

E. The challenges of implementing the Trade Facilitation Agreement

This section of the report looks at the various challenges involved in ratifying and implementing the Trade Facilitation Agreement (TFA), particularly for developing and least-developed countries (LDCs). It first assesses the implementation needs of developing countries, then goes on to evaluate the costs associated with implementing the measures covered by the TFA. It proceeds to explain the role of the Trade Facilitation Agreement Facility in meeting the challenges of implementation and to review the key success factors identified in previous trade facilitation reforms. Finally, it underlines the importance of monitoring implementation of the TFA and its economic impacts.

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Some key facts and findings

- Trade facilitation is a high priority for developing economies and least-developed countries (LDCs), according to surveys of WTO members. However, the cost of implementing trade facilitation is difficult to quantify due to a lack of systematic data collection. Available data suggests that costs vary considerably depending on the type of trade facilitation measures considered and country specific circumstances. Trade facilitation reforms are, on average, less costly than broader initiatives, such as customs modernization, and upgrades of transport infrastructure.
- Strong political will at the highest levels and commitment to the process of trade facilitation are the most important success factors of any trade facilitation reform. Other key success factors include cooperation and coordination between ministries and border management agencies, private sector stakeholder participation, and adequate financial, human and material resources.
- The Trade Facilitation Agreement Facility will play a vital role in matching demands for capacity-building from developing countries and LDCs with the supply of capacity-building and assistance from donors.
- Efforts to monitor the progress of the TFA after it comes into force should include evaluations of both implementation costs and economic impacts.

1. Overview of implementation challenges

As the first multilateral trade agreement adopted since the conclusion of Uruguay Round in 1994, the WTO Trade Facilitation Agreement (TFA) represents a landmark achievement for the organization. However, in order to realize the gains promised by the agreement, members must now turn to the dual tasks of ratification and implementation. In the first place, the TFA will only enter into force once two-thirds of the WTO membership have formally accepted the Agreement. Once this initial challenge is met, and in order to ensure successful implementation, it is important to identify the main issues and challenges that members may encounter when putting the Agreement into practice.

A high degree of political commitment on the part of developed, developing and least-developed countries is crucial for both rapid ratification and successful implementation of the TFA, but this support cannot be taken for granted. According to the results of a monitoring exercise undertaken in the context of the Fifth Global Review of Aid for Trade, although developing countries and LDCs give a high priority to implementing trade facilitation, they still express a great deal of uncertainty about its benefits. They also assign different priorities when it comes to requesting technical assistance to implement specific provisions of the TFA. Donor countries also continue to give high priority to trade facilitation, as reflected by their rising aid commitments and disbursements, but many are concerned about a potential lack of political will in partner countries, that could hinder the full implementation of the measures covered by the TFA. Credible estimates of the likely benefits of the TFA such as those found in Section D of this report should bolster support for the agreement.

Costs associated with implementing specific trade facilitation projects and measures could also be seen as impediments to swift ratification of the TFA and its implementation. Empirical evidence suggests that the magnitude of the inception costs associated with a given trade facilitation measure can vary significantly from one country to another, reflecting each country's unique circumstances in terms of its initial state, needs, priorities and level of ambition with regard to trade facilitation. Overall, measures related to transparency and to the release and clearance of goods tend to entail implementation costs lower than those attached to measures relating to formalities requirements, customs automation, and customs and border agency cooperation. However, the implementation costs of trade facilitation reform remain smaller than those associated with broader initiatives, such as customs modernization and transport facilitation.

Important lessons have already been learned from existing trade facilitation reforms that should make TFA implementation easier. Empirical evidence suggests that different, often interrelated, factors play a critical role in the successful implementation of trade facilitation reforms. While financial resources availability and sustainability are essential, they do not constitute a sufficient condition for automatic success in implementing trade facilitation initiatives. Other factors play a major role in successful trade facilitation reforms, such as strong commitment at the highest level, cooperation and coordination between ministries and government agencies, private sector stakeholders' participation, adequate human and material resources, and the adoption of a sequencing approach.

The presence of strong special and differential treatment provisions in the TFA should eliminate many potential obstacles to implementation. Under the TFA, each developing country and LDC member will have the opportunity to establish its own unique implementation schedule based on its capacity and needs. In this context, the WTO, through the newly created Trade Facilitation Agreement Facility (TFAF), could play a unique role in supporting the implementation effort by matching and coordinating countries requesting technical assistance with countries supplying capacity-building and technical assistance.

The fact that challenges may emerge at any time during the process of TFA implementation highlights the need for ongoing efforts to monitor the operation of the agreement. An effective monitoring and evaluation of the TFA's economic impact requires reliable data, indicators and analytical tools, such as impact evaluation studies.

2. Assessing the implementation needs of developing countries

Section D of this report identified a wide range of potential benefits from the TFA once it is implemented. In addition to reducing trade costs and increasing the volume of trade between WTO members, the Agreement should raise members' rates of GDP growth, promote job creation, diversify exports, increase customs revenue, and expand trade opportunities for small and medium-sized enterprises (SMEs). Developing economies, and LDCs in particular, are expected to benefit disproportionately from the TFA, especially under rapid and full implementation scenarios.

However, if the benefits of trade facilitation are so large and obvious, this raises the question of why some countries were reluctant to engage in negotiations

on trade facilitation in the first place, and why some might be slow to ratify and implement the TFA. Some of this hesitancy can be explained by uncertainty on the part of members, not only about the magnitude of the gains from the Agreement but also about the costs and timing of implementation. By increasing awareness of the estimated costs and benefits of the TFA, this report should help members more accurately gauge their implementation needs, thereby advancing the ratification process.

Existing studies of trade facilitation reforms in developing countries, including Moisé (2013) have found that implementation costs tend to be very small compared to the benefits that these programmes deliver. However, even modest implementation costs may exceed the ability of least-developed and other low-income countries to pay. In order to address the particular challenges faced by developing economies, the TFA contains special and differential treatment provisions that allow these countries to determine when they will implement certain provisions of the Agreement, and to identify provisions that will only be implemented once the necessary capacity has been built. As already noted in Section B, these commitments fall into three categories:

- Category A: “provisions that a developing country Member or a least-developed country Member designates for implementation upon entry into force of this Agreement, or in the case of a least-developed country Member within one year after entry into force”;
- Category B: “provisions that a developing country Member or a least-developed country Member designates for implementation on a date after a transitional period of time following the entry into force of this Agreement”; and
- Category C: “provisions that a developing country Member or least-developed country Member designates for implementation on a date after a transitional period of time following the entry into force of this Agreement and requiring the acquisition of implementation capacity through the provision of assistance and support for capacity building”.

Category C commitments provide a specific rationale for assessing the technical assistance needs of developing and LDC members in implementing the TFA. On two occasions, the WTO Secretariat conducted a technical assistance needs assessment exercise to help developing and least-developed WTO members identify their needs and priorities with regard to implementing the TFA. While the results of these self-assessments remain confidential and cannot be used,

other existing and available, albeit limited, sources of information provide insights on developing countries' aid priorities, expectation and needs.

(a) Review of the literature on trade facilitation implementation

A limited number of studies have attempted to assess the status of trade facilitation reforms in developing countries and LDCs, including their needs for technical assistance. A recent report by the United Nations Conference on Trade and Development (UNCTAD, 2014b) reviewed 26 national trade facilitation implementation plans conducted to assess, among other things, the implementation status of 39 specific trade facilitation measures associated with different versions of the consolidated negotiating text of the TFA. In a majority of the 26 participating countries, comprising LDCs, landlocked developing countries and small island economies, many trade facilitation measures were at or near the midway point of implementation.

Other available studies focusing on a smaller number of countries confirm that most developing countries surveyed have already implemented a number of trade facilitation measures and that none would be starting the implementation of the TFA from zero (UNESCAP, 2014). In particular, the authors of a 2013 report by the United Nations Economic Commission for Africa (UNECA, 2013) observed that African countries and Regional Economic Communities were already active in putting in place measures aligned with the TFA. For instance, the Chirundu One-Stop Border Post between Zambia and Zimbabwe has resulted in yearly savings of US\$ 486 million (UNECA, 2013). However, despite the fact that many countries have already undertaken some trade facilitation reforms, there are still important gaps in the levels of trade facilitation implementation, with a substantial majority of the LDCs surveyed (73 per cent) having implemented only a small number of TFA-related measures (UNCTAD, 2014b).

(b) Trade facilitation in the context of Aid for Trade

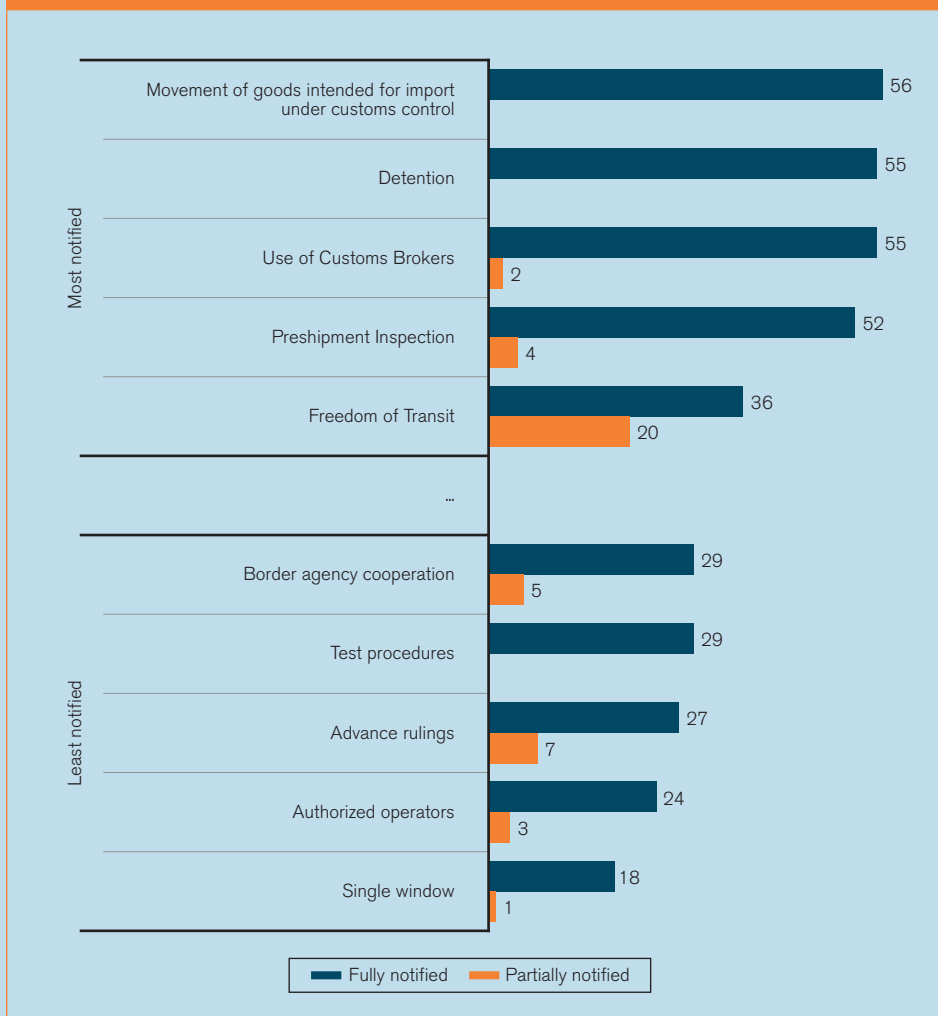
While it is extremely difficult to determine accurately which measures of the TFA will be most challenging to implement and will therefore require assistance until developing countries and LDCs actually submit their category B and C commitments, useful insights can still be inferred from information shared by WTO members. Besides Category A notifications under the TFA (see Box E.1), another recent source of information on the priorities and challenges related to the TFA implementation can be found in the replies to various WTO-OECD questionnaires undertaken as part of

Box E.1: Category A commitments under the TFA

According to Section II of the TFA, each developing country and LDC member is required to self-designate, on an individual basis, Category A provisions of the TFA for implementation upon entry into force of the TFA, or within one year after entry into force for LDCs. As of June 2015, a total of 60 developing and five least-developed country members have submitted notifications of Category A commitments.

While the most notified TFA provisions cover, on average, measures that are less likely to be considered as challenging and requiring technical assistance, the TFA provisions that are least notified could be viewed as measures that are likely to be more complex and costly to implement. Under this assumption, Category A commitment notifications indirectly provide insights on developing countries' foreseen priorities and technical assistance needs in terms of specific TFA measures. In particular, provisions related to single windows (a single entry point for the submission of trade documentation and notification of the release of goods from border control), authorized operators, advance rulings, test procedures and border agency cooperation are, on average, less frequently notified as Category A commitments than provisions related to movements of goods, detention, use of customs brokers, pre-shipment inspection and freedom of transit (see Figure E.1). Other less-notified TFA measures include those involving setting up enquiry points, establishing and publishing average release times, and implementing various specific features of customs cooperation, such as information exchange, protection and confidentiality. Many of these less-notified TFA measures are considered as relatively complex and are frequently identified as areas of priority for technical assistance.

