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Challenges and policy options for transport and trade facilitation

Note by the UNCTAD secretariat

Executive summary

This document discusses pressing challenges that need to be addressed, as they could undermine transport and trade, especially that of developing countries. While these trends and challenges were explored in more detail in the previous sessions of the Multi-year Expert Meeting on Transport and Trade Facilitation, they nevertheless continue to be of extreme relevance and require further attention and consideration. This note builds on the lessons learned from the previous three sessions. In separate chapters, it reviews the challenges affecting international transport and trade, with a special emphasis on the problems faced by landlocked developing countries (LLDCs), as well as the challenges foreseen in implementing trade facilitation reforms and customs automation, including the share of the private sector in these endeavours.

This note points out policy options to be adopted by the relevant governments in selected areas. These include building integrated multimodal transport networks; energy, oil prices and shipping costs; sustainable transport policies; financing sustainable transport; climate change impacts and adaptation in maritime transport; implementing trade facilitation reforms and future World Trade Organization (WTO) commitments; supporting trade facilitation in the least developed countries (LDCs); and international customs cooperation through globally networked customs. The role UNCTAD and development partners can play in the adoption and implementation of policy actions by developing countries is also discussed.

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Introduction

1. The Trade and Development Board, at its fifty-fifth session, approved the terms of reference for a Multi-year Expert Meeting on Transport and Trade Facilitation. In accordance with paragraphs 107 and 164–168 of the Accra Accord, the Multi-year Expert Meeting addresses, over four sessions, trade logistics issues in developing countries. The findings and recommendations of this expert meeting will be reported to the next session of the Trade and Development Commission to be held in 2012.

2. Complying with the approved terms of reference, the fourth session of the Multi-year Expert Meeting is mandated to review the following topics:

(a) "Measures and actions to optimize the contribution of investment, in particular private-sector investment, in trade facilitation, with a particular focus on its impacts on international transport networks and on the efficiency of transport services and their contribution to trade facilitation. The meeting will also deal with the use of information and communications technologies in logistics, trade facilitation and supply chain security…" (TD/B/55/9, para. 2 (a));

(b) "Support to the implementation process of the Almaty Programme of Action, including the analysis of bottlenecks between landlocked and transit developing countries and possible appropriate solutions to address them, including best practices in the development and use of transport infrastructure, as well as the adoption of common standards, in landlocked and transit developing countries…" (TD/B/55/9 para. 2 (f)).

3. At its last session, the meeting will also look at the road ahead in the fields of international transport, trade facilitation and customs automation, in times during which the world is facing multiple economic, social and environmental challenges.

4. The challenges that threaten to undermine the gains of the rapid economic growth recorded over recent decades include concerns over the availability and access to energy at reasonable costs, mounting uncertainty about the global economic crisis and the risks associated with environmental degradation and climate change. Viewed from the perspective of the trade and transport sectors, the relevance of these concerns cannot be overemphasized; they are of particular relevance for most vulnerable economies, LLDCs, least developed countries (LDCs) and small island developing States (SIDS).

5 Against this background, and while not intended to be exhaustive, this document discusses selected pressing challenges that could undermine transport and trade – especially of developing countries – and that need to be addressed. While these trends and challenges were explored in more detail in the previous sessions of the Multi-year Expert Meeting on Transport and Trade Facilitation, they continue to be of extreme relevance and require further attention and consideration.

6. To set the scene and help stimulate the discussion of the experts, this note builds on lessons learned from the previous three sessions and reviews in separate chapters the recent developments and persistent challenges affecting international transport, with a special emphasis on problems faced by LLDCs; and the challenges foreseen in implementing trade facilitation reforms and customs automation, including the share of the private sector in these endeavours. In its concluding part, the note points out policy options to be adopted by relevant governments in selected areas and the role that UNCTAD and development partners can play in their adoption and implementation.

I. Challenges affecting transport and trade

7. Today, international trade is part of various globalized production processes that require ever more reliable and timely trade transactions. The speed and reliability of deliveries often become a decisive factor in a country's trade competitiveness. At the same time, environmental sustainability objectives and the impacts of climate change on trade and transport have become priority issues in policy agendas, industry strategies and development partners alike. These are discussed briefly.

