

Please cite this paper as:

Moïsé, E. (2013-05-15), "The Costs and Challenges of Implementing Trade Facilitation Measures", *OECD Trade Policy Papers*, No. 157, OECD Publishing, Paris.
<http://dx.doi.org/10.1787/5k46hzqxt8jh-en>



OECD Trade Policy Papers No. 157

The Costs and Challenges of Implementing Trade Facilitation Measures

Evdokia Moïsé

OECD TRADE POLICY PAPERS

The OECD Trade Policy Paper series is designed to make available to a wide readership selected studies by OECD staff or by outside consultants. This series continues that originally entitled OECD Trade Policy Working Papers.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

This document has been declassified on the responsibility of the Working Party of the Trade Committee under the OECD reference number TAD/TC/WP(2012)25/FINAL.

Comments on the series are welcome and should be sent to tad.contact@oecd.org.

OECD TRADE POLICY PAPERS
are published on www.oecd.org/trade

© OECD (2013)

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for commercial use and translation rights should be submitted to rights@oecd.org.

Abstract

The Costs and Challenges of Implementing Trade Facilitation Measures

This study provides data on the costs and challenges of implementing trade facilitation measures currently under negotiation in the WTO. It updates an earlier study undertaken in 2005, presenting data and insights from nine additional developing countries. The study confirms earlier findings that the costs of putting in place and maintaining trade facilitation measures are not particularly large and are far smaller than the benefits gained from implementing these measures. Capital expenditure to introduce the measures ranged between EUR 3.5 and EUR 19 million, while annual operating costs did not exceed EUR 2.5 million. Information technologies and single window mechanisms seem the most expensive elements but the most important area is training, because of its role in changing business practices of border agencies. Some measures may be expensive to introduce but not costly to operate, others require political commitment rather than funds. Moreover, an increasing amount of technical and financial assistance to implement these measures has been made available to developing countries over the last decade.

Keywords: Trade facilitation, implementation costs, regulation, equipment, training, aid for trade.

JEL classification: F13, F14, F35, H5, H83.

Acknowledgements

This paper was written by Evdokia Moïse of the OECD Secretariat. Information on the costs and challenges of trade facilitation was collected with the assistance of the World Customs Organisation and the World Bank. The contributions of the national experts of covered countries in providing expenditure data and highlighting the challenges faced are gratefully acknowledged.

Table of contents

Executive Summary	4
I. Introduction	5
II. Assessing the costs and identifying the challenges of implementing trade facilitation measures	6
Typology of cost components	9
III. What does country experience tells us ?	12
Some costly measures, significant benefits	12
Transparency and predictability measures	14
Procedural simplification and streamlining.....	15
Coordination and cooperation between border agencies.....	16

Tables

Table 1. Illustrative table of costs for transparency and predictability measures (in EUR).....	15
Table 2. Illustrative table of costs for procedural simplification and streamlining (in EUR)	16
Table 3. Illustrative table of costs for cooperation and coordination between border agencies (in EUR)	18

Figures

Figure 1. Aid for trade facilitation by income group	8
Figure 2. Aid for trade facilitation by region	8
Figure 3. Total aid for trade facilitation.....	9

EXECUTIVE SUMMARY

This study provides data on the costs and challenges of implementing trade facilitation measures currently under negotiation in the WTO. It updates an earlier study undertaken in 2005.

This updated study, based on data and insights from nine additional countries, confirms earlier findings identifying the measures that present the greatest challenges to developing countries in implementing reforms. The study also confirms that the costs of putting in place and maintaining trade facilitation measures are not particularly large and are far smaller than the benefits gained from implementing these measures. Moreover, an increasing amount of technical and financial assistance to implement these measures has been made available to developing countries over the last decade.

Among the three main areas of focus — transparency and predictability; procedural simplification and streamlining; and coordination and cooperation between border agencies — equipment and infrastructure seem to be the most expensive elements of trade facilitation, in particular the introduction and use of information technologies and the establishment of single window mechanisms. However, countries themselves report that the most important area is training, given its fundamental role in bringing about sustained change in the business practices of border agencies.

The study highlights the distinction between measures that are expensive to put in place, thus often requiring financial support, and those that are relatively inexpensive but require sustained political commitment to adopt and maintain over the long term. A further distinction can be made between capital expenditure and recurring costs: measures requiring significant upfront investments are not necessarily costly to operate.

The trade facilitation costs reported here are not particularly large in comparison to either the budget and total staff of Customs agencies, or against the very significant gains in terms of trade cost reductions that these measures can bring. The OECD Trade Facilitation Indicators suggest that for developing countries, the cost reduction resulting from these measures would be in the order of 14% on average. A cost-benefit evaluation of trade facilitation should be made over a long time frame, as some measures may involve large one-off costs but deliver long-term benefits.

The total capital expenditure to introduce trade facilitation measures in the reviewed countries ranged between EUR 3.5 and EUR 19 million. Annual operating costs directly or indirectly related to trade facilitation did not exceed EUR 2.5 million in any of these countries. In all countries significant modernisation and facilitation programs are in place and significant progress has already been made towards implementation of the measures under WTO negotiation. Furthermore, in addition to the effort to invest domestic resources and energy in implementing trade facilitation, there has been no shortage of donor support, which increased by 365% over a ten-year period, reaching USD 381 million in 2011. The largest beneficiary was Africa, which received USD 200 million in 2011, a 17-fold increase from the 2002-05 base-line average. In short, the costs of reducing border bottlenecks are modest — even tiny relative to the expected benefits. And ample development aid appears to be available to implement required changes.