Figure E.1: Top five most and least notified TFA provisions under Category A commitments

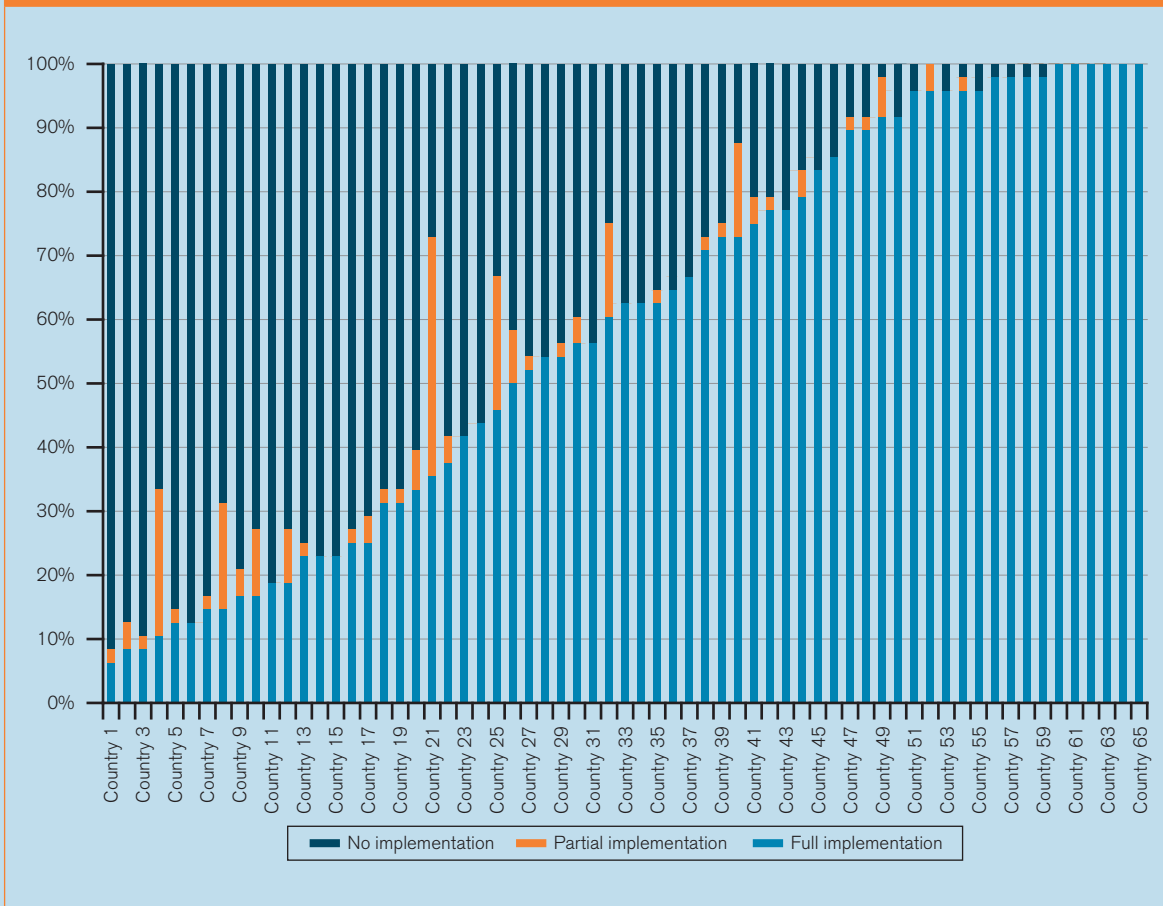


Source: WTO Secretariat.

Box E.1: Category A commitments under the TFA (continued)

Figure E.2 illustrates the average level of implementation over all TFA measures for countries that have submitted Category A commitments. Ranking countries according to the percentage of measures that are fully implemented, from lowest to highest, provides an indication of how much of the TFA is already in place and how much remains to be done.

Figure E.2: Levels of TFA implementation implied by Category A commitments



Source: WTO Secretariat.

the Fifth Global Review of Aid for Trade monitoring and evaluation exercise. In particular, the analysis of the responses received from 62 developing and LDC members in various geographical regions, from 27 bilateral donors, and from 23 development agencies sheds light on the importance that developing countries place on the TFA, how they expect it to influence their trade costs, and what challenges they expect to encounter during its implementation.¹

(i) Trade facilitation is a priority for developing countries...

Developing countries seem to assign a high priority to trade facilitation, with 65 per cent of partner countries surveyed ranking trade facilitation in their top three

Aid for Trade priorities, higher than any other areas, such as trade negotiations, WTO accession, network infrastructure, transport infrastructure, cross-border infrastructure, competitiveness, export diversification, connecting to value chains, adjustment costs and regional integration. As shown in Figure E.3, landlocked countries tend to give an even higher priority to trade facilitation, while small island developing states appear to prioritize other Aid for Trade areas. In particular, nearly 85 per cent of African and Middle Eastern developing countries and LDCs ranked trade facilitation among their top five priorities, compared to 75 per cent for Latin American countries and 67 per cent for Asian developing economies, as depicted in Figure E.4.

Figure E.3: Ranking of trade facilitation in Aid for Trade priorities of landlocked countries and small island developing states, 2015

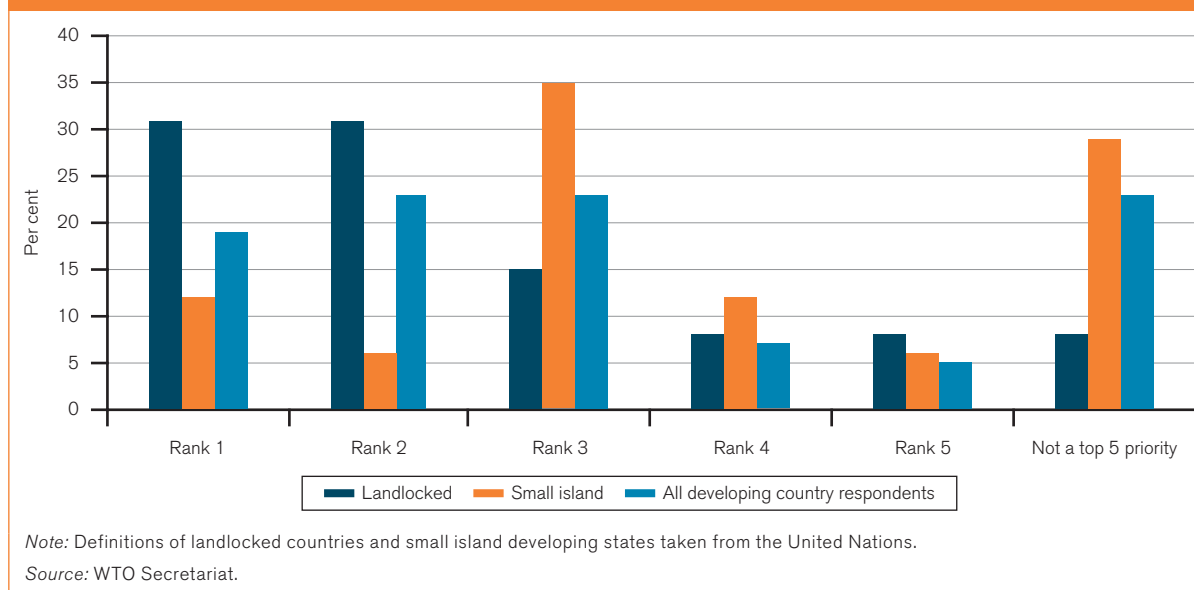
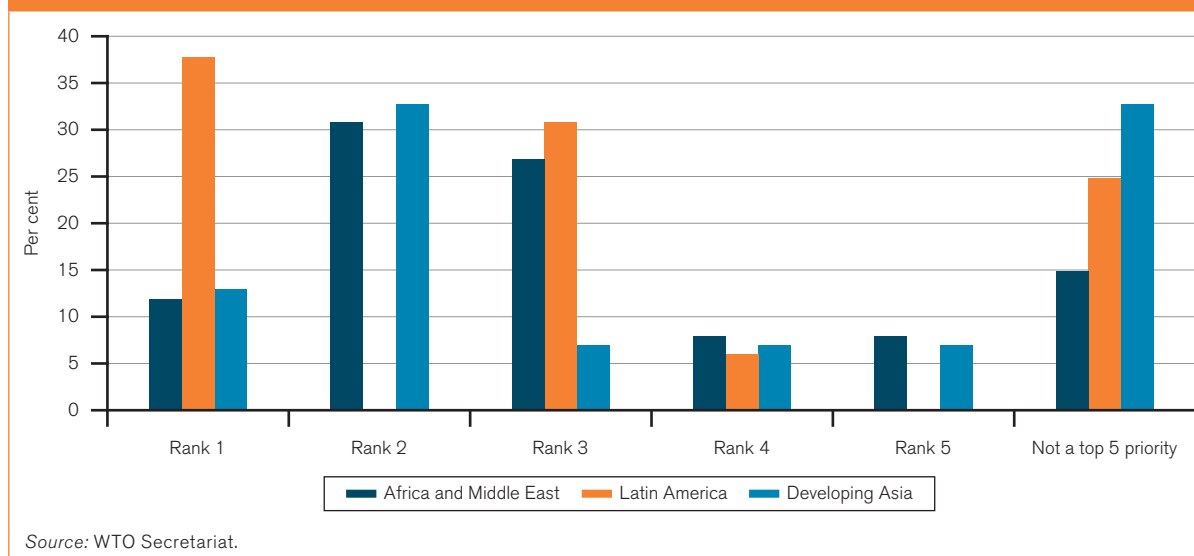


Figure E.4: Ranking of trade facilitation in Aid for Trade priorities of partner countries by geographic region, 2015



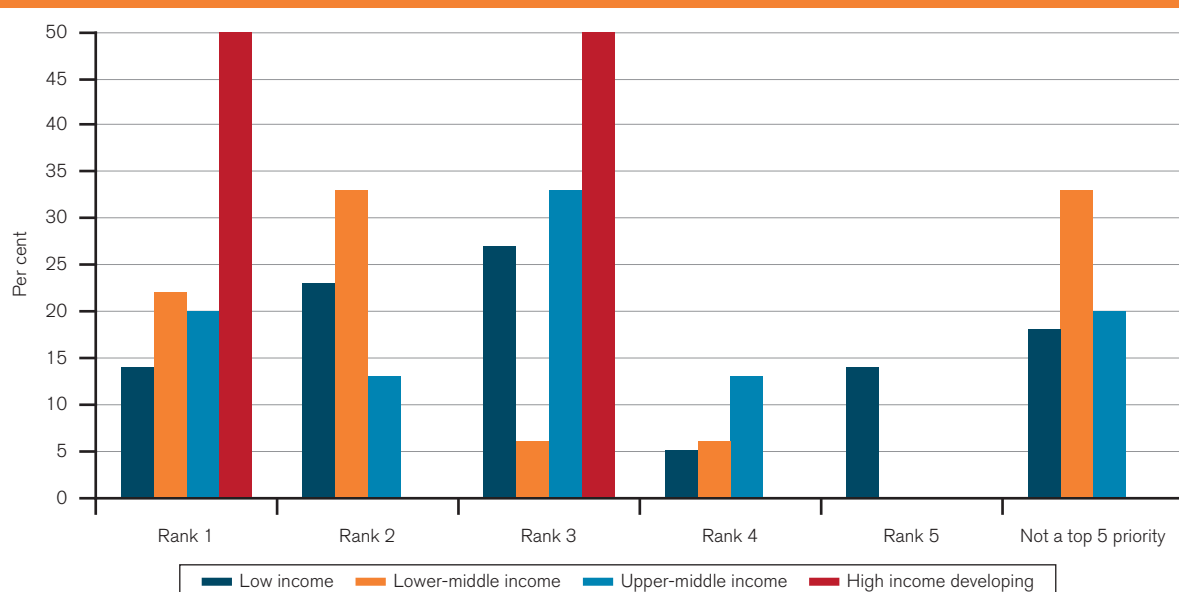
There were no stark differences in the priority level assigned to trade facilitation by countries of different income levels. Figure E.5 suggests that high-income developing countries do appear to rank trade facilitation very highly, with 50 per cent putting it in first place and 50 per cent in third place. However, since only two high-income developing countries responded to the questionnaire, these results are not very informative.

In contrast to the WTO-OECD questionnaires from the Fifth Global Review of Aid for Trade, a survey carried out by UNCTAD (2014) distinguished between 39 different trade facilitation measures and asked respondents to

assign priority levels to them. These results confirm that trade facilitation is among developing countries' highest priorities.

Despite differences between countries, these results confirm the overarching consensus that has emerged in previous studies according to which government officials and private sector agents in developing countries recognize the potential of trade facilitation (UNESCAP, 2014). In particular, both developing countries and LDCs tend to give the highest importance to the most comprehensive and ambitious reforms, such as single window or border agency cooperation,

Figure E.5: Ranking of trade facilitation in Aid for Trade priorities of partner countries by income group, 2015



Note: Definitions of country income groups taken from the World Bank.

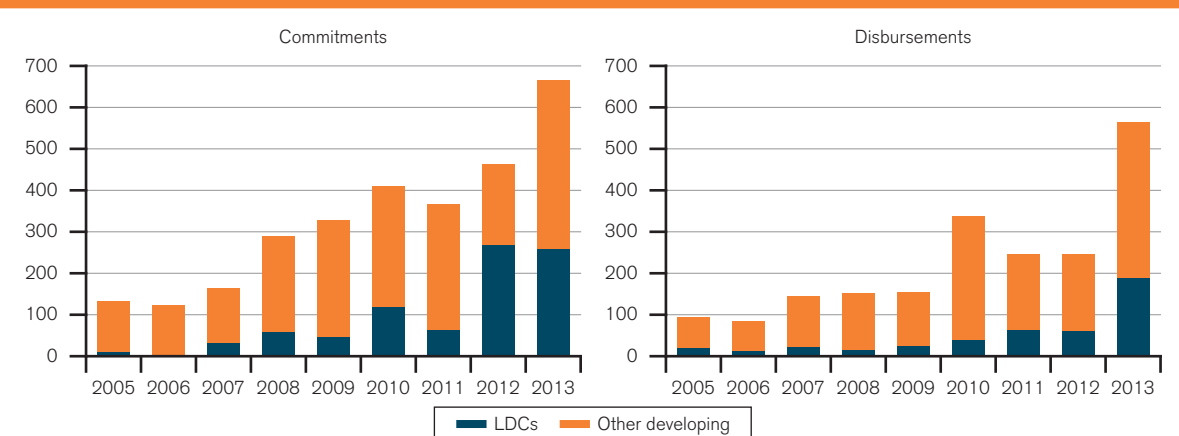
Source: WTO Secretariat.

but also to more traditional trade facilitation measures, such as risk management and documents publication and availability (UNCTAD, 2014b).

