

## Chapter 2

### Lowering trade costs

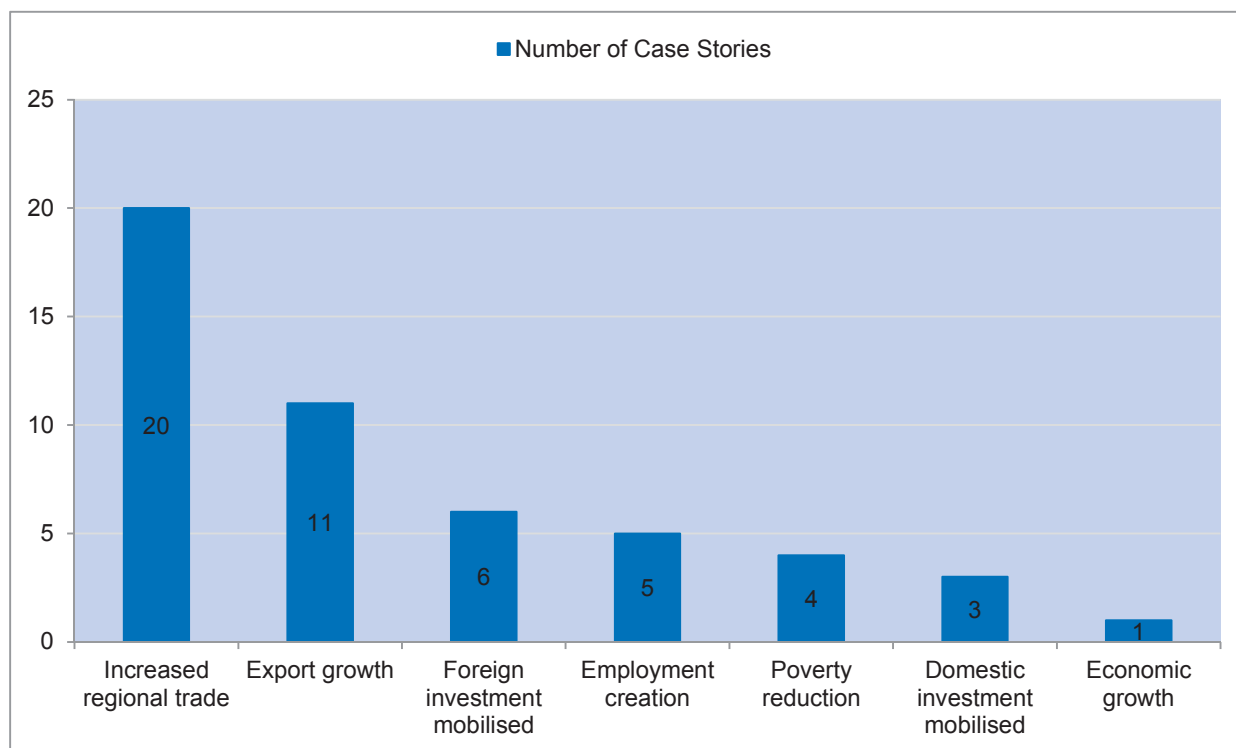
Reducing trade costs is essential to promote trade. Aid for trade facilitation programs aim to reduce trade costs for developing countries by building efficient soft and hard trade-related infrastructure. Soft infrastructure refers to the intangible regulatory framework, while hard infrastructure refers to tangible infrastructure like roads and ports. Of the sixty-two case stories covered in this chapter, 42 programmes developed new processes to increase regulatory efficiency, seventeen implemented new policies and sixteen case stories reported successful improvement in transport infrastructure.

## Executive summary

Lowering trade costs is an essential part of promoting trade, especially in developing countries. While the overall objective of trade facilitation programmes is to reduce trade costs and thereby to create conditions for increased trade, these programmes themselves may be narrow or broad in focus. In the first case, they aim at the reform of specific policies, such as those relating to customs procedures; in the second case, they may form part of an integrated reform of regulatory policies and strategies. Depending on the nature of the programmes and their implementation, outcomes may vary both in substance and in degree. For example, government revenues may be increased due to improved revenue collection at the border, or local producers and exporters may benefit from economies due to smoother trading procedures.

Of the 269 case stories submitted,<sup>1</sup> 62 were classified as mainly concerned with trade facilitation. The most cited impacts referred to increased regional trade, followed by export growth, the mobilisation of foreign and domestic investment, job creation, poverty reduction and economic growth (Figure 2.1). One-third of the case stories on trade facilitation did not report any impact explicitly. This does not necessarily imply that the programme produced no impact, but only indicates that the authors did not mention any impact in the case story they submitted.

**Figure 2.1 Impacts reported in the trade facilitation case stories**

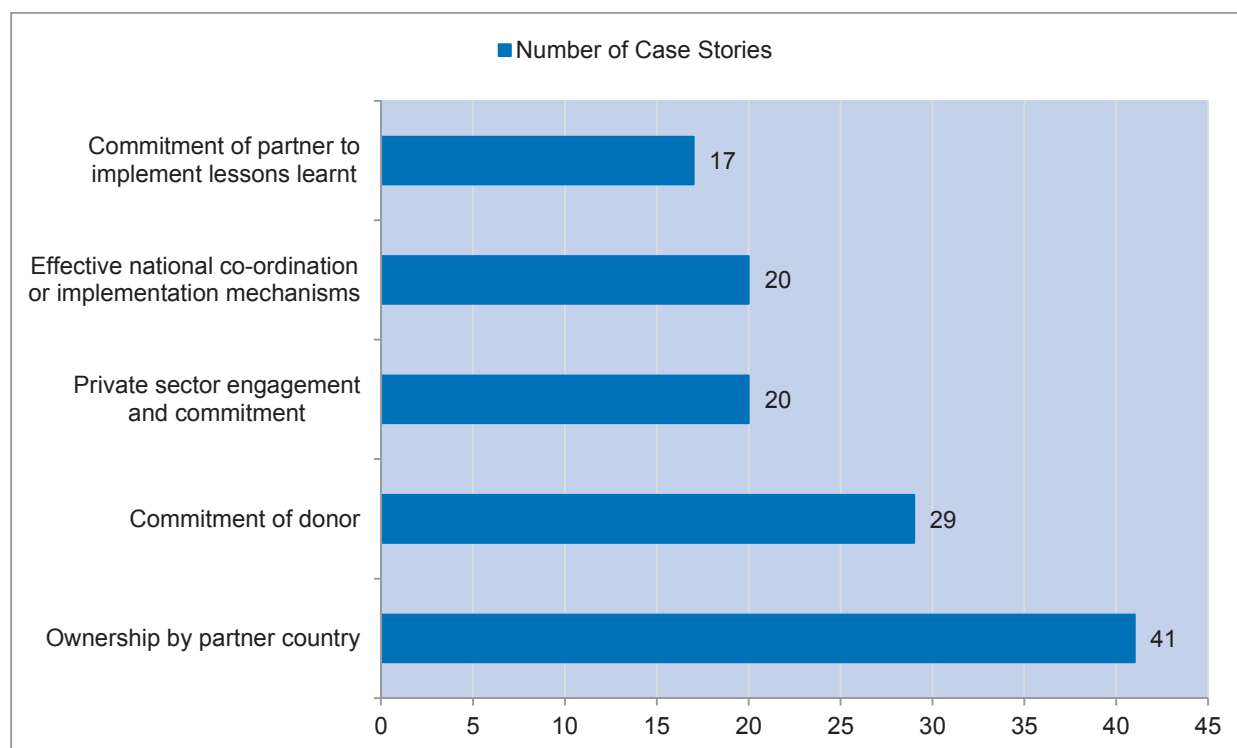


Source: OECD/WTO (2011), Aid for Trade Case Story Database, [www.oecd.org/aidfortrade/casestories.htm](http://www.oecd.org/aidfortrade/casestories.htm).

Among the factors behind successful aid for trade facilitation programmes (Figure 2.2), many case stories cited the importance of national ownership and political commitment. A second factor frequently mentioned was strong involvement in planning

and implementation by local stakeholders, in particular the private sector. An additional influential factor was efficient co-ordination among donors and among recipients. Since many trade facilitation programmes reported on in the case stories were multi-country, co-ordination among the numerous recipients and donors could be complex but also important for success.

**Figure 2.2 Success factors mentioned in the trade facilitation case stories**



### *Some results at a glance*

#### *Integrated trade facilitation programmes*

In Mexico, it has been projected that over USD 3.9 billion will be saved during a six-year period through regulatory reform integrating unilateral tariff reductions, the elimination of many export requirements, the establishment of an electronic single window, and the elimination of many bureaucratic rules. In Costa Rica, policy reform to attract foreign direct investment (FDI) and liberalise trade has allowed the private sector to link to five global value chains. In Mozambique, border clearance time was reduced from 30 days to 2-5 days following assistance from the United States Agency for International Development (USAID) Trade Hubs programme.