A. Transport costs and access to efficient transport services

8. From a country's trade competitiveness perspective, efficient access to affordable, reliable and cost-effective transport systems remains an imperative challenge to be met in many developing countries. Their participation in global trade is largely determined by the cost of producing and bringing goods to markets in a timely manner. Often surpassing customs duties, transport costs influence the volume, structure and patterns of trade, as well as a country's comparative advantage and trade competiveness.[1]

9. High transport costs hinder export development by limiting the range of potential products and markets in which goods can be competitively and profitably traded. Although the cost of maritime freight as a percentage of the value of goods has fallen globally by around 15 per cent over the past two decades, it remains very high for many developing countries (see figure 1). While developed economies pay on average 6.4 per cent of the value of imports for maritime transport, developing economies pay on average 22 per cent more, at around 7.8 percent. In some regions, notably Africa, the average cost of maritime transport is 67 per cent higher than in developed countries, at 10.6 per cent of the value of imports.

10. For LLDCs, the maritime leg currently represents about 8.7 per cent of the value of imports.[2] Long land distances from the transit port, delays caused by waiting for available transport capacity and security checks or upfront financing costs often mean that the total transport costs as a percentage of imports can be two to three times higher than the above-mentioned percentage. Recognizing that LLDCs are among some of the most disadvantaged countries in accessing overseas markets, the Almaty Programme of Action is addressing their special needs to make their international trade more competitive.[3]

11. The quality and the efficiency of transport infrastructure and services indeed affect cost levels. Access to well-functioning transport systems enable smooth trade flows by reducing operating costs such as transport, storage and handling, as well as transaction costs, for example, processing of documentation and trade facilitation. Yet, as noted by experts during the second session of the Multi-year Expert Meeting on Transport and Trade

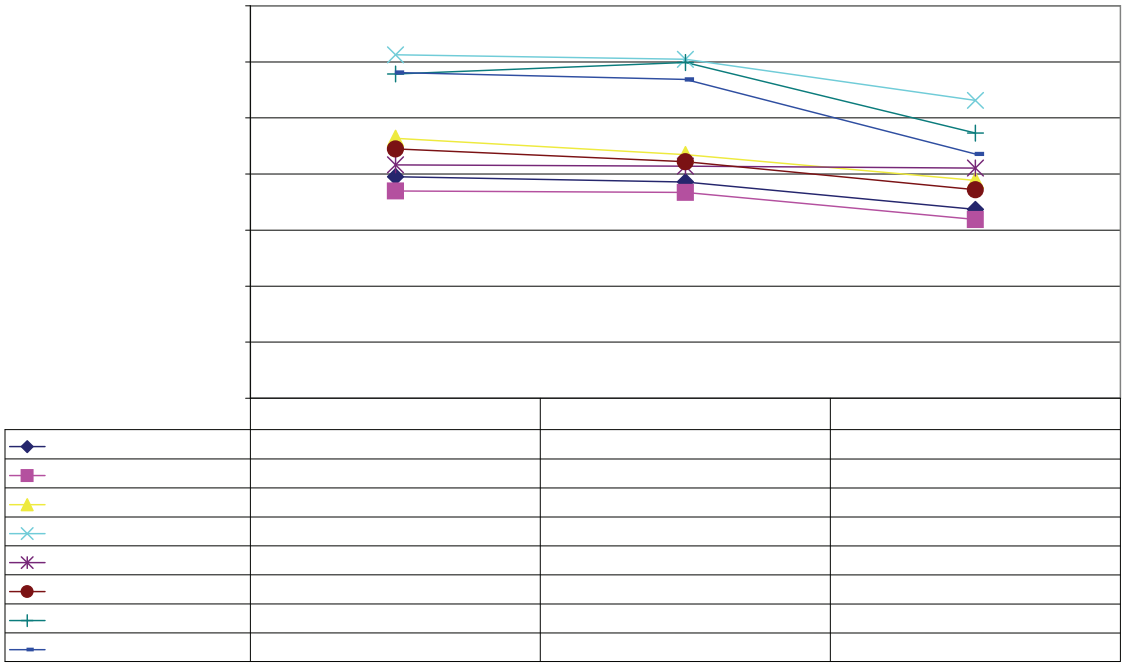
[1] See, for example, UNCTAD Transport Newsletter No. 33, September 2006, Trade, liner shipping supply, and maritime freight rates; UNCTAD Transport Newsletter No. 38, March 2008, The modal split of international goods transport; Kumar and Hoffmann J (2010), Globalization: the maritime nexus, in: the Handbook of Maritime Economics and Business, Second Edition.

[2] The number of LLDCs has changed over the last few years; therefore, a direct comparison by decade is not possible.