Trade facilitation also continues to be on the agenda of donors. More than half (53 per cent) of aid donors report increased spending on Aid for Trade for trade facilitation since 2012, while only a relatively small fraction (8 per cent) confirm a reduction in spending. The remaining participating countries indicate either no change (24 per cent) or uncertainty. The rising

trend in aid flows is further confirmed by Figure E.6, which reports trade facilitation-related commitments and disbursements per the OECD Creditor Reporting System. Donor countries and multilateral agencies have committed US\$ 2.9 billion to trade facilitation and disbursed US\$ 2.0 billion in constant 2012 US dollars since 2005. Only 3 per cent of donors expect to see their Aid for Trade spending fall over the next five years, and none anticipates a drop in spending on trade facilitation, which bodes well for implementation of the TFA. Shares of commitments and disbursements

Figure E.6: Trade facilitation commitments and disbursements of aid donors by partner country group, 2005-13 (million constant 2012 US\$)



Source: OECD Creditor Reporting System.

targeting LDC partners have been rising. The LDC share of commitments rose from around 9 per cent in 2005 to 39 per cent in 2014, while the equivalent share in disbursements rose from 20 per cent to 33 per cent.

(ii) ... but developing countries are uncertain about the benefits of the TFA

While most countries participating in the monitoring exercise seem to consider trade facilitation to be an important Aid for Trade priority, half of these same countries reported a high degree of uncertainty or inability to determine to what extent the TFA would influence their trade costs. As shown in Figure E.7, a small number, made up mostly of LDCs, even anticipates higher trade costs following the implementation of the TFA, possibly indicating confusion about the distinction between trade costs and implementation costs. It is conceivable that a small country that was already investing efficiently in customs procedures before the TFA might see its trade costs rise if it undertook new commitments as a result of the Agreement. However, the flexible special and differential treatment afforded to developing countries should minimize this possibility since it allows developing countries and LDCs to tailor the scope and timing of implementation to their particular circumstances.

The remaining countries surveyed expect the TFA to reduce their trade costs either moderately (47 per cent) or greatly (39 per cent). As illustrated in Figure E.8, landlocked countries tend to be relatively more optimistic, with 67 per cent expecting a drop in trade costs of more than 10 per cent, while only 20 per cent of small island developing countries expect such a large decline. Similarly, the majority of lower- and upper-

middle income countries foresee a moderate decline in trade costs of between 0 and 10 per cent (58 per cent and 67 per cent, respectively), while 38 per cent of low-income countries expect trade costs to remain unchanged or even rise.

(iii) Obstacles to implementation and needs for technical assistance

As discussed in the next subsections, while some of the measures covered by the TFA might be relatively easy and straightforward to implement, others may be more complex and/or costly to carry out. In particular, and as reported in Figure E.9, border agency cooperation, followed by formalities connected with importation, exportation and transit, as well as information publication and availability have been identified by the developing countries and LDCs surveyed as the hardest of the TFA's disciplines to implement, and as those for which support would be most needed. Customs cooperation and advance rulings are among the other trade facilitation measures considered as being particularly hard to undertake.

The ranking of the TFA provisions by difficulty of implementation is partially in line with the least-notified TFA measures under Category A commitments, namely single windows, authorized operators, enhanced controls, test procedures, average release times, enquiry points, border agency cooperation and advance rulings (see Box E.1). Other measures, such as disciplines on fees and the opportunity to comment before the entry into force of relevant laws and regulations, appear to present lesser challenges to developing countries and LDCs. However, low-income countries and African countries seem to be more concerned and anticipate

Figure E.7: Anticipated impact of TFA implementation on trade costs, all developing country respondents

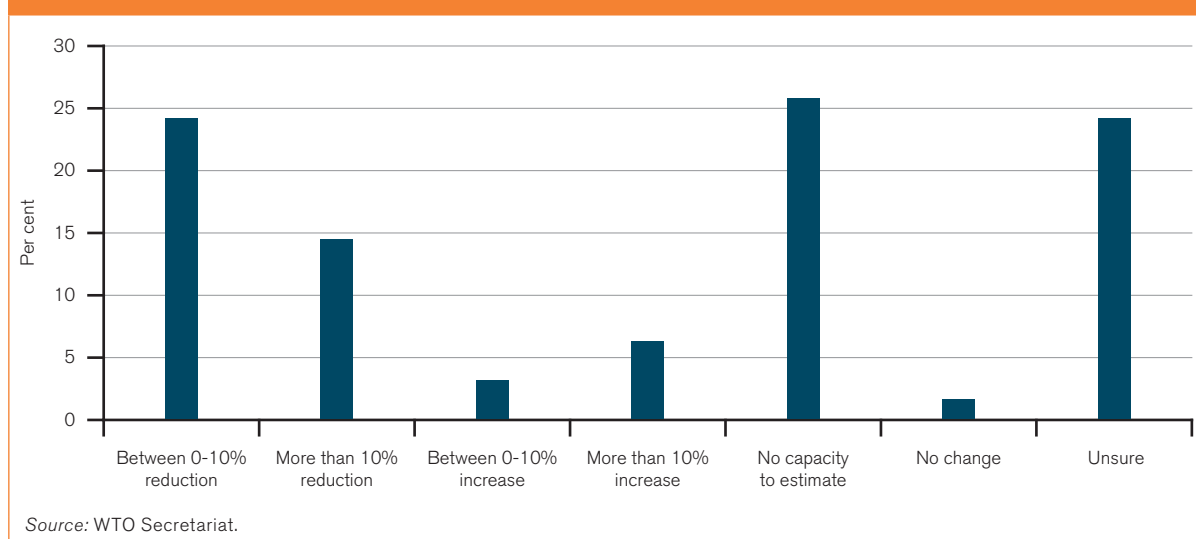
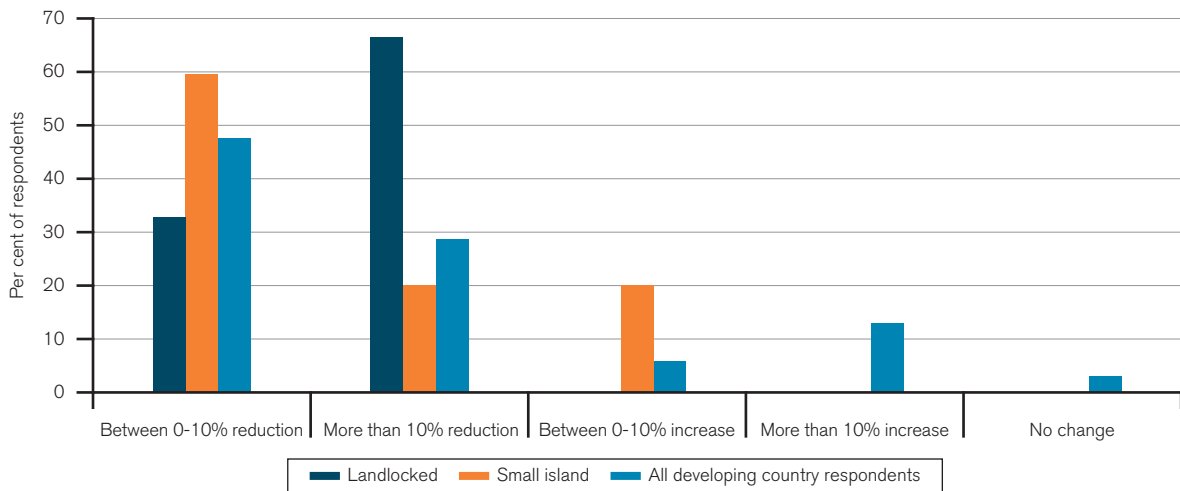


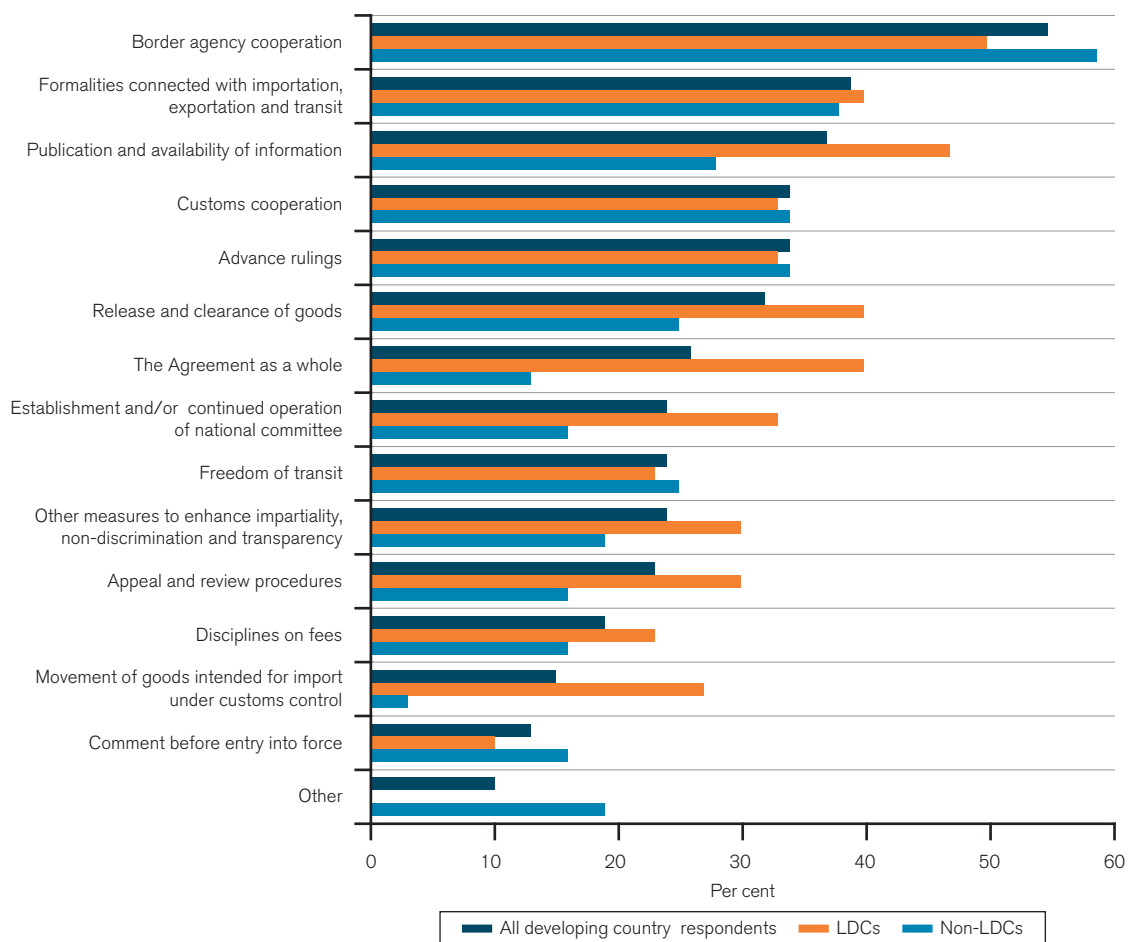
Figure E.8: Impact of TFA on trade costs anticipated by landlocked and small island states, survey responses



Note: Definitions of landlocked countries and small island developing states taken from the United Nations.

Source: WTO Secretariat.

Figure E.9: Which disciplines of the Trade Facilitation Agreement will prove hardest to implement?



Source: WTO Secretariat.

greater difficulty with the implementation of the TFA as a whole and with most of the specific trade facilitation measures.

Overall, these rankings of the TFA's disciplines confirm that challenges may arise when implementing certain trade facilitation measures. According to individual donor countries and multilateral agencies, the lack of national coordination and political will (70 per cent) followed by the absence of trade facilitation priority within national development planning (68 per cent) are among the most important difficulties that will be encountered in implementing the TFA. These findings are in line with previous countries' and experts' qualitative assessments of the obstacles to trade facilitation implementation (World Bank, 2006a).

While measures requiring the largest share of technical assistance are often those with lowest implementation levels, several trade facilitation measures have been identified by countries and experts as measures calling only for additional political will in order to be undertaken, without any additional technical assistance. These measures include prior consultation, elimination of consular fees, freedom of transit routes and abolishment of the mandatory use of escorts for goods in transit (World Bank, 2006a).

The lack of an existing legal framework has also been recognized as one of the biggest hindrances to trade facilitation implementation (UNCTAD, 2014b). Without a proper legal framework, many specific trade facilitation measures, including those which are already applied informally, fail to deliver their full potential. Other important obstacles identified in the qualitative studies include a lack of resources or organizational framework, non-existent or limited understanding and knowledge of different trade facilitation measures, a lack of cooperation and mistrust between government agencies and an absence of communication between private and public stakeholders (UNCTAD, 2014b; World Bank, 2006a). Many of these different obstacles can be considered as the other side of the coin to the success factors, which are discussed in greater detail below.

3. Implementation costs of trade facilitation reform

In contrast to the literature assessing the benefits of trade facilitation reform, only a limited number of studies have analysed the costs that may need to be incurred in order to implement trade facilitation measures. Yet the costs of introducing and implementing trade facilitation measures remain of concern to many developing countries and LDCs, which often have to decide whether and to what extent part of their limited financial resources should be allocated to trade

facilitation reform. This type of concern often prevails when governments fear that the costs associated with trade facilitation reform might outweigh the anticipated benefits resulting from the adoption and implementation of trade facilitation measures.

Such perceptions tend to appear when the benefits associated with trade facilitation reform are difficult to quantify and are viewed from a short-term perspective. While benefits in terms of increased revenue and trade will sometimes materialize completely only in the medium- and long-term, implementation costs have to be incurred immediately. Such situations can make decision-makers in developing countries and LDCs reluctant to embark on trade facilitation reform, even though the benefits associated with trade facilitation ultimately outweigh their implementation costs and can then be used to pursue further reform. Understanding the nature, features and scope of the implementation costs of trade facilitation reforms are therefore of particular relevance not only to governments, but also to development partners and to private sector partners involved in funding trade facilitation initiatives.

(a) Difficulties in estimating trade facilitation implementation costs

The literature on trade facilitation provides limited information on the costs associated with the implementation of trade facilitation reform because the implementation costs are often not easy to quantify for two main reasons. First, trade facilitation reform is cross-cutting by nature and, for that reason, is rarely carried out independently of other broader policy objectives aimed at enhancing revenue collection, reducing trade costs and creating a more transparent, efficient and predictable trading environment. As illustrated in Figure E.10, trade facilitation measures are often implemented in the context of broader policy initiatives, such as institutional reform, customs modernization, electronic governance, regional integration, export promotion, and infrastructure and transport development. As a consequence, there is often no specific funding allocation dedicated to the adoption and implementation of specific trade facilitation measures, making it particularly difficult to identify the corresponding costs.

