Implementing UN/CEFACT e-Business Standards in Agricultural Trade

A handbook for policymakers and project managers

UNNExT
United Nations Network of Experts for Paperless Trade and Transport in Asia and the Pacific

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

UNECE
United Nations Economic Commission for Europe

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

The darker areas of the map are ESCAP members and associate members.

The UN Economic Commission for Europe (UNECE) has been at the forefront of Trade Facilitation developments for over 50 years, with many of its Recommendations, Standards, and support tools being implemented worldwide. UNECE's trade facilitation work is undertaken by its UN Centre for Trade Facilitation and Electronic Business (UN/CEFACT), which is open to participation from public and private stakeholders from all UN member States. The objective of UNECE's work in the field of trade facilitation and electronic business is to enhance national competitiveness and participation in global markets by helping countries develop the knowledge and institutions for facilitating national and international transactions. All UNECE Trade Facilitation Recommendations, Standards, and tools are available at http://www.unece.org/cefact.html

The United Nations Network of Experts for Paperless Trade in Asia and the Pacific (UNNExT) is a community of knowledge and practice for experts from developing countries and transition economies from Asia and the Pacific involved in the implementation of electronic trade systems and trade facilitation. Established by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and the United Nations Economic Commission for Europe (UNECE), UNNExT aims to support national, subregional and transcontinental Single Window and paperless trade initiatives. Its emphasis is on training, knowledge sharing and application of international standards for trade facilitation. For more information on UNNExT, please visit http://unnext.unescap.org/

Implementing UN/CEFACT e-Business standards in agricultural trade: A handbook for policy makers and project managers

United Nations Publication
Copyright © United Nations 2016
All rights reserved
Manufactured in Thailand
ST/ESCAP/2751

For further information on this publication, please contact:

Director
Trade and Investment Division
Economic and Social Commission for Asia and the Pacific
United Nations Building
Rajadamnern Nok Avenue
Bangkok 10200, Thailand

Email: escap_tid@un.org

The designations employed and presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Disclaimers

The opinions, figures and estimates set forth in this publication are the responsibility of the authors, and should not be considered as reflecting the views or carrying the endorsement of the United Nations, UNNExT members or partners, or other organizations that have contributed to this document.

This handbook has been designed as guidance for the implementation of electronic business standards. The information contained within the handbook is meant to provide an introduction and an overview, rather than putting its focus on being precise to the detail. This handbook is provided as is and readers are solely responsible for any proposals, briefing or other documents based on this handbook.

This publication is a living document, which will be reviewed and updated periodically. Comments are welcome.

Mention of specific names and commercial products and services does not imply the endorsement of the United Nations.

The use of the publication for any commercial purposes, including resale, is prohibited, unless permission is first obtained from the UNNExT secretariats. Request for permission should state the purpose and the extent of the reproduction. For non-commercial purposes, all material in this publication may be freely quoted or reprinted, but acknowledgement is required, together with a copy of the publication containing the quote or reprint.

Implementing UN/CEFACT e-Business standards in agricultural trade

A handbook for policy makers and project managers

Contents

Tables and Figures v

Acknowledgements vii

1 Glossary 1

2 Foreword 2

3 Introduction 4

3.1 Scope and Objectives 4

3.2 Target audience 4

3.3 Structure of the handbook 5

4 Electronic business and agricultural trade 7

5 General considerations about the implementation of e-Business standards for agricultural trade 9

5.1 Creation of a brief for decision makers and securing of funding for feasibility study 10

5.2 Feasibility study 10

5.3 Obtaining buy-in from key stakeholders 11

5.4 Securing funding for pilot 11

5.5 Specification and implementation of pilot project 12

5.6 Implementation of the pilot 12

5.7 Evaluation of the pilot and changes to specification 12

5.8 Elaboration of rollout plan 13

5.9 Rollout 13

5.10 Specific implementation processes 13

6 Electronic management and exchange of sanitary and phytosanitary certificates 14

6.1 Introduction 14

6.2 How an electronic SPS Certificate system works 18

6.2.1 Phase 1: Exchange of electronic SPS certificate with the exporting/importing country 19

6.2.2 Phase 2: Electronic SPS certificate management system 21

6.2.3 Phase 3: Integration of electronic SPS certificates into border clearance process. 26

6.2.4 Phase 4: In-country e-business process 28

6.3 The implementation process 28

6.4 Contribution to the national economy 31

6.5 Other considerations for eCERT implementation 33
6.6 SWOT analysis 35
6.7 The UN/CEFACT eCERT standard 36
6.8 eCERT More information 38
7 Electronic management and exchange of fishery information 39
7.1 Introduction 39
7.2 How FLUX works 43
7.3 The implementation process 48
7.4 Contribution to the national economy 51
7.5 Other considerations regarding implementation 53
7.6 SWOT analysis 53
7.7 The UN/CEFACT FLUX standard 55
7.8 More information 56
8 Electronic management and exchange of laboratory analysis information 57
8.1 Introduction 57
8.2 How eLAB works 59
8.3 The implementation process 62
8.4 Contribution to the national economy 65
8.5 Other considerations regarding eLab implementation 67
8.6 SWOT analysis 67
8.7 The UN/CEFACT eLAB standard 68
8.8 More information 69
9 Electronic management and exchange of CITES permits/certificates 70
9.1 Introduction 70
9.2 How an CITES e-permit management system works 72
9.3 The implementation process 76
9.4 Contribution to the national economy 78
9.5 Other considerations regarding implementation 81
9.6 SWOT analysis 82
9.7 Technical details of the CITES e-permitting toolkit 83
9.8 More information 83
10 Emerging UN/CEFACT standards 84
10.1 UN/CEFACT Rapid alert system for food and feed (RASFF) notification exchange 84
10.2 UN/CEFACT Animal traceability data exchange 87
11 References 91
12 Annex I: Basics of Business Process Analysis 97