[3] See presentations of the Ad Hoc Expert Meeting on Transit Ports Servicing Landlocked Developing Countries, 11 December 2009, www.unctad.org/Templates/meeting.asp?intItemID=2068&lang=1&m=18614 .

Facilitation,[4] transport infrastructure and services remain inadequate in many developing regions and cannot guarantee effective connectivity to global transport systems and access to markets.

Figure 1
Average cost of transport by decade and regional groupings (percentage value of imports)



Source: UNCTAD secretariat.

B. Energy, oil prices and shipping costs

12. The global trade expansion of the last few decades was propelled by ever more efficient and yet heavily oil-dependent transportation systems. Shipping, which handles over 80 per cent of the volume of world trade, is heavily reliant on oil for propulsion and not yet in a position to use alternative fuel types and technologies. While oil predominates as a source of primary energy consumption, representing over 34 per cent of the world total in 2010, the surges in oil prices observed over the past few years are pointing to the end of an era of easy and cheap oil. [5]

13. As noted previously, many factors contribute to determining the level of transport costs. One determinant that is emerging as increasingly important in recent years is the cost of fuel. A rise in oil prices increases the transport cost bill for shippers and can potentially undermine trade. An empirical study by UNCTAD[6] has shown that an increase in oil prices

[4] Report of the meeting: http://unctad.org/en/docs/cimem1d6_en.pdf.

[5] Projections about future oil production levels include those by the International Energy Agency, the United States Energy Information Administration and the Association for the Study of Peak Oil (http://www.peak oil.net). For information on the peak oil debate, see Jeremy Leggett, http://jeremyleggett.net .

[6] See UNCTAD (2010), Oil Prices and Maritime Freight Rates: An Empirical Investigation, Technical report by the UNCTAD secretariat, UNCTAD/DTL/TLB/2009/2, 1 April.

would raise the cost of shipping goods, whether carried in containers, such as manufactures, or in bulk, such as crude oil and iron ore.[7] The study revealed that a 10 per cent increase in Brent crude oil prices would lead to container freight rates increasing by around 1.9 per cent to 3.6 per cent and would result in iron ore and tanker freight rates rising by up to 10.5 per cent and about 2.8, respectively.

14. Another recent empirical study[8] on the issued was commissioned by the International Maritime Organization to improve understanding on how rising oil prices and fuel costs affect transport costs and international trade. The study revealed that in the longer term, a change in fuel costs may alter trade patterns as the competitiveness of the producers in different locations changes because of increased transport costs. The study concluded that the impact of rising energy costs varied across products and routes, depending on particular shipping and product markets, and that there was a need for further empirical studies to inform specific country interests. The cost pass-through of increased freight rates into product prices across products and markets varied between 0 and more than 100 per cent, whereby the increased costs were paid for in some cases by the consumer, and in others, by the producer.

15. Over the past two years, the shipping industry has responded to rising fuel costs by adopting slow steaming, which has proved to be a useful cost-cutting strategy. It has also helped absorb the excess ship supply capacity that was experienced during the economic downturn. However, from a shipper's perspective, slow steaming has its drawbacks, for example by affecting schedule reliability and service quality, which can also raise costs.

16. Apart from their direct impacts on fuel and transport costs, sustained high oil prices have a number of important other implications, including for (a) the highly capital-intensive newly built ships that are not fitted to use alternative fuel types or to meet new fuel technology requirements, (b) a potential modal shift towards less energy-intensive modes of transport such as shipping and rail, (c) trade flows and structure in view of the pressure of energy prices on production costs and decisions as to where to locate production plants.

C. Environmental sustainability of transport

17. With freight transport expected to grow in tandem with the growing world population, consumption and economic growth, the issue of environmentally sustainable transport development that is based on efficient energy use, cleaner energy sources and environmentally friendly modes of transport is becoming increasingly important – and even more so, given the heavy dependence of transportation on oil and the need to reduce emissions of all kind, for example, pollutants and carbon.

18. Transport consumes more than half of global liquid fossil fuels and is expected to account for 97 per cent of the increase in the world's primary oil use between 2007 and 2030. The large consumption of fossil fuel makes the transport sector responsible for nearly one quarter of global energy-related carbon dioxide (CO_2) emissions and for 13 per cent of all world greenhouse gas (GHG). Land transport accounts for about 70 per cent of the sector's total CO_2 emissions, followed by aviation (11 per cent) and shipping (9 per cent). Freight transport, which predominantly uses road-based trucks, comprises 27 per cent of all transport energy use, and therefore emissions. If current trends persist, transport-related CO_2 emissions are expected to increase 57 per cent worldwide, at 1.7 per cent a year, for

[7] See for example, chapter 1 of the UNCTAD *Review of Maritime Transport* 2009 and 2010.

