmap.
- Conducted groundbreaking single window legal gap analysis in Laos, Philippines, and Vietnam.
- Drafted a government decree establishing the Lao NSW (pending adoption) and advised on the Prime Ministerial Decree on e-transactions (enacted).
- Drafted the Prime Ministerial Rule establishing the Thai NSW (pending).
- Trained Indonesian trainers on the operation of the certificate of origin application.



*H.E. David L. Carden, Ambassador, U.S. Mission to ASEAN, joined by H.E. Karen B. Stewart, U.S. Ambassador to Laos, at the Lao NSW Roadmap Development Workshop, January 26-27, 2012.*

### ***Reaching Out to the Private Sector for Trader-driven Regional Connectivity***

Though traders will submit data directly to NSWs, not the ASW, regulatory or commercial data exchanged across borders will affect how quickly their cargo is cleared. The project proposed and helped implement a private sector consultation program on ASW. The project

- Conducted the first regional public-private ASW/NSW symposium.
- Designed and developed the ASW web portal ([asw.asean.org](http://asw.asean.org)).
- Implemented a private sector survey and interviews on ASW as part of an MOU with the U.S.-ASEAN Business Council and Oracle Corporation.
- Developed extensive communication materials for trade facilitation meetings and conferences, as well as a cargo clearance simulation to illustrate the ASW concept.
- Conducted private sector roundtables on ASW in ASEAN.

### ***Using ASW to Improve Trade Security and Trade Facilitation***

The ASW is expected to increase substantially the cross-border exchange of trade and customs data among member states. To use such data for trade facilitation and compliance purposes, member states will need to apply risk management techniques, run customs-business partnership (CBP) programs, and have appropriate laws and regulations. The project led several activities in this area:

- Conducted two regional risk management workshops that covered interagency coordination mechanisms for sharing trade and customs data.
- Conducted a regional CBP workshop and a national CBP workshop in Vietnam.

- Reviewed Vietnam's draft customs law and sponsored two public-private consultation workshops to elicit feedback on the draft law.
- Organized two regional workshops on strategic trade management for various government agencies in ASEAN.
- Organized a U.S. study tour for Vietnam's customs officials on authorized economic operator programs and CBPs.

These five broad tasks became the project's activity streams and were implemented with an eye on capacity building. Indeed, at every opportunity the project worked with ASEAN-based companies, selected on a competitive basis, to conduct specific technical and legal tasks. As a result, the region now has several technical and legal experts who can support ASEAN at the national and regional level in single window implementation.

This final report begins with a project overview, presenting background, objectives, staffing, reporting, and financial status. It then provides a detailed account of activities, challenges, and results by activity stream, as well as institutional support provided by the project. Lessons learned are outlined. The report concludes with recommendations for planning and implementing similar programs elsewhere.

# 1. Project Overview

## **BACKGROUND**

Through the ASEAN Community Blueprint, adopted in 2007, the ASEAN leaders committed to transform ASEAN into a single market and production base, a highly competitive economic region, a region of equitable economic development, and a region fully integrated into the global economy by 2015. The free flow of goods is one of the principal means by which the aims of a single market and production base can be achieved—a single market for goods (and services) will also facilitate the development of production networks in the region and enhance ASEAN's capacity to serve as a global production center or as a part of the global supply chain. Apart from the removal of tariffs and nontariff barriers, trade facilitation measures such as establishing the ASEAN Single Window and integrating and harmonizing customs procedures, are key to the free flow of goods. Accordingly, the Blueprint also committed to accelerating the realization of the ASEAN Customs Vision 2020, to 2015.

The ASW will play a critical role in facilitating the free flow of goods, and its implementation will promote the harmonization of standards and conformance procedures, including enhancing intra-ASEAN preferential rules of origin procedures. It can also facilitate coordination and partnership among customs administrations, the integration and transparency of customs procedures, the sharing of customs intelligence for improved and modernized risk management, and other concrete agenda items of the ASEAN Customs Vision 2015. It aims to accelerate the release of cargo and to reduce trade transaction costs and time for ASEAN Member States, and thus enhance trade efficiency and competitiveness. It will also facilitate ASEAN's participation in global and regional supply chains, key to the realization of the ASEAN Economic Community (AEC).

Functionally, the ASW is an integrated secured communication network environment operating in a federated manner, with no central server, where ten NSWs of individual member states operate and integrate on the basis of standardized information exchange, procedures, formalities, and international best practices. The NSWs enable a single submission of data and information, a single and synchronous processing of data and information, and a single decision making point for customs clearance of cargo. The NSWs also promote collaboration and partnership among the customs administration and other government agencies, economic agents and operators (e.g. importers, exporters, transport operators, express industries, customs brokers, freight forwarders, commercial banking entities and financial institutions, insurers).

In December 2005, with the ASW Agreement, ASEAN committed to establishing the ASW to expedite customs procedures with participation of the ASEAN-6 by 2008<sup>1</sup>, and with the newer member states by 2012. This was followed in December 2006 by the signing of the ASW Protocol to enable implementation of the ASW. In July 2011, ASEAN Member States signed a Memorandum of Understanding on the Implementation of the ASEAN Single Window Pilot Project.

## OBJECTIVES

The following project objectives are from the original Task Order Scope of Work:

“The objective of this program is to support the development and implementation of the ASEAN Single Window (ASW). The program will provide technical assistance and training at both the ASEAN Secretariat and the national-level in select ASEAN member nations. All activities will be focused on assisting ASEAN with implementing the ASW by 2012.”

“The ASW will be in operation when all of the ten National Single Windows are operating in an integrated manner. For instance, if a container of goods destined for Malaysia first enters ASEAN through Thailand, a trader only has to submit the required data once to a centralized hub and the information would then be automatically shared and processed among the relevant agencies.”

“In the ASEAN Single Window environment, a non-ASEAN user submits a request electronically to clear a shipment of goods and the relevant information is automatically shared among the concerned National Single Windows through a secure interface, which facilitates simultaneous processing. Once the request is approved, the non-ASEAN user will be notified.”

“Under the 2005 Agreement to Establish and Implement the ASEAN Single Window, and its 2006 Protocol, the ASEAN Single Window will be implemented in Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore and Thailand by 2008, and in Cambodia, Laos, Myanmar and Vietnam by 2012.”

“The development of the ASW meets not only ASEAN’s own goals for regional economic integration, but also is a key priority area for the U.S. government in the ASEAN region. Development of the ASW is a key component of the Vientiane Action Programme’s (VAP) provision to “modernize customs procedures and practices and improve customs control and compliance in cooperation with line ministries and businesses.”<sup>2</sup> The ASW is also a key priority of the ASEAN-US Enhanced Partnership Plan of Action and is one of the initial three focus areas of work under the Trade and Investment Framework Arrangement (TIFA), signed by the ASEAN Secretariat and the U.S. Trade Representative’s office in August 2006.”

“USAID RDM/A anticipates a two-tiered program lasting for 5 years to assist ASEAN with achieving the ASW by 2012. Tier 1 activities will assist the ASEAN Secretariat’s ASEAN Single Window Steering Committee and other relevant departments. Tier 2 activities will complement Tier 1 by providing direct assistance to line ministries and government agencies in select ASEAN member nations. The objective is to provide both a “top-down” and “bottom-up” approach to implementing the ASW, with national-level

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<sup>1</sup> ASEAN-6 consists of Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore, and Thailand.

<sup>2</sup> Vientiane Action Programme (VAP) provision 2.3.5.1. The VAP is ASEAN’s mid-term roadmap for achieving an ASEAN Economic Community by 2015.

pilot activities in one or more member nations complementing and informing the work at the ASEAN Secretariat level.”