#### *Customs reform*

In Ethiopia, customs reforms increased imports and exports by around 200% and revenues by more than 51%. In Burundi, tax revenues increased by one-quarter between 2009 and 2010. In Mongolia, import clearance time was reduced from 3 hours and 6 minutes to 23 minutes, and export clearance time was reduced from 2 hours and 20 minutes to 13 minutes. In Tunisia, cargo delays fell from an average of 10 days in 2003-

04 to 3.3 days in 2010, and 50 000 full-time and 50 000 part-time jobs were added for the firms involved. In Cameroon, the time between broker registration and officer assessment was cut on average by 75%, and revenues per container increased by 11.7% in 2010 compared with 2009. In Haiti, the clearance time fell from 4 days to 2 hours for certain products that met the “green channel” conditions. In Kyrgyzstan and Tajikistan, the number of export forms was reduced by 60% compared with 2007, translating into a reduction of one day for taking a 20-foot container to the nearest port.

### *Corridor projects and logistics management*

In Brazil, improved postal logistics coupled with customs reform allowed 10 000 businesses to export for the first time. The number of forms required to export parcels weighing less than 30 kg and worth less than USD 50 000 was slashed.

### *Border crossings*

The creation of the Chirundu One-Stop Border Post reduced clearance times by 50% for buses and automobiles and by 80% for trucks (to less than 24 hours), with the addition of a “fast lane” for trucks that can clear in less than 5 hours. Moreover, automated and standardised clearance procedures reduced illicit payments, while shorter border delays decreased the sex trade and the spread of sexually transmitted diseases.

### *Energy*

An 865 km pipeline built by Mozambique and South Africa to connect two gas fields in Mozambique with a South African company, Sasol, is expected to yield the equivalent of 440 million barrels of oil. In Tanzania, submarine cables connecting the Island of Pemba (part of the Zanzibar Archipelago) to the national electricity grid are expected to provide more reliable electricity and make tourism investments feasible. The regional integration of energy grids between Benin, Nigeria and Togo benefitted all countries involved. In El Salvador, aid-funded investments in rural electricity allowed more than 7 000 users to save an average of USD 41 per family per year on electricity bills.

### *Ports*

In Fiji, improvements at the King Wharf increased load-bearing capacity, with an increase in the number of containers moved per hour from 5.2 in 1998 to about 8 in 2011.

### *Roads*

Kazakhstan and Kyrgyzstan collaborated to rehabilitate 226 km of road between Almaty and Bishkek, with numerous benefits including the creation of new businesses and a 160% increase in exports from Kyrgyzstan to Kazakhstan. In Morocco, a programme for the development of transport infrastructure in rural areas resulted in an increase in road construction from 1 000 km/year in 2002 to over 2 000 km/year in 2009.

## **Introduction**

Trade costs are usually considered to include all transport, border-related and local distribution costs from producer to final consumer in different countries. Trade costs are crucial determinants of the value and volume of international trade, and can thus have a major influence on achieving the objective of trade expansion. Anderson and van Wincoop (2004) calculated total trade costs for a representative rich country to have an

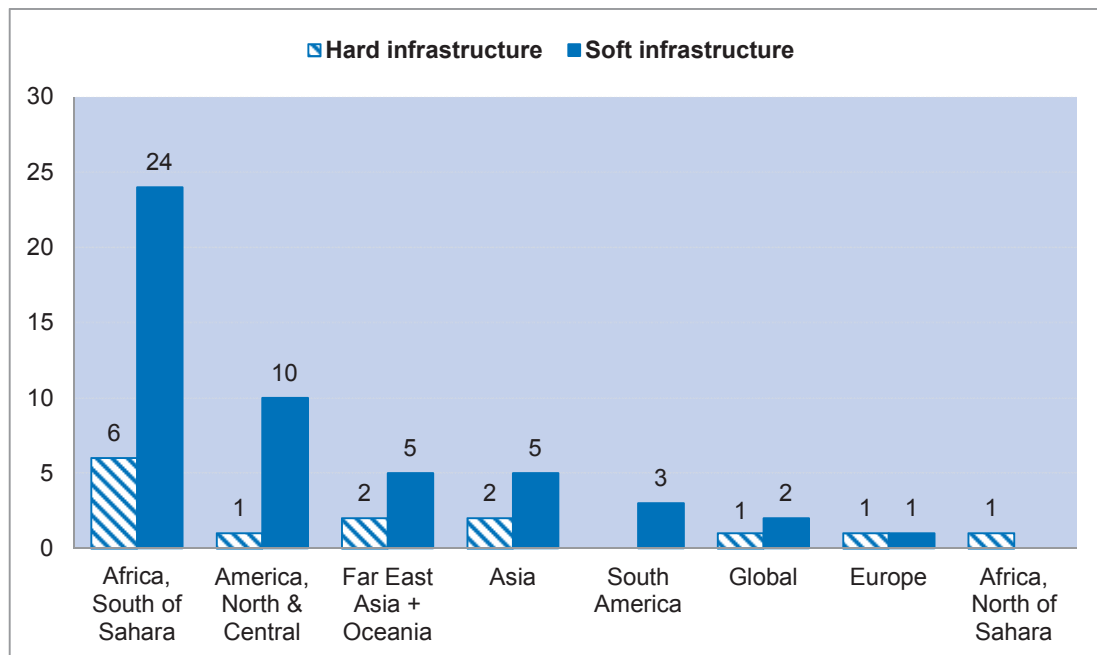
*ad valorem* tax equivalent of 170%. They also found that trade costs in developing countries on average were significantly higher (sometimes twice as high) as those in advanced countries. The determinants of trade costs are various; they can emanate from policy instruments such as tariffs, burdensome regulations at the border, non-tariff barriers such as technical requirements, and transport costs. Trade facilitation programmes aim to tackle one or more of these trade costs.

For the purpose of this analysis, trade facilitation refers to policies and investments that reduce trade costs and thus facilitate trade. In general terms, trade facilitation can be divided between investments in soft infrastructure and those in hard infrastructure. *Soft* infrastructure refers to institutional features such as trade policy, customs regulations, border crossings and the business environment. *Hard* infrastructure refers to physical infrastructure such as energy grids, ports, railways and roads. Portugal-Perez and Wilson (2008) found significant evidence that elements from both categories increase the *intensive* and *extensive* margin of exports from developing countries, and that soft and hard infrastructure investments complement each other in the promotion of trade.

### The largest number of case stories concerned hard and soft infrastructure investments in Sub-Saharan Africa

In total, 62 case stories were classified under soft and hard infrastructure; 48 addressed institutional features such as trade policy, customs regulations, border crossings and the business environment; and 14 reported on hard infrastructure investments. The largest number of case stories concerning soft infrastructure covered countries in Sub-Saharan Africa, followed by North and Central America and Far East Asia and Oceania (Figure 2.3).

Figure 2.3 Geographical distribution of trade facilitation case stories

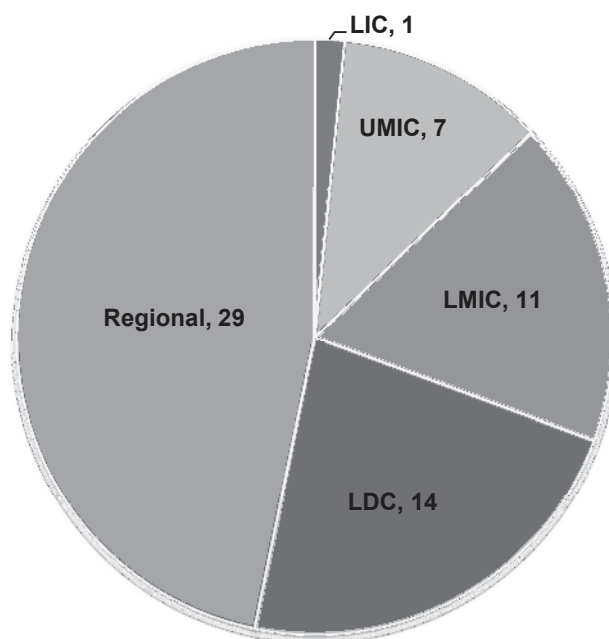


Source: OECD/WTO (2011), Aid for Trade Case Story Database, [www.oecd.org/aidfortrade/casestories.htm](http://www.oecd.org/aidfortrade/casestories.htm).

### The largest number of trade facilitation case stories described multi-country programmes and projects

Most case stories on aid for trade facilitation described multi-country programmes and projects with a regional focus. Of the 62 case stories, 29 were about programmes and projects that spanned multiple countries, covering regional economic communities (RECs) such as the Association of Southeast Asian Nations (ASEAN), the East African Community (EAC) and the Southern African Development Community (SADC). Because trade facilitation (both soft and hard infrastructure) is especially important for cross-border trade, such dominance on the part of regional programmes and projects is expected. In terms of income groups, the distribution of trade facilitation is in line with the general distribution, as least developed countries (LDCs) are the most prominent income group, followed by low and middle income countries (LMICs), upper middle income countries (UMICs) and low income countries (LICs) (Figure 2.4).