I. Introduction

The cost to developing countries of implementing trade facilitation measures has been a central issue in the WTO negotiations on trade facilitation.¹ In order to inform the discussions and build confidence in the feasibility of implementing the proposed measures in developing countries, in 2005 the OECD Trade Committee analysed the costs of introducing and implementing trade facilitation measures, based on the experience of fifteen developing countries² that had just introduced, or were in the process of introducing, trade facilitation measures and had figures on their implementation expenses. The aim of the study was to provide indications as to the relative costs and complexity of the measures, the challenges presented by their implementation, and approaches for overcoming such challenges in practice.

The study, which was included in the OECD publication “Overcoming Border Bottlenecks, The Costs and Benefits of Trade Facilitation”, showed that several trade facilitation measures had been undertaken in the framework of normal operating budgets and without additional resources. Implementation and operating expenses were quite limited compared to expected benefits. Only a few areas required more technically demanding and complex changes, but had generally faced no shortage of donor support; they were mainly distinguished by their need for longer implementation and familiarisation periods for local administrations.

Seven years later, the costs and challenges developing countries might face to implement a possible WTO Trade Facilitation agreement are still a significant issue for a number of countries. While the OECD Trade Facilitation indicators (TFIs) provide a better understanding of the relative impact of trade facilitation measures and of the potential benefits they may bring to global trade and to national economies, there is still a need to provide reassurance about the expenses and the challenges that implementing the measures may entail. It was thus decided to undertake an update of the 2005 study, using current data, with the aim of confirming, or adjusting as the case may be, the findings included therein.

The project sought to collect reliable and comparable data on the costs and challenges of introducing and implementing trade facilitation measures negotiated in the WTO, with a focus on the costs to government. As in 2005, data collection has been undertaken in collaboration with the World Customs Organisation and with reviewed countries. It sought to cover nine developing and least-developed countries, members of the WTO and the WCO, having recently completed or in the process of implementing trade facilitation reforms and having figures on their implementation expenses, involved resources and implementation timelines.

The data were mainly drawn from actual incurred or planned expenses in domestic reform plans and capacity building programmes and do not in any way represent OECD Secretariat estimates of potential costs of the future WTO agreement. However, where measures are in the planning phase and are not yet fully budgeted, informed estimates by the relevant

¹ The modalities contained in Annex D of the 2004 WTO General Council Decision stipulate that the negotiations “shall also address the concerns of developing countries related to cost implications of proposed measures”.

² The participating countries were Argentina, Barbados, Cambodia, Chile, Jamaica, Latvia, Mauritius, Morocco, Mozambique, the Philippines, Senegal, Tanzania, Thailand, Uganda and Zambia. They represent Africa, Asia, Europe and the Americas and various levels of development. Six of them are least developed countries

administrations have provided useful additional information. These cases are clearly identified in the study as estimates and not actual expenses.

The data relate to the areas covered by the WTO negotiations on trade facilitation, including in particular: a) transparency and predictability measures, including publication and availability of information, internet publication, enquiry points, advance rulings; b) procedural simplification and streamlining, including harmonisation and simplification of documentary requirements, pre-arrival lodgement and processing of data, separation of release from clearance, risk management, post-clearance audits, authorised economic operators; and c) coordination and cooperation between border agencies, including, but not limited to, single windows.

Countries included in this update are Burkina Faso, Colombia, Costa Rica, the Dominican Republic, Kenya, Lao PDR, Malaysia, Mongolia and Sierra Leone. The country selection was based on the willingness of the concerned countries to participate but sought to the extent possible to achieve a balance in respect of size, geography and level of development and at the same time to bring new countries into this exercise, different from the ones that took part in the 2005 exercise.

Countries' differing circumstances should be taken into account in interpreting figures and outcomes: trade facilitation and customs reform endeavours did not start from the same point everywhere and some, though not all, types of expenses are a function of the size of the involved administrations. Furthermore, notwithstanding the coherence and consistency in trade facilitation efforts called for by multilateral agreements and institutions, there is flexibility in the approach and level of ambition for pursuing and implementing some of the measures, such as single windows. On the other hand, interdependencies among the measures, clearly highlighted by the OECD work on trade facilitation indicators (OECD Trade Policy Paper No. 144) mean that weaknesses in the implementation of some measures may limit the effectiveness of others.

Finally, it should be kept in mind that only a small cross-section of countries was studied. Their very diverse circumstances inevitably mean that practical application of trade facilitation measures in each country will differ. The aim of the study was not to generate hard and fast figures about how much each country is or should be spending for promoting trade facilitation but to provide indications as to the relative cost implications of trade facilitation measures, the challenges that such measures present, and approaches for overcoming such challenges in practice.

II. Assessing the costs and identifying the challenges of implementing trade facilitation measures

Some measures may be relatively inexpensive to put in place but create challenges both in terms of actual enforcement in practice and sustainability in the long run. The introduction of formal reforms is not always followed by full implementation in the day-to-day operation of border agencies and the economic agents involved because of the difficulty of changing entrenched behaviours and values and the desire to preserve rents. Although technical and financial assistance is important for improving technical and human capacity, political momentum and sufficient time are also essential for overcoming resistance to change.