The project was generally implemented along these broad objectives, with the following remarks:

- As the project started, it became clear that technical officials of member states were not in full agreement about what was meant by an ASW. A regional single window conjures thoughts of a regional portal that allows any trader from the region to fulfill all their import, export, and transit requirements through a single electronic entry point, but the ASW actually became a single window connectivity initiative, a far more realistic (and still extremely relevant), if perhaps less ambitious, objective.
- Member states also agreed that though there were deadlines for the ASEAN-6 and CLMV (Cambodia, Laos, Burma/Myanmar, and Vietnam) to establish their NSWs, that there was no such deadline for connecting these NSWs through a regional architecture. Member states generally agreed that the 2015 deadline for achieving the AEC was also good target for having a live ASW.
- The ASEAN definition of an NSW (broadly, single submission of trade documentation, simultaneous and synchronous processing of applications and declarations, and clearance decisions communicated through a single channel) did not easily lend itself to identifying which member states had actually implemented an NSW by the 2008 or 2012 deadlines. Member states auto-determine whether they have met the NSW deadline. The project supported Laos and Vietnam in launching their NSWs while also supporting Indonesia, Philippines, and Thailand through targeted assistance.

## STAFFING

The project was initially led by Chief of Party Pierre Li from March 2008 to June 2009. As demand for project assistance surged, Rachid Benjelloun took over in July 2009 as Chief of Party with Pierre Li serving as Senior Technical Advisor, which he did from July 2009 to January 2010. In March 2010 Dennis Pantastico replaced Pierre Li as Senior Technical Advisor. Both Rachid Benjelloun and Dennis Pantastico remained in their positions until the end of the project in August 2013 (extended from an original end date of February 2013). Siti Risrijadi served as Project Coordinator from September 2008 until project end.



*ASW Project Chief of Party, Rachid Benjelloun, and Senior Technical Advisor, Dennis Pantastico, at a private sector roundtable on ASW.*

The project staff was complemented by short-term consultants, subcontractors Deloitte and NHG, and regional contractors selected for specific tasks through competition, including Axway, Dagang Net, Disini & Disini, dJava Factory, Keystone Corporation, and PT EVM.

## REPORTING

The project provided weekly memos, quarterly reports, and annual work plans to USAID/RDMA (see Appendix A for a full list of deliverables and workshops/events).

**FINANCIAL INFORMATION**

The ASW Task Order ceiling was \$7,999,591. Total obligation received was \$7,774,650. Total expenditures were approximately equal to the total obligation received (exact figure is pending final invoice preparation).

## 2. Activities and Results

The ASW Task Order initially supported four activity streams: technical implementation, legal implementation, NSW support, and private sector outreach and public awareness. The trade security activity stream was added in February 2012. Main activities and results by activity stream are described below.

### TECHNICAL IMPLEMENTATION

#### Objective

An NSW for cargo clearance helps traders meet regulatory requirements through a single, preferably electronic, entry point. Member states committed to establishing NSWs and then connecting, and integrating them through the ASW to facilitate the electronic exchange of trade and customs data across borders. Integrating ten NSWs into the ASW is technically complex—requiring careful decisions about data and documents to be exchanged, data formats, messaging standards, communication systems, and routing mechanisms. The project helped outline options for the technical foundation of the ASW, including its value proposition, financial feasibility, governance, technical connectivity, and data structures.

#### Key Challenges

The first challenge the project faced was the lack of agreement among member states as to what the ASW would do and how it would add value to the trading community and governments. Even when it was agreed that the ASW would connect NSWs through a secure mechanism that allows traders and government agencies to exchange data electronically for use by border authorities in expediting clearance, there was prolonged debate about whether data would be exchanged through a central server or directly between member states.

Once that debate was settled—and it was decided, essentially, that the data exchanged needed to have a regional (“federated”) element but that it would not involve a central server—the project proceeded to help member states design, implement, and evaluate a pilot involving data exchange of two documents between seven member states. Having agreed on a design that combined “bilateral” and “regional” approaches,<sup>3</sup> the next challenge was to implement the pilot according to the member state-

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<sup>3</sup> The design calls for the data exchange to be direct between member states but also includes a regional services feature that maintains reference data and tracks data statistics without capturing actual transaction information.

agreed design but within the project's budget. Member states finally agreed with the project's suggestion to implement a scaled-down pilot that still allowed for testing all key features of the regional architecture.

## Activities and Results

Key activities conducted as part of this activity stream were as follows:

- ASW Pilot Project scaled-down (design, implementation, and evaluation).** This was the core and, by far, the most complex activity. It allowed member states to begin to visualize the ASW and how it would actually work. The agreed architecture design is shown in Figure B-1 in Appendix B. Through this activity seven member states – Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam – were able to exchange test data for the ASEAN preferential certificate of origin form (ATIGA Form D) and the ASEAN Customs Declaration Document (ACDD) electronically. The project then evaluated the scaled-down pilot and found that it had achieved all objectives.
- ASW Sustainability Study.** The objective of the study was to help member states plan for the institutional and financial sustainability of the ASW as it moves from the scaled-down pilot phase to a full-fledged pilot phase and, finally, to a live environment. The project suggested and implemented a multi-pronged approach to sustainability that helped clarify the ASW value proposition, now and in the future (including through private sector consultations); analyzed its financial feasibility; developed options for its governance, business model, and staffing; and outlined recommendations for a transition path towards a live environment.
- Certificate of Origin software application.** Early in the project, Indonesia's NSW requested a software application that would allow traders to submit an intra-ASEAN preferential certificate of origin form, so-called ATIGA Form D, electronically and allow government agencies to process that application and exchange it with other agencies in ASEAN electronically. The project developed the software through an Indonesian company and held a training of trainers program for Indonesian Ministry of Trade officials who then installed the application in all of Indonesia's permit issuing agencies (about 80) and trained officials in its use. Indonesia then also used that application to exchange ATIGA Form D with Malaysia, Philippines, and, later, Brunei (see Exhibit 2-1). After three years of using the application throughout its offices, Indonesia has upgraded it independently to better suit its expanding needs. Though other member states were encouraged to use the application, most had other applications in place or were not yet in position to make use of it (e.g., Laos).
- ACDD software application.** The project also developed an application to exchange the ACDD among member states for purposes of the ASW Pilot Project. Several member states used the application during the pilot to exchange the ACDD; however, because ASEAN has not yet officially agreed to the actual ACDD form, it is not clear whether and when the application will be used in a live ASW environment.
- ASEAN Data Model.** This activity was



*Project consultant and participants from government and private sector discuss which trade and customs data should be exchanged electronically among member states through the ASW.*

critical for the pilot as it helped member states agree on the data elements, consistent with World Customs Organization (WCO) Data Model and United Nations Trade Data Element Directory (UNTDDED) standards; data structures; and XML Schema necessary to exchange data electronically. In addition to ATIGA Form D and ACDD, the ADM covered other government forms (e.g., licenses and phytosanitary and veterinary permits) as well as commercial and transport documents (e.g., cargo manifest, invoice, purchase order, Bill of Lading, and packing list) not yet covered by the WCO Data Model. The resulting ASEAN data set—data model is a misnomer—will be needed in the next ASW phase, particularly if commercial and transport documents will be exchanged among member states. Though the project provided input on maintaining the data set, ASW as whole will require a dedicated Project Management Office to manage and maintain ASW regional operations, including the ADM. These discussions are ongoing at ASW Technical Working Group (TWG) meetings.

#### Exhibit 2-1 Indonesia-Malaysia Certificate of Origin Exchange

In 2009, Indonesia and Malaysia initiated a pilot project for the electronic exchange of data on CEPT Form D, the ASEAN certificate of origin and predecessor to the ATIGA Form D. The pilot began with the exchange of information between the NSWs of Malaysia and Indonesia, and later the Philippines and Brunei Darussalam, all on a self-funded basis.