**Figure 2.4 Number of trade facilitation case stories by country income group**



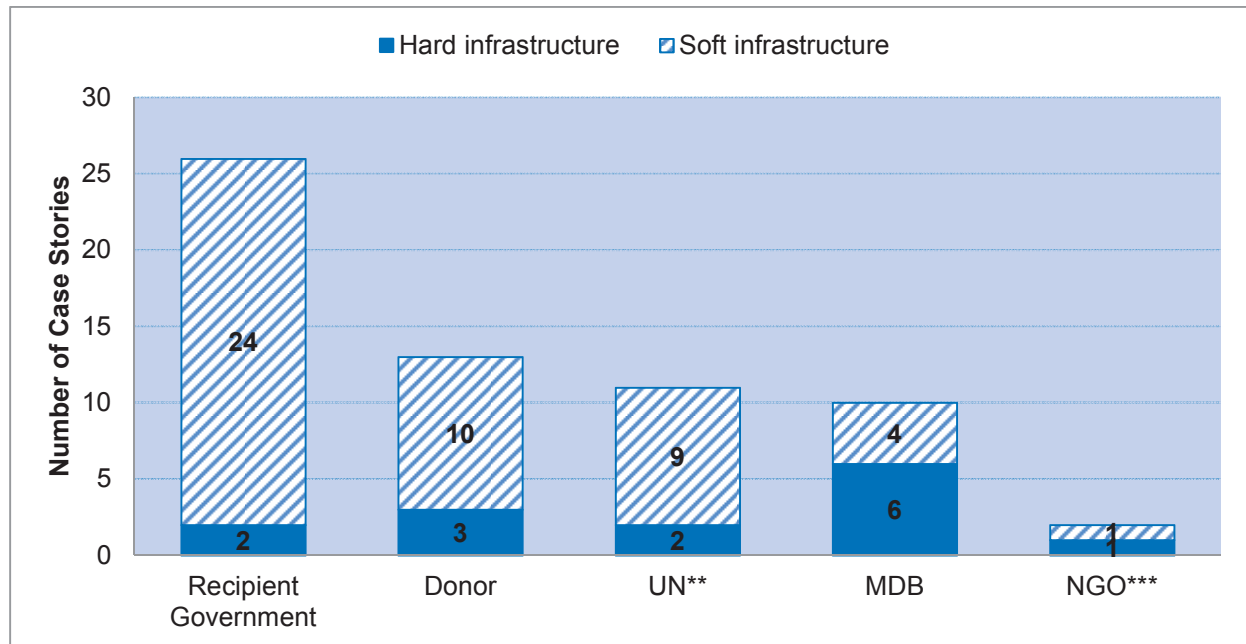
Source: OECD/WTO (2011), Aid for Trade Case Story Database, [www.oecd.org/aidfortrade/casestories.htm](http://www.oecd.org/aidfortrade/casestories.htm).

The two sub-categories of trade facilitation programmes and projects differed with regard to the authorship of the case stories (Figure 2.5). In the case of soft infrastructure, most case stories were submitted by the recipient, whether a government or a regional economic community or organisation. In the case of hard infrastructure, multilateral development banks (MDBs) submitted the most case stories. This is in line with the observation that not many case stories were submitted on hard infrastructure to begin with, due to the fact that government ministries other than ministries of trade usually lead those programmes and projects.

Poor-quality or inadequate hard infrastructure is a significant supply-side constraint on trade, with varying importance across countries. For example, OECD (2012) found

that for small vulnerable economies (SVEs) infrastructure is key in spurring trade performance and thus overcoming limited market size. Some of the studies that made the link between investments in infrastructure and increasing capacity to trade are described in the following paragraphs<sup>2</sup> and are followed case stories focusing on improvements in particular types of infrastructure.

**Figure 2.5 Recipient governments submitted the largest number of case stories on trade facilitation**



Source: OECD/WTO (2011), Aid for Trade Case Story Database, [www.oecd.org/aidfortrade/casestories.htm](http://www.oecd.org/aidfortrade/casestories.htm).

\* Includes case stories from regional economic communities and organisations

\*\* Includes other international organisations

\*\*\* Includes unaffiliated authors

This chapter is structured as follows: the first section below covers soft infrastructure investments for trade facilitation, with a focus on the major types of programmes and projects attracting such investments. The second section includes case stories of trade facilitation investments in hard infrastructure, such as energy, ports, roads and railways. Both sections begin with a sub-section that describes some recent econometric studies, followed by discussions of the relevant aspects and conclusions from case stories.

### Soft infrastructure investments

Soft infrastructure initiatives aimed at reforming customs to increase efficiency, reducing transactions at the border, and eliminating bureaucratic interventions that create opportunities for corruption can lower trade costs for importers and exporters alike. After a brief literature review of some recent studies of different aspects of such initiatives, this section looks at the 48 case stories classified under soft trade facilitation, which reveal a wide variety of efforts to lower the costs affecting cross-border trade. These principally take the forms of: (i) integrated trade facilitation programmes and projects spanning

strategy and investments, sometimes with a regional focus; (ii) customs and logistics reform efforts; and (iii) corridor-focused programmes and projects.

### *Studies of potential effects*

Helble, et al. (2009) undertook an analysis of the potential benefits of aid for trade facilitation, using gravity estimates from cross-country regressions. In particular, they compared the effects of trade development assistance (as a subcategory of productive capacity building), trade policy assistance and infrastructure assistance on bilateral trade flows. They concluded that aid for trade targeted at trade policy and regulatory reform projects produces a high rate of return.

Reducing delays at the border and in transit can also have a dramatic impact on reducing import and export costs, thereby improving competitiveness (Engman, 2005). Djankov, et al. (2010) provided evidence of the stark differences between developing and advanced countries in regard to the time needed to move an export container from a factory to the nearest port, having fulfilled all customs, administrative and port requirements. They found that the process took 116 days from Bangui, Central African Republic, 93 days from Almaty, Kazakhstan, 16 days from Kuala Lumpur, Malaysia, and only 6 days from Berlin, Germany. In regard to trade, every day counts. The same study found that each additional day in transit had the effect of reducing trade volumes on average by slightly more than 1%.

Hummels (2001) calculated that a one-day border delay drove up costs by about 0.8% on average around the world. Building on this work (and based on a study of 126 countries using a gravity model), Djankov, et al. (2010) found that each day in transit had the effect of reducing trade volumes on average by slightly more than 1%. They were able to capture the effects of administrative delays by using as a proxy the number of signatures required to export or import. These delays had the equivalent effect of adding 70 km to the distance between the plant and the final market. The situation was more serious for exporters of perishable agricultural products since delays increased wastage. For these exporters, every additional day of delay reduced exports on average by 6%. Hoekman and Nicita (2010, 2011) estimated that efforts to move the logistics and trade facilitation performance of low-income countries (as measured by the World Bank's Logistics Performance Index and Doing Business "cost of trading" indicator) closer to middle-income country levels would increase trade by 15%, double what would be achieved by converging on middle-income average import tariffs.

Two case stories reported on studies using cross-country data and econometric analysis to examine the link between aid for trade and trade costs. The UN Economic Commission for Africa (UNECA) drew attention to a forthcoming study which will show that an increase in aid for trade is associated with both greater export diversification and lower transportation costs [Africa, 104]. The Commonwealth Secretariat reported on studies which found that a 100% increase in aid to trade facilitation had been associated with a 5% fall in the cost of importing. Furthermore, there is evidence of a notable impact of aid for trade on export performance, where each additional 100% of aid for trade is associated on average with a 3.5% increase in merchandise exports, driven mainly by aid to economic infrastructure [Global, 34]. More generally, a study described in the German Development Institute's (DIE) case story discusses the difficulties and challenges faced by all actors and stakeholders in reconciling national and regional priorities in the design of their strategies [Zambia, 106].



Some additional case stories were not about specific trade facilitation programmes or projects, but focused instead on studies and reports conducted to analyse such initiatives. For example, in Uganda the World Customs Organization (WCO) Time Release Study (TRS) identified constraints to smooth customs procedures and made recommendations to enhance efficiency at the borders [Uganda, 239]. The Collaborative Centre for Gender and Development (CCGD) in Kenya submitted a case story on a project that included an analysis of the EAC customs protocol to determine its responsiveness to the needs of informal women cross-border traders; two surveys on the situation of informal cross-border women traders on the Tanzania-Kenya, Uganda-Kenya and Rwanda-Burundi borders; and sensitisation and advocacy activities concerning the findings of the studies, as well as measures to enhance women's participation in trade [Kenya, 54]. Also concerning gender, the International Trade Center (ITC) submitted a case story focusing on the need to mainstream gender in policies that establish special export zones [India, 58].

