

Unclassified

TD/TC/WP(2003)11/FINAL



Organisation de Coopération et de Développement Economiques
Organisation for Economic Co-operation and Development

30-Jul-2003

English - Or. English

**TRADE DIRECTORATE
TRADE COMMITTEE**

Working Party of the Trade Committee

TRADE FACILITATION REFORMS IN THE SERVICE OF DEVELOPMENT

**TD/TC/WP(2003)11/FINAL
Unclassified**

English - Or. English

JT00147856

Document complet disponible sur OLIS dans son format d'origine
Complete document available on OLIS in its original format

Acknowledgement

This paper was mandated by the Working Party of the OECD Trade Committee to support ongoing discussions in the WTO Council for Trade in Goods in the area of trade facilitation. It has been prepared by Evdokia Moïsé of the Trade Directorate under the supervision of Anthony Kleitz and is declassified under the responsibility of the Secretary-General. This document can also be found on the following website: www.oecd.org/ech/tradepolicy/tradefacilitation

Copyright OECD, 2003

**Application for permission to reproduce or translate all or part of this material should be made to:
OECD Publications, 2 rue André Pascal, 75775 Paris Cedex 16, France**

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS	4
EXECUTIVE SUMMARY	5
I. Introduction.....	6
II. The drivers of reform	7
III. Designing efficient reform programmes.....	13
IV. Quantitative reform results	20
V. Trade facilitation as a development tool	24
REFERENCES	25

Boxes

Some examples of global reform costs.....	15
Peru: Embracing the Digital Domain	17
Singapore TradeNet - Costs and benefits	23

ACRONYMS AND ABBREVIATIONS

ABAC	APEC Business Advisory Council
APFC	Asia Pacific Foundation of Canada
AsDB	Asian Development Bank
ASYCUDA	Automated System for Customs Data Processing
BDV	Brussels Definition of Value
CBR	Central Board of Revenue
CEMP	Customs Expansion & Modernisation Programme
DFID	UK Department for International Development (formerly ODA)
DTRE	Duty & Tax Remission for Exporters
FAST	Flexible Anti-Smuggling Team
FoB	Free On Board
GoP	Government of Pakistan
IOC	Input Output Co-efficient
IOCO	Input Output Co-efficient Organisation
IT	Information Technology
LAC	Latin American and Caribbean countries
MIS	Management Information System
MoF	Ministry of Finance (Angola)
MoFP	Ministry of Finance and Planning (Mozambique)
ODA	UK Overseas Development Administration (now DFID)
PRINCE	Project Management in Controlled Environments
PSI	Pre-Shipments Inspection
SAD	Single Administrative Document
SIU	Staff Irregularities Unit
SME	Small & Medium-sized Enterprise
SRC	Survey & Rebate Cell
TEPI	Trade, Export Promotion and Industry Initiative
UMA	Angolan Technical Unit for Customs Modernisation
UTRA	Mozambique Customs Rehabilitation Unit
VAT	Value Added Tax

EXECUTIVE SUMMARY

The aim of this paper is to deepen understanding of the costs and benefits of trade facilitation for developing countries -- as well as the costs of *not* undertaking trade facilitation. It focuses more particularly on Customs operations and Customs reform undertaken recently in a number of developing countries, reviewing the key problems that such reforms have sought to overcome, the approaches that concerned countries have adopted to address them, and the results which reforms have produced. The discussion is supported by illustrative country case studies, exploring in further detail the rationale, the methods and the results of reform.

Customs administrations in a number of developing countries have undertaken important reform endeavours in a context of significant changes in their operating environment in recent years. Increases in trade volumes and trade complexity have amplified demands on them and laid bare the inefficiencies of outdated modes of operation. The need to maintain revenue yield, to improve government performance and to respond to budgetary constraints has fuelled a number of ambitious programs to rethink the Customs function. Many of these programs were part of wider structural reform programs to redefine the role of the state and open the country's economy.

A series of pressing symptoms of malfunction have provided concerned countries some strong incentives to evolve. These were mainly unsatisfactory revenue collection and smuggling problems; corruption problems; heavy transaction costs for business; poor export competitiveness and investment attractiveness; and difficulties in implementing trade policy. Revenue enhancement appears as the strongest incentive for customs reform, as revenue loss in some countries was estimated to exceed 5% of GDP. Furthermore, transaction costs imposed on businesses by inefficient customs operations were found to offset the competitive advantage of some countries due to their low labour costs.

The principal areas of reform were legislation, information management and the introduction of information technologies, human resource policies, organisational and institutional structure and enforcement procedures. The review, simplification and consolidation of the regulatory framework, together with the rethinking of the institutional framework are essential prerequisites for modernising the operation of Customs and other border agencies and introducing a stronger facilitation focus. On the other hand, human resources policies are critical for ensuring the sustainability of reforms. Information technology can be a significant efficiency-enhancing factor, but has to be carefully thought and preceded by a streamlining of the underlying procedures and practices.

Reform programmes have been more successful in some cases than in others. Successful reform endeavours in developing countries have produced some impressive results in terms of enhanced revenue collection and reduced operating costs, which often pay back quite quickly the investments made for Customs modernisation. Equally importantly, many of the internal efficiency-enhancing measures have a very clear trade facilitating effect. Properly identifying problem areas and coherently designing reform programs seem the essential factors for ensuring such success. A holistic approach to customs reform can yield more sustainable results in terms of trade facilitation than can a piecemeal approach.

TRADE FACILITATION REFORMS IN THE SERVICE OF DEVELOPMENT

I. Introduction

1. Trade facilitation and the benefits it can bring to the world economy as well as to individual countries has lately been the subject of considerable attention among OECD countries. A number of studies have attempted to produce broad quantitative estimates [see document TD/TC/WP(2001)21/FINAL "Business Benefits of Trade Facilitation"], while others, like the SITPRO study presented to the Working Party in 2002, focussed on elaborating methodologies for obtaining more accurate estimates with respect to a given country or product sector. All these studies focus specifically on the benefits of trade facilitation on business activity, or, for the quantitative estimates, on the wider impact on the world economy. However, the specific situation of developing countries and the impact customs reform in general and trade facilitation endeavors in particular may have on their economic welfare warrants some particular consideration. As developing countries seek ways to leverage trade for economic growth, policy tools and reform measures aimed at reducing border barriers to trade may provide a welcome tool for development.

2. This paper was drafted with the aim of deepening understanding of the costs and benefits of trade facilitation -- as well as the costs of *not* undertaking trade facilitation. It focuses more particularly on Customs operations and Customs reform, although some references are made to related areas, like port management, phytosanitary controls, or logistics¹. The country information used in the paper has been assembled by the Secretariat from publicly available documents of the concerned administrations and involved donor agencies, as well as from a number of original country studies commissioned by the OECD to Crown Agents, or made directly available to the Secretariat by the countries concerned².

3. The paper is structured along the following lines:

- Section II will discuss the main drivers that have motivated reform endeavours and the key problems which such reforms have sought to overcome.
- Section III will explore the types of institutional and resource-related weaknesses underlying the problems at hand and the approaches that governments have adopted to address them.
- Section IV will review the results which reforms have produced, in terms of improved revenue collection, enhanced management efficiency, reduced clearance times and business burden, as well as investment attractiveness.
- Section V will conclude.

1. In this sense the focus is partly broader, partly narrower than the scope of trade facilitation discussions in the WTO: broader, because the reviewed reforms were not only aimed at facilitating trade but more generally at enhancing state efficiency; narrower, because, while efficient facilitation goes beyond Customs reform, the rethinking of other border procedures is not sufficiently documented to allow appropriate analysis in this paper.

2. Information and data in this study refer to the following countries: Angola, Argentina, Azerbaijan, Bangladesh, Cambodia, Chad, Chile, Colombia, Egypt, Georgia, Ivory Coast, Lebanon, Madagascar, Malawi, Mauritania, Mozambique, Nepal, Peru, Rwanda, Singapore, Tanzania, Uganda, Zaire and Zambia.