Second, the implementation costs of trade facilitation can take various forms, depending on the type of trade facilitation measures considered. A distinction is usually made between the initial upfront costs associated with the introduction of trade facilitation measures, the upgrade and expansion costs, and the ongoing operational costs. Eight different types of interrelated implementation costs have further been identified in the literature: (1) diagnostic, (2) regulatory,

Figure E.10: Trade facilitation and broader policy initiatives



Source: WTO Secretariat.

(3) institutional, (4) training, (5) equipment and infrastructure, (6) awareness-raising, (7) political and (8) operational. Some of these costs may be particularly difficult to express in monetary terms and identify separately (OECD, 2005; Duval, 2006; Moisé, 2013).²

Diagnostic and needs assessment costs arise prior to the actual implementation of trade facilitation reform to identify the trade facilitation needs, set realistic reform priorities and prepare a practical implementation strategy. Diagnostic costs usually involve time and national and/or external experts to consult with relevant stakeholders and formulate concrete action plans based on the information collected.

Regulatory and legislative costs may occur when existing pieces of national legislation have to be amended or a new legislation has to be adopted in order to implement specific trade facilitation measures. For instance, in the absence of laws recognising the legal status of electronic documentation, any electronic documents must continue to be accompanied by its paper equivalent. A change in the legislation is therefore often required to authorize and recognize the validity of electronic data submission between agencies and digital signatures. Such costs usually involve time (depending on the country's legal framework), staff specialized in legislative and regulatory issues, and sometimes external experts.

Institutional and organisational costs may arise when new units have to be established or existing units have to be re-structured in order to perform specific trade facilitation functions more efficiently, either by redeploying existing staff or recruiting additional staff. For instance, the introduction of post-clearance audit, the application of risk management procedures or the establishment of a central enquiry point might require a dedicated team of administrative, operational and support staff.

Human resources and training costs arise when users in border management agencies and the trading

community have to learn new ways of complying with the trade facilitation formalities and operations. Training is often viewed as the most important element in implementing trade facilitation measures, since trade facilitation reform is mainly about changing border agencies' practices and behaviours. The level of training costs depends on whether new expert staff are hired, or whether internal or transferred staff are trained on the job or in a training centre. Recruiting new expert staff is usually considered to be the most costly option, because it not only often requires a budgetary increase but also the direct availability of skilled experts in the domestic labour market. Available empirical evidence suggests that countries tend to choose to train existing staff on the job to accommodate and implement the new trade facilitation requirements (Moisé, 2013).

Equipment and infrastructure costs may occur following the decision to construct or acquire facilities and accommodation, and install and upgrade new or additional implementation tools, including information and communication technologies (ICTs) such as virtual networks, automated solutions, and scanners. As discussed below, ICTs have been identified in a number of case stories on trade facilitation reforms as one of the key factors in enhancing the effectiveness and efficiency of a number of specific trade facilitation measures, such as x-ray scanners to complement risk management procedures and computerized system to submit electronically and process pre-arrival documents. Although equipment and infrastructure do not always constitute a prerequisite to implement most trade facilitation measures, they are usually considered to be the most expensive components of trade facilitation reform. The availability and provision of reliable power supply, telecommunication networks, computer hardware suppliers and local maintenance services, all of which are necessary in order to use information and communication equipment, are usually not considered as specific implementation costs of trade facilitation reform, because they are also necessary to other non-trade facilitation-related activities (OECD, 2009).

Awareness-raising and change management costs may arise when transparency and communication strategies are implemented to promote a greater involvement of all relevant stakeholders in the public and private sectors, including through a better understanding of the trade facilitation reform's elaboration and progress achieved. The support, participation and ownership of relevant stakeholders tend to facilitate not only the introduction, but also the sustainability of a number of trade facilitation measures.

The literature sometimes identifies **political and resistance costs** as an additional component of implementation costs which may arise as a result of active or passive resistance and opposition from relevant stakeholders, including policy-makers, staff and the private sector, to the development and implementation of specific trade facilitation measures (Duval, 2006). Such costs are not readily quantifiable because they tend to impact other components of trade facilitation implementation costs, including operational costs. As discussed in greater detail next, political will, national ownership and stakeholders' participation are among the key elements in addressing resistance in implementing successfully trade facilitation reform.

Operational and maintenance costs consist mainly of the remuneration of staff or experts and the maintenance and replacement of equipment, such as software or computers, once trade facilitation measures have been introduced. These operational and maintenance costs are often absorbed in the administrative budget, making it all the more difficult to isolate and assess them specifically. Empirical evidence suggests that ongoing operational costs tend to entail lower costs than initial upfront and upgrade costs for most trade facilitation measures, except measures such as providing online publications and operating national trade facilitation committees. The scant information available suggests that yearly operational costs of trade facilitation measures are, on average, up to 52 per cent less than their respective inception costs (Moisé, 2013). In some cases, the operational costs of specific trade facilitation measures are wholly or partially passed onto customers through the payment of user fees in exchange of the services provided. Similarly, part of the inception costs of some specific trade facilitation measures may be transferred to traders through the payment of charges. In some cases, countries have also decided to grant private firms the responsibility to actually implement specific trade facilitation measures.

(b) Overview of trade facilitation implementation costs

In light of the limited available information found in the literature, data on the implementation costs of

trade facilitation projects and measures have been assembled in order to gain insights into the potential nature and magnitude of the costs of implementing the TFA. Relevant figures have been collected from various sources, including from case stories submitted to the WTO, the Third and Fifth Global Reviews of Aid for Trade, the United Nations Economic Commission for Europe (UNECE), the United Nations Conference on Trade and Development (UNCTAD), the United Nations Economic Commission for Africa (UNECA) and the Economic and Social Commission for Asia and the Pacific (UNESCAP). Other important sources of information on implementation costs include trade facilitation-related lending projects undertaken by individual donors; multilateral and regional banks such as the World Bank, the Asian Development Bank and the Inter-American Development Bank; and non-profit organizations such as TradeMark East Africa.

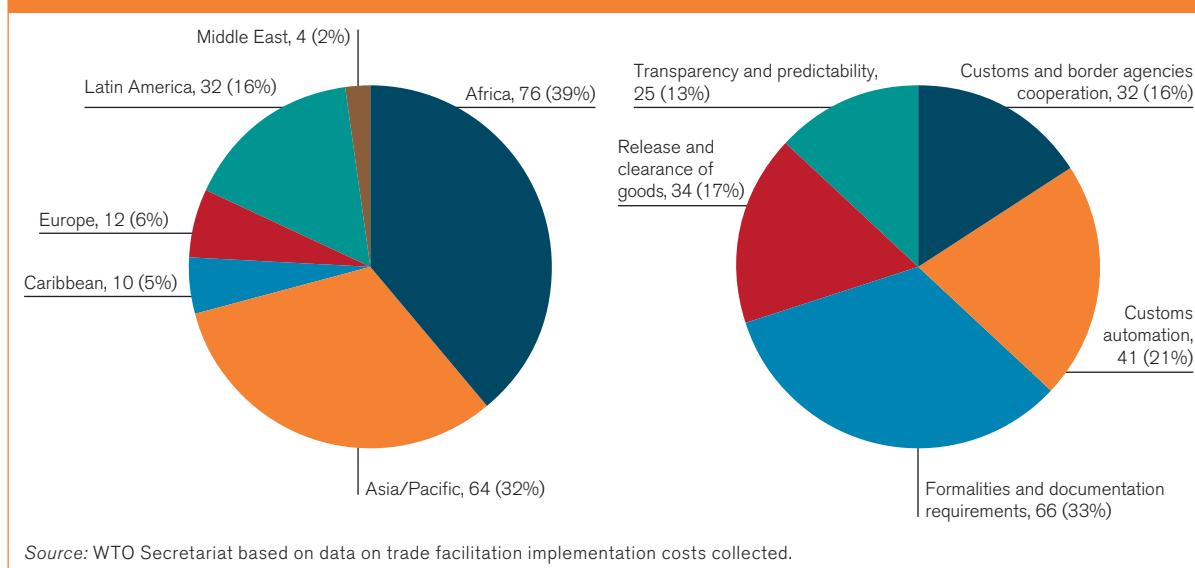
In total, the implementation costs of 198 trade facilitation measures and projects undertaken in four (2 per cent of the study) developed countries, 122 (60 per cent of the study) developing countries and 77 (38 per cent of the study) LDCs were compiled.³ Of this total, 76 (39 per cent) trade facilitation measures were adopted in Africa, 64 (32 per cent) in Asia/Pacific, 32 (16 per cent) in Latin America, 12 (6 per cent) in Europe, 10 (5 per cent) in the Caribbean, and 4 (2 per cent) in the Middle East.

As illustrated in Figure E.11, the available information on implementation costs also covers a comprehensive range of trade facilitation areas, with 66 measures (33 per cent) focusing on formalities and documentation requirements such as single windows, 41 (21 per cent) on customs automated systems, 34 (17 per cent) on release and clearance of goods such as risk management and authorized economic operators, 32 (16 per cent) on customs and border agency cooperation such as one-stop border post procedures, and 25 (13 per cent) on transparency and predictability such as advance rulings and enquiry points. In order to put the different implementation costs of these trade facilitation measures into perspective, data on the costs of customs modernization and reforms (57 projects) and transport facilitation initiatives (197 projects) were also drawn from multilateral and regional lending projects.

Before reviewing the data it is important to note that any cost figure should be interpreted and compared carefully for several reasons.

First, implementation costs vary according to each country's unique circumstances, including its trade facilitation reform's initial state, needs, priorities, and desired level of ambition. For instance, some countries might already have introduced certain trade facilitation measures but want to improve or expand these measures with additional investments.

Figure E.11: Distribution of the data on trade facilitation implementation costs by region and area (trade facilitation measures)



Second, the magnitude of the implementation costs might depend on the speed and pace of the implementation and the use of national or international expertise. Empirical evidence suggests that the implementation costs of certain trade facilitation measures hinge on their appropriate sequencing (Moïse, 2013), i.e. scheduling them within an ordered and appropriate implementation plan (De Wulf and Sokol, 2005). In addition, quickly implementing while relying fully on international experts may be more costly than following a gradual implementation pace with increasing participation of national experts (UNCTAD, 2014b).

Third, the data on implementation costs collected might not be entirely representative of the actual range of the implementation costs of specific trade facilitation measures for which information is only available for a couple of countries.

Fourth, information on implementation costs is usually not detailed enough to enable a proper cross-country comparison by implementation costs' components (i.e. diagnostic, regulatory, institutional, training, equipment and awareness-raising costs).

An analysis of the available information on trade facilitation implementation costs highlights four important features. First, trade facilitation measures differ in their implementation costs, as shown in Figure E.12. Second, implementation costs of trade facilitation measures are characterized by significant variability across countries. Third, trade facilitation measures related to transparency and the release and clearance of goods tend to involve smaller

implementation costs than measures related to formalities requirements, customs automation, and customs and border agency cooperation, which often entail a wider range of costs components, as defined above. This ranking is in line with the results of the Fifth Global Review of Aid for Trade questionnaires discussed in subsection E.1, as well as with the few studies reviewing the qualitative assessment formulated by a number of countries and experts regarding the inception costs of selected facilitation measures (Duval, 2006; UNCTAD, 2014b; OECD and WTO, 2015). Fourth, trade facilitation measures appear on average to be less costly than broader initiatives, such as customs modernization, including construction and upgrading of border facilities, and transport infrastructure upgrading, such as road, rail, and port modernization and infrastructure.

(i) *Transparency and predictability*

Costs of implementing trade facilitation measures related to transparency and predictability seem to be relatively low compared to other measures, ranging from US\$ 12,000 to US\$ 3.6 million, as highlighted in Figure E.13. Many of these transparency-related measures, such as the publication of relevant laws and regulations and implementation of advance rulings on origin, are already part of longstanding practices in many developing countries. Their modification or extension, such as the publication of international procedures and guidelines, introduction of a time period between publication and entry into force of new legislation, and prior consultation, are not expected to create significant additional costs for countries with existing publication mechanisms.