Another example is a case story submitted by the research centre, the Centre for International Economic Law (CDEI), on the unintended consequences of the International Network of Mesoamerican Highways (RICAM). The report bases its arguments on studies that have found that facilitating trade and travel, which is a clear objective of aid for trade infrastructure projects like RICAM, can have serious social and health-related consequences, such as the spread of HIV/AIDS. The authors suggest that RICAM and similar projects should adopt prevention strategies aimed at vulnerable groups [Central America, 3].

### *Integrated trade facilitation programmes*

Mexico presents an example of linking the “export side” of trade facilitation with a more efficient “import side”, as well as with improvements in domestic business regulations. A central component of Mexico's National Agenda for Competitiveness is the goal of improving import efficiency by reducing and simplifying tariffs. Between 2008 and 2010, the country unilaterally reduced its average industrial tariffs from 10.4% to 5.3%. By 2013, it expects that 63% of its tariff lines will be duty free, reducing its average industrial tariff to just 4.3%. All of these changes allowed Mexico to move up from 74 in 2008 to 22 in 2010 in the World Economic Forum's rankings for market openness. At the same time, the trade-distorting variance of tariffs will drop by one-quarter in standard deviation, i.e. from 9.0% to 6.6% by 2013. On the export side, Mexico has eliminated several export requirements and established an electronic single window to simplify access to required filings. In addition, an electronic application process has been adopted to accelerate business registrations. Mexico has also eliminated 12 234 internal regulations and 1 358 bureaucratic steps for businesses. It has been projected that this combination of regulatory improvements will save Mexican businesses and citizens USD 3.9 billion over a six-year period [Mexico, 114].

The case story from Costa Rica describes a process of combining gradual trade liberalisation and reform with a sustained policy of attracting foreign direct investment (FDI). Costa Rica is aiming for greater participation in global value chains through more targeted FDI policy. Its strategy for boosting FDI is based on further improving economic infrastructure, simplifying bureaucratic regulations, and increasing investment in research and development activities. Costa Rican officials saw the need to back domestic reform in regulations with an outward trade liberalisation effort, and to forge ahead with multilateral and bilateral trade agreements. The Inter-American Development Bank (IaDB) assisted the country in its efforts to develop capabilities to supply high-technology

multinationals. This strategy has been fruitful: Costa Rican businesses are present in five major global value chains: electronics; medical devices; automotive; aeronautics/aerospace; and film/broadcasting devices [Costa Rica, 156].

Nigeria, the Lao People's Democratic Republic (Lao PDR) and Suriname provided case stories on projected outcomes of integrated facilitation programmes and projects. Nigeria's Strategic Trade Facilitation Action Plan tackles trading obstacles for both exporters and importers. It aims to reduce the number of documents needed to export from 10 to 4, while decreasing the time needed to export five-fold and lowering the average cost per container from USD 1 179 to USD 1 000. It also hopes to reduce the number of documents needed to import from 9 to 4 in order to keep the average time to clear an import below 5 days, and to cut the average cost of an imported container by around 23%, also to USD 1 000 [Nigeria, 7]. With a strong emphasis on infrastructure improvement and investment, Suriname's Improving the Trade Facilitation Environment project also integrates institutional improvement and customs reforms to reduce trade costs and thus attract increased trade through its ports [Suriname, 94]. However, this case story indicates the need to establish a formal body for co-ordination of trade facilitation projects, something that Nigeria has achieved successfully with a Trade Facilitation Task Force. Lao PDR [155] established a National Integrated Framework Governance Structure to improve communication between government ministries, development partners and the private sector, which is considered a success. Not all case stories are success stories or works in progress. Mongolia's Chamber of Commerce seems to have taken up the government's job of implementing trade facilitation projects, in response to complaints from the private sector that not enough was being done to achieve integration into international markets [Mongolia, 6].

### ***Regional integration programmes and projects***

The Regional Strategy for the West African Economic and Monetary Union (WAEMU) has spearheaded a wide variety of activities to promote trade, ranging from streamlined border crossings and customs procedures to harmonised tax policies and investments in capacity building. A case story provided by the Commission of the WAEMU gives an overview of the policies implemented to facilitate regional and international trade relations. A first evaluation in 2006 of the common trade policy showed an increase in both intra-regional and extra-regional trade for the Union, with intra-regional exports growing faster than extra-regional ones. Between 1996 and 2004, average intra-regional export growth reached 4.80%, against an average of 2.42% growth for international exports [West Africa, 266]. One of USAID's aid for trade programmes supporting regional trade facilitation, African Trade Hubs, seeks to encourage intra-regional trade by harmonising REC standards and trade protocols. This programme is considered a success. Contributing factors are local ownership, a regional focus, a mix of policy- and firm-level assistance, and effective private sector involvement [Africa, 175].

The United Kingdom submitted a case story on the establishment of its regional TradeMark Southern Africa, which supports regional integration efforts by the Common Market for Eastern and Southern Africa (COMESA)-East African Community (EAC)-Southern African Development Community (SADC) Tripartite to create an inter-regional free trade area and expand the region's capacity to trade. This case story highlights the need for flexible instruments and timing, as well as the importance of having both strong strategic leadership region-wide and REC ownership of the programme. Moreover, it emphasises the importance of regional and inter-regional programmes to lower the risk of duplication across the region [Africa, 148]. The importance of this approach also figures

in the case story submitted by the Economic Community of West African States (ECOWAS) regarding the process of the Economic Partnership Agreement (EPA) development programme, Programme de l'Accord de Partenariat Economique pour le Développement (PAPED), between the Western Africa region and the European Union. The PAPED has been successful in providing a platform for development partners and EU members to co-ordinate their efforts and avoid duplication [Africa, 40].

Another case story submitted by the United Kingdom shows how the Comprehensive Tripartite Trade and Transport Facilitation Programme included steps to overcome the co-ordination challenges of implementing regional trade facilitation programmes. The first step was to identify existing trade facilitation programmes, at both the national and regional level, within the three participating RECs (COMESA, EAC and SADC). On this basis, the subcommittees of the Task Force decided whether to combine programmes or whether a particular initiative in an REC might be suitable for the rest to follow. This case story not only underlines the importance of having a coherent regional strategy, but also emphasises that implementation should be at the national level to ensure strong country ownership. The programme included among its objectives the harmonisation of customs, immigration and transport procedures throughout the region and the creation of a Joint Competition Authority on Air Transport Liberalisation [Africa, 145]

Building on existing trade facilitation programmes and instruments, Central American countries are also pursuing deeper integration. Mexico submitted a case story on efforts in this direction through merging the existing trade agreements among the region's countries: Costa Rica, El Salvador, Guatemala, Honduras, Mexico and Nicaragua. Despite delays in the start-up of negotiations, there is high-level political commitment to deeper integration (with full and early engagement of the private sector), which has resulted in the development of a Convergence Action Plan and a clear schedule of negotiations [Central America, 108]. Similarly, the Community of Sahel-Saharan States (CEN-SAD) submitted a case story referring to a potential merger of free trade agreements (FTAs) in its region, notably those of the Arab Maghreb Union (AMU) and ECOWAS. According to the case story, a key factor promoting a CEN-SAD free trade agreement (FTA) is the synergy between the existing RECs in the region, in addition to the proposed liberalisation scheme [Africa, 224].

### ***Customs reform and logistics management projects***

Some projects combined investments in infrastructure and accelerated customs procedures with regional integration programmes or projects. Sixteen case stories described government efforts to improve customs and logistics, while four reported results from studies analysing such efforts.

The Mesoamerica Project, for example, seeks to improve the ease with which goods are moved within Central America. This project, begun in 2008 and financed by the IDB, has entailed investments in road infrastructure that by 2015 are projected to cut average freight travel times from 8 days to 2.25 days; accelerated customs procedures forecast to reduce the average border crossing time from 60 minutes to 8 minutes; and the creation of a regional electricity grid projected to reduce power generation costs by up to 20%. The project has modest accomplishments to date, including completion of survey work on the quality of roads, initial implementation planning for key measures, and completion of 90% of the backbone fibre optic cable for the region. While the overall project is generally on schedule, continued high-level official involvement is necessary to ensure its timely completion [Latin America, 120].

In Southern Africa, SADC is sponsoring the reform of a region-wide tariff system and customs administration as it moves towards full customs union. This project includes work on the legal and institutional framework, the common external tariff, a three-year training strategy to build capacity, and the organisation of Business Partnership Forums. These efforts, sponsored by the EU, are still in their initial phases [Africa, 15].

In Ethiopia, the World Customs Organization (WCO) reviewed the establishment of the Ethiopian Customs Authority. The case story describes the two phases of WCO support: an assessment; and implementation of the Customs Reform Programme. With the creation of the Ethiopian Revenue and Customs Agency, reforms were gradually implemented and higher levels of efficiency and effectiveness were reached [Ethiopia, 166]. In Uganda, the WCO supported the use of its Time Release Study (TRS), a tool developed to assist customs administrations in identifying bottlenecks and propose solutions to improve trade flows. With data collected through automated systems on records, questionnaires and surveys, the task force delivered very specific observations on the work needed to facilitate trade to and from Uganda. For example, border stations cleared goods much faster than inland stations (e.g. airports), with an average of one day of clearance time at the former compared to five days at the latter. Goods exempt from duties took longer to clear than those which were dutiable; the authors of the case story suggest the reason for this counter-intuitive finding is that exempt goods are examined more closely than dutiable ones [Uganda, 239].