Tables and Figures

Figure 5.1 Common steps in the implementation process of e-Business solutions 9
Figure 5.2 The Spiral Model 12
Figure 6.1 Main players in sanitary and phyto-sanitary certificates 14
Figure 6.2 Typical processes involved in the SPS certificate workflow 17
Figure 6.3 Comparison of paper-based and electronic SPS certificates 17
Figure 6.4 Example of an integration of eSPS certificate management system with eCustoms II: Documentary check 19
Figure 6.5 The G2B2B2G model of exchange of eSPS certificates. ISP 20
Figure 6.6 Typical modules of an electronic SPS application system 21
Figure 6.7 Example of an integration of eSPS certificate management system with eCustoms I: Pre-validation checks 27
Figure 6.8 Different Implementation paths 29
Figure 6.9 Implementation steps for electronic SPS certificates 30
Figure 6.10 A typical results chain for the implementation of electronic SPS certificate 31
Figure 6.11 Public-private partnerships as a model for funding the operation of electronic SPS certificate systems. 33
Figure 6.12 The eCert conceptual model 37
Figure 7.1 Differences in paper-based and electronic logging systems 42
Figure 7.2 Business sub-domains that will inherit the business layer standards. 43
Figure 7.3 Typical modules of an electronic FLUX standard system 46
Figure 7.4 FLUX implementation paths 48
Figure 7.5 Implementation steps of FLUX standards with main tasks and benefits 50
Figure 7.6 A typical results chain for the implementation of FLUX standards 51
Figure 7.7 Overview diagram of classes used in General Principles document 55
Figure 8.1 Differences in paper-based and electronic messaging systems 59
Figure 8.2 Sample workflow of eLAB 60
Figure 8.3 Typical systems involved in eLAB and modules of the lab management system 61
Figure 8.4 Implementation steps of electronic eLAB messaging with main tasks and benefits 64
Figure 8.5 A typical results chain for the implementation of eLAB standards 65
Figure 9.1 Typical processes involved with CITES certificates 71
Figure 9.2 Benefits of integrating the CITES e-permitting toolkit into national Single Windows 72
Figure 9.3 Typical set-up between CITES management authorities 73
Figure 9.4 Typical modules of an electronic CITES management application 74
Figure 9.5 Initial preparatory steps for an implementation of the CITES e-permitting toolkit 76
Figure 9.6 A typical results chain for the implementation of electronic CITES permits 79
Figure 10.1 Information flows of RASFF 84
Figure 10.2 Notifications 2014 85
Figure 10.3 Typical modules of a Rapid Alert System for Food and Feed 87
Figure 10.4 Cattle in Estonia marked uniquely with two plastic ear tags. 88
Figure 10.5 Estonian cattle passport 88
Figure 10.6. Conceptual supply chain covered by the standard 89

Figure 10.7. The four levels of information 89
Figure 12.1. Example Use Case diagram 97
Figure 12.2. Comparison of BPA with time-release studies and time-cost distance studies 98
Figure 12.3. Key functions and components of TTFMM 98

Table 6.1. Examples of information elements shown by dependence of access level. 24
Table 6.2. Example of risk categories and percentage of physical inspections from Abu Dhabi 25
Table 6.3. Suggested course of action for the integration of electronic SPS certificates depending on the status of electronic border control procedures 26
Table 6.4. A typical logframe matrix for the implementation of electronic SPS certificates 32
Table 6.5. Sources of funding for different stages of system development 35
Table 7.1. A typical logframe matrix for the implementation of electronic fishery information 52
Table 8.1. A typical logframe matrix for the implementation of the eLAB message 66
Table 9.1. Recommendations for implementation steps 77
Table 9.2. A typical logframe matrix for the implementation of eCITES 80

Acknowledgements

This publication was developed under the general supervision of Ms Susan Stone, Director, Trade and Investment Division (TID), United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) and Ms Virginia Cram-Martos, Director of the Economic Cooperation and Trade Division of the Economic Commission for Europe (UNECE). It was prepared by Heiner Lehr, Syntesa, under the guidance of Yann Duval, Chief, Trade Facilitation Unit, TID, ESCAP, Markus Pikart, Economics Affairs Officer, United Nations Economic Commission for Europe (UNECE), Trade and Sustainable Land Management Division, Maame Agyeben, Trade Facilitation Unit, TID, ESCAP and Frans van Diepen, Coordinator agriculture UN/CEFACT, Netherlands Enterprise Agency, Ministry of Economic Affairs.

This handbook would not been possible without the support of a number of individuals. The main contributors were: Mr. Johan den Engelse, President FrugIcom, Den Haag, the Netherlands; Mr. Conny Graumans, Manager AgroConnect, Zwolle, the Netherlands; Mr. Drasko Pavlovic, Market Access Counsellor (eCert), Regulations and Assurance Branch, Ministry for Primary Industries, Wellington, New Zealand; Mr. Barbara Cooper, Acting Assistant Secretary, Meat Exports Branch, Canberra, Australia; Mr. Francis Lopez, President, InterCommerce Network Services, Makati City, the Philippines; Mr Franky Callewaert and Mr Eric Honoré, Directorate General for Maritime Affairs and Fisheries, MARE D4 - Integrated Fisheries Data Management, Brussels, Belgium. Contributions from Bongkojmanee Kohsuwan, Amin Saud Abdulkadir and Pauline Urruty were helpful in formatting this publication.

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_3439