II. The drivers of reform

Building momentum

4. Customs is one of the oldest government institutions. Until recently modes of operation had changed very little over time in most countries, developed and developing. In the last decades however, customs administrations have undertaken important reform endeavours and gradually adopted substantially different modes of operation, or even different operating philosophies. The compelling reason behind such transformation in recent years was a significantly changed operating environment both for government agencies overseeing international trade and for the business community involved in it. A number of factors are of particular importance:

- ***Steady increases in trade volumes*** – a consequence of the reduction of tariff and other trade barriers during successive GATT rounds. As a result of trade liberalisation, the volume of international trade has expanded, relative to the size of many national economies.
- ***Increases in trade complexity*** – whereas in the past international corporations might have sought to identify the most cost-effective location for manufacturing a finished product, today the pressures of globalisation are forcing multinationals to use different locations for the manufacture of sub-components that can then go into a final product. Free trade agreements and preferential trade arrangements have introduced additional complexity in the trade management process and imposed escalating demands on Customs resources through the proliferation of complex and burdensome rules of origin for conferring preferential status.
- ***Increased trade velocity*** – modern supply chain management techniques and the rapid spread of new information technologies, the internet and e-commerce, have increased the use of ‘just-in-time’ manufacturing. In this environment, businesses cannot afford to have imported or exported goods tied up for long periods because of unnecessary or over-complicated trade procedures and requirements.

5. As a direct consequence of these factors, national customs authorities and other border agencies have to process ever higher volumes of trade, whilst at the same time the demands and expectations of the international business community have risen dramatically. In these circumstances, even operating methods that used to be satisfactory prove largely inadequate and need to be rethought, while the problems posed by methods that were already sub-optimal are exacerbated. With levels of international trade increasing, so the economic consequences of outdated or excessive border regulations that delay or impede the movement of goods become ever more apparent.

6. Motivations behind the change are basically the same across countries. A “harmonising” factor has been the business community, whose globalised demands are a significant driving force for Customs change. According to a recent WCO survey, some of the most important factors motivating customs reform have been the economic integration of the country into free trade agreements or customs unions; the international trade liberalisation and the increase in trade volumes; the changing role of the State and the need to improve efficiency in government agencies; the impetus of structural adjustment programs to restore fiscal equilibrium; and the implementation of new taxation regimes.

7. Among developing countries in particular, international trade liberalisation and expanding trade volumes are seen as the essential factor for reform. The goal to diversify existing indirect tax regimes in order to maintain revenue yield and the need to improve government performance and respond to budgetary concerns are two other essential factors for these countries. Given the capacity constraints of developing countries, increased drugs and security threats are also important (if lesser) priorities.

8. Past and ongoing customs and trade facilitation reforms in developing countries are often driven by general economic motivations, based on the acknowledgement that customs and border procedures can play a central role in the country's economic welfare. In Lebanon, Customs reform was part of a wider Revenue Enhancement and Fiscal Management Project. The project was undertaken in 1995 in order to rehabilitate the management of the Ministry of Finance, targeting internal taxation and customs, so as to regain the country's trade competitiveness in the region through reforms focussing on trade facilitation. The customs component of the project was aimed at increasing the efficiency of the customs administration, thus encouraging trade activity, including exports, increasing customs revenues, reducing business costs, and facilitating the formulation of trade policy.

9. If we take a closer look at Latin American and Caribbean (LAC) countries we can see that Customs reform has been a central feature of wider, and quite ambitious, structural reform programs since the mid-1980s to liberalise and open the countries' economies, redefine the role of the state, enhance competitiveness and democratise the political processes. Trade reform, coupled with the renewal of capital inflows and economic reactivation, contributed to an import trade boom (the value of imports were growing at a rate of 18% per annum prior to the Asian crisis) and a significant shift from the old strategy of import substitution. The growth of international trade substantially increased the workload of the Customs in every country of the region and it was obvious that many of them did not have the capacity to respond with the required speed. This highlighted the need for profound changes in Customs operation, also in order to enable the Customs to play a positive role in the overall process of trade liberalisation and investment attraction. It emphasised the need to change the mentality and attitude of the staff of customs as an institution- traditionally organised on the idea of revenue collection - to a service oriented approach in line with the trend toward economic liberalisation. This phenomenon began at the end of the 1980s in the LAC countries and continues since.

10. For instance, Chile initiated a customs reform program as part of a larger Plan for Modernising the Public Administration in the early 1990s. It was widely recognised that customs reform was a high priority for a compelling reason: the cumulative expansion of foreign trade between 1990 and 1998 was 142% in real terms. In addition, during this time frame Chile pursued a number of free trade agreements, each one featuring a unique set of complex rules of origin, and calling for significant resources in order to be properly administered and verified. The introduction of trade facilitation measures represented one of the only practical ways to relieve the pressure on an overworked bureaucracy.

11. Another driving force behind customs reform in developing countries is development assistance projects promoted by international aid agencies. Experience shows that such projects can build important momentum for reform, provided that the need is also felt at the national level and concerned administrations assume ownership over the project (see also Section III). In the early 1990s, the adoption by Egyptian Customs of information technologies and new logistics, such as just-in-time inventory control, were primarily supply driven by international organisations in an attempt to exploit development aid funds allocated. However, lack of awareness at the domestic level of the potential business impact of such technologies, and lack of domestically rooted demand-driven initiatives delayed serious developments to establish national value-added service networks in Egypt.

12. Finally, in countries where customs reform and trade facilitation have produced significant benefits, the whole process of change, automation and improvement appears to create its own momentum. This momentum is usually generated not only by the expectation of further positive returns but also by the establishment of a culture of excellence among committed individuals and groups, modelled against the example of the various entities who designed and implemented the reforms in the first place. Wide reaching and successful customs reform and trade facilitation initiatives in Peru have enabled the Customs Administration to obtain in December 1999 ISO Quality Management Certification 9002. This achievement, combined with high levels of existing automation and transparency, has been critical for the recent launching of Second Generation reforms in Peruvian Customs.

Addressing key symptoms

13. The changed operating environment brought by globalisation and trade liberalisation not only exacerbates but also highlights a number of structural problems in the operation of Customs and other border agencies. In countries undertaking reforms, a series of quite pressing symptoms of malfunction have brought forth an equally pressing acknowledgement of the need to evolve. These symptoms, which have provided the strongest incentives for reform efforts, were mainly:

- unsatisfactory revenue collection and smuggling problems
- corruption problems
- heavy transaction costs for business
- poor export competitiveness and investment attractiveness
- difficulties in implementing trade policy.

Unsatisfactory revenue collection and smuggling problems

14. In developing countries Customs are often the largest contributor to the State budget. Yet, in some of these countries lost revenue may be extremely high because of inefficient customs mechanisms for revenue collection. In Bangladesh it was calculated that before the reform economic losses from inefficiency in Chittagong Port amounted to as much as 5 % of the value of goods passing through the port – a sum that exceeded \$600 million a year. The revenue loss to government from corruption and inefficiency in the customs and income tax departments was estimated to exceed 5 % of GDP, without counting the real costs to the economy arising from the resulting discouragement of potential investors. In Zaire a thriving informal economy is estimated to generate yearly fiscal losses of the order of \$400 million in foregone taxes and Customs fees.

15. A review of past reforms in developing countries, including the country cases described in Section V, shows that revenue enhancement appears as the strongest incentive for Customs reform. As tariff rates decrease through ongoing trade liberalisation, successfully addressing the problem of revenue collection may help maintaining much needed revenue. In Peru, prior to the Customs reform initiated in 1990, fiscal revenues from Customs represented only 23% of the total fiscal revenue of the State (\$626 million for the year 1990), despite quite high duties ranging from 10% to 84% of the value of imported goods. Following the reform, Customs contribution to national fiscal revenue increased to 35%, thanks to a four-fold increase of Customs revenue to \$2723 million in 1996 and despite the reduction of duties from 15% to 25%. This suggests the extent to which previous revenue collection was below potential.

