Streamlining and Automating Procedures in Agricultural Trade: A Case Study of the Philippines

This brief introduces the case of streamlining and automating procedures for agricultural trade in the Philippines. In particular, this brief outlines the implementation of the Department of Agriculture (DA) Trade System, which seeks to automate processes for the trade regulatory agencies involved in agricultural trade and to facilitate the use of electronic documents and procedures. By considering the case of the Philippines, this brief highlights some of the key challenges and success factors for implementing automated systems for agrifood trade.

The History of Automating Import Clearance Procedures in the Philippines, Department of Agriculture

The Department of Agriculture in the Philippines (see Figure 1) performs trade regulatory functions related to the trade in agricultural products, including the issuance of import permits (i.e., SPS Import Clearance); export commodity clearance; sanitary and phytosanitary certificates; fumigation certificates and other certificates. In compliance with the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (or SPS Agreement), these procedures are conducted with the intent to ensure the safety of agrifood products imported to and exported from the Philippines.

Enhancing agricultural trade is an essential component in fostering sustainable economic development in the Asia-Pacific region. However, the procedures associated with trade in agricultural products are considered amongst the most complex, costly and time-consuming. Agricultural trade facilitation can be defined as the simplification and harmonization of procedures involved in the import and export of agrifood products, including but not limited to collecting and processing data and documents required for the cross-border movement of these products. Increasingly countries are adopting measures to streamline and automate the procedures involved in the trade of agricultural products, in order to enhance trade competitiveness; ensure food safety; and to reduce the time and cost associated with agrifood trade.
In early 2000, the Department of Agriculture considered automation of import procedures for agrifood trade, specifically the import permit, to facilitate quarantine clearance and to generate statistical reports. In order to conduct this project, the Department of Agriculture received proposals and eventually engaged an IT software developer company with funding of approximately US$1.0 million for the project. While the IT solution was being developed, the regulatory agencies responsible for issuing import permits (i.e. SPS Import Clearance) worked in parallel to harmonize the procedures and to align the data requirements and common forms for import permits. These common forms and aligned data requirements were adopted by the Bureau of Animal Industry (BAI); the Bureau of Fisheries and Aquatic Resources (BFAR) and the Bureau of Plant Industry (BPI) in accordance with the Department of Agriculture Administrative Order No. 8, Series of 2009.

During this time, the government of the Philippines embarked on the implementation of the Philippine National Single Window (PNSW). In December 2005 Executive Order No. 482 was issued mandating all regulatory agencies to actively participate in the development and implementation of the National Single Window. The Bureau of Customs (BOC) was tasked to Chair the PNSW Steering Committee and signed a Memorandum of Understanding with the Department of Agriculture for the pilot implementation of the PNSW. The PNSW would use the Licensing and Clearance System (LCS) of the Automated System for Customs.

The objective of these initiatives was to further facilitate import processes and procedures, particularly Customs clearance. The Department of Agriculture was able to agree and subsequently issue an Administrative Order on the harmonized SPS Import Clearance procedures for the BAI, BFAR and the BPI. However, the Department of Agriculture project on the automation of its import permit procedures for agricultural products had not been developed to the satisfaction of the regulatory agencies. Likewise, the ASYCUDA++LCS procedures would require the pilot regulatory agencies, e.g., the BAI, BFAR and BPI, to manually process the application and encode the data of the approved SPS Import Clearance (import permits) online into the ASYCUDA++ LCS.

Based in actual cycle time, the DA regulatory agencies estimated that it would take about 10 minutes to encode and submit the data for each import permit. With over 400 manually approved import permits daily, the BAI estimated that they require 65 man-hours daily (7-8 data encoders) for permit data encoding into the LCS. Thus, instead of streamlining procedures and reducing costs, the proposed workflow would increase the transaction costs and cause possible delays in the release of agrifood import shipments.

Automating the SPS Import Clearance Procedures: The DA Trade System, the Philippines

In late 2008, an IT value-added service provider of the Bureau of Customs, the Philippine Economic Zone Authority (PEZA) and other trade regulatory agencies, proposed the development of the DA Trade System for the implementation of automated SPS Import Clearance procedures. The proposed system would follow the “service model and payment procedures”, which had been successfully adopted in the PEZA and other trade regulatory agencies.