Another important distinction should be made between capital expenditure and recurring costs. The former relates to the introduction of automated systems for advance lodgement and processing of data, risk management or single windows, the purchase of equipment, vehicles or buildings, or initial training in order to build capacity for certain tasks or operations not

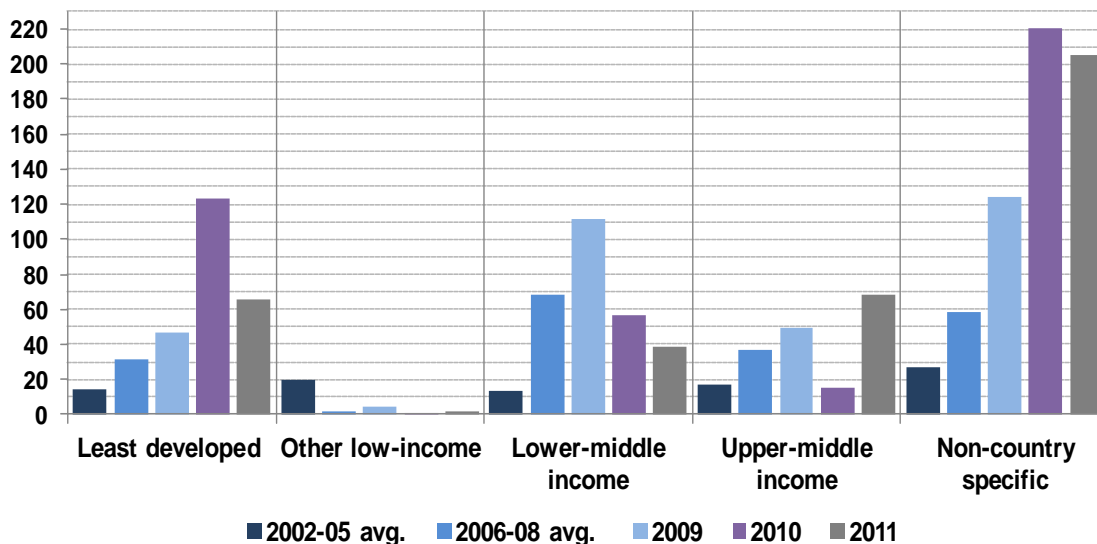
previously undertaken. Recurring expenses primarily concern salaries, but also operation and maintenance of equipment and regular training to maintain skills at the required level. Measures that entail a significant upfront investment to introduce are not necessarily costly to operate once set up. The best case in point are single window mechanisms. The sustainability of reforms is also dependent on building the capacity of local teams for strategic thinking, including driving the reforms and diagnosing and addressing new issues that may come up in the future, so as to limit reliance on external expertise. For example, in Lao PDR the Second Trade Development Facility Project has included a subcomponent of USD 600 000 for building the capacity of senior and middle managers in all the involved agencies to lead and sustain reforms in the area of trade facilitation.

Initial expenses for purchasing equipment, training officials and putting in place new measures have been largely met by the increasing level of technical and financial assistance devoted to trade facilitation over the last decade (Figures 1, 2 and 3). Donor support directed to simplifying and modernising border rules and procedures reached USD 381 million in 2011, an increase of 365% from the 2002-05 base-line average. The largest beneficiary was Africa, which received USD 200 million in 2011, a 17-fold increase over a ten-year period. Aid for trade facilitation resisted the financial crisis relatively well, declining by 10% between 2010 and 2011, compared to the 14% decline in overall aid for trade commitments in 2011.

Annual operating expenses on the other hand are difficult to separate from the overall functioning of customs and other border administrations and are generally absorbed by border agencies' regular operating budgets. Although it is important to ensure that budgets for maintenance of either equipment or human skills are available in the long term to ensure the sustainability of reforms, the reviewed countries' experience indicates that the efficiency enhancement brought by trade facilitation measures allows border authorities to make the most of existing resources. Private support can also be very valuable in complementing resources earmarked for reform. For example, the partial Single Window operating now in Malaysia was established and run by the private sector, although the more comprehensive Single Window currently under development will be managed by the government.

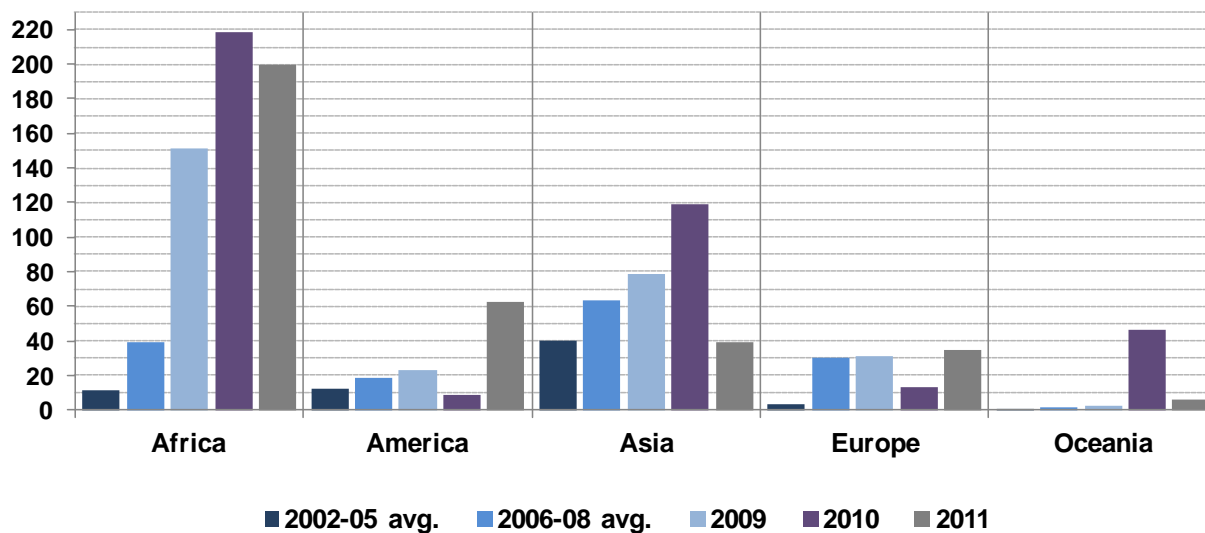
Finally, attention should be paid to the readiness not only of Customs but also other agencies involved in the border process to participate in the reform process. In general, Customs are at the forefront of modernisation and facilitation not only because they are the only government body that deals with all goods arriving in and departing from a country but also because they have benefited from extensive financial and technical support from bilateral and institutional donors and specialised agencies, including the WCO. The upgrading and modernisation of other involved agencies seems to be gaining momentum but still has some way to go in a number of countries.