Figure E.12: Implementation costs of trade facilitation, customs and transport facilitation reforms

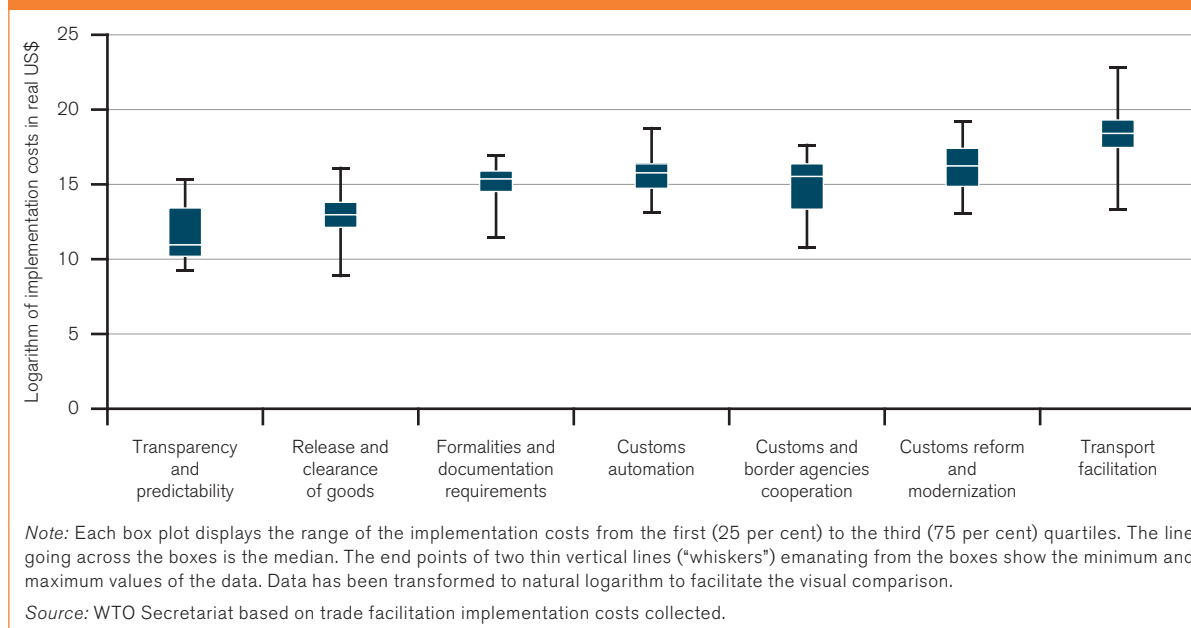
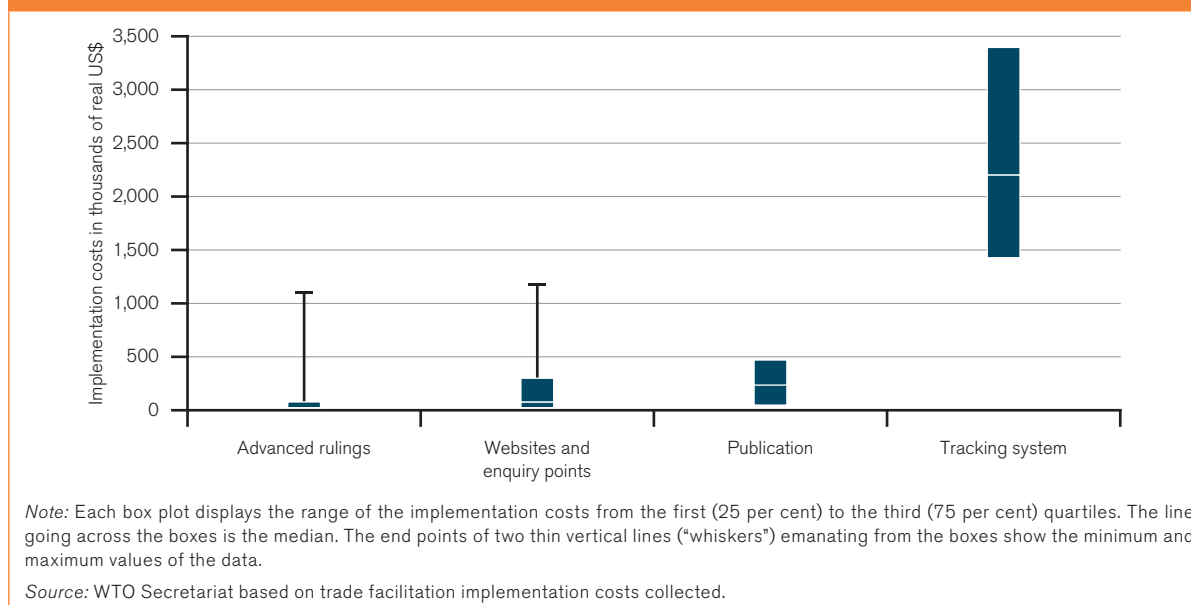


Figure E.13: Implementation costs of trade facilitation reform related to transparency and predictability



Advance rulings on valuation also do not seem to require significant additional resources aside from the recruitment of new staff and/or on-the-job training of concerned staff. Transparency-related measures relying on ICT tend to entail relatively larger implementation costs. For instance, the creation of customs website and enquiry points usually requires facilities, specific equipment and infrastructure, and support staff and technicians to be fully operational. In a number of countries, the cost of providing information electronically is passed onto the users through a

specific fee. Other measures that often require new or updated IT equipment include executive information systems and electronic cargo tracking systems aimed, respectively, at monitoring customs operations in real time and observing the movement of goods under customs control.

(ii) Release and clearance of goods

Among the different trade facilitation measures related to the release and clearance of goods, post-clearance

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audit control and risk assessment procedures appear to be the measures with the relatively highest expected inception costs, ranging from US\$ 20,000 to US\$ 11.9 million and from US\$ 54,000 to US\$ 8.9 million, respectively. Some of the likely high set-up costs of both types of measures are due to their complex and technical nature. While post-clearance audit control procedures consist in verifying the accuracy and authenticity of declarations through the examination of the relevant books, records, business systems and commercial data, risk management systems involve targeting high risk consignments and expediting release of low risk consignments based on an appropriate selection criteria (e.g. HS codes, country of origin, and type of means of transport).

As a result, both measures usually require the recruitment and training of specialized staff, and in some cases acquiring or upgrading equipment and IT systems, such as scanners. Although equipment and IT might play an important role, past experiences reveal that their effective use ultimately hinges on the performance of well-trained and skilled staff.

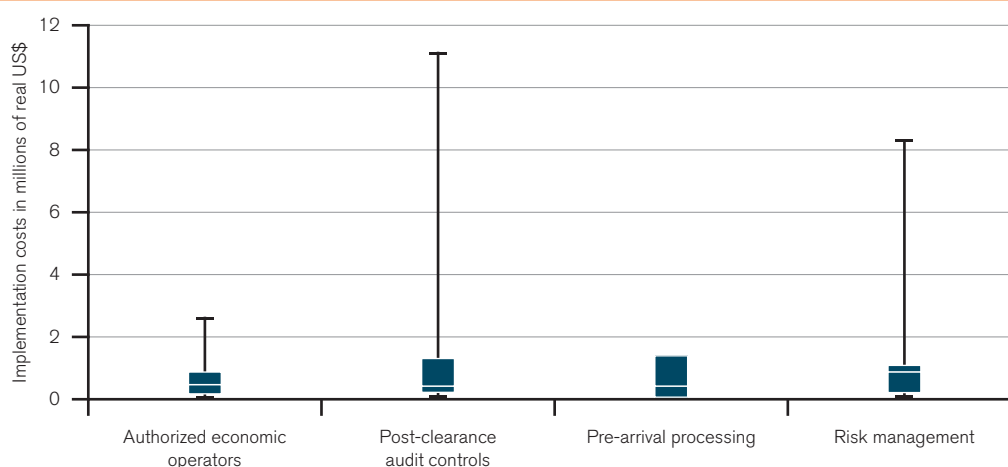
Implementation costs of authorized economic operator schemes and of pre-arrival data processing procedures, which allow for the submission of required import documentation to begin processing prior to the arrival of the goods (De Wulf and Sokol, 2005), seem to be relatively low, as indicated in Figure E.14. In both cases, costs are primarily related to training activities and equipment. Advance data submission and pre-arrival processing may also require prior availability of ICT, such as some degree of customs automation.

As will be discussed next, ICT is often only a tool to implement trade facilitation measures more efficiently, the costs of which are, or would be eventually, assumed even in the absence of trade facilitation reform. There are other measures, such as the implementation of the principle of separation of release of goods from customs clearance prior to the final determination and payment of customs duties or taxes, which might not present additional complexities besides increasing or reallocating resources towards training activities. However, such measures can still be challenging to implement in some developing countries and LDCs where the confidence between border authorities and traders is being built (Moisé, 2006).

(iii) Formalities and documentation requirements and customs automation

As reported in Figure E.15, the establishment of single window and customs automation systems seem to be among the most costly trade facilitation measures, with inception costs ranging from US\$ 100,000 to US\$ 27 million, and US\$ 550,000 to US\$ 57 million, respectively.⁴ The high set-up costs of both measures arise from the relatively high necessity of ICT incurring hardware costs to acquire network equipment and software costs to integrate the participating agencies' IT systems. In addition, both measures potentially require regulatory, institutional, infrastructural and/or human resources changes. In particular, administrative capacity may need to be enhanced or changed, with the recruitment of new staff and/or training activities for the existing staff in order for the system to be fully operational. A marketing and promotion plan may

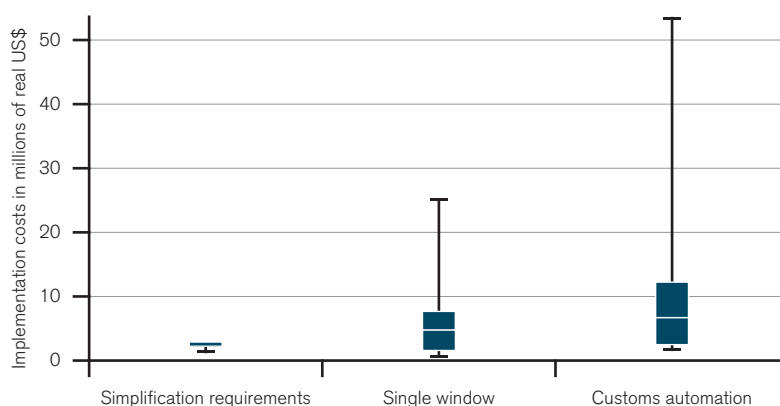
Figure E.14: Implementation costs of trade facilitation reform related to release and clearance of goods



Note: Each box plot displays the range of the implementation costs from the first (25 per cent) to the third (75 per cent) quartiles. The line going across the boxes is the median. The end points of two thin vertical lines ("whiskers") emanating from the boxes show the minimum and maximum values of the data.

Source: WTO Secretariat based on trade facilitation implementation costs collected.

Figure E.15: Implementation costs of trade facilitation reform related to formalities and documentation requirements



Note: Each box plot displays the range of the implementation costs from the first (25 per cent) to the third (75 per cent) quartiles. The line going across the boxes is the median. The end points of two thin vertical lines ("whiskers") emanating from the boxes show the minimum and maximum values of the data.

Source: WTO Secretariat based on trade facilitation implementation costs collected.

also need to be developed to raise awareness of the single window system and promote its use. Compared to other types of trade facilitation measures, both measures are not only characterized by relatively high implementation costs, but also by greater cost variation. The heterogeneity of these costs stems not only from the scope and level of sophistication of both systems in terms of technology and equipment, but also from the country's initial conditions, such as the economy's size, the extent of existing systems and the need for network development.

A national single window system allows traders to submit relevant documentation and/or data requirements and be notified of decisions to release goods from border control through a single entry point. Yet, these functions can be fulfilled in several ways, without necessarily involving ICT. In some cases, single window schemes only require documents to be submitted at particular border points, while other case data can be submitted electronically via a system that connects several or all relevant border agencies. Past experiences suggest that the implementation costs of electronic single window are expected to be lower in the presence of advanced customs automation systems. This is in line with the view shared by many developing countries and LDCs that a substantial part of the implementation costs of trade facilitation reform is attributed to installing, operating and upgrading customs automation systems.

As with many investments in IT equipment and infrastructure, customs automation can serve other purposes besides trade facilitation, such as improving regulation enforcement by preventing corruption and smuggling, enhancing customs operations

productivity, and improving valuation methods and revenue collection. Empirical evidence suggests that a large number of developing countries have already introduced automation in their main customs border management agencies, such as airports and seaports (OECD, 2005). Although a certain level of customs IT is already in place, there might often still be scope to upgrade and improve the efficiency of some operations, such as the information exchange between border management agencies and with the private sector. However, the lack of a stable electricity supply and telecommunication infrastructure in certain LDCs may prevent a full implementation of complex customs automated systems in the short to medium term (World Bank, 2006a). Similar to other trade facilitation measures, part of the implementation and operating costs of both single window and custom automation systems can be shouldered by the users through the payment of fees and charges. In 2014, about 60 per cent of the customs automation projects falling under the auspices of the UNCTAD Automated System for Customs Data (ASYCUDA) Programme were financed by developing countries' own customs administrations (UNCTAD, 2014b).

Even though automation is a useful tool for normalizing and simplifying forms and documents, lessons learned from past customs modernization projects confirm that automation does not achieve trade facilitation reform on its own (OECD, 2005). In other words, automation is neither a precondition nor a sufficient condition to undertake most trade facilitation measures. For instance, risk management procedures and authorized operators programmes do not necessarily require an automated system, although automation would make their implementation more effective. As discussed in

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the next subsection, other institutional and regulatory aspects, such as political commitment and available skilled staff, are among the main factors associated with the successful implementation of trade facilitation measures. Ultimately any customs automation system is only as efficient as the staff that run it.

Although customs automation is often closely associated with the simplification of procedures, not all measures related to streamlining formalities and documentation requirements are necessarily costly. For instance, simplifying or minimizing import and export documentation requirements does not seem to entail substantial inception costs. Measures establishing the use of international standards for customs procedures, introducing periodical reviews of import/export documentation requirements, eliminating the requirement for mandatory use of customs brokers, and prohibiting preshipment inspection have also been considered as relatively affordable in terms of training and equipment costs compared to other type of trade facilitation measures (Duval, 2006; UNCTAD, 2014b).

(iv) Customs and border agencies cooperation

As depicted in Figure E.16, the level of inception costs of projects related to integrated border management and one-stop border posts tend to fall in the same range as the implementation costs of single windows and customs automation systems, ranging between US\$ 840,000 and US\$ 45.9 million, and between US\$ 609,000 and US\$ 16.3 million, respectively. Integrated border management programmes harmonize, streamline, and simplify the border management

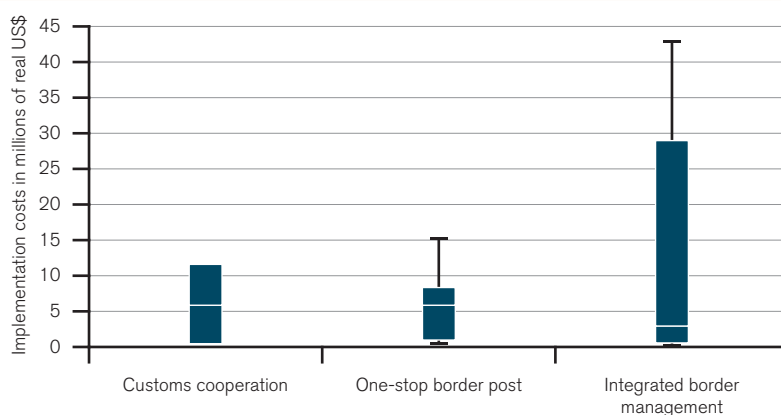
systems and procedures not only of customs, but of all border management agencies, such as immigration, transport, quarantine, sanitary and phytosanitary, environment, standard and consumer protection agencies. Some initiatives further promote border management coordination through information sharing, joint use of some facilities, administrative authority delegation, or cross-designation of officials (McLinden *et al.*, 2011).