Figure 2: DA Trade System Online Interface

Source: Department of Agriculture, the Philippines

1 For more information, see: http://unnext.unescap.org/tfforum10_bs2_alburo.pdf
In the proposed service model, the automated system is developed and operated by the service provider at no cost to the regulatory agencies. The cost of development and maintenance of the system is to be recovered from the transaction or facilitation fees charged to the importers utilizing the system. Hence, using the service model, the Department of Agriculture authorized the service provider to develop and implement an online front-end system for the submission of permit application by the importers as well as a back-office system for the processing, collection of permit fees and approval by the respective DA agency.

How was the DA Trade System Conceptualized?

Prior to formalizing the agreement with the service provider, the Department of Agriculture conducted consultations with the stakeholders on the proposed solution for the automation of the procedures for the application and issuance of the SPS Import Clearance. The consultations also discussed the proposed service fee to be charged by the service provider. During the consultations, the importers endorsed the project as it would facilitate procedures; reduce costs and provide a reliable and shorter application-to-approval cycle time.

In justifying the project, the Department of Agriculture highlighted that the service model would be beneficial to the government, specifically the three regulatory agencies, as it would fast track the automation of their procedures without the capital outlay. Furthermore, this model would avail the services of an experienced IT service provider and would prevent possible delays in lengthy government procurement processes for the development, operation and maintenance of the system. In 2010, the Department of Agriculture issued its directive on the mandatory implementation of the DA Trade System. Initially, the DA Trade System would be used for the application, processing and issuance of the SPS Import Clearance. To support the implementation of the automation project, the Department of Agriculture together with the service provider conducted nationwide training of quarantine officers as well as the accredited importers of agrifood products.

Figure 4: DA Trade System

Source: WTO

2 http://artnet.unescap.org/tid/projects/agatf-s2-lopez.pdf
Moving From Paper-based to Automated Procedures

Table 2 shows how procedures where changed and streamlined with the implementation of the DA Trade System.

Table 2: Streamlining and automation of procedures with implementation of the DA Trade System

<table>
<thead>
<tr>
<th>Manual, Paper-based Procedures</th>
<th>Streamlined and Automated Procedures</th>
</tr>
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<tbody>
<tr>
<td>Manual verification of the importer accreditation for every application for SPS Import Clearance.</td>
<td>Only importers accredited or registered with the respective DA agencies and the Bureau of Customs can submit applications for the SPS Import Clearance. The importer’s profile is automatically verified upon login to DA Trade System, eliminating the need for manual verification of the importer’s accreditation.</td>
</tr>
<tr>
<td>Prior to the automated system, the manual review of the application for SPS Import Clearance was followed by the examination or testing of import products qualified for importation, causing delays in the approval and issuance of the SPS Import Clearance.</td>
<td>Examination and testing of products are conducted and upon approval uploaded to the DA Trade System. Importers can subsequently apply for the SPS Import Clearance only for products that are in the database of qualified import products (i.e. those cleared by the agencies as compliant to local requirements). This provides transparency and eliminates substantial delays in the application process.</td>
</tr>
<tr>
<td>Manual submission of paper-based supporting documents for the application for SPS Import Clearance.</td>
<td>Supporting documents for the application for SPS Import Clearance, such as the Certificate of Product Registration, Pro-forma Invoice, are scanned and submitted as supporting documents to the SPS Import Clearance application. Although subject to verification, the scanned documents are electronically stored for easy retrieval.</td>
</tr>
<tr>
<td>Prior to the automated system, the importer had to pay the SPS Import Clearance fee in cash, through the cashier of the regulatory agency at its head office, as a pre-requisite for approval of the SPS Import Clearance.</td>
<td>The agencies agreed to the set-up of pre-payment accounts to allow importers to make advance deposits, which could later be debited. The cashier issues an official receipt of payment for the advance and the agency’s fee would be auto-debited from the pre-payment account. Electronic payment through banks was considered, however, this would require an amendment of government accounting and audit procedures. The pre-payment accounts were introduced as a work-around this issue.</td>
</tr>
<tr>
<td>The paper-based application together with copies of the supporting documents must be submitted by the importer to the head office of the agency in Metro Manila. An agency officer receives and logs the receipt of the documents in the record book. A commodity officer must endorse the documents for review and determine the conditions for importation. The documents are subsequently submitted to the head of agency for approval. Oftentimes, the officers involved are engaged in various meetings and cannot attend to the applications. This can cause delays and lack of predictability in the approval of the applications.</td>
<td>With the electronic application and scanned copies of the supporting documents, the application is automatically received and validated for compliance to specific requirement. The documents are stored online, making them accessible to commodity officers at various offices of the agency provided they have computers or tablets with access to the Internet. Since the application may be reviewed and approved at any time, the agencies are able to commit to the approval of the application within 24 hours.</td>
</tr>
<tr>
<td>Importer must return to the agency to receive the approved SPS Import Clearance document.</td>
<td>The importer is able to download and print online the document. The system generated SPS Import Clearance is presented to the Bureau of Customs and agency quarantine office at the port of discharge, for inspection and clearance of goods. To enable Customs to verify the authenticity, the SPS Import Clearance data is automatically transmitted to the National Single Window upon approval.</td>
</tr>
</tbody>
</table>
The implementation of the electronic SPS Import Clearance reduced the administrative and transportation costs; reduced the process cycle time from submission of application to issuance; provided an online status of the application and ensured predictability for the SPS Import Clearance issuance. Most importantly, the reforms provided transparency to the processes. Importers could be confident with the assurance that the SPS Import Clearance would be processed and approved in a timely manner provided they comply with the requirements and submitted the relevant documents. Furthermore, the importers are able to transmit a copy of the SPS Import Clearance to the supplier or exporter electronically prior to the export of goods. This allows for proper notification of the import certification requirements and other applicable conditions for importation as required by the agency.