Figure 1. Aid for Trade Facilitation by income group
Commitments 2002-2011 (USD million, 2011 constant prices)



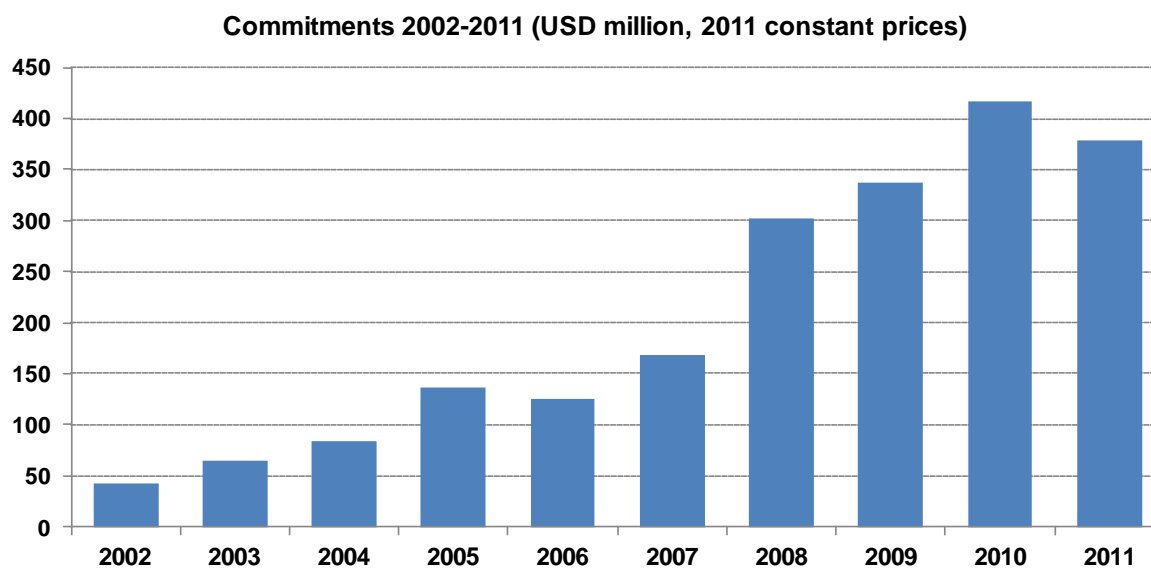
Source: OECD-DAC, Aid activities database (CRS).

Figure 2. Aid for Trade Facilitation by region
Commitments 2002-2011 (USD million, 2011 constant prices)



Source: OECD-DAC, Aid activities database (CRS).

Figure 3. Total Aid for Trade Facilitation



Source: OECD-DAC, Aid activities database (CRS).

Typology of cost components³

The introduction and implementation of trade facilitation measures has entailed costs and challenges in one or more of the following areas: new regulation, institutional changes, training, equipment and infrastructure. Two additional areas highlighted by the current studies relate to a) diagnostics and b) awareness-raising and change management. Among cost components, equipment and infrastructure may often be the most expensive; however, training appears to be the most significant, as trade facilitation is primarily about changing border agencies' ways of doing business.

Diagnostic and re-engineering costs: Identifying priority areas for reform and devising appropriate action plans can be complicated for developing countries that have little experience with diagnostic and reengineering endeavours. In the context of the WTO negotiations, technical assistance is provided by the WTO Secretariat, with the support of Annex D organisations and experts from national administrations of fellow Members to help developing countries assess their trade facilitation needs and priorities. Between September 2007 and December 2010, 94 needs assessments were undertaken, while another round of assessments is currently underway in order to update results against the evolution of the negotiating text and trade facilitation developments in many countries. Diagnostics and planning for trade facilitation reforms may be part of development assistance and capacity building interventions, such as the Diagnostic Trade Integration Studies (DTIS) for Enhanced Integrated Framework countries – that was the case for Lao P.D.R., or the Diagnostic Needs Assessments and Implementation Support of the WCO Columbus Program. However, these diagnostic projects can also mobilise domestic expertise from academia and the administration, as is the case for instance in Malaysia, where a small team of five persons within the Customs Department has undertaken in 2012 to re-engineer more than 250 business

³ This section largely draws on and expands the corresponding section of the 2005 study.

processes in the areas of import, export, transit, transshipment, free zones and excise with the support of MAMPU⁴, MPC⁵ and line experts, over a period of three years.

Regulatory costs: Trade facilitation measures may sometimes require new legislation, or the amendment of existing laws in accordance with the national legislative and regulatory process of each country. Generally, these regulatory changes are undertaken in a wider, customs modernisation context and are not narrowly confined to trade facilitation. They involve time and staff specialised in regulatory work in ministries, the centre of government and parliament. A significant part of this endeavour relates to preparatory work in order to properly assess the existing regulatory framework, ensure consistency and coherence with other domestic policies and identify potential unintended consequences on various users. Resources required for legislative and regulatory work differ depending on the country's legislative structures, procedures and frequency of changes in legislation. However, with the exception of major legislative changes, such as the adoption of legislation on electronic signatures, most changes pertinent to trade facilitation seem to be handled at the operational level and entail little additional cost. In countries with limited domestic expertise, support may be provided through international assistance, as in the case of Lao P.D.R, where USD 450 000 are earmarked for external support to help with the implementation of the recently introduced Customs Law and for a valuation support database to facilitate the phase out of reference pricing for imports. The progress of discussions on the future WTO trade facilitation agreement has generated a wealth of supporting material, produced by member governments and intergovernmental agencies, about the main regulatory and institutional aspects that would need to be taken into account to reform regulation⁶.