[8] Vivideconomics (2010). *Assessment of the economic impact of market-based measures*. Final report. August.

the period 2005–2030. It is expected that more than 80 per cent of the predicted growth in transport emissions would come from road transport in developing countries.[9]

19. Today, transport sustainability ranks high on the global policy and regulatory agenda, including the Almaty Programme of Action. The Programme, which addresses the special needs of the LLDCs, points out that transport strategies and programmes should take full account of environmental aspects and development needs to ensure sustainable development at the local and global levels.[10] For developing countries, promoting sustainable freight transport systems provides an opportunity to tackle the double burden of reducing fossil fuel energy reliance and of minimizing the negative incidence caused by climate change impacts. At the same time, it offers an opportunity to maximize the long-term potential of economic growth presented by energy-efficient, low-carbon modes of transport.

20. Sustainability is also high on the policy agenda of the transport industry. With environmental and social considerations becoming as important as economic imperatives, the principles of corporate social responsibility[11] are increasingly being mainstreamed into policies, planning processes and operations.[12] For shipping, adopting the sustainability concept involves having to achieve efficiency, effectiveness and quality of service, while at the same time taking into account the cost generated by any potential negative externalities arising from their activities. For example, under the Sustainable Shipping Initiative, which brings together leading companies from across the industry worldwide, the shipping industry recently published a paper entitled *The Case for Action*,[13] which looks ahead to 2040 and considers ways in which the industry can best respond to shifting global demands, including sustainability requirements.

21. In addition to market requirements, regulatory developments under the auspices of the International Maritime Organization that aim to ensure safety and environmental sustainability in shipping contribute to shaping the current policy shift in the industry. In this respect, a good understanding of these legal instruments, including their potential implications for transport and trade, is important to facilitate their wider implementation and enforcement in developing regions.

D. Climate change impacts and adaptation in maritime transport

22. Like other economic sectors, transport, including international shipping, faces a dual challenge in relation to climate change: cutting GHG emissions and building its resilience in the face of negative impacts of the already committed GHG-emission reduction and irreversible climate change. The impact of current and projected climate change factors

[9] Based on International Energy Agency reports, World Energy Outlook 2009, Transport, Energy and CO2: Moving towards Sustainability, 2009 and Energy Technology Perspectives 2008: Scenarios and Strategies to 2050; and report of the United Nations Environment Programme (UNEP), Towards a Green Economy 2011: Pathways to Sustainable Development and Poverty Eradication, Part II, Transport.

[10] Almaty Programme of Action, Annex I: Addressing the Special Needs of Landlocked Developing Countries within a New Global Framework for Transit Transport Cooperation for Landlocked and Transit Developing Countries, A/CONF.202/3.

[11] Addressed in the report of the second session of the Multi-year Experts Meeting, 2009, TD/B/C.I/MEM.1/6. Available from http://www.unctad.org/en/docs/cimem1d6_en.pdf .

[12] See, for example, Global shipping leaders call for sustainable industry (2011), press release, 17 May; Meade R (2011), Sustainable shipping gets more industry clout, Lloyd's List, 23 May.

[13] Available from http://www.forumforthefuture.org/project/sustainable-shipping-initiative/more/ssi-project-stages .

such as sea-level rise and extreme weather events are of special relevance to maritime transport, especially ports.[14] Adaptation action in maritime transport requires ever more resilient infrastructure and operations, rethinking freight transport systems and integrating climate change considerations into investments and planning decisions, as well as into broader transport design and development plans.[15]

23. Some of these issues were explored at (a) the first session of the Multi-year Expert Meeting on Transport and Trade Facilitation, held on 16–18 February 2009, and which focused on maritime transport and the climate change challenge; (b) a joint workshop held by UNCTAD and the United Nations Economic Commission for Europe (UNECE) on 8 September 2010 that discussed climate change impacts on international transport networks[16] and (c) the UNCTAD Ad Hoc Expert Meeting on Climate Change Impacts and Adaptation: A Challenge for Global Ports, which took place on 29–30 September 2011.[17]

24. At the 2009 meeting, experts highlighted the urgent need to reach agreement in the ongoing negotiations on a regulatory regime for GHG emissions from international shipping. They also noted with concern the insufficient attention that had been paid to the potential impacts and implications of climate change for transportation systems, and in particular for ports, which are key nodes in the supply chain and vital for global trade.