16. In the cases of both Angola and Mozambique the explicit goal was to raise revenue collection levels. The civil wars experienced by the two countries had a disastrous impact on customs' performance, and as part of the reconstruction effort both the Angolan and Mozambican authorities considered it essential to take drastic measures to boost public revenues.

17. Lost revenues can be due to understatement of the customs value of consignments, smuggling of goods into the country, especially in the case of high-duty goods, or diversion of collected revenue into corrupt officials' pockets. The lack of efficient detection mechanisms and the insufficiency of sanctions in the rare cases where fraud is detected generate and aggravate opportunities for smuggling and commercial fraud. Customs in a number of developing countries often lack separate anti-smuggling units and the problem is further compounded by the absence of co-ordination of anti-smuggling activities between the various units, as had been the case in Peru. Furthermore, penalties are frequently insufficient to act as a deterrent to fraud, so that in the presence of costly formalities it may be financially more rewarding for traders to evade Customs, as shown in the Angola case. Such situations may be all the more damaging as they put importers who actively seek to comply with customs requirements at a competitive disadvantage.

18. A number of developing countries choose to address valuation problems through the use of pre-shipment inspection (PSI). However, PSI may offer little help if not matched by more general efficiency enhancing measures. The introduction of a PSI scheme in Mozambique without parallel enhancing of the technical and institutional capacity of the Customs administration did not stop revenue collection from collapsing in 1995. In Cambodia importers frequently choose to clear dutiable goods directly through Customs, despite a PSI circumvention penalty of 7% on the c.i.f. value of the goods. It appears in this case that potential gains from Customs fraud are large enough to counterbalance the 7% surcharge of the penalty.

19. The prevalence of smuggling despite the risks and costs it entails is frequently a reflection of the high level of transaction costs applying in the formal sector. The phenomenon may take alarming dimensions in certain countries accumulating high tariff rates, substantial red tape and inefficient administration. The challenge there is to reduce tariff and non-tariff costs to a level where smuggling would no longer be worthwhile. In addition to the impact on State revenue collection, smuggling into the country of goods that are also produced domestically and pay local taxes may strongly discourage investment. Shadow or illegal imports into Georgia are estimated to amount to somewhere between 30-70% of the total domestic demand for some commodities. Smuggling of beverages, petroleum and milk products into Cambodia is estimated at approximately \$35 million of foregone revenue. Comparisons of ship manifests with import declarations suggest that only 25% of the volume of goods being shipped in Cambodia and not subject to PSI are being declared to the Customs and Excise Department for entry. It is also believed that as much as 80% of the cigarettes imported into Cambodia are smuggled into Vietnam.

Corruption problems

20. In many developing countries, corruption in customs administrations is strongly encouraged by the combination of very low salaries and wide opportunities for rent seeking. The Integrated Framework study for Cambodia indicates that the low level of the average annual civil service salary (only 1.1 % of the GDP per capita in 2001 and, at \$0.60 per day, well below private sector wages even for unskilled workers) creates substantial pressures to engage in additional income generating activities just to meet basic household expenditures. The opportunities to raise income offered by customs administration posts, in particular at the border, are reflected in the informal price ('concession fee') required to secure a customs border post. Some of these posts are bought and sold on the understanding that they provide access to charging for clearance services. The value of the concession fee is rumoured to have increased significantly from \$2000 a few years ago to \$10000 today, and the successful bidder recovers the cost by

subjecting traders to informal fees for clearance. Conversely, the success of the reform endeavour undertaken by Peru is partly attributed to the increase of salary levels coupled with a clear policy of enhancing the corporate identity of Customs staff, so as to make them personally proud of the institution's successes.

21. The most immediate problem posed by corruption is the significant drain on public revenue, in parallel with the surcharge imposed on trading businesses. Payments that end directly in Customs officials' pockets are believed to represent considerable amounts, although it is not possible to distinguish within revenue collection problems the part that is due to corruption from that due to smuggling and general bureaucratic inefficiency. Furthermore, government services related to the clearance of imports and exports come generally at an additional informal "facilitation" cost, beyond what is normally officially required. According to the above mentioned IF study, in the ports of Sihanoukville and Phnom Penh informal payments, believed to be around \$200 to \$300 per vessel, are necessary to encourage customs and immigration services to operate beyond 5pm, despite the fact that both ports are equipped to handle vessels 24 hours a day. Such surcharges on imports usually end up as an additional burden on the importing country consumers, including productive sectors in the country which use imported inputs, while in the case of exports they severely hamper the country's export competitiveness. In either case they primarily victimise the country's own economic welfare.

22. However, insufficient revenue collection and additional taxing of trading activities are not the only damaging effects of corrupt practices. In a 1996 joint review, UNCTAD and the World Bank noted that *"the key facilitation problem is not the danger to effective controls posed by practices in which irregular payments can move goods through the strictest regulatory systems, nor the extra unofficial charges levied on innocent as well as fraudulent traders, but rather the logical obligation to maintain unnecessary complexities and foster endemic delays for the general run of consignments, so as to justify bribes for exceptional simplifications."* The need to preserve rent-seeking opportunities for corrupt officials creates an incentive for physical inspection of all consignments and a serious disincentive to selectivity through application of risk management techniques. Through this mechanism, a number of essential trade-facilitating and efficiency-enhancing measures will stand little chance of being implemented, less because of the budgeted cost of introducing them and more because of their lost-profits effect on a constituency which will oppose any change to the status quo.

Heavy transaction costs for businesses

23. Informal "fees" for importing and exporting business, as well as indirect costs on the domestic productive activity are further compounded by the direct and indirect transaction costs generated by the complexity of documents, increased procedural delays and the lack of regulatory transparency and predictability (a detailed discussion of the components of direct and indirect transaction costs on businesses can be found in the OECD study on the Business Benefits of Trade Facilitation [TD/TC/WP(2001)21/FINAL]). In the ABAC/APFC Survey on Customs, Standards and Business Mobility, Customs procedures were identified by business people as the most serious trade impediment in the aggregate results, with 53% of total respondents describing the issue as a *very serious* or *serious* problem. This was the case for 55% of respondents in the manufacturing sector, 50% in the service sector, 60% in the primary sector and 69% of respondents in developing economies, as opposed to 39% of respondents from developed economies. Among customs issues the most problematic for 52% of business people was the complexity of customs regulations, with the lack of information on customs laws, regulations, administrative guidelines and rulings rating second (49% of respondents) and problems with the mechanism for appealing customs decisions third (43% of respondents).

24. Customs procedures and institutional interference play a significant part in excessive delays at ports and border posts, although inefficiency factors are by no means limited to Customs. Inefficiencies in port management are frequently a significant factor. In India port equipment is reported to remain idle about 20% of the time, while the port of Baku in Azerbaijan is estimated to currently only utilise 13% of its total capacity. Interface points between transport modes and transshipment can also generate quite lengthy immobilisation of consignments, as shown by the transit time between the container terminal and the port gate in Abidjan, where the normal-standard half-day can frequently be as long as 20 days depending on the handling agent.

25. Excessive physical inspection of consignments slows considerably the movement of goods through Customs. In Peru, the high inspection rate of 70% to 100% applied before the reform, combined with paperwork-intensive systems, used to result in clearance times ranging from 15 to 30 days. In Cambodia, despite average vessel turnaround time of 10-12 hours, customs clearance still takes about 8 days for imports and 10-14 days for exports. In addition to significantly slowing down the movement of goods, physical inspection taking place at ports instead of at the point of packing or unpacking containers defeats the very concept of containerised movement: the integrity of the container is completely breached, contents are more open to damage and theft during inspection and subsequent handling than conventional general cargo because of their lighter packing and protection, one of the major advantages of containerised transport. Modern container stuffing methods are now so specialised that, once a container is breached and items are extracted for inspection, customs or port/transport staff are often unable to replace all of its contents. In Nepal, where cargo is systematically decontainerised because Customs procedures, handling equipment and transport practices are not designed for container trade, the potential savings through facilitation of procedures and handling methods are estimated at around 7% for non-containerised and 13% for containerised cargo.