After a period of testing, Indonesia and Malaysia began to exchange data on a live basis with some, but not all, Form Ds issued by Malaysian authorities sent electronically via a gateway to Indonesian Customs. The objective was to expedite clearance so that Indonesian Customs need not wait for a paper copy of Form D before processing a declaration. Though Indonesian Customs, in principle, accepts the electronic Form D as a supporting document, paper copies still need to be presented no more than 30

days after the importer submits a declaration (for Priority Lane Importers), as they are still required by regulation. In addition, it is difficult for Indonesian Customs authorities to electronically track utilization reports when some certificates are sent electronically and others manually. As such, the electronic documents are used mostly to cross-check (validate) the information on the paper ATIGA Form D's, which still helps customs reduce fraud and likely results in faster clearance times (though this is difficult to verify at the moment).

The same mechanism applies on the Malaysian side, where Form Ds issued by Indonesian authorities are sent electronically via a gateway to the Malaysia NSW. This data exchange was facilitated on the Indonesian side by the certificate of origin application developed through the project. The pilot was a pre-cursor to the ASW Pilot Project funded through the ASW Project.

- **Capacity building.** To improve understanding of complex technical topics the project organized seven capacity building workshops either in conjunction with TWG meetings or as standalone events, particularly when multiple days were required. Capacity building workshops were held to discuss the pilot design architecture interim findings, business process analysis methodology, data harmonization and ADM, management of Regional Services for the Pilot, next steps for the ASW Sustainability Study and Pilot, and findings from the cross-border business process analysis activity.

- **Cross-border Business Process Analysis (BPA).** This activity sought to identify, analyze, and prioritize business processes and associated documents and forms that are typically exchanged across borders in a trade transaction and would, therefore, be candidates for electronic exchange between NSWs in the ASW environment. The resulting work was presented to the TWG and at a workshop for officials and the private sector to seek their feedback. After receiving feedback from the TWG, the project finalized the report and submitted it to the TWG for acceptance (expected at the TWG meeting end of November 2013). It is expected that priority documents will be incorporated in the next phase of the pilot.

## LEGAL IMPLEMENTATION

### Objective

ASW is expected to lead to a substantial amount of data being exchanged electronically within and among member states. A sound legal environment is essential for ensuring that users' rights are protected in the exchange of those data, that member states have adequate information security standards, that electronic signatures are accepted, that electronic documents are the functional equivalent of paper copies, that electronic data can be accessed and used in case of disputes, and that a dispute settlement mechanism is in place. The project helped ASEAN understand the intersection of law and technology and translate that understanding to legal agreements.



*Rachid Benjelloun, ASW Project, and Chawewan Kongcharoenkitkul, Thai Customs, at the opening of the 4th Workshop on Legal Matters for ASW, September 5-6, 2011.*

### Key Challenges

A key challenge in this activity stream was continuous change in delegates at the ASW Legal Working Group (LWG), which is tasked with drafting legal instruments for the ASW. Though some member states ensured that their delegates were prepared regardless of who was attending, the turnover impeded discussion, especially given the complexity of the subject. A related challenge was the make-up of the delegations, which rarely included ICT lawyers who may be more familiar with IT-related legal complexities. In addition, and as with technical matters, it is difficult to obtain feedback between LWG meetings as officials tend to their regular work. The project tried to help by conducting capacity building workshops, hiring regional legal experts to advise the LWG (to reduce cost), compiling a legal resource guide, responding to delegates' questions between sessions, and helping member states finalize as many legal provisions during the LWG meetings as possible.

### Activities and Results

Key activities conducted as part of this activity stream included:

- **Legal Framework for ASW.** The project's legal advisers provided background information, analysis, and draft text, based on international legal standards, to help ASEAN agree on a Memorandum of Understanding that provided basic legal coverage for the ASW pilot project. The project also helped member states develop legal text for the Protocol on the Legal

Framework to Implement the ASW (PLF), still under discussion, which will govern the exchange of data among member states.

- **Capacity building.** The project’s legal advisers provided a mix of lectures and case studies on electronic signatures, authentication and certification, legal jurisdiction, data retention and archiving, information security, mutual recognition, and other topics through two regional workshops. The project also disseminated a compendium of legal material to deepen member states’ understanding of legal aspects of single windows.
- **Legal gap analysis.** The project helped member states understand gaps in their own single window legal framework, which is necessary for both NSWs and the regional exchange of data through the ASW (e.g., one member state may not want to exchange data electronically with another member state if the latter does not provide adequate protection of confidential data). The project conducted legal gap analysis in Laos, Philippines, and Vietnam in accordance with a United Nations-based legal checklist that entails analysis of single window enabling legislation and study of legal provisions covering data protection, data integrity, electronic signatures, liability, intellectual property rights protection, and dispute settlement.
- **Single window enabling legislation.** At the countries’ request, the project helped draft legal instruments in Laos and Thailand that formally established their NSWs (both are pending passage). In Laos, the project reviewed and commented on the draft e-transactions law, which was promulgated by the President of the Republic, with support from the ADVANCE LUNA Project.

## NSW SUPPORT

### Objective

Providing support to NSWs was part of the project’s bottom-up approach and was expected to help member states meet their ASW commitment to have NSWs by 2008 (for the ASEAN-6) and 2012 for CLMV. Though the project was not in position to assess which member states did or did not have a fully functioning NSW, as defined in the ASW Agreement and Protocol, there is no question that each member state has taken that commitment seriously and that, as a result, ASEAN has several competitive, if still growing, single windows. The project played a key role in helping some member states kick-start NSW development, conduct single window legal gap analysis, and draft single window legislation.

### Key Challenges

Beyond securing high-level commitment to establish an NSW, each member state has to struggle to make its NSW work within its own political system—resolving issues of agency leadership, meeting funding requirements, settling procurement challenges, and ensuring technical capability and leadership. For the most part, NSW development was well underway in the ASEAN-6 when the project started, but CLMV required assistance and financial resources to get their NSWs off the ground. The project was able to support Vietnam and Laos’ NSW launch, at their request, but Cambodia had not yet decided to make a request and Burma was not eligible for technical assistance.<sup>4</sup>

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<sup>4</sup> Towards the end of the project Cambodia asked the World Bank to support its NSW launch.

It was fortuitous that the ADVANCE LUNA project was in Laos to follow-up on the ASW Project's legal recommendations from the Lao NSW roadmap and legal gap analysis. In Vietnam the project was not able to provide the follow-up assistance needed given a lack of resources. Fortunately, Vietnam was, instead, able to receive support through the U.S. Trade Development Agency.

## Activities and Results

Key activities conducted as part of this activity stream included:

- ***Launch of the Vietnam NSW.*** The project organized public awareness activities for government, private sector, media, and donors to explain what an NSW entails and to share international best practices. In preparing for NSW master plan development the project conducted a fact-finding mission that involved visits to border posts and, with Vietnam Customs, prepared and presented a master plan template for NSW implementation.
- ***Launch of the Lao NSW.*** The project organized public awareness roundtables and meetings with government officials, conducted a fact-finding mission, prepared and presented the Lao NSW Roadmap, provided training on certificate of origin processing software, and conducted a legal gap analysis. The Lao NSW roadmap entailed discussions on how to develop an interagency single window team and how it would fit into existing government structures.
- ***Legal Analysis and Drafting Support.*** The project conducted groundbreaking single window legal gap analysis in Laos, Philippines, and Vietnam. It also facilitated the Indonesia NSW legal gap analysis, which was conducted through another USAID-funded project managed by Nathan Associates. The project assessed the countries' legal frameworks for single windows and legal constraints on connecting NSWs, presented findings at capacity building workshops, and helped Laos and Thailand draft enabling legislation for their NSWs.
- ***Certificate of origin training of trainers program in Indonesia.*** After developing software to process and exchange the intra-ASEAN certificate of origin (ATIGA Form D), the project conducted a train-the-trainers program for the Indonesian Ministry of Trade. The software was then installed and used in about 80 government offices that process certificate of origin applications and share certificate data with ministry headquarters.

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“The mission of the Lao PDR National Single Window (LNSW) is to establish a secure, integrated cargo clearance process that uses technology to facilitate trade, improve compliance with trade and customs laws, and improve national competitiveness. The LNSW will be a model of transparency and interagency and private sector collaboration that will reduce the average time to export and import to 15 days by 2015 and under 10 days by 2020 and will allow Lao PDR to become a major transit hub in the region.”