The Asian Development Bank (ADB) submitted a case story on the Mongolia Customs Modernization Project, which sought to address outdated data processing systems, inadequate customs procedures and poor governance. The focus was on increasing and facilitating trade flows, enhancing duty and tax revenue collection, lowering the incidence of corruption, reducing trade barriers, improving the investment environment, and providing an information and communications technology (ICT) platform. The project resulted in an increase and upgrading of supply-side capacity in regard to hard and soft infrastructure, modernisation of customs procedures and implementation of an ICT platform, allowing 100% online submissions for export and import clearance. There was a dramatic decrease in import clearance time, from roughly 3 hours to 23 minutes, while export clearance time fell from 2 hours and 20 minutes to 13 minutes [Mongolia, 260].

It was estimated that the customs and logistics components of Tunisia's export development programme<sup>3</sup> would reduce cargo delays by about two-thirds – from an average of 10.1 days in 2003-04 to 3.3 days in 2010. Not only were the results seen at the border, but the project increased exports by more than USD 400 million by May 2010, with more than one-third representing new exports to new markets. Moreover, according to the case story, the project resulted in the creation of some 50 000 full-time and 50 000 part-time jobs for the firms involved [Tunisia, 130].

A much cited customs reform in Kyrgyzstan included implementation of a single window system, whose benefits are clearly illustrated in the case story submitted by the German Agency for International Cooperation (GIZ). This system led to a reduction in the number of export forms for some destinations by 60% between 2008 and 2011. The reform contributed to Kyrgyzstan's ranking in the World Bank's Doing Business index improving by 25 places from 2008 to 2010 in the foreign trade category, highlighting it as one of the top ten reforming countries. The way the system was introduced is notable. Together with local officials, specialists working with GIZ and the UN Economic Commission for Europe (UNECE) found that given the geographic and bureaucratic

characteristics of Kyrgyzstan, Senegal had a single window system that would seem to fit it well. Experts from the GIZ and Central Asian officials therefore visited Senegal, where they were shown the technical aspects of the single window, its benefits, and, most importantly, challenges as well as solutions [Kyrgyzstan, 186]. Positive results were also obtained with the data harmonisation process to introduce the single window in the Former Yugoslav Republic of Macedonia. An independent survey in 2009 “reported a general reduction in costs and time across all procedures” [Macedonia (FYR), 189].

The examples so far have clearly shown the positive consequences that streamlined customs procedures and policy can have on international trade, employment, and business in general. The case stories from Burundi and Cameroon illustrate other important benefits: increased tax revenues, and greater transparency. In Burundi, tax revenues increased by one-quarter between 2009 and 2010 following implementation of the Burundi Revenue Office.<sup>4</sup> They exceeded the total five-year project investment [Burundi, 211]. Cameroon launched major customs reforms in 2007 and 2010 with the support of the Agence Française de Développement (AFD), the WCO and the World Bank. The purpose of these reforms was not only to facilitate trade by streamlining and modernising customs procedures, but also to increase transparency and reduce corruption in customs offices. Performance indicators showed the following results: the share of customs declarations assessed during the day they were registered increased; the variance in clearance time diminished, reducing uncertainty for traders; and tax revenue increased by 11.7%. Corruption was tackled by removing bad practices such as the possibility to readjust an already assessed customs declaration, although the authors of the case story believed that more needed to be done to eliminate corruption in customs offices [Cameroon, 64].

### *IT upgrading programmes*

Some case studies described efforts to modernise information technology (IT) at border posts and customs offices. For example, the IaDB submitted a case story on the international transit of goods through the El Amatillo border crossing between El Salvador and Honduras, a border with one of the highest trade volumes in Central America. The IaDB supported the USD 2 million project to improve border clearance times and procedures through an electronic system for managing the flow of goods in transit by harmonising procedures and consolidating information and certificates into a single electronic document. Clearance times were reduced from 62 minutes to an average of 8 minutes. The project’s success stimulated interest in neighbouring countries. With another USD 950 000 the IaDB helped to extend the procedures to Costa Rica, Guatemala, Mexico, Nicaragua and Panama. The customs clearance procedures will contribute to the realisation of the Mesoamerica Project [Central America, 122].

Colombia submitted a case story on digitalised certificates of origin. With the assistance of the IaDB, new procedures were put in place for issuing and receiving these certificates of origin. The new system helped reduce clearance times from an average of 2-3 days to 10 minutes, generating significant savings in both staff and administrative costs. The project was deemed highly successful, and survey results show that the single trade export window is making a solid contribution to trade facilitation, transparency and product traceability [Colombia, 226].

The introduction of the Automated System for Customs Data (ASYCUDA) was the main theme of three case stories. ASYCUDA, a customs management system developed by UNCTAD, is used by many countries to reduce customs approval times. Haiti, which



showcased the introduction of the ASYCUDA system through a project funded by the IaDB, reported a reduction of clearance times from 4 days to 2 hours for some declarations. Haitian customs officials now also have the ability to pre-clear perishable goods and to exercise control over risk management. More importantly, ASYCUDA encouraged standardisation of customs procedures at as many as 10 Haitian customs offices [Haiti, 246]. Dominica also submitted a case story on the implementation of ASYCUDA, funded by the EU and the World Bank. This project focused on improving Dominica's trade facilitation and customs procedures and strengthening the country's Customs and Excise Division. The project had not been finalised, and no results were presented [Dominica, 230]. The EU funded a multi-country programme to implement the ASYCUDA World system in Aguilla, Montserrat, and the Turks and Caicos Islands. Due to financial strains caused by natural disasters in the countries involved, it stalled in early 2009. However, the EU granted an extension and, in December 2010, Montserrat finalised its migration to the system, which is now in the pilot phase [Montserrat, 5].

Brazil and Ecuador submitted case stories on the implementation of logistics-improving programmes to increase trade. Ecuador presented the establishment of the National Policy for Logistics, a strategy to strengthen logistics and trade facilitation with the financial support of the Andean Development Corporation (CAF) and technical support from the IaDB [Ecuador, 43]. From Brazil, the Universal Postal Union (UPU) presented the *Exporta Fácil* project, a postal export project for micro, small and medium-sized enterprises in South America. The project benefitted from the expertise of the Initiative for the Integration of Regional Infrastructure in South America (IIRSA) and technical co-operation provided by the Ministry of Communication of Brazil. Its main objective was to link these enterprises to international markets. *Exporta Fácil* was able to do this with the Brazilian post office becoming *de facto* a "single window". Exporters of parcels that weigh less than 30 kg and are valued at less than USD 10 000 need only go to the post office, fill in significantly fewer forms than would otherwise be the case, and pay less than with other shippers; moreover, the post office would act as guarantor towards the other institutions concerned, such as the Customs Office and the Ministry of Health. Four countries have so far adopted *Exporta Fácil*: Brazil, Colombia, Peru and Uruguay. The results have been significantly positive and encouraging [Brazil, 16].

### ***Corridor projects***

Increasingly, trade facilitation is being treated not simply as a border issue, but as an integrated challenge involving the whole of a transport corridor and multiple facets of trade. For example, the Greater Mekong Subregion (GMS) constructed bridges and roads in conjunction with its GMS Cross Border Transport Agreement (CBTA). Although politically complicated, the project eventually led to an agreement in 2006 among Lao PDR, Thailand and Viet Nam whereby each country would license 500 trucks to operate without restrictive cabotage provisions along the newly created East-West corridor. The savings, in terms of lower transport costs and reduced trans-shipment times, are expected to have a major impact on the region's development [Southeast Asia, 163].

Another example is the Northern Corridor Transit Agreement (NCTA) among Burundi, the Democratic Republic of the Congo, Kenya, Rwanda and Uganda, signed in the 1980s. The NCTA was created to harmonise customs procedures in order to ensure transit of goods, especially in the case of landlocked countries. Although no results are given in the case story, a comparison of trade costs incurred in transit across various corridors provides some interesting perspectives; for example, port clearance<sup>5</sup> takes 68 hours in the Northern Corridor but only 24 hours in the South Africa Corridor (Maputo-

Johannesburg), pointing to the fact that there is still room for improvement. One of the problems faced in this project is that signatories of the NCTA are members of different RECs with different rules on trade and transport, which inevitably complicates harmonisation of customs procedures [Africa, 265].