26. Studies conducted by UNCTAD in the 1990s in a number of developing countries, including Angola, Chad, Colombia, Côte d'Ivoire, Mozambique and Nepal, showed that the cost of immobilisation could account for over 50 % of the cost of a foreign trade transaction and that for average value commodities such transaction cost could reach up to 70 % of the cost of the product. In Zaire, inventory financing costs to the consignee from immobilisation were estimated at 24% of the total transit cost, adding to 8%, 3% and 1% attributable to banking charges, government controls and informal "facilitating" payments respectively. Long immobilisation was also found to generate losses and damage which were particularly extensive in the case of items in great demand (beverages, fuel, etc.). Recent estimates in Pakistan showed that reducing the immobilisation time of import containers between ships-rail and upcountry cargo delivery from 20-30 days to 5 days could result in US\$200 million savings in transit cost per year.

Poor export competitiveness and investment attractiveness

27. Although excessive transaction costs incurred at the border of a country may be a significant market access issue for foreign trading partners, they are perhaps more importantly a serious obstacle to bringing the country's production to the global marketplace. Transaction cost differentials may be quite significant for developing countries which compete with each other for export markets and for FDI on the basis of similar resource endowments, including advantageous labour costs. The diagnostic study undertaken for Madagascar under the Integrated Framework for Trade Related Technical Assistance has concluded that the constraints imposed by the inefficient functioning of Customs largely offset the competitive advantage of Madagascar as a manufacturing and export base due to its low labour costs. It is argued that an effective customs reform would help anchor export processing zone companies in Madagascar, integrate their value chains, and encourage further FDI.

28. In a parallel study conducted in Cambodia under the same framework, surveyed firms rate Customs and trade controls as the biggest barrier to exports. Garment exporters incur significant costs, as five different government agencies are involved in the process, undertaking at least three different inspections. Fixed informal costs of up to \$150 per consignment seem modest compared to formal fees paid to obtain certificates of origin. The costs of exporting one ton of rice comprise \$5 of formal fees (for phytosanitary inspection and rice handling) and \$9 of informal fees paid to each of the six agencies involved (Customs, quality control, phytosanitary inspection, economic police, border police and handling workers). In order to keep the export price for rice at a fixed level, these costs are translated into a 10-15 % reduction in the farmgate price of the ton of exported paddy.

Difficulties in implementing trade policy

29. Inefficiencies in customs administration not only affect revenue collection but also impact on Customs' capacity to collect data and compile external trade statistics. In Peru external trade statistics used to have an average delay of 10 years because of the very poor connectivity and largely manual system of collecting and transmitting information. In Mauritania there are strong discrepancies between national trade data and IMF and UN data, which indicate export values about 50% higher than national statistics, and nearly 100% higher for imports. Although poor trade information collection has certainly not the same economic impact as insufficient revenue collection or excessive transaction costs for business, it may generate serious difficulties in the implementation of trade policy, trade surveillance and trade monitoring, including with respect to contingency protection and wider macro-economic planning. The lack of accurate data also severely compromises the introduction of efficiency-enhancing risk management techniques in Customs. The lack of accurate statistics is further regretted by the private sector which could use such statistics for market analyses and marketing policy formulation.

III. Designing efficient reform programmes

30. In reaction to the symptoms of malfunctioning described above, reforms in developing countries have been aimed mainly at addressing a lack of efficiency, effectiveness and transparency. In most, if not all, cases they were targeted at the operation of Customs as a government institution and not at the impact on the private sector. However, successes in customs reform quickly translate into broader improvements in the area of trade facilitation. As clearly shown by successful and less successful reform endeavours, the essential first step is to correctly identify the problem areas that need to be addressed. It is widely agreed that one of the common causes of failed reform is inadequate or insufficient initial analysis or diagnosis. For instance, complexities in cross-border trade often owe less to the applicable regulatory framework and more to procedures and implementation approaches having developed over the years. A fair number of procedural burdens could thus be simplified without major legislative change but might, in contrast, call for a rethinking of the human resource policies applied by border agencies.

31. Operational problems may also have a number of interrelated causes which will need to be addressed comprehensively in order to ensure the success and sustainability of reform operations. Comprehensiveness and coherence are essential factors of success, although each and every reform project is subject to capacity constraints which do not allow for exhaustiveness. For instance, investments in infrastructure facilities and equipment will not reduce commercial transaction costs unless operations related to foreign trade are free from unnecessary institutional or physical interference. If goods movements continue being subject to a 100% physical inspection or have to count on several weeks of immobilisation in border crossings, transport infrastructure investments may add to a country's debt burden without contributing to cost-effectiveness of international trade transactions. On the other hand an improvement of transit procedures will fail to solve landlocked countries' problems if behind the border

the road and rail network remains virtually non-existent. Likewise it has been argued that changing the customs valuation process without overall customs reform is not likely to improve the predictability of the customs process, or mitigate significantly the potential impact of the customs process as a non-tariff barrier (Finger, 1999).

32. Consultations with internal and external “focus groups” are among the most promising methods for defining change requirements. In acknowledgement of this, many reforming countries have established permanent structures for consulting stakeholders. On the other hand, outside consultants were successfully used only when the Customs administration had a clear understanding of what they wanted them to do. The involvement of economic actors, in particular the trading community, is essential not only because policy makers can profit from their specific expertise, but most importantly because it encourages traders buying into proposed reforms. It is not uncommon for old, inefficient systems to unintentionally generate privileges and benefits for some traders, who may then hinder the government’s reform efforts in order to preserve those. In Pakistan, where the old duty drawback system effectively provided a “subsidy” to exporters by repaying sums that exceeded the duties collected at import, traders were not ready to support the process of reform that would suppress such advantages. The example of Pakistan shows how difficult it is to efficiently introduce reforms against the reluctance, or outright resistance, of the trading community.

33. To maximise potential benefits, a national strategy needs to take into account the context in which the development of reform policies is undertaken, including the country’s particular political and economic goals and constraints, the business culture and sectoral structure as well as the organisational domestic and international requirements that may influence or be affected by the adoption of the measures. It further needs to factor in infrastructural constraints (including applicable technical requirements and know-how) and the capacity to change. For any reforms driven by international endeavours, including in the WTO, such national strategy needs to instil a sense of ownership among domestic government and business stakeholders and a clear view of how best reforms can support their development efforts.

Targeting reform areas and the difficulties in the way to change

34. The principal areas where developing countries have focussed recent reforms were legislation, information management, human resources policies, organisational structure, and enforcement procedures. Some of these areas are more costly to overhaul than others, but costs seem to be recouped relatively quickly through successful reforms. This points all the more to the necessity of appropriately thinking and planning the reform strategy in advance. Many of these endeavours clearly require support through appropriate technical assistance from donor agencies and countries or through participation by the private sector.

Box 1. Some examples of global reform costs

- **Central and Eastern Europe:** Total budget allocated for PHARE customs modernization in the ten candidate countries: 90 million ecus for 1990-97, of which 70 million has been contracted (approx. US\$108 million and US\$84 million). Of these 42.74 million ecus were used for computerised declaration systems; 6.85 million ecus for anti-smuggling equipment (from x-ray equipment and gas chromatographs to communications equipment); 13.77 million ecus for training; and 2.35 million ecus for management;
- **Armenia:** US\$1.604 million, funded by the World Bank between 1993 and 1997, to draft a new Customs law, train staff and automate Customs procedures
- **Lebanon:** US\$3.82 million to train staff, introduce a new tariff classification and automate Customs procedures
- **Tunisia:** US\$16.21 million to automate and simplify Customs procedures
- **Tanzania (estimated):** US\$8-10 million over three years for a comprehensive reform of customs procedures, including computerisation (ASYCUDA, systems for warehouse inventory control and statistical reporting); valuation procedures (adopting the WTO system); speeding up cargo controls; refurbishing customs buildings; administrative reforms (establishment of a new division for valuation and classification, recruitment and training of staff, establishment of an appeals tribunal); legislative reforms (including the implementation of the Harmonised System Convention)

Regulation

35. Developing country administrations engaged in reform often reported being confronted with archaic legislation, obsolete Customs laws not designed to address the new dynamics of international trade, new transportation techniques and information technology, or legislative ambiguities open to conflicting interpretation. Prior to the reform in Angola there was a colonial legacy of 119 separate customs-related laws, surviving in parallel to more recent legislation, outdated, not consolidated and inconsistently applied. Reforming countries often review, consolidate and sometimes repeal existing legislation, aiming through deregulation to substitute public legal interference with market-based commercial practices. In some cases they also introduce new Customs legislation to reflect new priorities and methods of carrying out the Customs function. Regulatory reform is often an opportunity for introducing provisions that comply with recently undertaken GATT and WTO commitments. The review, simplification and updating of the regulatory framework, together with the rethinking of the institutional framework are essential prerequisites for modernising the operation of Customs and other border agencies and introducing a stronger facilitation focus. Reform of legislation is the preferred avenue for expressing the political will for change and set the stage for the more difficult endeavour of institutional and human resources reform.