— Extracted from Lao NSW Roadmap Development: Technical Approach

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## PRIVATE SECTOR OUTREACH AND PUBLIC AWARENESS

### Objective

The purpose of this activity stream was to support member states in obtaining private sector input on ASW development and related initiatives. The project supported consultation with and outreach to the private sector on the ASW and on NSWs as part of the NSW activity stream, whether during NSW launch workshops or legal gap analysis presentations.

## Key Challenges

Involving the private sector early on and frequently in trade facilitation initiatives is no longer a controversial concept. Yet, as the project started, some ASEAN officials expressed concern that engaging with the private sector so early in ASW development would unnecessarily raise expectations that could not be met quickly enough and this concern undermined outreach from the start. In response, the project helped member states develop a staged private sector consultation program that would keep the private sector informed of key ASW activities and solicit feedback when needed while still carefully managing expectations.

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“We are in full support of ASW implementation because we expect trade facilitation and related costs savings will be obtained together with improved transparency in ASEAN customs. We very much like to see ASW lead to paperless declaration and/or pre-arrival clearance of our shipments. This would make businesses like ours more responsive to our customers at the same time lower our carrying inventory.”

—Trade and Customs Manager at  
Fortune 500 company

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## Activities and Results

Key activities conducted as part of this activity stream included the following:

- **Private sector roundtables and workshops on ASW.** The project discussed and obtained feedback from the private sector on the ASW value proposition, possible ASW end-state, and priorities for types of data to be exchanged in the system through dozens of events, large and small, often through national private sector associations. The project also held roundtables, workshops, and one-on-one meetings to support the launch of NSWs in Laos and Vietnam.
- **ASW/NSW Symposium.** The project helped member states conduct their first public-private symposium on ASW and NSWs. The symposium informed public and private sector representatives on member states’ NSW and ASW developments. Several member states demonstrated their single window services in exhibits. Member states requested that the symposium be held on a regular basis.
- **Partnership with U.S. private sector.** The project conducted a private sector survey and interviews on the ASW through an MOU with the U.S.-ASEAN Business Council and Oracle Corporation. The survey and interviews clarified the possible benefits of the ASW and showed that the private sector desired more information on ASW objectives and functions.
- **ASW concept simulation.** To demonstrate how the ASW would work the project created a simulation that showed how a typical import and export transaction would use the ASW for the cross-border exchange of data between traders and agencies in two member states.
- **ASW outreach material.** Material developed through the project included an overview flyer, trifold brochures on specific activities, posters, survey booklets, and Flash presentations of survey results for distribution at conferences and other events. The project also participated at the Asia-Pacific Trade Facilitation Forum and Exhibit annually to help ASEAN distribute this material and update the trade facilitation community on ASW developments.
- **ASW web portal.** The project helped ASEAN design and develop the ASW web portal. The portal, which has public and private access areas and provides news on NSW and ASW developments, is managed by ASEAN. It can be accessed through <http://www.asw.asean.org/>.

## TRADE SECURITY

### Objective

The ASW Agreement presents trade facilitation as the ultimate objective of the ASW, but member states are also keen to use the cross-border exchange of trade and customs data to meet trade security requirements. Member states can use electronic data to enhance trade security if they apply risk management techniques, launch and nurture Customs-Business Partnership programs, and have proper legal frameworks.

### Key Challenges

The two biggest constraints on this activity, which started in Year 5, were that it was not part of the original scope of work and that the top priority of member states was building the technical and legal foundations of ASW. However, in coordination with ASEC, it was agreed to that the activity would be in the form of bilateral assistance to individual member states, beginning with a trade security stock-take exercise with interested member states.

Even during the stock-take exercise member states did not indicate specific ASW-related trade security areas for which they needed technical assistance (e.g., authorized economic operator programs, risk management, information security, and supply chain security). Requests for technical assistance did not start coming in until the project and ASEC began to collaborate with ASEAN customs working groups (not ASW-related). The focus then shifted to interagency cooperation on the trade security areas noted above. This was also challenging, as it involved educating more government ministries and agencies about ASW objectives in the context of trade security to ensure the greatest impact of regional capacity building. The project eventually succeeded in bringing up critical issues of how member states will manage at the national level electronic cross-border data received through ASW.



*Vietnam Customs held two large consultations workshops in Hanoi and Ho Chi Minh City, sponsored by the ASW Project, to elicit feedback on the draft Customs Law.*

### Activities and Results

To advance trade security objectives, the project led the following activities:

- **Stocktake exercise.** Consultants visited six member states—Indonesia, Laos, Malaysia, Philippines, Thailand, and Vietnam—that had agreed to take stock of their trade security environment (e.g., legal framework, AEO programs, NSW development, trade portal). The overall report and individual country reports were shared with individual member states and helped to shape the project’s knowledge of what assistance might be needed.

- ***Risk management capacity building.*** The project organized two workshops on risk management and gave member states an opportunity to learn from each other’s experience in risk management and examine interagency mechanisms for sharing trade and customs data. The workshops emphasized the economic benefits of positive risk management, examined the evolving nature of risk management in single window implementation, and gave officials insight on issues facing customs organizations as they improve risk management to facilitate trade and improve compliance. Risk management is perhaps the single most important aspect that will ensure that member states make effective use of data received through the ASW.
- ***Regional and national Customs-Business Partnership (CBP) workshops.*** The purpose of the workshops was to help member states design and expand their CBP programs. They also allowed members to share experiences and explore international practices. After the regional event, the General Department of Vietnam Customs held a national workshop on developing and finalizing its CBP work program.
- ***Revising Vietnam’s draft customs law.*** To support Vietnam’s modernization of customs operations the project commented on the compatibility of the draft customs law with the Revised Kyoto Convention and the WCO SAFE Framework. The project also sponsored two public-private consultation workshops to elicit feedback on the new draft law.
- ***Strategic trade management training.*** The project conducted two training programs that helped member states and the ASEC understand best practices in strategic trade management and how these practices supplement and—through IT systems—complement trade facilitation mechanisms, such as single windows. This training attracted a tremendous number of officials from a range of government agencies, a reflection of the multi-agency approach to trade security.
- ***Legal support for legal frameworks in Thailand and Laos.*** NSWs allow government agencies to share data and make cargo clearance decisions, with direct impact on trade facilitation and trade security. The project helped Thailand and Laos draft frameworks that legally establish NSWs.
- ***Vietnam Study Tour on CBP and AEO.*** At the request of Vietnam Customs, the project supported a study tour to the United States focused on the origin and evolution of the U.S. Customs and Border Protection’s partnership programs, especially its Customs-Trade Partnership Against Terrorism (C-TPAT) program. The program was timely as Vietnam was moving toward a full-fledged AEO program and gained insight from U.S. government and industry on requirements for the government and the trade community side to establish and maintain a partnership/AEO program.

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“Overall, the training was very insightful for the Philippines because it enabled us to get a good understanding of the role of STM in trade facilitation and customs enforcement. The trainers and the participants were all in agreement that STM will be of value in our ASW work. There was a productive discussion on how STM can strengthen the role of a single window to fulfill export-import regulatory requirements in the area of security, advance information and risk analysis. The timing of the training was perfect as most of the materials that were presented are relevant to the region—need for inter-agency coordination in STM, government-industry partnership, best practices, WCO safe framework, role of technology, etc.”