Automating Other Import Procedures

The successful implementation of electronic SPS Import Clearance paved the way for further enhancements of the SPS Import Clearance procedures and the development of other systems related to the import procedures.

The following enhancements occurred:

- Automated validation of the accreditation of importers was implemented within the respective DA agencies, the Bureau of Customs and other trade regulatory agencies, to ensure that only qualified importers would be issued SPS Import Clearance;
- Only importers with approved SPS Import Clearance can apply for the Minimum Access Volume Import Certificate. Hence, allowing for the re-usage of the SPS Import Clearance data in the application for the electronic MAV Import Certificate;
- The validation of proposed cold storage warehouse destination is now restricted to accredited cold storage warehouse facilities;
- The integration of the SPS Certificate into quarantine clearance procedures was implemented, in order to enable quarantine officers to verify the SPS Certificate prior to arrival of the cargo. Hence, upon receipt quarantine offers could check whether the certificate complies with import requirements and also request for replacement if necessary;
The electronic Request for Inspection (eRFI) was subsequently developed and implemented, in order to eliminate the submission of documents as a pre-requisite for quarantine inspection and clearance. The eRFI allows importers to submit the data from the commercial invoice, air waybill or bill of lading, SPS Certificate and Customs good declaration, thus capturing all relevant trade data into the DA Trade System;

For imported meat products, upon completion of the quarantine inspection, the Department of Agriculture requires additional examination. An email notification is automatically transmitted to the National Meat Inspection Service (NMIS) to provide information on the meat products that have been cleared for delivery to the cold storage warehouse. If necessary, final inspections and laboratory tests are carried out prior to the release of the meat products to food processors, institutional buyers and to the markets.

The automation of the import procedures in the Philippines provides a model roadmap for similar undertaking, identifying the major challenges as well as requisites leading to the successful implementation. Figure 6 below shows the traditional SPS certification workflow as compared to the electronic SPS certification workflow.

**Figure 6a: Traditional SPS Certification Workflow**

**Figure 6b: e-SPS Certification Workflow**
Challenges and Success Factors

This section outlines some of the key challenges, which were encountered in developing and implementing the DA Trade System.

Legal Framework

Some of the key legal challenges were related to the use of the electronic documents and processes in place of paper-based documents. In the Philippines the Electronic Commerce Act (R.A. 8792) was enabled in 2000 “...to promote the universal use of electronic mode of transactions with the government and by the general public”. Subsequently, the Supreme Court issued the Rules on Electronic Evidence effective 01 August 2001. Furthermore, the Department of Trade and Industry, the Department of Budget and Management and the Bangko Sentral ng Pilipinas (Central Bank of the Philippines), jointly established the Implementing Rules and Regulations for the Electronic Commerce Act in 2002.

However, the E-Commerce Act (Section 41) contains a repealing clause, which states that “all other laws, decrees, rules and regulations or parts thereof which are inconsistent with the provisions of this Act are hereby repealed, amended or modified accordingly”. This was challenged with regards to the actual effect on other laws, rules and regulations, which require the submission of forms, paper documents, physical signatures and authentication by a notary public, and the review and processing (manual) of such documents.

In order to adopt the E-Commerce Act for electronic transactions, Customs and the trade regulatory agencies have had to advocate for the amendment of such laws in the Philippine Congress. Alternatively, the regulatory agencies must seek to issue their respective directives to allow for the use of electronic documents, the electronic validation and online processing and approval of electronic documents, as well as ensure the validity of exchange and use of approved electronic documents by other regulatory agencies.