In some cases, integrated border management initiatives are far more comprehensive and incorporate the establishment of one or more one-stop border posts. A one-stop border post consists of coordinating neighbouring countries' import, export, and transit procedures in order to avoid duplicating regulatory formalities on both border sides.

Equipment and infrastructure, including ICT and refurbishing border stations, are among the most expensive cost components of both types of projects, along with training activities to ensure border management agencies' staff acquire the right expertise and move away from a silo mentality towards an integrated and collaborative environment.

While the magnitude of these implementation costs demonstrate the challenges that developing countries and LDCs may face in implementing measures related to border agency cooperation, other forms of cooperation seem to be less expensive in terms of inception costs, such as the establishment of joint border committees aimed at involving all relevant public and private stakeholders in both countries in the decision-making process.

Figure E.16: Implementation costs of trade facilitation reforms related to customs and border agency cooperation



Note: Each box plot displays the range of the implementation costs from the first (25 per cent) to the third (75 per cent) quartiles. The line going across the boxes is the median. The end points of two thin vertical lines ("whiskers") emanating from the boxes show the minimum and maximum values of the data.

Source: WTO Secretariat based on trade facilitation implementation costs collected.

(v) *Other trade facilitation-related areas*

As mentioned previously, information on the implementation costs of trade facilitation reforms is limited and often available only at an aggregated level, which is why the inception costs of a number of trade facilitation measures covered by the TFA are not readily identifiable (see Box E.2). In this context, the absence of available data on particular trade facilitation measures does not imply that their inception costs are necessarily small. That being said, the few studies reviewing countries and experts' qualitative assessment of various trade facilitation measures have identified a number of trade facilitation areas for which inception costs are likely to be low. For instance, measures related to disciplines on fees and charges, such as the elimination or limitation of charges and the removal of consular fees, do not seem to call for significant additional resources or expertise.

Other measures related to transit and temporary admission, such as the guarantee of freedom of transit routes and the abolition of the mandatory use of escorts for goods in transit, have also been identified as measures not requiring necessarily major resources

or new specific knowledge (Duval, 2006; UNCTAD, 2014b). As discussed in subsection E.1, many of these measures are among the most-notified Category A commitments under the TFA, namely measures that can or should be implemented straightaway without requiring any particular technical assistance.

4. The Trade Facilitation Agreement Facility (TFAF)

While the anticipated costs of implementing the TFA appear modest relative to the expected benefits, they can still prove challenging for poor countries that have limited resources and expertise. This was recognized by WTO members when they formally agreed to launch negotiations on trade facilitation in July 2004. They decided that the principle of special and differential treatment (S&D) for developing countries and LDCs “should extend beyond the granting of traditional transition periods for implementing commitments. In particular, the extent and the timing of entering into commitments shall be related to the implementation capacities of developing and least-developed Members.”⁵ These provisions in Section II (“Special

Box E.2: Obstacles to estimating the implementation cost of the TFA

Ideally, any study estimating the expected benefits of a particular trade facilitation project would also include estimates of associated set-up and operating costs. By the same token, a study that attempts to quantify the benefits of the WTO TFA as this report does should also take into account the cost of implementing the Agreement if at all possible. This report has attempted to do this by collecting data – scattered, scarce and incomplete though it is – on the cost of implementing various trade facilitation reforms, and by presenting a number of charts and descriptive statistics based on this information. As noted in subsection E.2, this effort yielded information on 198 projects related to 31 trade facilitation measures grouped into five broad categories: border agency cooperation, customs automation, formalities and document requirements, release and clearance of goods, and transparency and predictability.

This information is valuable in that it gives an idea of the typical costs of the various trade facilitation measures, as well as the range of costs incurred by countries in different circumstances. Unfortunately, the number of observations is too small to derive a reliable global estimate of the cost of implementing the TFA. At the outset, matching the data to the TFA came at a cost in terms of the number of usable observations, with more than 42 observations on measures not covered by the actual Agreement, such as customs automation, discarded. Among the remaining trade facilitation measures, many had only one or two observations, which made cost estimation by measure impossible. Even when grouped into broad categories, certain types of measures (e.g. transparency and predictability) still had very few data points. Including other variables in regressions to control for country characteristics (e.g. per capita income, import volume, region and initial levels of implementation) further reduced the number of usable observations since values could not be matched for all countries. Finally, even when there was sufficient data for estimation, coefficients were statistically insignificant at conventional levels and R-squared statistics, indicating how well the data fit the statistical model, were extremely low, giving no confidence in the results.

The difficulty of estimating implementation costs underlines the importance of monitoring the status of the TFA after it comes into force. As noted in subsection E.6, monitoring of agreements is a core function of the WTO that extends to implementation and operational costs as well as economic impacts. Having more complete information on the costs of implementing the Agreement will help developing countries better gauge their technical assistance needs and obtain the necessary support from aid donors.

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and Differential Treatment Provisions for Developing Country Members and Least-Developed Country Members”) of the TFA were discussed in detail in Section B of this report.

The S&D provisions in the TFA imply far greater levels of differentiation than other WTO agreements. Each developing or least-developed country member can have its own unique implementation schedule as the timing of implementation depends on the acquisition of capacity. This would be consistent with the principle of tailoring trade commitments in light of the specific economic situation faced by the country. It is an idea for which one can find support in the economic literature (see Box E.3 on the economic rationale for S&D).

There are incentives for developed country members to provide capacity-building to developing countries and LDCs so that they can speed up their implementation of the TFA. As explained in Section C, inefficient trade procedures create deadweight losses that affect all parties involved in international trade. A member with inefficient trade procedures creates deadweight losses for both itself and its trade partners. By providing assistance and support for capacity-building to developing countries and LDCs so that they can fully implement the TFA, developed countries also reduce or eliminate the losses faced by their firms.

Making sure that the Category C commitments⁶ come to fruition will require matching demands for capacity-building from developing countries and LDCs, as well

Box E.3: The economic rationale for special and differential treatment

Economics and the theory of trade agreements in particular, provide justification for extending special and differential treatment of developing countries and LDCs in trade agreements. This is because developing countries and LDCs are often small in size, face significant resource constraints and confront many market failures.

As discussed in Section B of this report, there are several explanations for why countries enter into trade agreements. The terms of trade theory claims that trade agreements allow countries to escape a potentially ruinous tariff war (Bagwell and Staiger, 1999). The commitment theory states that trade agreements give weak governments intent on future economic reform credibility to overcome opposition from organized lobbies (Maggi and Rodriguez-Clare, 1998).

Horn *et al.* (2010) suggest that flexibilities should be afforded to countries that have fewer or less effective domestic policy instruments at their disposal and that have less power to manipulate their terms of trade. These conditions are more likely to apply to smaller countries at earlier stages of development than to larger, more advanced nations. Further, strict disciplines should apply to commitments involving border measures, such as tariffs, while more discretion should be allowed for commitments involving domestic policy instruments, such as subsidies.

Conconi and Perroni (2004; 2012) use the commitment theory of trade agreements to explain why a developed country would accept asymmetric commitments in the form of longer transition times for a developing or LDC trading partner. The capacity in the developing country’s or LDC’s import-competing sector depreciates slowly and the industry lobbies for the quasi-rents, or temporary returns, that can be earned during that time. Hence, the transition to the long-run cooperative equilibrium of market opening cannot take place in a single step. By letting its industry reap these rents during a transition period, the developing country or LDC caters to its special interests while at the same time credibly committing to welfare-improving market opening at a later stage. In the absence of flexibility afforded to it by its developed country partner, the developing country or LDC would have maintained high tariffs due to its domestic credibility problem. Rather than not obtaining any market opening at all, the developed country accepts a lower surplus during the transition period, in order to ensure a longer-term gain.

Rosendorff and Milner (2001) and Bagwell and Staiger (2005) note that the efficiency of flexibility or “escape clauses” increases with the level of uncertainty. If developing countries or LDCs are assumed to face systematically higher uncertainty over the future, a generally higher level of flexibility may be appropriate.

Finally, flexibility provides a way for countries to minimize the cost of adjusting to trade reform. The implementation of trade obligations, even if ultimately beneficial, may be associated with upfront administrative and infrastructure costs that developing countries or LDCs may find difficult to finance in the short term (Finger and Schuler, 1995; Maskus, 2000). Technical and financial assistance as well as longer time periods aimed at gradual implementation of obligations may be needed to effect the transition.

as a supply of capacity-building and assistance from donors. Since there is no “market” to match demand and supply, the WTO will have to act as a substitute, serving as clearing-house of information and matchmaker of last resort.⁷ Filling this matchmaking role will require knowing precisely the demands or needs of members to be able to implement the TFA and knowing the capabilities and comparative advantages of bilateral, regional and multilateral donors and institutions in delivering technical assistance and expertise in trade facilitation. (Section B of this report identified many of these international organizations and their comparative advantages in the area of trade facilitation).

These various coordinating functions have been concentrated in the newly created Trade Facilitation Agreement Facility (TFAF), which was launched in July 2014 by Director-General Roberto Azevêdo (see Box E.4 for a description of its functions). The Facility works closely with individual members to make sure they are receiving the information and support needed. Where necessary the Facility provides technical assistance and/or assists members to find support through donor members or international or regional organizations.

This matching or coordinating role of the WTO is one of the reasons identified in Section C why it made economic sense for trade facilitation to be included in a multilateral trade agreement. Beyond the matching of demand and supply of capacity-building, there is another facet of coordination that the WTO will perform. While it is certainly possible for countries individually to

draw up trade procedures that are in keeping with the requirements of the TFA, it will be far more efficient to design them in accord with international best practices. In this way, trade procedures around the globe not only follow similar practices but those practices are also based on the best standards.

The Facility has conducted a number of activities aimed at raising awareness and encouraging support for ratification and the entry into force of the TFA. These activities are directed at many levels of decision-makers and stake-holders including parliamentarians, ministries, Geneva-based delegates, capital-based trade officials, and a broad range of interested stakeholders.

WTO officials have made presentations on the TFA in numerous events organized by other organizations, including an international conference for members of the Inter-Parliamentary Union held in early 2014.

The Facility worked to expand an existing WTO technical assistance program for parliamentarians to have a greater focus on trade facilitation. So far in 2014, trade facilitation workshops for parliamentarians have been conducted for African countries (in cooperation with Morocco), the Eastern African Community, ASEAN (in cooperation with Singapore), all Latin American countries, and the Pacific Islands (in cooperation with the World Bank Group and the Pacific Islands Forum).⁸ Future workshops will be conducted in other regions as needed.

Box E.4: What the Trade Facilitation Agreement Facility does

The TFAF's specific functions will include:

- i) supporting LDCs and developing countries to assess their specific needs and identify possible development partners to help them meet those needs;
- ii) ensuring the best possible conditions for the flow of information between donors and recipients through the creation of an information-sharing platform for demand and supply of trade facilitation-related technical assistance;
- iii) disseminating best practices in the implementation of trade facilitation measures;
- iv) providing support to find sources of implementation assistance, including formally requesting that the Director-General act as a facilitator in securing funds for specific project implementation;
- v) providing grants for the preparation of projects in circumstances where a member has identified a potential donor but has been unable to develop a project for that donor's consideration, and is unable to find funding from other sources to support the preparation of a project proposal; and
- vi) providing project implementation grants related to the implementation of TFA provisions in circumstances where attempts to attract funding from other sources have failed. These grants will be limited to “soft infrastructure” projects, such as modernization of customs laws through consulting services, in-country workshops, or training of officials.

Finally, as shall be seen in the next subsection, there are many lessons that have been learned from trade facilitation reform. This wealth of knowledge is an important resource that can smooth the way for countries embarking on customs reform for the first time. The WTO could help ensure that they are transferred to implementing countries.

5. Country experiences of successful reforms: what are the lessons?

Similar to the empirical literature on the implementation costs of trade facilitation reforms, a limited number of papers have reviewed in a consistent manner the operational aspects associated with the implementation of trade facilitation measures. Trade facilitation reform addresses the operational interface between government and private sector, and as such often relies on an interdisciplinary approach that brings together legal, economic, political, technological and management aspects. Yet, the obstacles preventing trade facilitation reforms, such as conflicting interests and institutional limitations, have been the object of limited attention in the literature (Grainger, 2008; McLinden *et al.*, 2011).

As highlighted previously, a number of countries have already been implementing trade facilitation reforms as part of multilateral, regional or unilateral initiatives. These experiences can provide valuable information on the lessons learned and associated success factors in addressing and overcoming the obstacles and challenges that countries have faced in implementing trade facilitation projects. Any lesson in trade facilitation reforms needs, however, to be approached with care. Implementing trade facilitation reforms is not simply a matter of copying and pasting other countries' experience. There is no single model of trade facilitation reform. An approach that has proved to be successful in a given country might fail in another. Ultimately, trade facilitation lessons depend on several factors, including the type of trade facilitation reform and the country's geography, level of development, legal framework, infrastructure, human resources, and type and volume of trade (De Wulf and Sokol, 2005).

While it is difficult to draw universal lessons from trade facilitation reforms, a useful source of information can be found in case stories that explicitly identify and report the success factors of specific trade facilitation projects. One hundred and fifty-five different case stories⁹ have been compiled by the WTO Secretariat from various sources, including the 2011 and 2012 WTO symposia on Practical Experience of Implementing Trade Facilitation Reforms, the Third and Fifth Global

Reviews of Aid for Trade Review, UNECE's Trade Facilitation Implementation Guide, the UN Network of Experts for Paperless Trade (UNNEXt) in Asia and the Pacific, the World Bank, the Asian Development Bank, the World Customs Organization, and the Asia-Pacific Economic Cooperation.