Institutional costs: Some trade facilitation measures require the establishment of new units, such as a post-clearance team, a risk management team or a central enquiry point, which may require additional human and financial resources. With respect to the human resources, countries can either recruit new staff or redeploy existing staff. The former option generally costs more, although the latter option may also entail training costs, expenses for physically relocating staff and resources devoted to forward planning. As relocation is not an uncommon management practice in customs, redeployment linked to newly introduced trade facilitation measures may simply be part of the general practice of relocation. However, redeployment is only possible to a certain degree if service disruptions are to be avoided. In general, the more customs administrations introduce sophisticated, specialised functions, the less they can redeploy staff from one task to another.

Although not actually expensive, the clarification of border agencies' respective fields of responsibility and their coordination around border services and controls may be institutionally challenging. Appropriate co-ordination and co-operation between border authorities constitutes in itself an important element of trade facilitation and sometimes results in significant reductions in time and costs for traders. Customs administrations may be

⁴ The Malaysian Administrative Modernization and Management Planning Unit, www.mampu.gov.my, is a central agency under the Prime Minister Department responsible for modernising and reforming the public sector.

⁵ The Malaysian Productivity Corporation, www.mpc.gov.my, under the Ministry of International Trade and Industry, is in charge of promoting productivity and quality in the Malaysian economy.

⁶ Including the WTO material for National Self-Assessments of Trade Facilitation Needs and Priorities, UNCTAD Technical Notes on Trade Facilitation, WCO World Customs Centre of Learning, and the extensive list of country case studies on various topics of trade facilitation reform presented by WTO Members, to name but a few.

responsible for the application not just of their own procedures and requirements but also those of a range of other authorities, particularly for ensuring compliance with documentary requirements (licences, certificates, etc.) for many purposes. The possibility to delegate controls or the requirement to coordinate border agency activities in a way that minimises the burden to users, may call for strong directions from the centre of government.

Training costs: Training often appears as the most essential cost component of trade facilitation measures. Countries may choose between: i) recruiting new, expert staff; ii) training existing staff in a training centre; iii) on-the-job training; and iv) importing trained staff through personnel exchange with other ministries/agencies. Option i) is the most expensive since it implies a budgetary increase and can only tap into a limited pool of expertise with the necessary customs-specific skills and know-how. In a number of countries, option i) seems to be further constrained by a salary scale that is too low to attract suitably qualified staff. Regular training is common practice in many customs administrations around the world, although it varies in frequency and duration, and training for specific trade facilitation measures (option ii) is often part of more general training. The development of a comprehensive human resource development capacity in Lao P.D.R. was assessed at USD 850 000 in the ongoing World Bank Customs and Trade Facilitation Project, covering the establishment of a Customs training centre, endowed with the necessary equipment, the conduct of competency assessments, and the development of a comprehensive training curriculum and training materials, including the translation of WCO e-learning modules into Lao.

On-the-job training (option iii) results in no additional cost for the administration, but may give rise to temporary costs for traders, in the form of lower performance of the public service. On the other hand, the possibility to train large numbers of officials in new techniques, such as risk assessment, may be constrained not only by financial considerations, but also by the need to avoid disrupting the administration's normal operations. Option iv) may be relevant for cases such as post-clearance audit, where appropriate expertise may be drawn from the inland tax administration. Although this is a costless option for the state and for the customs administration, the loss of qualified staff from the tax administration may make it difficult to implement without sustained political commitment, even when customs and tax are under the same agency or department.

Equipment/infrastructure costs: Equipment and infrastructure are not always a prerequisite for trade facilitation measures, although some measures, such as advance lodgement and processing of data, risk assessment or special procedures, are more readily implemented with appropriate equipment and infrastructure. Border agencies call for information and communication technology (ICT) products and infrastructure and scanners primarily to enhance the effectiveness and efficiency of customs operations and controls and only incidentally to sustain trade facilitation measures. For example, telephone lines and telephone equipment make it far easier for customs to communicate, and office automation provides genuine improvements in performance. None of these costs can be counted as direct costs of trade facilitation. Nevertheless, the studies show that insufficient equipment and infrastructure will make some facilitation measures more difficult to implement.

Most equipment and infrastructure should be viewed as implementation tools to be carefully combined and sequenced with regulatory, institutional or human resource changes. For example, as long as a country has not introduced modern risk management for targeting high-risk consignments and continues to examine unnecessarily large numbers of low-risk consignments, scanners will not help reduce clearance times or enhance control performance. Likewise, while modern equipments and IT systems can be brought to bear on trade

facilitation, a complementary investment in people is indispensable. As the technical aspects of customs work are being improved, human resource development has to keep pace because any system can only be as efficient as the people who run it. Furthermore, choosing implementation tools before elaborating the relevant policies (for instance introducing computer networks before modernising control and clearance procedures) runs the risk of reducing available policy options and making subsequent changes lengthier and more costly.

Awareness-raising and change-management costs: The efficiency of several trade facilitation measures is also linked to the interaction of border agencies with economic actors and the capacity or willingness of the latter to go along with new modes of operation. Awareness raising activities are undertaken in order to promote better understanding and ensure the positive involvement of the private sector, so as to facilitate the introduction and enhance the sustainability of new measures. Private stakeholders are frequently included in a number of training and capacity building activities alongside customs and other government officials, possibly funded by the government or technical assistance programs in the country, and some reviewed countries have factored the costs of such participation in their expenditure forecasts. The development of a communications strategy directed at both customs staff and other stakeholders and the establishment of client service standards are important components of such change management endeavours.