The East Africa Trade and Transport Facilitation Project, jointly undertaken by the member countries of the EAC and the Northern Corridor Transit Transport Coordination Authority (NCTTAA) with funding by the AfDB and the World Bank, has been successful in reducing trade costs in the region. The project is designed to improve traffic through the Northern Transit Corridor by supporting the implementation of the EAC Customs Union, strengthening the NCTTAA, providing investment and institutional support for trade and transport facilitation, and financing the key joint border posts in the region, among other components. The case story submitted on this project by the World Bank highlighted the following results: transit times from Mombasa, Kenya, to Kampala, Uganda, have dropped from 15 days to 5 days; and average waiting times in the port of Mombasa have fallen from 19 to 13 days. This means the average truck can make three trips per month along the corridor rather than the previous 1.5 trips, improving truck utilisation and reducing costs. These savings translate into higher incomes for farmers through earnings on a greater volume of exports. However, the case story stresses the need to continuously improve the capacity and efficiency of the corridor to deal with increasing trade volumes [East Africa, 129].

A case story from the ECOWAS Commission points to an important challenge faced by regional corridor projects like those mentioned above: effective dissemination of information to stakeholders. Through a gap analysis undertaken with the support of USAID, it was found that national laws and procedures relating to the ECOWAS Trade Liberalization Scheme (ETLS) were exceptionally hard to locate even for experts. This meant that traders and transporters were very unlikely to take full advantage of the trade facilitation instruments already in place. A survey among private sector respondents indicated a complex web of contradictory procedures and regulations which, in turn, lead to opportunities for corruption and unpredictable delays and costs – all strong trade deterrents [West Africa, 42].

### ***Border crossing programmes***

A notable objective of infrastructure programmes has been to simplify border crossings through one-stop border posts. Three case stories describe improvements to the Chirundu Border Post in Africa's North-South Corridor [Zimbabwe, 107; Southern Africa, 140; Zambia, 171]. With approximately 270 trucks passing each day, the journey through this border post between Zimbabwe and Zambia (the major port of entry into Zambia, and the busiest inland border point in eastern and southern Africa) was said to require “one-third driving and two-thirds waiting” [Southern Africa, 140].

The creation of the Chirundu One-Stop Border Post (OSBP) has greatly expedited movement through a common control zone, with equipment to provide pre-clearance of persons, vehicles and goods and improved work-flow efficiencies. The COMESA Secretariat has provided the institutional “home” and offices for the project, and the relevant national ministries of trade and commerce have provided essential political and policy leadership – vital because the project required legal reforms, the redesign and revamping of procedures on both sides of the border, new infrastructure, and new investments in information and communication technologies (ICT). Donors, including the Japanese government, DFID and the World Bank, provided resources for critical

components. The benefits have been tangible: clearance times for buses and automobiles have been reduced by one-half, and those for commercial trucks have been reduced from 5 days on average to less than 24 hours. “Fast lane” trucks can be cleared in less than 5 hours. The OSBP resulted in more efficient traffic circulation, increased capacity for handling large volumes of traffic, reduced costs of doing business in the region, and increased revenues for customs offices. Moreover, positive spin-offs have been significant. Rapid, automated and standardised clearance procedures have reduced the illicit payments that multiple agencies previously charged for clearance procedures, while shorter border delays have reduced the sex trade and the spread of sexually transmitted diseases such as HIV/AIDS [Southern Africa, 140].

Zambia’s case story on the Chirundu OSBP was presented jointly with the Ministry for Foreign Affairs of Finland. In their experience, the sequencing of activities was challenging, as was co-ordination at intra- and inter-country levels. Despite the progress made, human capacity and infrastructure constraints continue to hinder full implementation of the OSBP concept [Zambia, 171]. Zimbabwe also submitted a case story about this programme, funded by several donors, and noted that commitment from all stakeholders (including national governments and the private sector) was vital for the Chirundu OSBP to be successful. One major challenge, according to the authors, was to deal with the timely disbursement of funds. In light of the perceived success of the Chirundu OSBP, the Zimbabwean government recommends that additional aid for trade funds be targeted towards establishing more one-stop border posts across the region [Zimbabwe, 107].

Multi-country one-stop border posts are difficult to orchestrate and implement. As mentioned above, complex political, procedural and institutional changes are often required to advance the projects. These changes often threaten interest groups profiting from the status quo. Moreover, one-stop border posts usually require a level of intra- and inter-governmental co-ordination that can be politically challenging because it involves multiple levels of bureaucracy on both sides of the border. The difficulties involved in attempting to improve the Beitbridge Border Post separating South Africa and Zimbabwe – including lengthy delays in signing memoranda of understanding (MOUs) – highlights the need for effective and high-level intergovernmental co-ordination [Southern Africa, 267].

## Hard infrastructure investments

Only about 5% of the case stories submitted addressed hard infrastructure programmes, which comes as a surprise given the significant amount of aid dedicated to such programmes. There might be several reasons why infrastructure was not better represented: in some case stories hard infrastructure might not be the main story, so that they were classified under another category; or the reported infrastructure projects might not be seen by recipient governments as directly related to trade. In fact, of the 14 case stories classified here as hard infrastructure, only 2 were submitted by recipient governments. Nevertheless, the case stories provide valuable insights into the importance of regional co-ordination of infrastructure initiatives and potential side effects, such as reducing the spread of HIV/AIDS along road networks.

Inadequate hard infrastructure is a significant supply-side constraint for trade, with varying importance across countries. OECD (2012) found that, for small vulnerable economies (SVEs), infrastructure is key to spurring trade performance and thus overcoming limited market size. Various studies have made the link between capacity to



trade and different types of infrastructure. For example, Limao and Venables (2001) found that improvements in transport and communications infrastructure significantly reduce trade costs. Buys, Deichmann and Wheeler (2010) and Shepherd and Wilson (2009) found that road improvements can have substantial positive effects on trade volumes. Wilson, et al. (2005) found the same positive relationship between trade volumes and port improvements. Telecommunications are seen as increasingly important, as technology becomes more widespread and accessible. Freund and Wiehbold (2000), Park and Koo (2005) and Wheatley and Roe (2005) are just some of the studies that have found a positive link between telecommunications and trade flows.

### *Studies on trade-related infrastructure*

For example, studies have found that an improvement in *transport and communications infrastructure* from the median score on surveys to the highest percentile is associated with a 12% decrease in transport costs, and this in turn is associated with an increase in trade volumes of 28%.<sup>6</sup> Moreover, these studies have shown that landlocked countries face higher transport costs, which are strongly related to the infrastructure of neighbouring transit countries. In East Africa, for example, goods bound for landlocked countries faced the time equivalent of at least three clearance processes in coastal countries. “Poor infrastructure accounts for 40% of predicted transport costs for coastal countries and up to 60% for landlocked countries.”<sup>7</sup> Furthermore, in the case of landlocked countries, it was calculated that improvements in their infrastructure from the 25<sup>th</sup> percentile to the 75<sup>th</sup> percentile would effectively overcome more than half the disadvantage of being landlocked (Limao and Venables, 2001).

*Roads and railways* are also critical to trade. Buys, Deichmann, and Wheeler (2010), in a study for the AfDB, estimated that an investment of some USD 20 billion, together with USD 1 billion in annual maintenance, would generate about USD 250 billion in overland trade over 15 years. Similarly, Shepherd and Wilson (2009) reached the conclusion that an “ambitious but feasible” road upgrade could increase trade by 50%. Burgess and Donaldson (2010) found that the vast railroad system built by the British in colonial India not only decreased trade costs, but narrowed inter-regional price gaps, increased regional and international trade, and increased real income levels.

Efficient *ports* are also essential to trade. Wilson, Mann and Otsuki (2005), in their study of trade facilitation in the Asia-Pacific Economic Cooperation (APEC), used a measure of port efficiency (an amalgamation of port efficiency, port facilities and air transport efficiency) and found that bringing below-average countries on the index up to the APEC average would produce USD 117 billion in additional trade within APEC.<sup>8</sup>

*Telecommunications* have also been shown to be critical and probably of increasing importance. Examining the impact of the internet, an early article by Freund and Weibhold (2000) looked at its potential role in regard to trade and concluded that a 10% increase in the relative number of web hosts in one country would have increased trade flows by 1% in 1998-99. The explosion in connections all over the world has undoubtedly altered these estimations. Park and Koo (2005) found telecommunications infrastructure to be a significant determinant of bilateral trade levels. Wheatley and Roe (2005) looked at international trade in agricultural and horticultural commodities between the United States and its partners, and undertook an analysis that differentiated the export and import effects of internet infrastructure and cost; they concluded that telecommunications effects depend critically on the perishability of products. Today the great majority of searches for

internationally supplied inputs and consumer goods are likely to begin with the internet. This clearly indicates the importance of being online in order to advertise, purchase, and seek suppliers and markets.

Similar conclusions are found in studies that measure the combined effects of multiple types of infrastructure to examine their impact on trade. For example, Nordås and Piermartini (2004) looked at the quality of ports, the density of airports with paved runways, and the density of internet users and of mobile phone subscribers. They showed that port infrastructure matters for all sectors, while timeliness and access to telecommunications matters most in the clothing and automotive sectors.