25. At the joint UNECE-UNCTAD workshop, experts discussed how best to bridge the knowledge gap relating to climate change impacts on transport networks and the need for effective adaptation responses for both developed and developing countries. This work continues with the establishment in March 2011 of an international group of experts under the auspices of UNECE to help advance the understanding of climate change impacts on international transport networks and related adaptation requirements. The first meeting of the international expert group, held on 5 September 2011, approved the work plan of the expert group and its key deliverables,[18] including a substantive report on relevant issues, as well as an international conference to disseminate the results of its findings. The expert group approved a decision to invite UNCTAD and its member States to take an active role in the work of the expert group to ensure global coverage of the work and to seek inputs and sharing of best practices among countries.

II. Trade facilitation reforms and customs automation

26. While the general role of trade facilitation for trade-driven development has been acknowledged for a long time, its importance has been growing over the years. This has led policymakers to increasingly include commitments on trade facilitation and customs reform in multilateral and regional trade agreements. In this context, because of the growing use of

[14] See for example, International Finance Corporation (2011), Climate Risk and Business Ports: Terminal Maritimo Muelles el Bosque, Cartagena, Colombia.

[15] See for example, UNCTAD. (2009). Report of the Multi-year Expert Meeting on Transport and Trade Facilitation on its first session, TD/B/C.I/MEM.1/3, 23 March. See also, Climate Change Impacts on International Transport Networks: Note by the United Nations Economic Commission for Europe and United Nations Conference on Trade and Development secretariats, ECE/TRANS/WP.5/2010/3, 29 June 2010. Additional information about UNCTAD's work on maritime transport and the climate change challenge, including the joint UNECE-UNCTAD workshop, Climate Change Impacts on International Transport Networks, is available from www.unctad.org/ttl/legal .

[16] Available from http://www.unctad.org/Templates/meeting.asp?intItemID=2068&lang=1&m=20101 .

[17] The outcome of the Ad Hoc Expert Meeting will be available from www.unctad.org/ttl/legal .

[18] For additional information visit http://live.unece.org/trans/main/wp5/wp5_workshop4.html. The Terms of Reference of the expert group are available from http://live.unece.org/fileadmin/DAM/trans/doc/2010/wp5/ECE-TRANS-WP5-48e.pdf .

information and communications technology (ICT) in customs processes, including non-intrusive inspection media and automated selectivity systems, significant contributions have been made to enhancing the efficiency of customs controls, particularly with regard to easing trade and combating fraud.

27. This section discusses trends in trade facilitation reforms at the national, regional and international levels; the increasing inclusion of trade facilitation commitments in regional and multilateral trade agreements; and how customs automation constitutes a cornerstone of trade facilitation reforms.

A. New trends in national trade facilitation reforms

28. The trade facilitation agenda has changed, and the scope of trade facilitation reforms is broadening, covering the entire supply chain, rather than being limited to the point of crossing an international border. Even when customs automation will remain a key enabler in the implementation of trade facilitation reforms, the trend is to look beyond the customs environment to the operational strategies and capacities of all supply chain operators.

29. As a result, business sectors now tend to take part as stakeholders of the reform, rather than as mere users of public-sector services. The role of the private sector, both as a driver and an enabler of the process, has become more critical. With more of the burden of regulatory compliance being placed on the shoulders of traders and logistics services providers, they now, more than before, have a stronger interest in facilitating trade. [19]

30. Compliance with international conventions or other instruments related to trade facilitation and security of the supply chain is also increasingly driving reforms. Compliance strategies become more complex, with a focus on control and inspection of data, rather than goods. Information technology (IT) not only provides the mechanism for fast border transactions processing, but also bring changes to institutional culture. Further, IT allows administrative reform to foster collaboration between different stakeholders. Certain ICT-based solutions, such as single windows, enquiry points or joint operations at border crossings, are examples of an institutional and technological trend that requires increased stakeholder cooperation.

B. Regional collaboration

31. There are economies of scale to be achieved by engaging regionally. A regional licence, for example, makes it possible for traders to avoid having to pay for multiples licences, and joint border administration enables neighbouring countries to share facilities and responsibilities, learn from each other and reduce delays caused by unnecessary duplication. Services such as accreditation, insurance, and finance are also often more economically and competitively provided at the regional level. Regional proximity favours common practices and systems, as well as greater information flows between traders. In common markets for goods or transport services, harmonized procedures have brought transaction costs lower.