III. What does country experience tell us?

The nine new case studies confirm earlier findings about the link between efforts to improve customs and border efficiency and trade facilitation outcomes. Trade facilitation measures have introduced new ways to fulfil the traditional mandates of border agencies, often making them more efficient and effective by rationalising resource use. All reviewed countries have made progress in the areas under negotiation, having fully implemented between 36% and 41% of them and having partially implemented on average another 54% of these measures.

The reported costs of implementing trade facilitation measures were not high, both as regards resources to introduce the measures, as well as operating expenditures, with the exception of costs related to information technologies. The costs of introducing the measures were primarily related to recruitment and training of specialised staff and for equipment, but the time necessary for satisfactory implementation of the measures constitutes an additional challenge. Reported operating costs were mainly related to salaries. Although aggregate figures of total trade facilitation costs in one country will not be directly transposable to other countries, budgeted or estimated capital expenditure to introduce trade facilitation measures in the reviewed countries ranged between EUR 3.5 (an estimate from Burkina Faso) and EUR 19 million (Mongolia) with Colombia and the Dominican Republic somewhere in between (EUR 7 and EUR 12 million respectively). Annual operating costs directly or indirectly linked to trade facilitation did not exceed EUR 2.5 million in any of the reviewed countries that reported such expenses. In both cases, the stated figures concern much more than trade facilitation as several reforms are part of a broader customs modernisation agenda that also covers productivity and improved revenue collection.

Some costly measures, significant benefits

The case studies also confirm that the most costly measures are related, in one way or another, to the introduction and use of information technologies. The single most expensive measure to introduce is generally single window mechanisms although, once put in place, salary and maintenance expenditures to operate those mechanisms are not necessarily very

high. The expenditure to establish a single window mechanism ranged from EUR 17 million in Mongolia to EUR 3 million in Burkina Faso, with system upgrades costing between EUR 350 000 in Kenya and EUR 960 000 in Costa Rica. On the other hand, the annual operating expenses budgeted for the single window mechanism range from around EUR 33 000 in Mongolia, a figure that is less than half the country's annual operating expenses for publication mechanisms, to EUR 625 000 in Costa Rica. Between 80% and 90% of these amounts for operating the single window are devoted to salaries and the rest to computer equipment maintenance, supplies, insurance and marketing.

Other trade facilitation measures that rely on information technology include risk management systems and the possibility to lodge and process related documentation prior to the arrival of the actual consignment. Kenya reported having spent EUR 1 000 000 to put in place the automated system for pre-arrival lodgement and processing of data, a figure that has to be read in conjunction with the lower figure reported for launching their single window system. In Lao P.D.R. the introduction of ASYCUDA World, including hardware and software installation, use and maintenance training, and network unfolding was allocated EUR 5 080 000, funded by a multi-donor fund including the World Bank, the EU and Australia over a period of six years.

In the other countries, expenses for introducing similar mechanisms of varying levels of ambition ranged from EUR 770 000 in Mongolia (of which 30% was for the salaries of the experts that put the system in place) to EUR 150 000 in Burkina Faso. Annual operating costs for these measures are in the order of EUR 250 000 for the Dominican Republic, Kenya and Mongolia, while Burkina Faso estimates they would be about EUR 110 000. It should be remembered that the introduction of information technology concerns far more than trade facilitation and some costs, for instance those related in risk management and control selectivity, would have been incurred even in the absence of a trade facilitation agenda. ASYCUDA for instance covers most foreign procedures, including manifests, customs declarations, accounting, transit and suspense procedures, and generates trade data for statistical and economic analysis. Furthermore, an accurate cost assessment needs to factor in linkages between different elements of trade facilitation that cannot be correctly implemented in isolation, such as separation of release from clearance and risk management.

Overall, authorities in the reviewed countries seem to devote more resources to trade facilitation implementation than was the case in the 2005 case studies. However these amounts are not particularly large compared to the budget and total staff of their Customs agencies. The costs of introducing and implementing trade facilitation measures also need to be seen in the light of their effectiveness. The expense of putting in place procedural simplification and streamlining needs to be viewed against the very significant gains in terms of trade cost reductions that these measures can entail, as shown by the OECD trade facilitation indicators work. These gains are estimated at 12% for low income countries, while for lower and upper middle income country groups, this is estimated at 14% and 11%, respectively [TAD/TC/WP(2012)24]. For instance, in the case of measures related to transparency or to document simplification and harmonisation, the costs are minor compared to the cost reduction benefits that can be expected. Likewise, while the establishment of a central enquiry point could constitute a cost for the central customs administration, it also eliminates or reduces the costs of regional customs offices for dealing with enquiries. However, the most striking example concerns the harmonisation and simplification of trade documents: this is an inexpensive area of reform, thanks to the extensive development of internationally

standardised trade documents,⁷ which can be easily implemented by individual countries after mapping out applicable procedures; and one that could help low income countries reduce trade transaction costs by 3% and lower middle income countries by 2.7%, according to the OECD trade facilitation indicators.

In addition, a cost – benefit evaluation of implementing trade facilitation measures has to be set against a specific time frame, as some measures may involve important one-off costs but deliver long-term benefits. Furthermore, institutional reforms take time to implement and to translate into visible and measurable results which will vindicate their inception costs. Customs modernisation will result in particular in cost savings, in the ability of the administration to handle a growing number of trade declarations without need for additional manpower and in shorter clearance time but more effective screening of cargoes. During the implementation period of the first Customs and Trade Facilitation Project in Lao P.D.R. (2009-2012), the time required to clear goods fell by 34%, as confirmed by an independent time release study.