—Participant at the Strategic Trade Management Training Course

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### 3. Institutional Support

Support provided by the project was not confined to the five activity streams. The project's resident advisors played a critical role in "making things happen" even outside the activity streams. For example:

- ***Five Year Work plans.*** To promote strategic planning for ASW the project encouraged and helped member states develop five-year work plans for the Technical Working Group (TWG) and the Legal Working Group (LWG). These two plans are the basis for the annual work plans of member states and incorporate private sector outreach and consultations.
- ***NSW progress indicators.*** To help member states assess NSW progress and create a sense of competition between member states, the project worked with the ASEAN Secretariat (ASEC) on a list of progress indicators. Member states must now submit their NSW indicators on a biannual basis to the TWG. Member states also agreed to make indicators available to the public.
- ***NSW fact-finding missions.*** Because detailed information about NSWs is not usually provided at TWG and LWG meetings, the project conducted fact-finding missions in Indonesia, Laos, Malaysia, Thailand, and the Philippines with ASEC to find out more about their NSW development, and to assess their need for technical assistance.
- ***Liaising with the ASEAN Secretariat.*** The project worked very closely with ASEC throughout, whether in coordinating technical assistance, reviewing reports and work plans, or planning and coordinating other activities. The relationship was cordial yet frank and proved very productive for the ASW.
- ***Preparations between ASW meetings.*** Officials' schedules were very full with meetings involving ASEAN and bilateral, regional, and multilateral matters, as well as NSW work. The project and ASEC, with ASW chairs, therefore advanced the agenda between meetings so that studies and recommendations were very clearly laid out for officials for their action. The project's resident advisors and consultants were also invited to TWG, LWG, and ASW Steering Committee (ASWSC) meetings where their contributions and input were sought.
- ***Donor coordination.*** To help ASEAN sustain the ASW beyond project end, and since project funds were not sufficient to develop a full-scale ASW or to fully support NSW efforts, the project worked with ASEC to speak to donor representatives from the European Commission, AusAid, and Japan as well as the ASEC officials who oversee the ASEAN Development Fund and ASEAN Infrastructure Fund to coordinate efforts.



## 4. Lessons Learned

The ASEAN Single Window is not so much a regional single window as a single window connectivity program for the secure electronic exchange of trade and customs data that allows border agencies to expedite cargo clearance. In promoting the electronic cross-border exchange of data, the program is not unique. This type of data exchange has been experimented with in Europe (e.g., ITAIDE and CASSANDRA projects), through an ongoing service provider-led activity in Asia (Pan Asian e-commerce Alliance, or PAA), government-led initiatives to exchange data between the United States and other countries (e.g., to exchange customs declaration data between the United States and the United Kingdom), and even in Africa to exchange customs data (e.g., RADDEx in East Africa and customs connectivity between Botswana and Namibia, both supported by USAID).<sup>5</sup> Others are being contemplated in Africa and Latin America.

The impetus for these initiatives is clear. Traders want consignments to clear borders faster so they can integrate global supply chains, meet customers' ever shorter lead times, and be more price-competitive. Governments are under pressure to facilitate trade and to improve enforcement of trade security measures (e.g. explosives or dual-purpose goods), intellectual property rights, rules of origin fraud, and similar. At the same time paperwork is being reduced in all aspects of business. As a participant at an ASW roundtable with the Singapore Business Federation indicated, it was not so long ago that we all had to present paper tickets to check luggage at airports and it is only a matter of time before trade is also paperless. The benefits of the cross-border exchange of data for governments and business, as well as the incremental benefits of the ASW, are presented in Appendix B.

In that context, the ASW is essential in achieving paperless trade and is a treasure trove of lessons for similar programs in other parts of the world. A short list of lessons learned is as follows:

- ***Progress begins with political commitment.*** The ASW represents the commitment of economic and trade ministers (ASW Agreement), finance ministers (ASW Protocol), and heads of state (AEC Blueprint) to establish the NSWs and the regional architecture to connect them. That high-level commitment is the driving force for member state participation in the ASW.
- ***Competition motivates.*** Singapore's single window is one of the world's best known electronic single windows for trade and cargo clearance, and other member states are keen to catch up to their fellow member states or at least not fall behind.

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<sup>5</sup> See "ASW Sustainability Study: Value Proposition and Future Outlook Report," for examples of regional connectivity initiatives.

- **Limited funding is not a deal breaker for donor assistance.** Developing and operating a single window can cost millions of dollars and is often done through public-private partnerships. Donor funding can be used for single window design, awareness, roadmap development, and legal gap analysis to complement government and donor activities.
- **A realistic vision propels progress.** “Regional single window” conjures thoughts of a single web portal serving all traders in the region. But such a platform is virtually impossible in ASEAN. Regional connectivity is more realistic and has a multiplier effect on trade facilitation, trade security, compliance, and regional integration.
- **Local specialists contribute essential expertise.** The project used local e-commerce lawyers and firms to conduct legal gap analyses, and local firms and experts to develop software, the ASEAN data set, and the ASW architecture. As a result, the region now boasts several local ASW experts who can contribute to work in other regions.
- **Regional meetings promote networks and relationships.** There is no shortage of working groups and committees in ASEAN. But in addition to bringing together experts to discuss technical and legal challenges, regional meetings foster personal relationships and strengthen governance.
- **Leaders and champions needed to keep the fire burning.** The ASW comes down to a few individuals in different member states who understand its importance and technical and legal complexities, and are willing to go above and beyond their duties to update and explain new developments to senior officials. Those individuals are essential to ASW sustainability.
- **Keep fresh ideas coming.** To its credit the TWG has continuously brought in outside speakers, in addition to project consultants, to add a fresh perspective on technical matters. Outside expertise and different points of view will continue to be needed to ensure ASW keeps pace with new technology and stakeholders’ ambitions.
- **Private sector buy-in is not a cliché:** Involving the private sector may be a question of timing and process but it is not an issue for debate. The private sector not only keeps the pressure on government but can also be a source of complementary funding.
- **Legal gap analysis goes first on the action plan.** Drafting and amending legislation for e-commerce and a single window can be a drawn-out process. Legal analysis and writing of new legislation, therefore, should be given high priority in single window development.
- **Countries lead, consultants help to speed up the process.** The ASW belongs to ASEAN, but because member state officials have busy schedules, project consultants, with the ASEC and meeting chairs, conduct preparatory work between official meetings and move the process forward.
- **Results establish credibility.** With established success in the project’s original four activity streams, ASEAN was willing to contemplate additional areas of technical assistance, particularly on trade security.

# 5. Conclusions and Recommendations for Similar Programs

## CONCLUSIONS

The ASW Project helped ASEAN establish the technical and legal foundation for ASW, proving that single window connectivity can be accomplished at relatively low cost and using regional expertise; helped launch NSWs in Laos and Vietnam; pioneered legal gap analysis for single windows; integrated private sector views into ASW development; and, overall, established a foundation for a sustainable ASW.

These successes did not occur in a vacuum. Most member states demonstrated the political will to create NSWs and make the ASW a reality, not only to meet ASEAN commitments but also because leaders and other officials understand the benefits for trade facilitation, economic development, and regional economic integration. The importance of a healthy competitive environment between NSWs of member states cannot be overstated.

In addition, the seemingly slow start to ASW development and the years that it took to resolve key technical matters in the regional architecture did give member states time to develop their own NSWs and fostered collaboration and esprit de corps among technical and legal experts. By the time the project started, several bilateral pilots had taken place and several national champions had emerged. Technical bottlenecks were resolved by the end of Year 2, which helped ASW develop relatively quickly in the project's remaining three years.

The next phase will require even more effort to bring ASW to a sustainable and live operation. This will require more visionary leadership at ASEAN and deeper involvement of senior officials (e.g., financial commitment, legal framework finalization, approval of the electronic procedures for ATIGA Form D exchange and acceptance). After putting in place appropriate national and regional legal frameworks, member states need to switch to an ASW live environment as soon as possible, monitor and measure success, then expand gradually to other data, other member states, and add features.

From an institutional perspective, it is urgent that member states think independently about sustainability and not depend on USAID and donors to fund operations or maintenance, though donors can offer independent expertise and capacity building. The project's ASW sustainability study explains how ASW can be sustained, even in its first year of operation, through user fees (and users have indicated they are willing to pay fees if it means expedited clearance and less paperwork). Finally, the project demonstrated the various ways that member states can solicit input and responses

from the private sector on ASW as well as NSWs. Such interactions need to become systematic rather than ad hoc.