### *Energy and electricity*

OECD (2012) showed that electricity access appears to be a main constraint on trade expansion, particularly lack of reliability. Improving the reliability of electricity by 10% increased trade openness by almost 2% on average. The impact was larger on exports (2.4%) than on imports (1.7%). Zanzibar, together with the Union Government (of the United Republic of Tanzania) and Norway, provided NOK 400 million to finance the installation of submarine cables connecting the electricity grid on the Island of Pemba (in the Zanzibar Archipelago) to Tanzania. The 78 km cable will replace three diesel generators and increase electricity reliability, providing more efficient electricity to inhabitants for the next 20-25 years. This has had downstream effects: the availability of electricity made it feasible for the private sector to invest in a new hotel, with concomitant benefits for tourist export earnings [Tanzania, 135]. New employment opportunities, such as in hotels, were also mentioned as a result of the regional integration of energy grids between Benin, Nigeria and Togo under the NEPA-CEB Interconnection Project connecting Nigeria's power grid (NEPA) with that of Benin (CEB). One direct way in which the additional electricity benefitted trade was by providing farmers with refrigeration. This allowed them to preserve produce longer, giving them time to reach new markets with better quality goods. Nigeria, in particular, benefitted from the revenues of energy exports to the other two countries [Africa, 1].

El Salvador's FOMILENIO project is an integrated rural development initiative that focuses on human development (through education and training), productive development (through technical assistance in entrepreneurial development) as a result of investment in and loans to in six productive chains, and connectivity (through the construction of the Northern Longitudinal Highway), combined with investments in rural electricity. In total, 950 solar panels and 634 km of new electricity cables were installed, connecting more than 7 000 new rural households. The case story reports that an average of USD 41 was saved per family per year on electricity bills. Financed by the United States Millennium Challenge Corporation, the project has raised incomes, generated employment, and improved the rate of technological adoption [El Salvador, 233].

### *Roads*

Improving roads is a common theme in the case stories. Kazakhstan and Kyrgyzstan collaborated to rehabilitate 226 km of road between their respective capitals, Almaty and Bishkek. The project was coupled with technical assistance to improve customs facilities, including new equipment and training for customs officials. The Asian Development Bank (ADB) and the European Bank for Reconstruction and Development (EBRD) financed the roadwork, implemented by the ministries of transport and communications

in the two countries. The EU's Transport Corridor Europe-Caucasus-Asia programme provided a parallel grant for customs reform. The project had numerous benefits: best practices were introduced into road planning and construction; and new livelihoods were opened up along the corridor, such as retail shops, taxis, car washing, roadside cafes and hair salons. Border crossings increased by 38% annually between 2000 and 2007, traffic volumes rose by 25% (relative to 1998), and Kyrgyzstan's exports rose by 160% [Kazakhstan and Kyrgyzstan, 10]. In Croatia, with partial financing from European development banks, a motorway of almost 150 km linking the capital, Zagreb, with the country's largest port, Rijeka, was completed in 2008. The volume of traffic to and from the port has risen in terms of both passengers and goods [Croatia, 228].

The United Kingdom submitted a case story on the North-South Corridor programme, a flagship programme of the COMESA-EAC-SADC Tripartite supported by TradeMark Southern Africa. This regional programme aims at assessing the rehabilitation and maintenance needs of the North-South Corridor road network. A noteworthy feature of the programme is an interactive global information system (GIS) map that allows anyone visiting the website ([www.trademarksa.org](http://www.trademarksa.org)) to access a constantly updated database on the roads of the North Corridor. The case story argues that the success of a regional aid for trade programme in reducing cross-border trade depends on the strength of regional institutions, as well as in solid technical and financial assistance [Southern Africa, 149].

In the Mekong Delta region, the governments of Lao PDR, Thailand and Viet Nam launched an effort in 1998 to connect their respective road networks in order to expand trade. With the support of the Asian Development Bank (ADB), the project identified critical road links necessary to expand regional trade among the three countries. To support transport and facilitate trade, the authorities reached a Cross Border Transport Agreement (CBTA) that covered nearly all aspects of goods and services flows, including customs inspections, transit traffic, and road and bridge design. As a consequence, average trade value rose by more than 50% to USD 142 million in 2006-07 compared with USD 93.5 million in 1999-2000. Average travel times were cut by half along the corridor. Time spent crossing selected borders also fell by 30-50%, and the average number of vehicle crossings per day increased. In June 2009 a CBTA allowed the issuance of licenses for some 500 trucks to operate along the corridor without trans-shipment fees [Asia and Pacific, 9].

A case story submitted by the Islamic Development Bank (IsDB) describes the Silk Road Project in Azerbaijan. This project sought to provide a direct land transport service by rehabilitating and reconstructing the Silk Road section of the Transport Corridor Europe-Caucasus-Asia (TRACECA) programme. The project involved more than 500 km of roads. The case story highlights that organising and implementing a project of such dimensions is a complex task that is rendered more difficult if local governments need to reach out to various donors, each of which has its own *modus operandi* [Azerbaijan, 74].

The WTO Academic Chair at the Mohammed V-Soussi University in Rabat, Morocco, submitted a case story on Morocco's national programme for the development of transport infrastructure in rural areas. This case story examines the mobilisation of resources from the AfDB, the AFD, the Arab Fund for Economic and Social Development (AFESD), the European Investment Bank (EIB), the Japan Bank for International Cooperation (JBIC), the Kuwait Fund for Arab Economic Development and the World Bank to support construction of rural roads. Despite some problems related to unforeseen costs and institutional co-ordination, work has proceeded smoothly, allowing

a larger share of the local population than initially forecast to benefit from the programme [Morocco, 82].

Another case story underscored the importance of linking infrastructure investments to design safety in highway construction and driver and pedestrian education. The United Nations has noted that “road crashes claim the lives of more than 1.3 million people and at least 50 million people are injured on the roads every year” [Global, 236]. Similar issues were raised by the UN Economic and Social Commission for Western Asia (ESCWA), with the addition of the need to focus on harmonising institutional frameworks in the transport sector [Asia, 238]. A case story from Africa, which has particularly high road casualty rates, argued for setting up more adequate information systems, a clear locus of government accountability, regional targets for reducing casualties, public education, and improved road design [Africa, 229].<sup>9</sup>

The case stories also contain cautionary tales. One story noted that improved road infrastructure in the Central America-Mexico corridor *could* lead to the increased spread of disease, most worrisomely HIV/AIDs, if appropriate policies are not adopted [Central America, 3]. In Africa it has been shown that transport schemes that incorporate health measures at the programme or project level can slow the spread of disease significantly. Only recently have similar initiatives been incorporated in Central American road projects, and these are too new to be evaluated.

### **Ports**

Efficient ports are also essential to trade. Wilson, Mann, and Otsuki (2003), in their study on trade facilitation in APEC, used a measure of port efficiency (an amalgamation of port efficiency, port facilities and air transport efficiency) in a gravity model and then carried out some simulations; they found that bringing below-average countries on the index up to the APEC average would produce USD 117 billion in additional trade within APEC.<sup>10</sup>

Fiji provides an example of how improving port services can be essential to boosting trade. The government, with support from the ADB, invested in the ports of Suva and Lautoka on the island of Viti Levu. Originally built in 1963, the port facilities were run down by the time the project commenced. They failed to meet modern standards and had insufficient space for container cargo. The project figured prominently in both the government’s Strategic Development Plan 2003-2005 and the subsequent ADB programme. As a result, investments led to an increase in turnaround times and productivity improved from 5.2 to 8 containers per vessel-hour. Moves of cranes per hour nearly doubled from 11 to 20 [Fiji, 29].