Challenges related to the legal framework have hampered the speedy implementation of automated trade systems. This was also used in some cases used by detractors to delay the elimination of paper-based documents in trade procedures. While the pilot implementation was successfully completed in early 2010 resulting in the issuance of the Department of Agriculture Administrative Order No. 9 Series of 2010, the Memorandum Circular mandating the electronic SPS Import Clearance (import permit) was effective only in the last quarter of 2010.

National Single Window

The development of the DA Trade System also encountered some challenges and required some consideration in the relation to the National Single Window development in the Philippines. The Philippine National Single Window (PNSW) was envisioned to enable the single submission of data and information; the single and asynchronous processing of data; and single decision-making for customs release and clearance (Figure 7). Executive Order 482, which mandated the PNSW, also provided for the creation of the NSW Task Force for cargo clearance. The role of the NSW Task Force was to ensure a more coherent and effective formulation, coordination, implementation and monitoring of the PNSW.
The Memorandum of Understanding (MOU) between the Bureau of Customs and the Department of Agriculture was signed in December 2006 for the pilot implementation of the NSW. The MOU also provided for inter-agency linkage between the Department of Agriculture, the Bureau of Customs and the DA trade regulatory agencies, namely:

- Bureau of Animal Industry (BAI)
- Bureau of Fisheries and Aquatic Resources (BFAR)
- Bureau of Plant Industry (BPI)
- Fertilizer and Pesticides Authority (FPA)
- Fiber Industry Development Administration (FIDA)
- National Food Authority (NFA)
- National Meat Inspection Service (NMIS)
- Philippine Coconut Authority (PCA)
- Sugar Regulatory Administration (SRA)

With funding provided by USAID, the inter-agency linkage between the Customs and the DA regulatory agencies was undertaken for:

- The harmonization of import procedures;
- Training to be conducted for the DA trade regulatory agencies (excluding the National Meat Inspection Service and the Fiber Industry Development Authority),
- The exchange of information, such as the import clearance information to Customs and manifest information to the Department of Agriculture;
- The provision of technical support (hardware, software and connectivity) to the Customs E2M Licensing and Clearance System (LCS);
- Drafting of the Administrative Order on the harmonized import clearance procedures and the use of standardized forms by the BAI, BFAR and BPI.

3 Source: [https://www.nsw.gov.ph](https://www.nsw.gov.ph)
However, the DA regulatory agencies were manually processing the import clearance at that time. In order to be able to submit the import clearance information to the Customs, the agencies had to connect to the Customs E2M (ASYCUDA++) LCS and manually encode the data into the LCS system.

The Bureau of Customs decided to discontinue the use of the LCS as the NSW platform and initiated a bidding process for the development of the National Single Window system. The NSW system, however, would only address the import permit requirements of the regulatory agencies and the availability of import permit data to Customs. In this regard, Customs agreed to enable the Department of Agriculture to transmit the approved SPS Import Clearance data to the NSW system.

In parallel, the Department of Agriculture entered into agreement with a service provider for the automation of the SPS Import Clearance procedures of the BAI, BFAR and the BPI. The DA Trade System is currently the platform for online submission and processing of the SPS Import Clearance; the automated validation on the submission of required data; the online submission and processing of the Import Certificate for the Minimum Access Volume. Recently the DA Trade System has come to include the online submission of the request for quarantine inspection; submission of inspection findings and the issuance of the veterinary quarantine, meat inspection and/or laboratory certificate.

**Organizational Structure and Continuity**

Since the mandatory implementation of the electronic SPS Import Clearance in the Philippines, there have been several changes in the leadership of the Department of Agriculture and its trade regulatory agencies. With these changes and organizational reshuffling the priorities and the appreciation for the need for automated systems to tackle trade efficiencies and competitiveness also changed. Some changes called for wider adoption of the automated system, whilst others served to slow the process of implementation. These changes in the organizational structure and direction posed a challenge for the system implementation.