36. One of the first steps taken in this framework is the simplification of the tariff structure and associated arrangements, including trade preferences and duty exemptions. Many of the reforming countries used to have quite complex tariff regimes, including an important number of different duty levels (39 different levels in Peru, ranging from 10% to 84%, which the new Customs law reduced to only two tariff levels of 15% and 25%). Large differences in rates on the same goods from different sources also feed administrative problems including the scope for taking unofficial payments. The reduction of the number of tariff bands makes everyday Customs operations much easier and facilitates enforcement. Another important step is the introduction of WTO-compliant Customs valuation methods. In some cases,

like in Angola, once a proper valuation framework is in place and customs staff has been trained to it, the Customs may assume again responsibility for valuation and do away with pre-existing PSI schemes.

37. Regulatory changes are often required to authorise the operating methods brought by automated Customs procedures, including the issue of electronic signatures. Other areas relate to the banking and insurance operations. Amendments to the exchange control regulations may be needed in order to cover the use of multimodal transport documents in documentary credits issued and negotiated by national commercial banks. A change in the status and legal scope of freight-forwarders may be considered to give national operators easy access to the necessary foreign exchange required to operate as an international freight-forwarder. A change in policies concerning import/export insurance may also be required.

Information management

38. An important number of reforms in developing countries concerned the introduction of information technology to assist Customs data management and electronic data interchange. Many of these countries adopted ASYCUDA equipment and software, with the assistance of UNCTAD. In the case of Lebanon, the introduction of ASYCUDA to accompany the application of the International Harmonised System and of the Single Administrative Document (SAD), cost \$2.5 million in 1995. In the case of Cambodia, a similar amount was calculated in the context of the 2001 strategic plan for IT development and implementation in order to purchase and implement ASYCUDA or another off-the-shelf system such as the French SOFI, and not including the necessary staff training and resources to be able to locally maintain and upgrade the system. IT implementation costs should of course be viewed against the benefits IT systems bring in terms of increased revenue, which in the case of ASYCUDA were estimated at over US\$215 million in the Philippines, or US\$100 million in Sri Lanka.

39. The introduction of information technology in the Customs process can ease and support the introduction of efficiency- and facilitation-enhancing measures and is essential in the successful implementation of risk management techniques, but should not be conceived in isolation, nor seen as an aim in itself. It is necessary to have a global perception of how and why things are done in a certain way and reform underlying commercial and official procedures and practices before embarking on extensive computerisation. A sudden unprepared shift from manual to automated methods of handling without the necessary rethinking of the underlying framework entails a real danger of embalming outdated practices and primitive information flows in very expensive computer systems. Errors in this area can be very costly: the expense of setting up and operating an inefficient system, adds in to the transaction costs born by businesses. If these are official systems, which can make legal demands on businesses, then these electronic inefficiencies will be passed on and multiplied.

40. The technical infrastructure of automation involves not only information technology resources, but also telecommunications platforms and legislative aspects to govern inter-organisational relations. Automation endeavours can thus be seriously constrained by limited connectivity, variable reliability, high connection costs, and a poor general telecommunications infrastructure. In addition, although hardware and software can entail significant costs, they account for only a part of true corporate investment in information technology. An additional cost and challenge lies in what is often referred to as “*organisational capital*” and the importance of this factor in the success of automation is demonstrated by the success of the Peruvian Aduanet. Automation that has been “imported” without appropriate involvement and ownership by Customs staff may fail to participate in the overall modernisation of Customs processes.

Box 2. Peru: Embracing the Digital Domain

One of the most important projects implemented by the Second Generation Reforms in Peru has been the creation of a Customs Portal. Prior to the implementation of the portal, customs information online was only available through password-protected access to a limited number of approved parties. Other parties still had to submit their documentation by other means that were administratively burdensome. In order to overcome this inconsistency and offer a better service to all traders, it was decided to “...*optimise Customs services through the Internet, enter into the so-called ‘Global Information Society’ by massively applying and using information technologies, foster a culture of transparency in the state and the Peruvian society, reduce corruption risks, democratise government decisions through greater and enhanced user participation*”.

The first version of this initiative, Paperless Customs, was a success and led immediately to the more ambitious Digital Customs and Customs Portal versions. After introducing several legal changes required by this process, the Customs Portal www.aduanet.gob.pe was officially launched on January 26th, 2001. By listening to user feedback, it was quickly determined that the huge volume of information available was simply overwhelming users. Therefore it was decided to reorganise the existing data into three general categories:

- Infoaduanas provides detailed customs information for traders and agents, customs staff and the general public;
- Remate de aduanas provides complete information concerning the auction of unclaimed and abandoned goods;
- Compras de aduanas contains public information concerning the procurement of goods and services by Customs.

The programme was entirely designed and implemented internally, which substantially reduced its final cost. Peruvian Customs are justifiably proud of this achievement, which demonstrates the success of first generation reform in the area of human resources. The total development costs amounted to \$557,935, broken down as follows:

Development personnel (7 p)	\$9825,00
Internet server	\$6800,00
Web motor (Java Web server)	\$650,00
Java development software	\$120000,00
Firewall (security system)	\$412000,00
7 Computer terminals Pentium III	\$8400,00
Other costs, incl. maintenance	\$800,00

The Customs Portal has been an important facilitation measure. On a practical level, it has drastically reduced paper and stationary costs for customs. More importantly, it has increased and improved interaction and dialogue between customs and traders. A true measure of the importance of this dialogue is the more than 25,000 visitors the Customs Portal attracts each day. Aduanet has greatly improved compliance with customs laws and procedures by enhancing users’ awareness of applicable requirements and obligations and making it easier for them to comply. An additional motive of satisfaction on the users’ side is the possibility to customise digital information to their specific issues and questions.

Source: Zavala, Gloria, *Portal de Aduanas – Aduanet – Via de Acceso a la Aduana Digital*, Lima, 2001, for The East Asian, Latin American and Caribbean Customs Administration Best Practices Exchange Program

Human resources policies

41. Modification of human resources policies was an essential part of reforms undertaken in developing countries in order to address the problem of low levels of professionalism previously plaguing Customs administrations. This appears as one of the most difficult but highly rewarding aspects of Customs reform. Prior to the 1991 reform, among 4000 staff in Peruvian Customs only 2% had university education and a considerable proportion were unsalaried assistants, living on tips and gifts. There were no career plans, as both recruitment and promotion were entirely dependent on political interference. As a result Customs staff completely lacked credibility and authority, while there was no training strategy that could help improve the situation.

42. Two of the three pillars of the first generation reform in Peru concerned human resources policies, aiming at enhancing the moral stance and the professional standards of the administration (the third pillar concerning the modernisation and automation of customs procedures). Personnel involved in corruption cases were immediately laid off and the remaining staff was submitted to competence tests so as to retain only people that were sufficiently qualified for Customs needs. Subsequently, the salaries of retained personnel increased tenfold and a uniform Code of Conduct was established to communicate the change in culture and standards within the organisation. Peruvian Customs also adopted new recruitment policies, increasing the proportion of university graduates and widening the range of skills in Customs administration by hiring a number of mid-career specialists in economic analysis, statistics, audit and information technology, so as to support increasing emphasis on systems based audits and use of information technology. A policy of intensified training was introduced, subjecting all personnel, including new staff upon recruitment to a year of specific Customs training. This brought the level of professional staff in Customs from 2% to 55% in 2000, the rest of the staff being Customs technicians (16%), specialised technicians (9%) and administrative personnel (20%).