## RECOMMENDATIONS FOR SIMILAR PROGRAMS

Drawing on the lessons presented earlier and the team's experience on the project we suggest the following as key components for any similar programs to support a regional connectivity mechanism linking NSWs of multiple countries. Of course, even if they have similar objectives, programs will differ in many ways (political, technical, legal, IT, expertise, etc.). The components below are therefore general and should be customized to particular environments and conditions:<sup>6</sup>

### Preconditions

- Senior-level commitment, etched in a binding agreement, to establish both a regional connectivity program and to establish individual NSWs.
- NSWs may be at different levels of development, but a core number of NSWs needs to be developed enough with, at minimum, established e-Customs procedures and some level of automation at other key ministries (e.g. trade and transport ministries), to have a foundation for a single window connectivity program.
- An effective regional organization (e.g., ASEC in the ASW's case) that has the clout and credibility to coordinate member states and be the point of contact for donors and contractors.
- Champions within NSWs for regional connectivity who have a solid enough technical and legal foundations.
- Preferably, a mechanism (not funded by donors) for technical and legal consultation among officials and for making policy decisions efficiently. Because donor projects that involve multiple countries can get bogged down in political debates or just require a long time for the right officials to meet, it is important to have a mechanism that does not impede progress.

### Technical Assistance Components

- If possible have at least two resident advisors and embed them with the regional organization. The ASW Project originally had one advisor, which quickly proved insufficient when activities ramped up. Advisors should have technical skills (in customs clearance and IT) and excellent communication skills.
- Use as many local and regional experts and resources as possible to build local and regional expertise and to deploy resources quickly. Experts should be selected on a competitive basis and paired, on a case-by-case basis, with international experts to ensure high quality products.
- Support, as the ASW Project did, technical, legal, NSW, and private sector outreach. Counterparts should develop work plans and activities with support from the donor, and plans and activities should be mutually agreed.

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<sup>6</sup> Regional connectivity programs may also involve the electronic exchange of data between customs agencies only (i.e. not NSWs as a whole).

- To avoid confusion and ad hoc requests, have requests for national support be official and delivered in writing to the counterpart regional organization, which will coordinate assistance with other donors.
- For sensitive technical and legal procurements (e.g., for pilot or legal gap analysis) it is useful to have the counterpart regional organization directly observe the procurement evaluation process. Government officials should develop terms of reference, with the support of donors/contractor, so that they are agreed before projects are bid out.
- As mentioned in the lessons learned section, start legal work early and at the national level, with gap analysis based on the UN/CEFACT Recommendation 35 and its checklist, then followed up on with implementation of top recommendations.
- Make the WCO Data Model the basis for data harmonization and involve the WCO in capacity building for the WCO Data Model.
- Involve the private sector in developing the regional single window connectivity mechanism, but have the donor/contractor conduct outreach jointly with counterpart organizations and government officials.
- Encourage donor coordination from the start to leverage resources, especially in supporting NSWs.
- Encourage resident advisors and officials in counterpart organizations to attend global initiatives on single windows and trade facilitation so they can learn about new methodologies and changes in international best practices.

As mentioned earlier, there is no one size-fits-all approach but the elements listed above represent a solid starting point for regional single window or customs connectivity programs.



# Appendix A. Deliverables

## Contract Reporting

### Work plans

- Work plan 2008
- Work plan 2009
- Work plan 2010
- Work plan 2011
- Work plan 2012-2013

### Quarterly Reports

- 2Q, 3Q, 4Q 2008
- 1Q, 2Q, 3Q, 4Q 2009
- 1Q, 2Q, 3Q, 4Q 2010
- 1Q, 2Q, 3Q, 4Q 2011
- 1Q, 2Q, 3Q, 4Q 2012
- 1Q, 2Q 2013

### Final Report

### Success Stories (called ADVANCE Achievement)

- ASW certificate of origin application
- ASW ASEAN Data Model
- ASW Legal work
- ASW Survey

## Activity Stream 1. Technical Implementation

### ASW Pilot Project Component 1

- Inception Report
- Communications, Encoding, and Information routing
- Application Specifications
- Security Architecture Specifications
- Overall Physical and Logical Architecture
- Interim Report
- Cost Structure and Estimates
- Governance Structure
- SLA Templates

- Consolidated Specifications and Functions
- Final Report
- Presentations to ASW TWG/ASWSC

#### ASW Pilot Project Component 2 (scaled down)

- Inception Report
- Interoperability Specifications
- Application Specifications
- Network Infrastructure Deployment Report
- ASW Gateway Preliminary Installation Manual
- ASW Gateway Preliminary Administration User Manual
- NSW Web Services Integration Module Preliminary Administration Manual
- NSW Web Services Integration Module Preliminary Installation Manual
- Regional Services Portal Preliminary Administration Manual
- Regional Services Portal Preliminary Administration Manual
- Regional Services Portal Preliminary Installation Manual
- Regional Services Portal Preliminary User Manual
- Test Plan
- ASW Gateway and Regional Services Portal Deployment Report
- Transition and Migration Plan
- Draft Final Report
- Final Report
- ASW Pilot Conduct Guidelines Document
- Presentations to ASW TWG/ASWSC

#### ASW Pilot Preliminary Evaluation

- Preliminary ASW Pilot Evaluation – Findings
- Preliminary ASW Pilot Evaluation – Review of Transition-Migration
- Preliminary ASW Pilot Evaluation – Outline of Capacity Building Activities
- Preliminary ASW Pilot Evaluation – Outline of TOR Pilot Full-fledged
- Preliminary ASW Pilot Evaluation – Final Report
- Presentations to ASW TWG

#### ASW Sustainability Study

- Inception report
- ASW sustainability study value proposition
- ASW governance, regional operations, staffing, business model
- ASW sustainability study financial feasibility analysis
- ASW sustainability study draft final report
- ASW sustainability study final report
- Presentations to ASW TWG/ASWSC

#### ASW Cross-Border Business Process Analysis

- Inception Report
- Questionnaires and Interview Guide to Private Sector
- Interview Questionnaire for Government
- Government Questionnaire

- Cross Border Process Descriptions
- Trade Information Set
- Cross Border Business Process Analysis – Recommendation Report
- Presentation to ASW TWG
- Cross Border BPA Regional Workshop - Presentation

#### ASEAN Data Model

- ADM v1.2 (ACDD and ATIGA Form D)
- ASEAN Data Dictionary Document Worksheets
- ASEAN Data Dictionary v1.0
- ASEAN Data Model v2.0 – Diagram
- ASEAN Data Model v2.0 – Document
- ASEAN Data Model v2.0 XML Schemas
- ASEAN Data Model v2.0 XML Specifications
- Data Harmonization Working Method v1.1
- Data Model Working Method v2.0
- Document for ADM Data Maintenance Requests-v1
- Regional Workshop on Data Harmonization Presentations/Report

#### ACDD Software Application

- Inception Report
- User Requirement Analysis Report
- Functional Specifications
- Technical Specifications
- QA Test Plan
- Pilot Implementation Plan
- Final Report
- Source Code
- User Manual for Usage Model 1
- User Manual for Usage Model 2
- System and Procedures Manual
- Administrator Manual
- Presentations to ASW TWG/ASWSC

#### CEPT Form D Software Application

- Application
- User's Guide
- Operations Manual

#### Capacity Building Workshops

- Data Harmonization
- ASW Pilot Project Component 1 interim findings
- Business Process Analysis Workshop
- Cross-Border Business Process Analysis regional workshop
- ASW Pilot Project Component 2 training material
- Discussion of key recommendations from sustainability study and ASW Pilot transition and migration

- Various input, papers, and presentations to ASW Technical Working Group and Steering Committee

## Activity Stream 2. Legal Implementation

- ASW Intersection of Law and Technology (Paper)
- Compendium of legal material for ASW
- Capacity Building Workshops
  - Third Workshop on Legal Matters for ASW: papers and presentations
  - Fourth Workshop on Legal Matters for ASW: papers and presentations
- Various input and papers to LWG