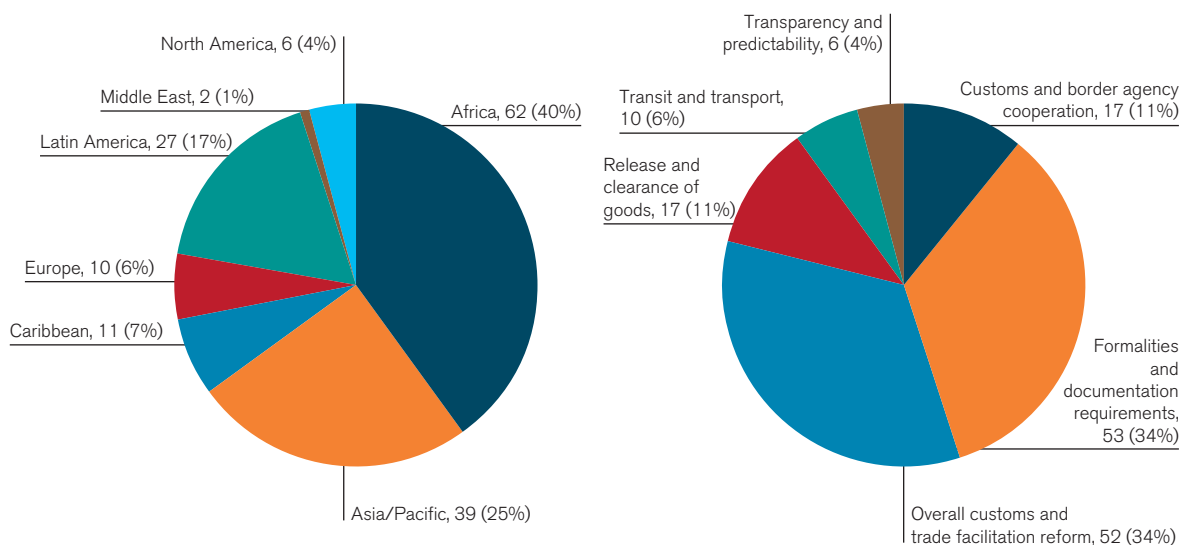
Of this total, 105 (68 per cent) case stories cover trade facilitation initiatives in developing countries, 38 (24 per cent) in LDCs, and 13 (8 per cent) in developed countries. These case stories are also spread geographically with 62 (40 per cent) case stories on trade facilitation initiatives in Africa, 39 (25 per cent) in Asia/Pacific, 27 (17 per cent) in Latin America, 11 (7 per cent) in the Caribbean, 10 (6 per cent) in Europe, 6 (4 per cent) in North America, and 2 (1 per cent) in the Middle East.¹⁰

As shown in Figure E.17, the case stories cover a broad range of areas related to trade facilitation reform. Fifty-two case stories report on overall and broad customs and trade facilitation reforms, while the remaining 103 cases cover more specific trade facilitation measures. In particular, 53 cases (34 per cent) focus on formalities and documentation requirements, such as single windows, and 17 (11 per cent) case stories cover the release and clearance of goods, such as risk management. Other trade facilitation areas discussed in the remaining case stories include customs and border agency cooperation, reported in 17 (11 per cent) stories, transit and transport mentioned in 10 (6 per cent) stories, and transparency and predictability, such as advance rulings, which are covered in six (4 per cent) stories.

Two caveats regarding these case stories have to be underlined. First, these case stories are probably not totally representative because of a potential selection bias and the tendency to publish only trade facilitation initiatives with positive outcomes. Second, this story collection can suffer from omitted variables, since most case stories are reported by those financing and/or participating in these trade facilitation initiatives (i.e. governments, donors, or experts), implying a higher probability of being less objective than an external assessment. In this context, the absence of any reference to a given success factor does not necessarily imply that this factor did not later turn out to be critical in explaining the trade facilitation initiative's positive outcome. Despite these drawbacks, these case stories can still provide insights into important patterns and nuances of some of the factors that contributed to successful trade facilitation experiences at the national and regional level.

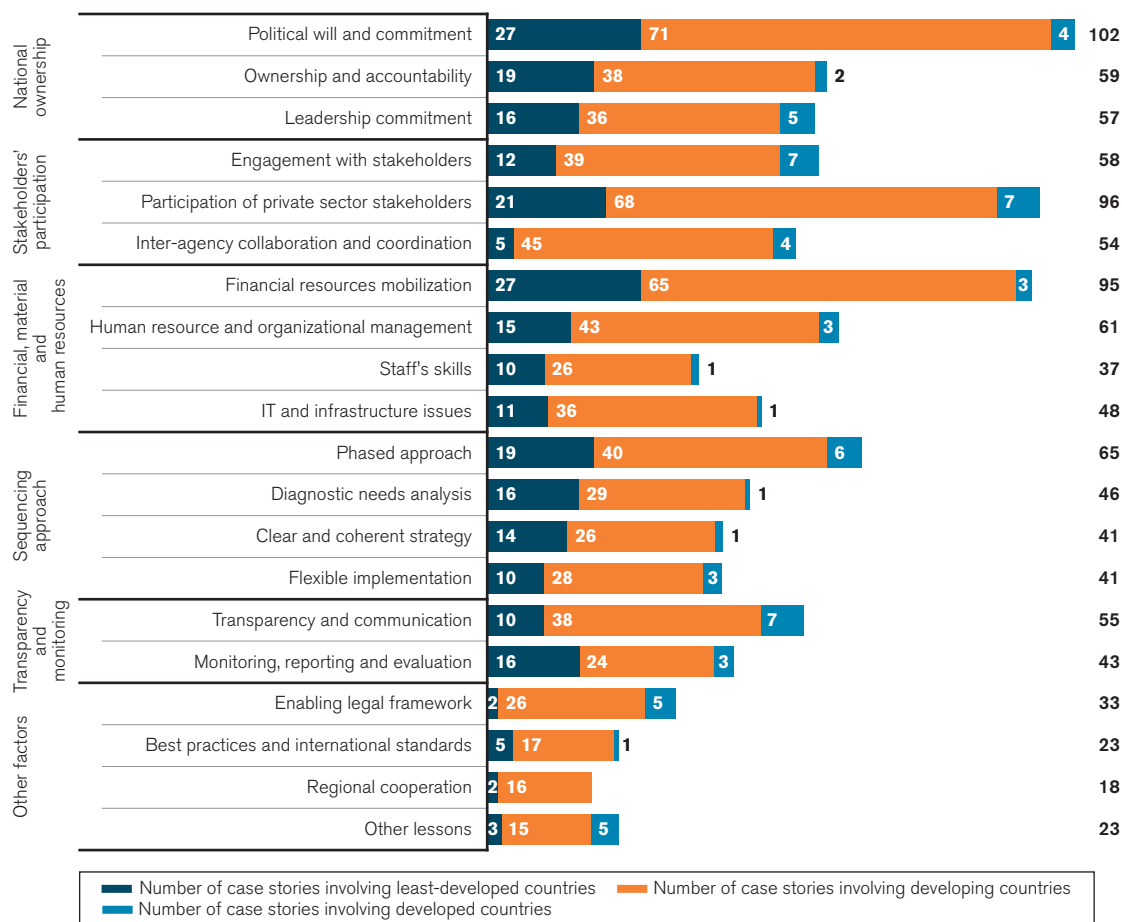
As shown in Figure E.18, the review of these 155 case stories highlights a number of converging

Figure E.17: Distribution of the trade facilitation case stories by regions and areas



Source: WTO Secretariat based on case stories on trade facilitation measures collected.

Figure E.18: Main success factors reported in case stories on trade facilitation



Source: WTO Secretariat based on case stories on trade facilitation measures collected.

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success factors, despite the relative high number of different success factors identified. Many of these success factors are often interrelated, and in several cases they are mutually supportive of each other. In addition, different trade facilitation measures often involve different types of success factors. Keeping this in mind, the factors can be grouped in six broad categories: (1) national ownership; (2) stakeholders' participation; (3) financial, material and human resources; (4) sequencing approach; (5) transparency and monitoring; and (6) other factors.

(a) National ownership

The most frequently reported success factor is strong high-level political will and commitment regarding the trade facilitation process reform, mentioned in 102 out of the 155 case stories. As highlighted in subsection E.1, this finding is in line with the relatively high number of donor countries that participated in the monitoring exercise of the Fifth Global Review of Aid for Trade and identified the lack of "national coordination and political will demonstration" as one of the most important difficulties that might be encountered in implementing the TFA. Political involvement, at the ministerial, prime ministerial or presidential level, is often viewed as a manifestation of appropriation and ownership of the trade facilitation reform. Fifty-nine case stories specifically identify ownership and accountability of the government but also of the staff being brought to implement the initiative as a success factor.

Political will frequently represents the overarching factor upon which most of the other success factors rest and depend. In particular, active government involvement is often required to resolve any conflicting political priorities and allocate the appropriate levels of financial, material and human resources needed to successfully implement trade facilitation reform. In addition, a firm political commitment is often essential to overcome possible opposition and resistance by some of the stakeholders in the public and private sectors who gain from the existing system, including inefficiencies and relationships, and whose vested interests could be defused with the trade facilitation reform (Brandi, 2013; Holler *et al.*, 2014; World Bank, 2006b).

Continuity in strong political commitment is also important to sustain the momentum for trade facilitation reforms over the years and mitigate, among other things, the risks of changes in policy direction, and lack of financial and human resources. This could explain why case stories covering formalities and documentation requirements, which are often viewed as an ongoing process, report a relatively higher prevalence of political will as a success factor. Related to political will is also

the existence of an active and dedicated lead agency, team or individual in charge of launching, implementing and overseeing trade facilitation reform, reported in 57 case stories. Such strong and stable leadership can help to ensure trade facilitation reform remains on the agenda of the different stakeholders.

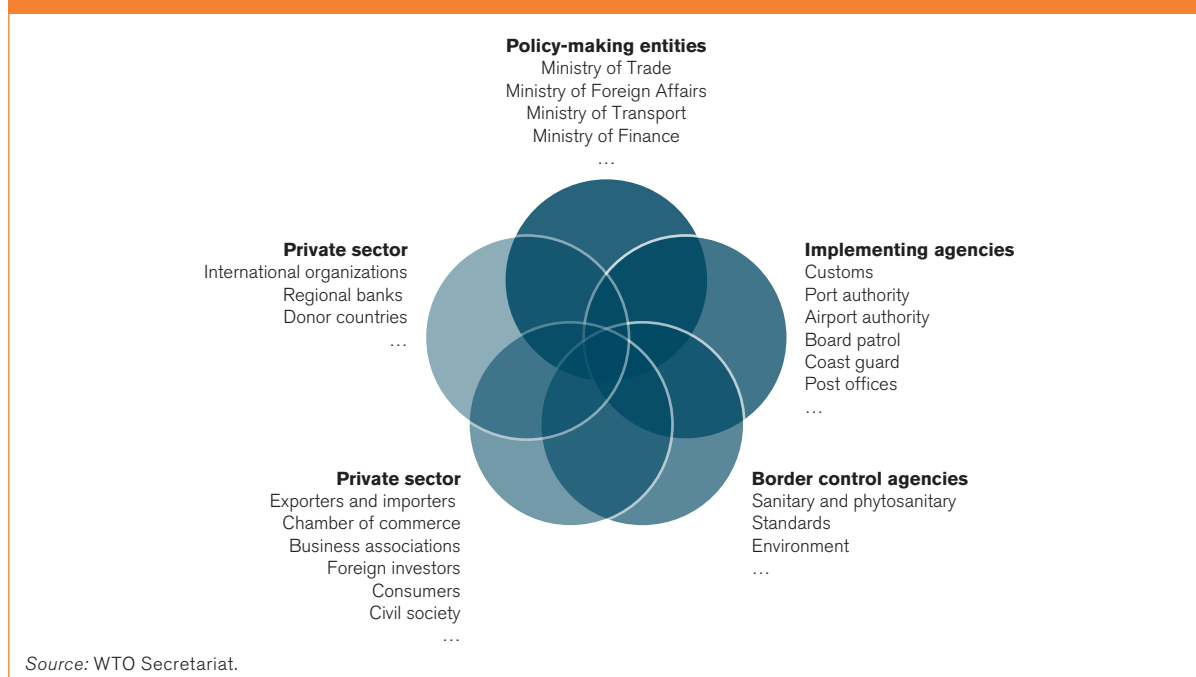
(b) Stakeholders' participation

Another key lesson, mentioned in 58 case stories, is the participation and commitment of relevant stakeholders in each phase of the trade facilitation initiative. As mentioned previously, trade facilitation is by nature a cross-cutting issue affecting the interest of various stakeholders in the public and private sectors. As portrayed in Figure E.19, policy-making entities (e.g. ministries of trade, foreign affairs, finance, transport), cross-border agencies (e.g. sanitary and phytosanitary, health and environmental departments), implementing agencies (e.g. customs, port and airport authorities), the private sector (e.g. suppliers – including foreign investors – customers and intermediaries) and external donors are among the potential stakeholders involved in trade facilitation not only at the national level, but in some cases also at the regional and international level.

The second most reported success factor, mentioned in 96 case stories, is the active involvement and adherence of local private sector stakeholders, including chambers of commerce, business associations, and civil society engaged in trade and transport activities. As some of the first and main beneficiaries of trade facilitation reform, providing traders and businesses with the opportunity to share views and make suggestions during the needs assessment, design, implementation, and evaluation of the trade facilitation reform is critical to ensure that the initiative leads to concrete and practical benefits. Yet there is rarely a single private sector voice that naturally emerges from the different industries and sectors involved. Conflicting and opposing industry interests can therefore hamper the implementation of trade facilitation initiatives (Grainger, 2008). A few case stories underscore how important it is that the government remain neutral and not favour certain firms or industries in order not to jeopardize the broad support needed from the business community.

Different approaches exist to consult and involve the private sector: establishing trade facilitation bodies; sending open consultation letters calling upon interested parties to express their views; or commissioning studies and surveys (Grainger, 2014). In particular, national trade facilitation bodies can be proved to be useful in addressing trade facilitation issues in a coordinated way, accommodating conflicting interests and enhancing formal and informal dialogue and cooperation between private- and public-sector stakeholders (UNCTAD, 2006).

Figure E.19: Stakeholders in trade facilitation reform



In the last 15 years, the number of bodies, such as committees, commissions and working groups, put in place to bring together relevant stakeholders, including the private sector, has increased significantly. While different geographic, economic and cultural factors influence trade facilitation bodies' functions, performance, and sustainability, private sector involvement and coordination among participants are considered by trade facilitation bodies as the most critical factors in attaining their objectives and effectively developing their activities (UNCTAD, 2014a).