Transparency and predictability measures

Transparency and predictability measures include the publication and availability of information, internet publication, enquiry points and advance rulings. For most reviewed countries the most resource intensive transparency measures seem to concern internet publication and -online- enquiry points. The principal challenge of these measures, past the inception stage which mainly calls for IT equipment and expertise, is to maintain information that is accurate, reliable and updated immediately when changes come into effect, otherwise information or enquiry portals lose their relevance. This implies an efficient institutional mechanism for feeding all relevant information: coordination capacity from the host department or agency is useful but could be too resource intensive and not sufficiently effective without a prompt and proactive supply of information from other concerned agencies or departments. Both Burkina Faso and Lao PDR confirm the difficulties they encounter in keeping information in their websites up to date and accurate. Furthermore, Burkina Faso indicates that outside the Customs website, online information by other border agencies is poor or non-existent. The disparity between Customs and other border agencies is borne out in other reviewed countries.

Expenses to establish internet communication mechanisms ranged from EUR 11 500 in Sierra Leone, EUR 19 000 in Burkina Faso to EUR 240 000 in Mongolia. Burkina Faso further estimated that it should cost around EUR 50 000 and take approximately two years to have enquiry points up and running. Roughly the same amount was spent for enquiry points in Mongolia. Annual operating costs for these two measures are around EUR 235 000 for internet publication and EUR 42 000 for enquiry points in Mongolia, EUR 50 000 and EUR 120 000 respectively in Kenya, and EUR 1 480 for internet publication in Sierra Leone.

In Lao PDR these two functions were integrated in the Lao Trade Information Portal, launched in June 2012 after 18 months of preparation. The Portal, developed for EUR 230 000 under a multi-donor Trade Development Facility Project displays all information relating to importing and exporting into and from Lao PDR and to goods transit, including major trade-related laws, regulations, procedures, fees and taxes. In addition to border-related information it hosts the country's SPS and TBT enquiry points. The information is available in

⁷ Including the United Nations Layout Key (UNLK), Electronic Data Interchange for Administration, Commerce and Transport (UN/EDIFACT), or Trade Data Elements Directory (UNTDDED) and the Customs Data Model of the WCO.

Lao and in English and easily accessible to the public thanks to the user-friendly interface and easy to use search engine. In the near future the Portal will also incorporate functionalities to facilitate public consultations between the administration and the private sector on new regulations, procedures or non-tariff measures.

Advance rulings are today more prevalent than at the time of the 2005 studies (73% of the countries covered by the OECD TFIs provide for some type of advance rulings, most often on classification). The introduction of an advance rulings mechanism ranged between EUR 20 000 in Sierra Leone and Mongolia and EUR 25 000 in Kenya. Burkina Faso provides advance information upon request from interested traders but on an informal basis, lacking the necessary legal and procedural framework for issuing such rulings formally. Colombia undertook a more extensive project, allocating EUR 75 000, to upgrade a system first established in 2000, and expand the coverage of advance rulings to classification, value, origin, duty drawback, inward processing procedures, marks and quotas. The system will also provide for improved procedures including defined issuance periods and publication of advance rulings of general interest,

Table 1. Illustrative table of costs for transparency and predictability measures (in EUR)

		Burkina Faso ^a	Colombia	Kenya	Lao P.D.R. ^b	Mongolia	Sierra Leone
Internet publication	Inception	18 800		50 000	230 000	238 870	11 500
	Operation					24 345	1 480
Enquiry points	Inception	48 500		120 000	}	43 980	
	Operation					41 680	
Advance rulings	Inception	30 000	76 973	25 000		20 915	19 900
	Operation		657 632				

a) Estimates by the concerned country.

b) Total expenditure for the Lao enquiry portal.

Operating costs are expressed on a yearly basis.

Procedural simplification and streamlining

Measures of procedural harmonisation and streamlining include the harmonisation and simplification of documentary requirements, the pre-arrival lodgement and processing of data, the separation of release from clearance, risk management, post-clearance audits and authorised economic operators. The expenses incurred for implementing automation are at the same time an overestimation and an underestimation of specific trade facilitation needs: on the one hand automation covers a much larger customs modernisation scope, even if its efficiency-enhancing effect supports the implementation of a trade facilitation strategy. On the other hand, where measures are supported by automation, such as for risk management modules incorporated in ASYCUDA or similar systems, the coverage is not necessarily comprehensive across all concerned agencies; Burkina Faso reports for instance that sanitary risk criteria applied by the National Laboratory of Public Health are not integrated in ASYCUDA's green, yellow and red lane system.

Although equipment purchasing and information and communication technology seem central elements for measures such as pre-arrival lodgement and processing of data or risk management, training and skills upgrading are really critical in ensuring their effective implementation and sustainability. In Lao PDR, an overall envelope of around EUR 5 million, devoted to automation initially funded the installation of ASYCUDA World and its implementation at the most important key locations, covering approximately 80% of all Lao

trade flows. It subsequently supported the rollout to 12 additional border crossings, completing the nationwide development of the system, including to acquire backup generators and a CCTV system for improving the monitoring of operations at border checkpoints. However, in addition to infrastructure and equipment, the project encompassed capacity building for Customs to effectively manage and maintain the system and its overall ICT infrastructure and network, including by progressively shifting responsibility for support and maintenance of ASYCUDA from UNCTAD staff to customs staff, gradually introducing a risk management system and supporting the design, development and integration of complementary ICT elements associated with the National Single Window.

Special procedures for authorised economic operators rely extensively on the availability and efficient operation of risk assessment and audit techniques. They pose the additional challenge of the delicate balance between trust and impartiality in the relation between the AEO and the administration, particularly acute in countries with very small AEO programs such as Burkina Faso. The Colombian AEO program has taken approximately three years to operationalise, from its inception in mid 2009 until the moment applicants were able to seek registration through the dedicated Electronic Information Service. The endeavour called for extensive inter-institutional coordination among various agencies involved in foreign trade operations and steps to have the Colombian AEO Model recognised in the Latin American context.