43. Although the initial radical measures for ensuring a healthy human resource base for Customs and securing integrity and competence seem particularly important, they have to be accompanied by regular follow-up measures, like enhanced training, performance assessments and internal audit mechanisms. In Mozambique staff performance is assessed on a quarterly basis during the two year practical training period, while afterwards it is regularly monitored by an internal audit unit, focussing on systems and procedures, and a staff irregularities unit, investigating cases of internal fraud and corruption. The system is further supported by the introduction of a new Code of Conduct. In Angola, the introduction of an annual appraisal system allows to better match staff skills to job descriptions and properly identify candidates for senior positions.

Organisational structure

44. Several developing countries have focussed on the streamlining and enhancement of institutional structures, introducing a change in philosophy with respect to both financial and operational management. Reforming governments acknowledged the importance of appropriate and sufficient financial and material resources to create and sustain a productive, high tech Customs administration and established financial and budgetary autonomy of Customs, allowing flexibility in spending while in parallel strengthening accountability. In the case of Peru the new Customs law reserved initially 2% of the Customs duties revenue for Customs operational expenses. An additional 1% was then devoted exclusively to infrastructure investments, which enabled the Peruvian Customs to invest during the period 1991-2000 \$109,253 million in order to build new premises for numerous border posts, totally renovate the automobile fleet, and purchase computer equipment. Making Customs responsible for their own financing and linking the level of resources available for their operation to their efficiency in collecting customs revenue meant that, as customs revenue increased, the Customs budget also increased. The annual 3% of

revenue reserved for the Customs budget, which represented \$18,728 million in 1991, amounted to \$72,569 million in 2000, that is a rise of 287% in nine years.

45. Many countries have moved in the direction of an integrated revenue authority operating independently of other government departments in order to improve customs accountability and efficiency. Revenue authorities generally combine customs and tax services in order to benefit from efficiencies of sharing administration costs, such as for information technology and joint auditing and intelligence gathering. In countries where the civil service is constrained by limited labour and financial resources, revenue authorities have been able to enhance revenue collection at little additional cost. In Africa, Uganda, Tanzania, Rwanda, Zambia, Malawi have recently restructured their customs departments into revenue authorities. In general revenue evasion has declined while revenue collected per staff member has increased. In Tanzania the revenue collected per customs staff member tripled after a revenue authority was established. These benefits have to be measured against the one-time costs of establishing the revenue authority.

46. Enhancing the efficiency at the border has also led to them getting closer to the users by removing layers of management and reducing institutional duplication. Opaque institutional frameworks for border control with unclear mandates and responsibility among different agencies may waste time and resources both on the government and on the business side. In Cambodia a single agricultural import is subject to SPS controls by the Ministry of Agriculture, checkpoint security and smuggling prevention controls by the Frontier Defence Department, controls by the Economic Police for the suppression of fraud, and monitoring with respect to the quality by Camcontrol. In addition, it is under the responsibility of the 'chief' of border operations at one of the 28 land and river border checkpoints, representing the provincial governor or the administration of the nearest provincial city.

47. Clarifying the roles and responsibilities of several overlapping agencies involved in border control and inspection means not only alleviating the burden of duplicative requirements and controls upon business users but also halving the costs these agencies have to incur. Customs may take the lead and coordinate other agencies' interventions, or even act as a single window for border controls. It is admittedly difficult to get the various involved agencies to work together unless impetus is given at a higher political level. However, as reforms in developing countries have often built upon an institutional environment that was not very sophisticated, single window entities seem to have been easier to put in place than in developed countries.

48. Finally, a number of countries have privatised aspects of management and operational activities which could be transferred to the private sector within specific policy environments, so as to let government agencies concentrate on their main tasks. Privatisation seems to be quite successful with respect to port operations. When the government of Chile authorised the private sector to establish stevedoring companies in order to introduce competition in cargo handling and storage operations, cargo-handling productivity in the port of Valparaiso increased from 2,060 boxes of fruit per hour in 1978-1979 to 6,500 in 1985/1986. At the same time, vessel port-stay times decreased from 129 to 40 hours and per box costs from \$0.54 to \$0.26. Guasch also reports that competition in operations at the port terminals in Buenos Aires has led to an 80 % reduction in the fees charged, while opening port operations to multiple parties in the port of Montevideo has increased productivity by 300%, within a year of deregulation.

Procedures and enforcement

49. Procedures and enforcement have been a focus for a number of developing countries. The aim here is to expedite clearance of legitimate shipment while accurately targeting irregular transactions. Modernised enforcement strategies and working methods put emphasis on flexible, risk based and targeted

operations, employing intelligence as the principal weapon to identify fraud and smuggling, and effective deployment of limited resources. The difficulties in achieving sustainable progress in this field are numerous. Although many Customs procedures seem outdated and cumbersome, they are often deeply entrenched and changes are not easily made. In Pakistan, the reform of the legislative framework to introduce more trade enabling post-import controls was expected to benefit both government (through the suppression of undue advantages to some exporters) and businesses (through the reduction of excessive transaction costs). However, the reluctance within Customs to relinquish traditional controls over the movement of goods, reflecting concerns that revenue performance would deteriorate, has meant that in practice most Customs procedures remained unchanged and has not allowed the reform to deliver the expected outcomes.

50. In some systems procedures appeared designed to maximize opportunities for negotiation between traders and customs officials, offering no objective basis for limiting what an official might demand, no basis to know what was expected at each step and no basis for appeal to a higher authority, even if there had been provision for such appeal. The capacity to move to a risk management system is hampered by poor information and data management, while the incentives for such a move are muted by the opportunities to supplement very low salaries afforded by the inspection of each consignment.

51. Among the most useful tools for achieving enhanced enforcement are partnerships developed with businesses and other government agencies, as well as closer co-operation with foreign Customs administrations in order to combat drug trafficking and other commercial fraud activities more efficiently. Input by trade interests was considered an important component of the reform planning in Mozambique and their continuing involvement in the reform process was ensured through a public relations section established by the reform Project Board.

52. Some countries which do not have the capacity to implement risk management themselves use pre-shipment inspection companies in order to re-engineer the import process. This enables a move from a rate of 100% physical inspection to selective inspections and concentration on high-risk shipments, and to eliminate repetitive inspections of companies with high level of compliance. However, in order to reap the full benefits of such reengineering, the Customs administration itself has to be involved in rethinking the process.