In fact, the success of trade facilitation initiatives depends also, as mentioned in 54 case stories, on the involvement, commitment and readiness of the different ministries and agencies operating at border crossings. Customs are not the only government agency involved in trade facilitation. Delineation and coordination of the responsibilities of implementing agencies, including customs, but also airport and port authorities and border control agencies, such as sanitary and phytosanitary and environmental protection departments, can be important to eliminate any incompatible procedures, redundancy and duplication in the design and implementation of trade facilitation measures. For instance, it is not unusual that, at times, agencies in charge of safety, phytosanitary and quality standards proceed to different and separate inspections and testing to ensure that imports are in conformity with the relevant standards. Until these agencies give their approval, customs will not be in a position to grant the release of the imported goods. In the absence of coordination among these

agencies, any trade facilitation measures related to the release and clearance of goods, such as pre-arrival processing and risk management, will not fully realize all of its potential benefits. As discussed previously, consultation mechanisms, such as national trade facilitation bodies and multi-agency working groups, can convene the different views and interests to define a common strategy and assign priorities. Similarly, the establishment of a feedback mechanism between the government and stakeholders can be useful to be able to identify and resolve issues related to the trade facilitation reform implementation.

(c) Financial, human and material resources

Another recurring success factor, reported in 95 case stories, is the importance of envisaging and preparing a realistic and sustainable funding mechanism to implement the trade facilitation initiative, ranging from domestic funding to external financial support, or a combination of both. In particular, a relatively higher number of case stories on trade facilitation projects and programmes in LDCs underscores the key role played by adequate, predictable and reliable donor funding. As noted in subsection E.1, initiatives such as Aid for Trade play an important role in mobilizing donor support for capacity-building and trade-related infrastructure (OECD and WTO, 2015). A few case stories also highlight the importance of public-private partnership as a means to fund trade facilitation reform and increase private sector participation. More generally, the long-term sustainability of most trade

II. SPEEDING UP TRADE: BENEFITS AND CHALLENGES OF IMPLEMENTING THE WTO TRADE FACILITATION AGREEMENT

facilitation reforms requires securing a steady annual budget allocation once external funding and technical assistance cease, which in turn can be difficult to obtain without strong political will.

Adequate human resources and organizational management, mentioned in 61 case stories, are also reported as a critical element in enhancing the quality and integrity of staff with respect to the trade facilitation initiative (World Bank, 2006b). As highlighted in 37 case stories, trade facilitation often requires specific technical expertise. In this context, on-the-job training, including through technical assistance and capacity-building activities, is key to ensuring that the staff concerned acquire the proper skills and remain competent. Besides training and professional development, the remuneration, incentives, promotion, rotation and relocation offered to staff may have to be considered to ensure that they internalize the objectives of the trade facilitation reform and accept their (new) role and responsibilities (World Bank, 2006b). In some cases, organizational changes also have to be pursued by reallocating resources previously assigned to other tasks in order to provide greater flexibility, effectiveness and efficiency in operational matters (McLinden *et al.*, 2011).

The importance of information and communication technology and infrastructure, including equipment, to materialize trade facilitation reforms has also been highlighted in 48 case stories. In particular, the use of ICT can contribute significantly to streamlining and simplifying customs procedures and documents, as reported in many case stories on single window and paperless trade initiatives. It follows that deficiencies in ICT can prevent the full implementation of certain trade facilitation measures that tend to rely on ICT, such as single windows. A few case stories further underscore the importance of designing trade facilitation reforms attuned to the country's actual IT capacities.

(d) Sequencing approach

Another critical factor in implementing a successful trade facilitation initiative, reported in 65 case stories, is to establish and follow proper sequencing. Sufficient time is often needed between the elaboration of the trade facilitation measures and their actual implementation in order to prepare the ground, bring all stakeholders on board and build internal capacity through outreach and training activities and potential additional investment (e.g. infrastructure, IT upgrades, etc.). More generally, trade facilitation reform is often viewed as a long-term and gradual process that should not be too slow, so as not to erode the initiative's momentum, and not too fast, so as not to exacerbate resistance and undermine the reform's sustainability. In this context, a flexible implementation plan, mentioned

in 41 case stories, can be crucial for adapting and responding to external factors, such as the global recession, that can lead to delays and change priorities. User-friendliness has also been identified in a number of case stories as an important element of successful trade facilitation reforms.

As highlighted in 46 case stories, the starting point of the sequencing often takes the form of an accurate and comprehensive assessment of the trade facilitation needs and priorities of the current situation, taking into account, among other things, the country's specific operating environment, administrative competencies, resources availability, technological levels and political system, with a view to identify the situation's shortcomings (De Wulf and Sokol, 2005). Diagnosing needs is frequently considered as a prerequisite to be able to define not only realistic objectives but also a clear and coherent strategy tailored to the situation, as mentioned in 41 case stories. Evidence suggests that, as most trade facilitation measures are interrelated, they may fail to achieve their full potential effectiveness when the measures in question are implemented partially, in isolation and in the absence of an appropriate sequencing of measures (De Wulf and Sokol, 2005; Moisé, 2006).

(e) Transparency and monitoring

Keeping policy-makers and relevant stakeholders, including the private sector, informed on the elaboration of a trade facilitation initiative, progress achieved, difficulties encountered and surmounted, and measures proposed to address delays and changed conditions, can also contribute to its success, as reported in 55 case stories. For instance, a number of national trade facilitation bodies has adopted a communication strategy to share and disseminate relevant information to stakeholders and the general public (UNCTAD, 2014a). Such transparency mechanisms can often foster the trust necessary to convince and obtain the support, participation and ownership of all relevant stakeholders. A number of case stories further underscore the usefulness of raising awareness and promoting trade facilitation initiatives in order to sustain the momentum and gain greater support among all stakeholders. In this regard, and as mentioned in 43 case stories, monitoring, reporting and evaluating trade facilitation initiatives can be an important success factor by keeping stakeholders informed of the results achieved, and of whether the initiative is on track or needs to be adjusted. An efficient monitoring mechanism often starts with the establishment of clear performance indicators (World Bank, 2006b). Monitoring can also be essential to secure external funding, as it is a way to assess the project's effectiveness and convince donors (Holler *et al.*, 2014).

(f) Other success factors

A limited number of other success factors has been explicitly identified in a few cases stories. For instance, 33 case stories stress the role of an adequate, enabling and clear legal framework. As discussed in subsection E.2, some trade facilitation measures may entail a change in laws, regulation and administrative guidelines to fully support trade facilitation reform implementation, such as authorizing electronic data submission and exchange among agencies. Other specific measures may already be applied informally by customs or border agencies in some developing countries, but require a proper legal framework and institutional support to become mainstream (UNCTAD, 2014b). The importance of adopting international and/or regional best practices and of aligning the legal framework and trade facilitation procedures, such as data and documents harmonization, with international standards, guidelines and recommendations, has also been highlighted in 23 case stories. Similarly, regional cooperation and coordination, reported in 18 case stories, can prove to be useful to build on regional experiences and enhance regional integration, and thus complement cooperation and coordination at the domestic level.

6. Monitoring implementation of the TFA

Finally, given the large estimated benefits for the global economy of implementing the TFA, it is vital to monitor its implementation. This will help gauge the progress that has been achieved, identify the problems that have been encountered by implementing members and assess how well the flexibilities in the Agreement for developing countries or LDCs have worked.

Monitoring the implementation of WTO agreements is one of the core responsibilities of members. In the specific case of the TFA, the Agreement will establish a Committee on Trade Facilitation which is to review its operation and implementation four years from entry into force, and periodically thereafter. The WTO Secretariat can complement WTO members' monitoring efforts through the collection of economic information and the evaluation of economic outcomes. Even if governments in poor countries are able to translate multilateral commitments into national law and practice, the administrative capacity to carry them out effectively may not be sufficient, thus producing a divergence between expectations and outcomes. Economic monitoring will help ensure that such problems are caught early and solutions found. It will alert the international community to obstacles that prevent developing countries and LDCs from acquiring implementation capacity.

Resources will be needed to increase capacity in developing countries to implement the TFA. To ensure that they are allocated efficiently, one needs to know what types of capacity-building initiatives are most effective, and under what circumstances. These are typically the types of questions that impact evaluation studies are best equipped to answer. There has been some work on developing methodologies for impact evaluation of trade-related interventions, including trade facilitation measures (see for example Cadot *et al.* (2011) and Fernandes *et al.* (2015)). They show promise suggesting that rigorous impact evaluation is possible even without randomized trials, which are typically considered to be the gold standard.

Good data, indicators and analytical tools are required to effectively monitor and evaluate the economic impact of the TFA. One important constraint encountered in this report is the paucity of data on implementation costs despite its obvious importance for developing countries and LDCs. This report has also made use of a number of indicators and economic tools to estimate the likely benefits of the TFA. While there is no question about their reliability and usefulness, they are by no means perfect because of, among other issues, limited country and historical coverage. This should motivate the WTO, in conjunction with other international organizations and regional development banks, to pool resources and expertise so that more and better data are collected, existing indicators and analytic tools are improved and, where necessary, new ones developed so as to effectively monitor and evaluate implementation of the TFA.

7. Conclusions

This section underscored the high priority given to trade facilitation by developing and least-developed WTO members, as expressed through surveys. Countries have been implementing trade facilitation measures for several years and no country is starting from zero. At the same time, many of these countries voice concerns about the uncertainty related to the benefits and costs associated with the implementation of the TFA. Measures related to border agency cooperation, trade-related formalities, and information publication and availability have been identified as the most challenging measures to implement. Although limited, information compiled on the implementation costs of trade facilitation initiatives shows that the magnitude of the trade facilitation reforms' inception costs is country-specific and depends on the type of trade facilitation measure considered. Trade facilitation measures related to transparency and the release and clearance of goods tend to entail lower implementation costs than those related to customs and border agency cooperation, customs automation, and formalities,

which often rely on ICT infrastructure and equipment. But overall, the anticipated costs of implementing the TFA appear modest relative to the expected benefits.

The section also highlighted the TFAF's key role in matching and coordinating countries requesting technical assistance with countries supplying capacity-building and technical assistance. An analysis of a large number of case stories on trade facilitation initiatives confirms that, while financial resources availability and sustainability are essential, they do not constitute a sufficient condition to ensure that trade facilitation initiatives will be successful. Strong political commitment at the highest level appears to be the most important success factor in implementing

trade facilitation measures. Other key factors include cooperation and coordination between ministries and government agencies, private sector participation, adequacy of human and material resources, adoption of a sequencing approach, and transparency and monitoring. Looking ahead, it is essential to monitor implementation of the TFA once it comes into force. Good indicators, including information on trade facilitation needs and implementation costs, as well as analytical tools are required to effectively evaluate the economic impact of the TFA. In this context, cooperation between international organizations and regional development banks is vital to further pool resources and expertise so that existing indicators and analytic tools are improved.

Endnotes

- 1 Summary statistics for groups of countries are computed by mapping responses to country characteristics (e.g. per capita income, land area, geographical region, landlocked status, etc.). Standard WTO geographical regions have been modified due to insufficient data in particular regions. For example, Africa and the Middle East were combined due to the fact that only one Middle Eastern country replied to the questionnaire. Latin America was also used rather than South America for the same reason since Mexico was the only North American developing country that replied to the questionnaire.
- 2 Duval (2006) identifies the potential reduction in government revenue following the reduction of the numbers and diversity of fees and charges resulting from the adoption of some trade facilitation measures as another component of the implementation costs.
- 3 For comparison purposes, costs data had to be adjusted to a common measure. Costs expressed in nominal dollars were deflated into constant 2014 US dollars using the consumer price index provided by the Federal Reserve Bank of St. Louis (USA). Similarly, costs expressed in non-US currency (e.g. euro, British pound) were transformed into nominal dollars using the yearly exchange rate as reported by the OECD and subsequently deflated into constant dollars. Period averages (e.g. 1998-2002, 2008-12) were assigned for the observations not reporting the implementation year. The total number of observations does not include trade facilitation measures for which only operational costs are available (10 observations). Although most observations refer to trade facilitation measures adopted by a single country, a limited number of trade facilitation projects are regional initiatives covering two or more countries, some of which are developing countries and others least-developed countries. As a result, the percentages do not always add up to 100 per cent.
- 4 Data on automation costs include two outliers. First, Mozambique entrusted a private company to install a customs automation system for a symbolic payment of US\$ 4 in 1997 (Moisé, 2004). Second, the cost of automation of the Russian Federation's Customs Development Project (2003-09) was estimated at US\$ 133 million (OECD, 2005).
- 5 See Annex D (Modalities for Negotiations on Trade Facilitation) in "Doha Work Programme Decision Adopted by the General Council on 1 August 2004", WTO document WT/L/579, 2 August 2004 and Moisé (2006).
- 6 These are provisions of the TFA that a developing country member or LDC member designates for implementation on a date after a transitional period of time following the entry into force of this Agreement and requiring the acquisition of implementation capacity through the provision of assistance and support for capacity-building.
- 7 The economic literature has studied the question of non-market matching and identified crucial design principles that would aid in achieving optimal outcomes (see Gale and Shapley (1962) and Roth (1984; 1985)). Consumers are presumed to have a ranking of donors with whom they want to be matched. One can imagine this ranking to reflect consumers' perception of their own technical needs and the comparative advantage of donors to meet those needs. Donors have their own ranking of the countries they want to assist. A stable outcome is a matching of consumers and donors such that no consumer-donor pair would prefer to be matched with each other rather than staying with their current matches. A stable matching is optimal in the sense that there does not exist any alternative pairing of consumer and donor that would leave either partner better off than with their current partner. If the pool of consumers and donors is not too large, this matching can take place in a decentralized fashion. If one or both sides of the market is large, there is a well-known algorithm (the Gale-Shapley algorithm) that arrives at the stable outcome.
- 8 Materials for these workshops, and a wealth of other information, are available on the Facility website (www.TFAFacility.org).
- 9 Technically, 179 case stories were collected, but a number of those case stories refer to the same trade facilitation initiative, and as such are only considered once in the statistics.
- 10 A few case stories report on trade facilitation initiatives in different countries and/or regions. As a result, the percentages do not necessarily add up to 100 per cent.