It became apparent that middle managers have a vital role in ensuring the continuity of the automation efforts. Middle managers can act as key drivers by soliciting support from the top management, in order to institutionalize reforms and simplify procedures. In order to dispel the perception that the automation project is a threat to security of tenure within the organization, middle managers can play a role in motivating individuals to support the program, to learn the new processes and adopt new skills.
This section outlines a number of key factors and conditions, which lead to the successful implementation of the DA Trade System including:

**Management Support**

The Department of Agriculture management’s vision to streamline procedures to facilitate agricultural trade stems from the increasing globalization of food supply chain; the opening of markets resulting from bilateral and multilateral trade agreements and the need to be competitive in regional markets. With this framework, the management team of the Department of Agriculture supported initiatives leading to the automation of processes, as these initiatives would also provide access data inputs for agriculture policies as well as create efficiencies and reduce costs. With directives from the Department of Agriculture’s top management, the heads of the agencies were compelled to pursue the automation of processes interfacing across agencies and harmonize procedures wherever applicable. The Department of Agriculture extended its engagement of the service provided, in order to develop and implement other systems which would be integrated with the SPS Import Clearance.

**Private Sector Support**

Prior to the pilot implementation of the DA Trade System, the service provider engaged the major industry stakeholders in consultations on the proposed system and procedures. During the discussions, they were able to provide insights into the challenges encountered with the manual procedures. Furthermore, the industry stakeholders were able to share their expectations for the proposed automated environment, such as reducing costs and processing cycle time, and enhancing the predictability of permit application approval. The service provider clarified that by using the engagement model, the new system would charge a facilitation or transaction fee, which would be lower than the administrative costs incurred by the stakeholders in the preparation, submission, follow up and the approval of the permit. The industry stakeholders agreed to participate in the pilot implementation.

After the successful pilot implementation, the Department of Agriculture organized a public consultation on the proposed implementation of the electronic SPS Import Clearance. The Department of Agriculture assured that the automation was a major policy direction towards facilitating trade. Similarly, the agencies were able to assure stakeholders of improvements in the process cycle time, citing that during the pilot implementation the officers assigned to review, endorse and approve the SPS Import Clearance applications were doing their tasks online, even while outside their offices.

**Domain Knowledge on Trade Procedures and Helpdesk**

As the automation of the trade processes was not common amongst IT companies in the Philippines, the engagement of the service provider and completion of the beta-version of the DA Trade System within three months provided confidence to the top management of the Department of Agriculture that the automation of the SPS Import Clearance would be successful. In addition to addressing the procedural requirements of the respective agencies, the service provider presented recommendations to further enhance the processes by
adapting workflows and automated validations based on similar trade systems designed and developed for other regulatory agencies.

As part of the implementation, the service provider provided helpdesk support, which was intended to address possible technical issues. However, as the operation of the DA Trade System progressed, the service provider served as intermediary between the industry stakeholders and regulatory agencies, in order to clarify procedures and facilitate compliance by the stakeholders.

Initially, technical support from the service provider for DA Trade System was needed by the IT Department within the Department of Agriculture considering the infrastructure requirements and helpdesk support necessary for 24/7 operation of the system. Furthermore, engagement of the service provider allowed the Department of Agriculture to benefit for insights into global best practices as well as alternative processes, which could be applicable. Once equipped with a better understanding of the infrastructure and support requirements, the IT Department would subsequently move to adopt the reforms and enhance its capabilities to assume the responsibilities of the service provider.

### Moving Forward

The Department of Agriculture of the Philippines recently signed an agreement with the Department of Agriculture of Australia for the pilot exchange of SPS Certificate to further facilitate the import quarantine clearance at the border. In the arrangement, the SPS Certificate issued by Department of Agriculture, Australia would be transmitted electronically to the Philippine DA Trade System upon approval. With the SPS Import Clearance number provided in the SPS Certificate, the DA Trade System is able to automatically match the SPS Certificate with the corresponding SPS Import Clearance prior to the arrival of goods. An alert notification would be generated to notify the agencies accordingly, and request for clarification or re-issuance of a new SPS Certificate if necessary.

Other exporting countries, such as New Zealand and the Netherlands, have expressed their interest in collaborating with the Philippine Department of Agriculture. Furthermore, the Philippines proposed the same SPS Exchange workflow for possible adoption by the ASEAN member states, in conjunction with the implementation of the ASEAN Single Window.
This brief was prepared by Mr. Francis Lopez with support from Ms. Maame Agyeben, Ms. Pauline Urruty and Ms. Bongkojmanee Kohsuwan. Mr. Lopez is President of InterCommerce Network Service, Inc., and currently, the Chairman of the Pan Asian e-Commerce Alliance (PAA). He is also a member of the UNNExT Advisory Group on Agricultural Trade Facilitation. This paper was reviewed and published by the Trade Facilitation Unit of UNESCAP on behalf of UNNExT and it has been issued without formal editing. This brief expresses the opinion of the authors and should not be construed as representing the opinion of the United Nations.

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