IV. Quantitative reform results

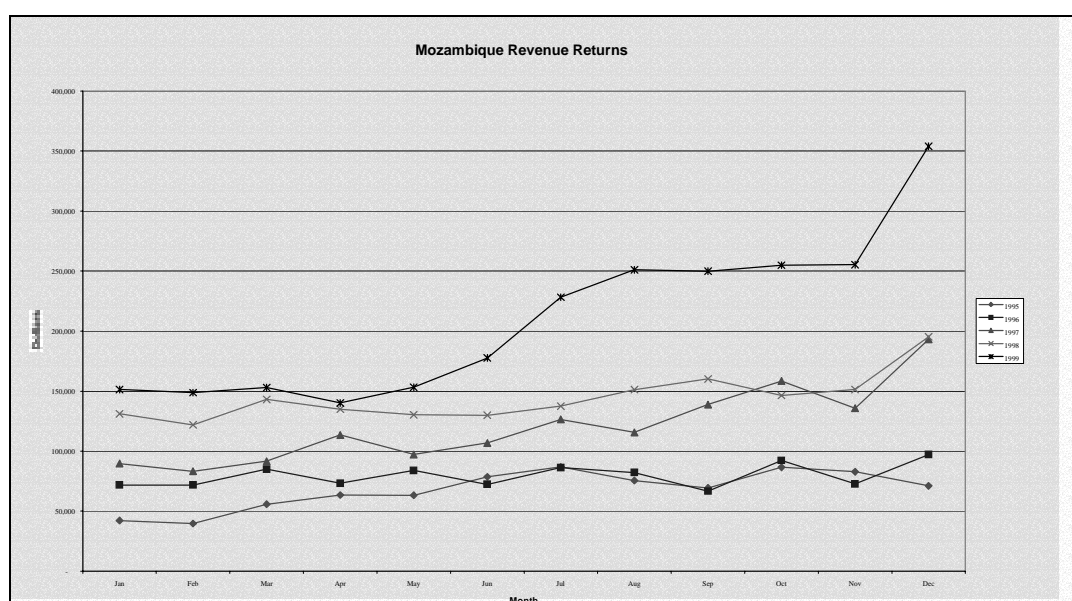
53. There are a number of success stories to be told in the area of customs reform in developing countries, even if there have also been failures. For concerned countries the most important and immediate success outcome seems to be the increase in Customs revenue together with the reduction in operating costs, which often pay back relatively quickly the investments made for Customs modernisation. This sort of success usually feeds itself and allows for further improvements to be introduced, thus ensuring long term sustainability of the reform process. Equally importantly, many of the internal efficiency-enhancing measures have a very clear positive impact on trade facilitation. The clarification and consolidation of Customs legislation, the adoption of risk-based controls and the limitation of physical examination, the improvement of the quality of Customs staff, to only cite a few measures, strongly facilitate trade because procedures are simplified and made more efficient, clearance times are reduced and undue transaction costs eliminated. The following examples are but a very brief reminder of the kind of benefits that successful reforms have brought both to the governments that undertook them and to the trading community.

Improved revenue collection

54. The most remarkable achievement of the reform in Peru was the combination of a reduction in tariffs and personnel with a huge increase in the revenues. Following the reform, while staff numbers were reduced by approximately 30% from 3800 to 2600 persons, Customs revenue increased by 335% from \$626 million in 1990 to \$2726 million in 2000. This revenue increase was largely due to improved efficiency in Customs controls, as indicated by the fact that the percentage of increase in revenue was considerably higher than the percentage in import growth during that same period.

55. In Mozambique, the overall costs of the five-year reform program have been greatly exceeded by the tangible benefits brought by increased revenue collection. During the first two years of the program, while imports decreased by 0.2%, customs revenue increased by 38.4% in spite of significant duty rate reductions. The investments made during the initial stages of the program were recouped within 14 months. Moreover, it is estimated that the more effective collection of taxes at the borders, the use of importer identifier numbers, the introduction of automation, and improved co-ordination between agencies have all led to an increased generation of valuable intelligence information to control traders' other tax affairs.

Figure 1. Revenue Performance of Customs in Mozambique



Source: Crown Agents, 2003

56. Cost-to-collection ratios in Mozambique compare favourably with OECD benchmarks (where the cost to a government of collecting US\$1,000 of revenue would ideally be expected to lie in the range of US\$15 to US\$25) and are now superior to those achieved in many other developing countries. The costs of customs revenue collection during the first four years of the reform program varied between 1.86% and 3.42% of total revenue collected. This data suggests that whilst the costs of customs increased dramatically during the early, very demanding stages of the reform program – as new staff were recruited and trained, and the customs administration's infrastructure developed – these extra costs have been compensated for by subsequent rises in overall collection levels.

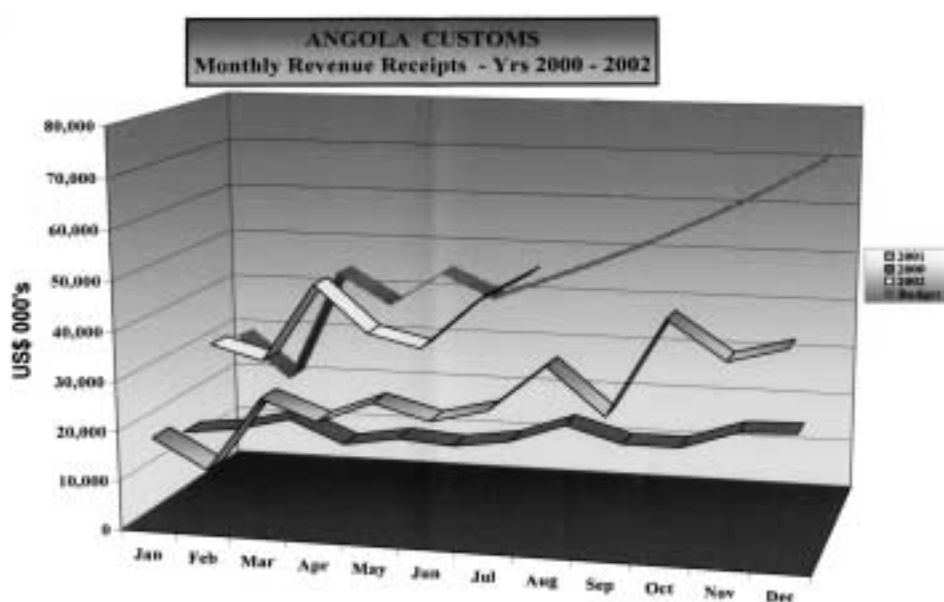
Figure 2. Measuring the Efficiency of Customs in Mozambique

US\$ (millions)	1997	1998	1999	2000
Revenue collected	125.5	146.0	198.3	236.4
Total customs costs	2.33	5.00	6.14	6.4
Cost as a % of revenue	1.86	3.42	3.10	2.71

Source: Crown Agents, 2003

57. In Angola, customs revenue figures in 2001 were 50% above those recorded in the previous year, rising from approximately US\$230 million to \$345 million, while expectations for 2002 were around US\$500 million, for a total reform cost of US\$84 million over these two years. These revenue increases indicate that the reforms would in effect pay for themselves during the lifetime of the reform process.

Figure 3. Revenue Performance of Customs in Angola



Source: Crown Agents, 2003

Reduced clearance times

58. In Peru, electronic cataloguing and identifying high and low risk shipments allowed officials to reduce physical inspection rates from 70-100% to a maximum of 15% and average clearance times fell to a range of 2 hours to 2 days. In Chinese Taipei the new Air Cargo and Sea Cargo Systems have reduced the average customs clearance time needed for air cargo to only 21 minutes and for sea cargo to only 2 hours, 35 minutes. In Costa Rica, the trade facilitation programme has decreased the average clearance time for goods from 6 days in 1994 to 12 minutes in 2001, with 115 minutes needed for goods undergoing physical inspection.

59. In the Bangladesh port of Chittagong about 40% of bills of entry are now cleared in 2 working days or less. In 2001 the average number of bills of entry cleared in 2 days or less was increasing by 25% per month. Bills of entry taking more than 7 days or more for clearance were reduced from about 26% to 21% at that time, usually because follow-up Customs enquiries were necessary. In Maputo 80% of road imports and 62% of imports by sea are cleared by customs within 24 hours of correct documentation being

submitted, which is 40 times faster than the pre-reform rate, making Maputo one of the most efficient terminals in Africa.

Reduced transaction costs

60. In Chile, the cost of implementing Customs automation, amounting to some \$5 million, two thirds of which was defrayed by the private sector which had joined in the discussions and planning that accompanied the reform process, was very quickly recouped, through the estimated business savings of more than \$1 million per month. Thanks to the introduction of the system the number of data inputting errors has fallen from 14 % to 2 %.

61. Studies suggest that Singapore's TradeNet reduced trade documentation processing costs by 20% or more, thanks to the replacement of over 20 paper forms required previously by a single online form and the resulting savings in time and better deployment of staff. Faster turnaround made it possible to better organize shipments and overall production activities.