### **Railways**

Adequately functioning railways are fundamental to effective participation in regional and global trade. Governments are just beginning to look for new ways to revitalise this type of infrastructure, often through public and private partnerships. Establishing well-functioning arrangements, however, is not easy and results are not automatic (Fischer, 2011). The success of any revitalisation effort hinges on getting designs right for anticipated volumes and speeds, getting operating regulations right to encourage full utilisation based upon adequate maintenance, and getting incentives right through correct pricing, investment provisions, and clearly stated obligations. A case story submitted by TradeMark Southern Africa reports that efforts to privatise railways in Southern Africa between 1990 and 2005 through long-term concessions, often with donor support, largely

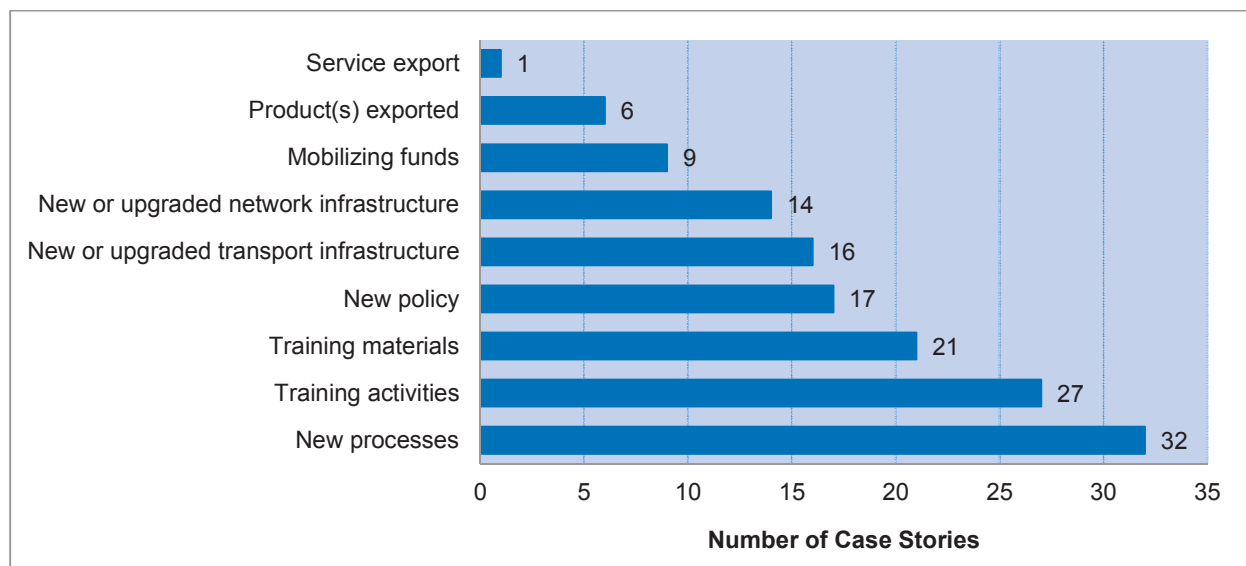
failed – mainly because of process and design flaws. The process took much too long, funding provisions were inadequate, the agreements were generally weak, and the choice of concessionaires was often poor in that there was a lack of serious bidders with appropriate skills and resources [Africa, 144].

## Conclusions

Anderson and van Wincoop (2004) found that trade costs for developing countries can sometimes be twice as high as in developed ones. This chapter has looked at how investments in soft and hard trade-related infrastructure have led to new and improved policies, mechanisms and processes as well as better transport and network systems. Extensive delays in transporting and clearing goods at the border are a significant source of trade costs. In the sub-category of soft infrastructure, the integrated trade facilitation programmes in Mozambique [175] reduced clearance times from 30 days to 2-5 days. In Mongolia [260], a customs reform led to a 90% reduction of export clearance times. However, the impact on trade of these reductions of time is not always straightforward. The case stories mostly have not yet been able to assess the long-term impacts of the programmes and projects described.

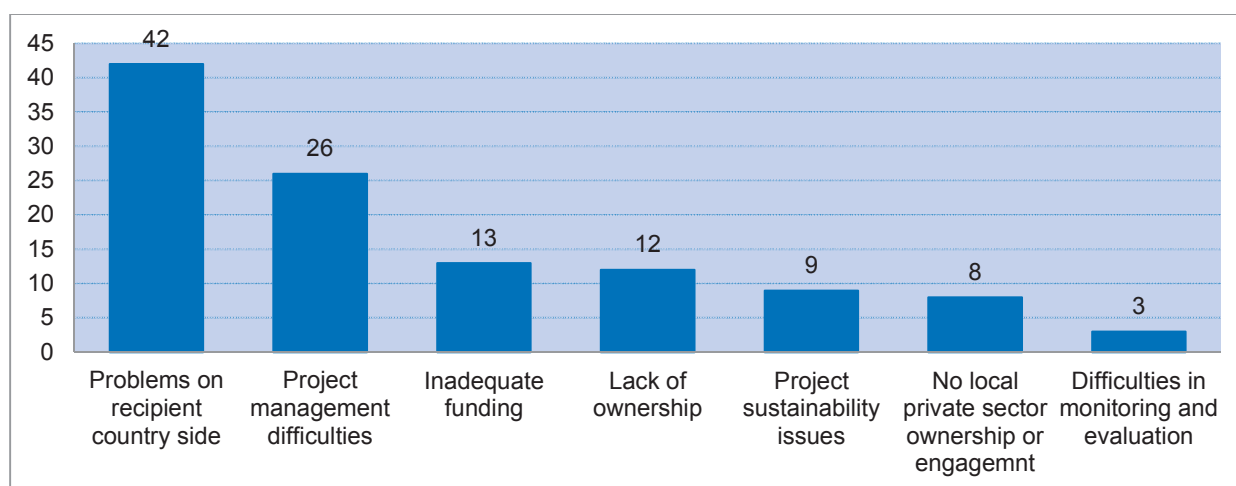
Figure 2.6 shows the number of case stories that report specific impacts. In a majority of cases, successful outcomes were reported in improving administrative trade processes and reducing clearance time at borders; many programmes also made good progress in training officials, particularly customs officials. Overall, this progress in terms of soft infrastructure has been seen to contribute to an improved business climate. In addition, a minority of cases focused on initiatives to improve hard infrastructure, where success was reported in fields such as transport and communication networks, contributing to faster movement of goods and communication. Relatively few of the stories referred explicitly to increased trade as an outcome, although this may be because of the time lag necessary to experience the actual effects of trade facilitation programmes and projects on trade flows.

**Figure 2.6 Specific results reported in the trade facilitation case stories**



The richness of the case stories lies in the fact that they were not meant to be technical reports on the results of programmes or projects, but to solicit information about what stakeholders consider are factors of success and failure. Some of the problems mentioned in case stories were recurring. Figure 2.7 shows how many times a problem was mentioned. Overall, the one mentioned most often related to conditions in the recipient country, including challenges such as inadequate staffing, high staff turnover, lack of local financial resources and political instability. These conditions were also cited most often in the case stories submitted by the governments who benefitted from aid for trade facilitation. The second most cited problem related to project management difficulties, including the lack of flexibility in case of exogenous factors that delay the implementation of a programme or project, or insufficient co-ordination between donors and recipients or donors' co-ordination.

**Figure 2.7 The problem cited most often in the trade facilitation case stories was unfavourable conditions in the recipient country**



Source: OECD/WTO (2011), Aid for Trade Case Story Database, [www.oecd.org/aidfortrade/casestories.htm](http://www.oecd.org/aidfortrade/casestories.htm).

Although the impact of trade facilitation programmes and projects is not extensively reported in the case stories, the case stories that did mention results such as improved processes, training of officials, reductions of border clearance time, and improved business climate conveyed a positive message on the overall effects that such initiatives can have on trade expansion and economic growth. Achieving these results is strongly dependent on national ownership and political support at the highest levels: “presidential support was key to securing agreement and co-operation between ministries” [Kyrgyzstan, 186]. The case stories also highlighted the challenges of large-scale programmes and projects that involve not only several countries, but also multiple government agencies. However, they also indicated the great potential of such investments.



## Notes

1. A further six case stories were submitted after the final deadline for submission. These case stories can be consulted on the joint OECD-WTO website: [www.aid4trade.org](http://www.aid4trade.org).
2. Methodological problems abound in studying this relationship. Association by itself does not demonstrate causality, and the better studies employed lagged variables and other techniques to strengthen conclusions. Much of the empirical literature on the relationship of infrastructure to trade is based on the “gravity model”. This model applies cross-country regression equations to bilateral trade among all trading partners and takes into account the volume of trade, controlling for the size of the respective economies and the distance between them. For example, two large countries will normally have greater bilateral trade than two small countries, all the more so if they are close to each other. The gravity model provides a way to control for expected trade levels and then measures the impact of other variables on trade volumes.
3. Tunisia’s USD 50 million export development programme, funded by the World Bank, included a market access fund, a pre-shipment export finance guarantee facility, improved logistics management, and a customs procedures efficiency project.
4. With support from the Belgian government, the United Kingdom’s Department for International Development (DFID), the German Technical Cooperation Agency (GTZ), the International Monetary Fund (IMF), the Rwanda Revenue Authority and the World Bank.
5. Includes only customs procedures, not physical clearance or movement of goods.
6. They took as an infrastructure indicator four components: the density of the railway per square km, the density of road and of paved road per square km, and the number of telephone mainlines per capita. This indicator has been widely used by other researchers to proxy for the quality of infrastructure cost, and thus the cost of transport and communication. See Carrère (2006).
7. Limão and Venables (2001), page 452.
8. Wilson, Mann and Otsuki (2003), page 16.
9. The World Health Organization (WHO) and the World Bank, working with other agencies, have mounted a major initiative on road safety. See WHO and World Bank (2004).
10. Wilson, Mann, and Otsuki (2003), page 16.

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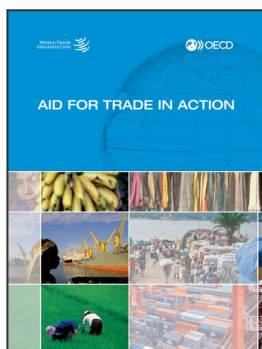
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