## Activity Stream 3: NSW Support

### Vietnam NSW

- VNSW Strategic Planning Workshop presentations
- VNSW Developing a Masterplan Workshop presentations
- VNSW Masterplan Template
- Legal gap analysis
  - Work plan
  - Interim Report
  - Final Report
  - Workshop Presentations

### Lao NSW

- LNSW public awareness workshop presentations
- Training presentation for Certificate of Origin application
- LNSW fact-finding questionnaires
- LNSW roadmap fact-finding missing report
- LNSW roadmap workshop presentations
- LNSW Roadmap Development Report
- LNSW legal requirements report
- LNSW legal requirements workshop presentation

### Indonesia NSW

- Training presentation for Certificate of Origin application

### Philippines NSW: Legal Gap Analysis

- Inception Report
- Interim Report and presentations
- Final Report
- Workshop presentations

### NSW Fact-Finding Missions

- Finding summary: Laos
- Finding summary: Thailand

- Finding summary: Malaysia
- Finding summary: Philippines
- Finding summary: Indonesia

## **Activity Stream 4. Private Sector Outreach and Public Awareness**

ASW Communications Strategy Report

ASW Web Portal

Outreach material (different versions used for three Asia Pacific Trade Facilitation Fora; ASEAN Trade Facilitation Conference)

- Flyers and tri-fold brochures
- ASW survey #1 with USABC (PPP)
- ASW-USABC survey booklet (PPP)
- Oracle ASW findings (PPP)
- ASW Poster

ASW Symposium

- ASW overview flyer, Tri-fold brochures (3)
- ASW Poster
- ASW Concept simulation
- ASW Survey booklet (#2)
- Presentation on ASW end-state (Kenneth Tiong)
- Paper on ASW end-state
- Summary findings presentation

## **Activity Stream 5. Trade Security**

Trade Security Stocktake (Overall report and six country reports)

Workshops and Training

- Risk Management Workshop #1: Presentations
- Risk Management Workshop #2: Presentations
- Customs-Business Partnership Regional Workshop: Presentations
- Customs-Business Partnership National Workshop (Vietnam): Presentations
- Strategic Trade Management Workshop: Presentations

Comments on Draft Vietnam Customs Law

Revised draft Government Decree to establish the Lao NSW

Revised PM Rule to establish the Thai NSW



# Appendix B. Benefits of the ASW for Government and Business<sup>7</sup>

Benefits are discussed in two sections. The first explains the benefits of the cross-border exchange of data, which can take place with or without a regional mechanism such as ASW. The second explains the incremental benefits of the ASW.

## POTENTIAL BENEFITS OF CROSS-BORDER EXCHANGE OF DATA

ASW does not produce benefits in isolation. It only does so where NSWs are substantially in place and are able to take advantage of the cross-border exchange of data through the ASW architecture where ASW ensures correct routing across national and regional domains. For government, the benefits of the cross-border exchange of data, whether through the ASW or other means, are as follows:

- ***Improved compliance.*** Electronic exchange of cross-border data/information ensures operational transparency and better compliance with guidelines, specifications, and laws.
- ***Risk management.*** The number of cargo clearance transactions is on the rise and multiple documents from multiple government agencies must be cross checked by border agencies before cargo is cleared. In addition, to enforce regulations and manage risk effectively, border control agencies need documents to be submitted in a timely manner. Pre-arrival information received through the cross-border exchange will enable border control officials to begin risk management on electronically processed information before goods arrive and without seeing the physical goods.
- ***Track-and-trace of declaration support documents.*** The cross-border exchange helps NSWs provide improved track and trace capability of documents during submission of entry declaration.
- ***Validation at point of origin.*** With facilitated electronic cross-border exchange, regulatory agencies can exchange e-certificates to speed up clearance and ensure certificate authenticity.
- ***Harmonized regional procedures.*** Cross-border exchange between countries promotes the harmonization of regional procedures and encourages government agencies to carry out business process re-engineering to streamline procedures at the national level.

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<sup>7</sup> This appendix is adapted from the ““ASW Sustainability Study: Value Proposition and Future Outlook Report.”

For businesses, the expected benefits are as follows:

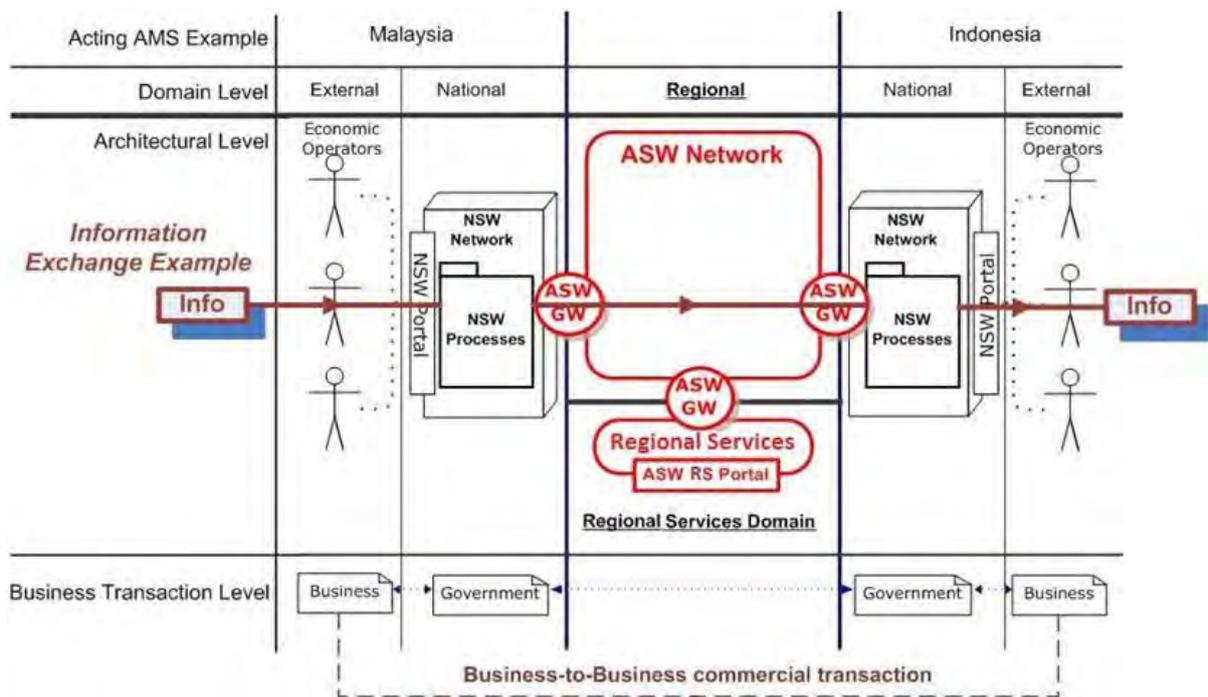
- ***Efficient supply chain management.*** Supply chain management spans all movement of cross-border goods from point of origin to point of consumption, based on efficient design parameters, information security control, and seamless connectivity between government and business in the clearance of cargo. It provides businesses with competitive infrastructure, leveraging global logistics, synchronized operation, user-friendly data visibility to ensure operational transparency, and better compliance in accordance with established guidelines, specifications, and laws. Electronic cross-border data exchange between two or more countries complements data submission and processing through an NSW and potentially provides the missing link to efficient supply chain management.
- ***Pre-arrival clearance.*** Customs procedure may allow cargo clearance and release to be expedited for compliant traders who would submit, through the NSW, required electronic entry declaration and supporting documents (including those received across borders) to Customs authorities ahead of the arrival of goods at the port of destination.
- ***Customs transit regime.*** Electronic cross-border data exchange can support a customs transit regime for traders to provide uninterrupted overland connectivity and facilitate movement of goods across the borders.
- ***End of paper submission of cross-border documents.*** Reliable cross-border data exchange mechanisms would discourage border control agencies from entertaining paper submission of cross-border documents, except perhaps in cases of “denial of service” attacks or natural disasters.
- ***Convergence of commercial documents, freight papers, and other B2G cross-border data.*** Data exchanged across electronically borders would allow traders, through the NSW, to cross-reference commercial documents, freight papers, and other cross-border data with customs declaration to increase compliance and reduce double encoding errors. On the other hand, this cross-border data would allow government officials to cross-check different documents to support risk management activities.
- ***Track-and-trace.*** The cross-border data exchange would enhance NSWs’ ability to allow traders to track and trace the current position of their container based on a specified tracking number.
- ***Unique reference key.*** A unique reference key could be assigned that would allow traders to use a transactional “dashboard” that consolidates all documentary requirements, whether from cross-border data or domestic data through the NSW, such as commercial documents, freight papers, and regulatory permits. Such a dashboard, when implemented through NSWs, would allow traders to attach supporting documents to a customs declaration. The unique reference key and dashboard concepts enhance the benefits of NSW and cross-border exchange as trade facilitation tools.
- ***Trader-driven process to automatically populate declarations/ supporting documents from previous cross-border messages received.*** A trader-driven process, through the NSW, that derives customs declarations from previous cross-border messages received, such as commercial documents, freight papers, and government permits and licenses would promote re-use of data, increase traders’ compliance, promote consistency in use of data elements, and provide a tool for faster processing of cargo clearance documentary requirements.