Box 3. : Singapore TradeNet - Costs and benefits

Costs to the administration: The direct capital cost of TradeNet's development, i.e. the contract cost to IBM and other sub-contractors was in excess of 20 million Singapore dollars (S\$) in 1987. This does not include the costs incurred by various agencies in conceiving the project, developing requirements and specifications and establishing Singapore Network Service Ltd. (SNS), the quasi-governmental company that manages TradeNet.

Costs to businesses: In order to join TradeNet, a company has to pay a one time connection fee of S\$750, a monthly charge of S\$30 for a dial-up port and transaction costs of S\$0.50 per kilobyte of transmitted information (the average declaration requires 0.7 kilobytes). A company also needs the appropriate hardware for local processing of applications and transmission of the coded EDIFACT data. At the time of introducing TradeNet the minimum PC configuration required amounted to S\$4,000 and software between S\$1,000 and S\$4,000. The indirect cost of making the necessary changes to procedures and protocols in order to adopt TradeNet was less clear. For some companies, the conversion was minimal because they already had the relevant systems in place, but for those with no prior experience in e-business, the change was more difficult. Today, the user pays a one time fixed fee of about S\$1,500 and a yearly maintenance fee of about S\$1,200. In addition, the user pays S\$6.50 per transaction or declaration made through the system.

Benefits to businesses: TradeNet has resulted in considerable productivity improvements which made the entire trading community more competitive internationally. Turnaround time for processing typical trade documents was reduced from 2-4 days to as little as 15 minutes. Studies suggest that TradeNet reduced trade documentation processing costs by 20 % or more, thanks to the replacement of over 20 paper forms required previously by a single online form. The use of clerks or couriers to transport trade documents to various agencies and the long delays of staff waiting for documents to be cleared was eliminated, leading to savings in time and better deployment of staff and vehicles. Faster turnaround made it possible to better organize shipments and overall production activities. Several freight forwarders reported savings of 25-35 % in handling trade documentation as TradeNet operates 24 hours a day and not only during normal office hours.

Benefits to the administration: Benefits also accrued to government agencies using the system. Customs moved from a system of post-approval of applications to pre-approval, such that customs duties are now pre-paid through electronic means and Customs receive payments faster. TradeNet also enabled faster compilation of more accurate and complete external trade statistics, since data from the documents no longer need to be re-keyed by government agencies to compile trade statistics. Singapore claims that properly applied trade facilitation is already saving it in excess of 1 % of its gross domestic product each year.

Source: extracts from ESCAP, *Trade Facilitation Handbook for the Greater Mekong Subregion*, Chapter 7: Electronic Trade Document System Development, February 2003

V. Trade facilitation as a development tool

62. The experiences of developing countries discussed in this report allow for a number of conclusions to be drawn about the agendas which governments follow in seeking to reform their customs administrations – and about the best means through which such reforms can be implemented.

63. *Revenue enhancement is often a stronger incentive for reform than is the facilitation of trade.* Most customs and border procedure reforms in developing countries are primarily motivated by the need to enhance government revenue. The importance of efficient revenue collection is reinforced by successive tariff reductions in recent years. Despite increasing evidence that the facilitation of trade has significant positive effects on the economy overall, it still seems to be viewed as a luxury by a number of poorer countries. In some cases there is yet a perceived conflict between facilitation aims and governmental objectives. The case of Pakistan underlines the possible tension between a government's need to protect revenue and the demands of the trading community to be freed from unnecessary regulations and interference. The reluctance within customs to relinquish traditional controls over the movement of goods, and to rely instead on more trade enabling post-import controls, reflected concerns that revenue performance would deteriorate.

64. *But successful reform quickly translates into improvements that greatly facilitate trade.* Many of the efficiency-enhancing measures have a very clear trade facilitating effect. The clarification and consolidation of Customs legislation, the adoption of risk-based controls, the limitation of physical inspection or the improvement of the quality of Customs staff contribute in simplifying procedures, reducing clearance times and eliminating undue transaction costs.

65. Experience of both success and failure suggests that *the design of customs reform programs must be tailored closely to reflect particular circumstances and needs, to ensure ownership and eventual sustainability.* Sufficient attention needs to be paid to involving both customs and trade in the reform design process – and to sensitise them to the longer term gains from the measures planned.

66. *A holistic approach to customs reform can yield more sustainable results in terms of trade facilitation than can a piecemeal approach.* The modernisation programs outlined in this report suggest that a phased, comprehensive customs modernisation programme is likely to provide for trade facilitation as a natural consequence of the overall change process. Even though revenue enhancement may be the immediate spur for reform, the demands of government and the needs of the trading community need not be at odds with each other. The alternative to wide-scale reform – of offering piecemeal assistance to meet specific trade-related international standards such as customs valuation – is likely to be less successful, not least because such initiatives do not necessarily take into account the capacity of a customs administration to cope with change.

REFERENCES

- Asia Pacific Foundation of Canada, *Survey on Customs, Standards, and Business Mobility in the APEC Region. A report by APFC for the APEC Business Advisory Council (ABAC)*, July 2000
- Cox, Benita and Sherine Ghoneim, *Electronic Data Interchange, Trade Facilitation and Customs Reform*, in B.Hoekman and H.Kheir-El-Din eds. "Trade Policy Development in the Middle East and North Africa, Mediterranean Development Forum, February 2000
- de Castro, Carlos F. *Trade and Transport Facilitation, Review of Current Issues and Operational Experience*, June 1996, SSATP Working Paper n°27, World Bank, UNCTAD
- Crown Agents, *Review of Crown Agents' Experiences in the field of Customs Reform*, Report to the OECD, February 2003
- Draper, Charles, *Reforming Customs Administration: the Unlikely Case of Bangladesh*, World Bank, 2001
- ECLAC, *The restructuring of public-sector enterprises: the case of Latin American and Caribbean ports*, Cuadernos de la CEPAL no 68, Santiago de Chile, 1992
- Finger, Michael J. and Philip Schuler, *Implementation of Uruguay Round Commitments: the Development Challenge*, The World Bank, September 1999
- Guasch, J.Luis and Robert W.Hahn, *The Costs and Benefits of Regulation: Implications for Developing Countries*, The World Bank Research Observer, vol.14, no 1, February 1999
- Integrated Framework for Trade Related Technical Assistance, *Madagascar - Increasing Integration into World Markets as a Poverty Reduction Strategy*, November 16, 2001
- Integrated Framework for Trade Related Technical Assistance, *Cambodia Integration and Competitiveness Study*, November 26, 2001
- Integrated Framework for Trade Related Technical Assistance, *Mauritania, Diagnostic Trade Integration Study - A Poverty Focused Trade Strategy*, December 10, 2001
- Lane, Michael H, *International Supply Chain Management and Customs : Peru - a Case Study*, 2000
- Mobarak Ali Molla, *Technical Assistance and Capacity Building for Trade Facilitation, The Experiences of Bangladesh*, WTO Workshop on Technical Assistance and Capacity Building in Trade Facilitation , 10-11 May 2001
- OECD, *Business Benefits of Trade Facilitation*, TD/TC/WP(2001)21/FINAL
- Rey de Marulanda, Nohra, *Customs Reform in Latin America and the Caribbean in the Context of a Globalizing International Economy*, Fifth Americas Business Forum, Toronto, November 1-3, 1999

The World Bank, *Trade Facilitation in the Caucasus*, October 2000

WCO, *Survey of Customs Reform and Modernization Trends and Best Practices*, at http://www.wcoomd.org/ie/en/topics_issues/customsmodernizationintegrity/survey_e.htm

WTO Council for Trade in Goods, *Chile's Experience with the Modernisation of Customs Administrations based on the Use of Information Technology*, G/C/W/239, 31 October 2000

Zaconeta, Sabino, *Proceso de Reforma de la Aduana del Peru 1990-2000*, draft communicated by the Peruvian Customs, February 2003

Zavala, Gloria, *Portal de Aduanas – Aduanet – Via de Acceso a la Aduana Digital*, Lima, 2001, for The East Asian, Latin American and Caribbean Customs Administration Best Practices Exchange Program, at www.iadb.org/int/customsjpn.htm