Table 2. Illustrative table of costs for procedural simplification and streamlining (in EUR)

		Burkina Faso ^a	Colombia	Dominican Republic	Kenya	Lao P.D.R. ^b	Mongolia
Risk management	Inception	60 000		254 986		5 080 000	771 300
	Operation				250 000		231 745
Pre-arrival processing	Inception	45 000			1 000 000		290 785
Post-clearance audits	Inception	14 000		243 217	400 000		327 785
	Operation						170 880
Authorised Economic Operators	Inception	5 500	1 848 145		120 000	650 000	693 920
	Operation		481 099				32 170

a) Estimates by the concerned country.

b) Total expenditure for the automation of customs systems in Lao PDR.

Operating costs are expressed on a yearly basis.

Coordination and cooperation between border agencies

Measures of coordination and cooperation between border agencies range from policy and documentary/physical control coordination between various border agencies domestically and across the border, to the establishment of single windows. An important challenge concerning domestic coordination of controls is the variation in the level of expertise and capacity between Customs and other border agencies, as well as the reluctance of concerned agencies to relinquish controls or abandon previous modes of operation to adopt the new, coordinated ones. The Integrated System for Simultaneous Inspection (SIIS) established by Colombia to ensure proper coordination in the export operation required five months for establishing agreed procedures through inter-agency coordination, a year for training concerned staff at the ports and customs border posts and two years for gradual implementation and development so as to avoid disruptions and negative impacts on the users. Expenses for establishing the SIIS reached EUR 1 million.

A further challenge is the difficulty to sustain trade facilitation coordinating bodies during their early years of operation. The momentum provided by such bodies to the domestic trade facilitation agenda seems dependent on the quality and commitment of their Secretariat, its ability to undertake research and analysis on key policy issues, to monitor action plan implementation and to encourage the participation of the private sector.

Single Windows are probably the most sophisticated instrument for ensuring coordination of controls between border agencies, the single most expensive trade facilitation measure reviewed in this study and a very significant contributor to reducing trade costs as shown by the OECD TFIs. Beyond the purely financial constraints of purchasing the necessary equipment and software, the main challenges relate to the complex interactions between the multiple entities involved, each having their own work culture and wishing to retain their *modus operandi*. The task of mapping out each of the processes to be subsumed under the single window mechanism can also be complex and time consuming.

In Lao PDR over EUR 1 million are earmarked over the 2012-13 period for the National Single Window Preparation Project, before the actual establishment of the Single Window can take place. In Colombia the establishment of a Single Window has been undertaken since 2004, first coordinating the efforts of all concerned entities and adjusting relevant rules and procedures and then progressively integrating various modules, starting with the imports module. The system in its current form has cost EUR 4.1 million. Kenya reported an expenditure of EUR 350 000 for their ORBUS system, which was however built as part of a wider automated customs network system. Estimates about the time necessary to bring those mechanisms up to speed were estimated at three to five years in the Dominican Republic and around four years in Mongolia.

Costa Rica has operated a single window system for border management since 1996, improved in 2006 for basic interoperability through the harmonisation of data models and the implementation of a single document for imports and exports. In 2011 the Export Promotion Agency (PROCOMER) and the Ministry of Foreign Trade decided to upgrade the system to ensure interoperability with all 16 border-related agencies and their forms related to authorisations and permits currently obtained by the exporters in different public offices; suppress multiple uploads of trade data and reduce error potential; allow a 24/7 operation throughout the year; and provide the capacity to interoperate with similar systems in other countries, allowing for the transmission of information used for pre-arrival processing and risk management purposes. The upgrading of Costa Rica's single window to its VUCE 2.0 version cost around EUR 962 000, of which EUR 336 000 were devoted to the human resources involved in the development and management of the upgrading project, EUR 498 000 for software development, EUR 51 000 for equipment and EUR 78 000 for training. Launched in 2011 it is expected to last three years and to generate savings of up to 79% in terms of time and up to 78% in terms of the total costs associated with import and export procedures. In particular, clearance time for dairy products is expected to fall from 10 to 1.5 hours and for agrochemicals from 27.5 to 2.2 hours. Based on the 2013 operational budget, the yearly expenses for VUCE 2.0 will be around EUR 625 000, of which EUR 510 000 for salaries and personnel related costs, EUR 535 000 for marketing, insurance, legal or maintenance services and EUR 57 000 for licences, servers and other equipment costs.

Finally, coordination and cooperation with agencies in neighbouring countries, including the development of shared facilities and the alignment of working hours and procedures, implies firm political will shared across the border and strong ties and good relations with neighbours. The alignment of working hours and procedures needs to go beyond government entities to also embrace private service providers (freight forwarders, customs brokers)

involved in the process. In the context of the WAEMU initiative for shared border posts (PCJ – *postes de contrôle juxtaposés*), seventeen shared posts are planned in the region, eleven of which would benefit from a FCFA 51.6 billion funding (EUR 78.66 million) from the Union. The first pilot facilities were developed in 2010 at the Burkina Faso-Togo border, but they were still not operational by end 2012.

Table 3. Illustrative table of costs for cooperation and coordination between border agencies (in EUR)

		Burkina Faso	Costa Rica	Colombia	Dominican Republic	Kenya	Lao P.D.R	Mongolia
Single window	Inception	3 049 000	962 000	4 100 000	7 845 720	350 000	1 035 000	17 016 345
	Operation		627 630					32 615
Interagency coordination							360 460	
Co-ordinated documentary and physical controls	Inception			1 025 000				
Development of shared facilities with neighbours	Inception			59 645				
Alignment of working hours/ procedures with neighbours	Inception			4 390				

Operating costs are expressed on a yearly basis.