- Savings on storage and insurance fees.** Electronic cross-border data would improve predictability and operational transparency that would encourage traders to push for just-in-time delivery of goods. This should translate into storage and insurance fees savings.

### INCREMENTAL BENEFITS OF THE ASW

The ASW represents member states’ commitment to establishing NSWs and to connecting and integrating them to expedite cargo clearance. Above all else, therefore, it embodies a continuous endeavor of member states to establish and improve their NSWs. Indeed, working group meetings and regional capacity building have given member states a chance not only to develop the ASW’s technical and legal architectures but also to share NSW information, develop NSW progress indicators, and even discuss the bilateral sharing of data. If data exchange is only bilateral (i.e., without an ASW) the benefits outlined above can still accrue to business and government—but a regional architecture (1) promotes the use of international technical and legal standards in ASEAN and (2) allows member states to discuss and agree on data to be exchanged, fostering economic cooperation and integration (see Figure B-1). Incremental benefits of ASW relative to bilateral data exchange mechanisms are discussed below.

Figure B-1. ASW Architecture Components



### Technical Interoperability

The technical solution that allows ASW Gateways of member states to seamlessly, reliably, and securely communicate and exchange any kind of data with each other is based on international open industry standards. This means that not only can member states exchange any type of data among each other but they can also exchange data with any other trading partner that uses international open standards for communication (and not necessarily the same commercial solution currently being used in ASEAN). Thus, the ASW ensures compatibility of all participating member states—seven currently—with international open communication standards AND ensures that each of those member states can then exchange data securely and reliably with any trading partner that uses international open

communication standards (e.g., ebMS). The way this works is that each NSW is “internally” integrated with the ASW Gateway (residing at that NSW), which then sends/receives data from/to other ASW Gateways residing in and integrated with other NSWs. This would support, for example, the exchange of certificates of origin or advance cargo information with non-ASEAN trading partners. In addition, the same ASW Gateway software that allows NSWs to exchange data across borders can interface with NSWs themselves using different methods (e.g., FTP, JMS, Web Services, etc.) to ensure NSWs are able to pull data from the ASW Gateway and disseminate it to relevant parties.

## Legal Interoperability

Ongoing discussions between member states seek to ensure that each possesses an legal framework appropriate for a single window, which affects not only data exchanged domestically but also data exchanged across borders. Though the legal framework that will govern the cross-border exchange of data among member states will only be binding in ASEAN, it will have implications and impact at the national level, for example on adoption of information security and data protection principles, which would better enable member states to exchange data with non-ASEAN trading partners.

## Data Validation

ASW helps NSWs perform real-time control and validation using agreed common data sets. For instance, Mutual Recognition Agreements (MRAs) of Authorized Economic Operator (AEO) programs can be executed using only the AEO code (based on an agreed naming convention) and the AEO name to be uploaded to the ASW Regional Services and replicated to other member states instantaneously, thus keeping the regional single window operations synchronized. All the other data elements provided by the trader during the accreditation process would be retained at the national level. This kind of setup allows just a single reference point to update, add, or suspend new actors between one NSW to the ASW as opposed to ten iterations if the agreed setup were a direct and independent NSW-to-NSW link. The same concept of operation applies to the management of Public Key Infrastructure (PKI) and digital certificates, information security enhancement tools, trade repositories, and changes in information or business rules in using the ASW against the ‘spaghetti connections’ of independent NSWs. It is not far-fetched to envisage, eventually, use of ASW’s Regional Services feature to synchronize information about NGOs in ASEAN that might provide assistance in case of disasters (and types of goods and equipment that they can bring in) or to synchronize information about intellectual property rights in ASEAN for enforcement objectives.

## Data Validation “Plus”

In some circles there seems to be an attempt to shift the burden for entering customs information from importers to exporters, as importers cannot always be expected to vouch for goods that were manufactured, packed, and shipped by the exporter. This extends risk profiling to the point of origin as against the current practice of risk profiling at the point of arrival. ASW Regional Services would allow an importing member state to conduct real-time validation of authorized cargo clearance actors on the export side to support risk profiling and targeting—or, at a minimum, access information about such actors. This would be difficult to do without an ASW because countries would not normally allow trading partners access to their systems to check economic operator data (e.g., added exporters/importers, suspended broker, cancelled logistics provider).

- ***Standardization and harmonization of forms, data, and processes.*** To the extent that ASEAN agrees to standard forms (e.g., ATIGA Form D), the ASW architecture allows that data to be exchanged seamlessly, reliably, and securely among member states, thus promoting

regional economic integration. Though the standardization of forms is a complex process and outside of ASW working group discussions, there are efforts in ASEAN related to MRAs for conformity assessment procedures, as well as equivalence discussions for sanitary and phytosanitary measures, that would make the ASW an ideal vehicle to exchange data related to such measures among member states to expedite clearance. Forms themselves need not be standardized so long as individual data elements exchanged are standardized and harmonized to international standards, which is the case for the ACDD.

- ***Platform for any business application.*** As ASEAN economic integration proceeds, and data necessary for trade facilitation, enforcement, and compliance is required or desired, the ASW could be used by any business application to exchange data across borders. For example, ASEAN will soon be developing, with EU assistance, the ASEAN Customs Transit System that will use the ASW architecture. Other applications may be developed, as long as a business case can be made, for the exchange of other types of data. Because member states have agreed to comply with the WCO Data Model and because the ASW uses international open communication standards, it would be straightforward to develop business applications for intra-ASEAN use or for use between member states and non-ASEAN trading partners.
- ***Better view of regional data and pace of paperless clearance in ASEAN.*** The ASW Regional Services Portal allows member states and the ASEC to have a full view of cargo clearance data being exchanged between which member states and in what time periods. This information will be valuable to policymakers and researchers who study the pace of economic integration and who promote paperless clearance. ASW will also allow officials to perform pattern recognition in the exchange of cross-border messages, timely information retrieval, cross-referencing capability of cross-border security credentials, and data visualization.
- ***Time stamping for record keeping in case of disputes.*** In case of regional dispute in the exchange of electronic cross-border messages, electronic stamping in conducting audits, which the ASW architecture allows, is vital in back-tracing to establish the sequence of exchange of a cross-border transaction.
- ***General support for regional policies.*** A regional set-up like the ASW will support implementation of regional guarantee charges for a transit regime, monitoring of balances of permits and quotas (e.g. for certificates of origin), implementation of a regional identifier for consignments and traders, and common use of other regional parameters.