[19] See Forum on Engaging the Trading Community: WTO, Trade Facilitation and the Private Sector in Developing Countries, Geneva, 15–16 February 2010, available from http://www.unctad.org/Templates/Meeting.asp?intItemID=2068&lang=1&m=18987&year=2010&month=2 and the Report of the Multi-year Expert Meeting on Transport and Trade Facilitation on its third session, TD/B/C.I/MEM.1/9, UNCTAD, 3 February 2011, available from http://www.unctad.org/en/docs/cimem1d9_en.pdf .

32. In particular, LLDCs and their neighbouring transit developing countries increasingly seek win-win situations whereby the LLDC benefits from improved access to overseas markets and the transit developing country gains additional business in its ports and transport services. By combining the cargo volumes, both countries can benefit from economies of scale, and the transit country's seaports may become more attractive ports of call, improving the maritime connectivity for both countries' international trade.

33. The benefits of regional cooperation have led to the inclusion of trade facilitation provisions in numerous regional trade agreements. This has in some cases also contributed to the creation of some unintended impediments to trade facilitation. The administration of border formalities at the national level has on occasions become more complex following the need to distinguish between preferential and non-preferential trade. In practice though, regional trade agreements, including trade facilitation provisions, have had a positive impact overall on trade facilitation reforms, granting benefits to all trade partners.

C. Multilateral negotiations and resulting commitments

34. The launch of trade facilitation negotiations at WTO in 2004 was an important step in bringing trade facilitation to the attention of policymakers in many developing countries. While the negotiations in other areas of the Doha Development Agenda have experienced many ups and downs, the pace of trade facilitation negotiations has remained relatively stable and positive. Members are currently working on a revised draft consolidated negotiating text containing substantive trade facilitation commitments, as well as special and differential treatment provisions for developing member States.

35. Delegates are now concentrating their efforts on the methodology whose starting point in terms of compliance capacity may differ for countries at varying levels of development; eventually, however, the same finishing line will apply to all. Reaching the finishing line depends on two conditions. First, all countries, including LDCs, would need to commit to the common global rules. Second, all countries, including LDCs, need to acquire the capacity to implement the necessary reforms in order to reach the common finishing line. This is a major stake of the negotiation: an important opportunity to reap the full benefits of trade facilitation would be missed if some countries were left out because they do not have the capacity to be compliant.

36. As in the past few years, the inclusion of trade facilitation in the WTO negotiating agenda has had a positive impact on many national and regional trade facilitation reforms. However, the current impasse of the overall Doha Development Agenda poses a risk of slowing down this process. A key challenge for developing countries is to continue working at the multilateral level and reforming the national trading landscape according to their own development objectives and needs, regardless of the pace of the WTO negotiations.

D. Customs automation and security

37. International trade is based on the efficient and timely circulation and processing of information and documents. This efficiency is already obtained worldwide in most of the trade and transport industry. That must be established or developed in the public sector at both the national and international levels. For many years, ICT has been at the heart of customs automation and modernization. In a fast-moving world, the challenge for customs automation is to find a way to stay up to date with the rapid evolution of ICT and to adapt automated procedures to the changing requirements of customs and trade. Further challenges include staying afloat with the private sector, which is often the leader in implementing new systems and using state-of-the-art technology.

38. Two ICT trends come to mind when reflecting on customs automation and security in the near future. Both are related to remote access to information and data protection requirements.

39. The first is related to the emergence of cloud computing and networks. Cloud computing makes it possible to outsource IT services from unknown physical locations and systems. As the IT industry takes this direction, and with customs moving towards the concept of globally networked customs with data being exchanged across borders, customs systems must use secure the protection of trade data and prevent any loss which can only be ascertained with most advanced technological solutions such as digital signatures, electronic documents and biologins.

40. The second ICT trend with great relevance to customs automation is remote access through mobile equipment. Smart phones and similar devices provide fast, easy access and direct connections to business applications and networks. Traders, carriers, government agency representatives and other customs-related users have already expressed a desire to make use of such mobile devices in their everyday work to further shorten clearance times. An increasing number of fully automated customs administrations are using such devices to remotely connect to their customs application to carry out remote operations from inspection points or other key locations.

41. Physical and fiscal security is another well-established challenge. In today's world, it is far-fetched to expect a physical examination of the millions of containers that circulate every year between thousands of commercial ports or the billions of consignments processed by air freight, postal freight or express carriers. Current technology allows for powerful and smart automated selectivity systems to screen large volumes of information, spot risky transactions and determine appropriate control channels, allowing for strict controls while facilitating legitimate trade.

42. Modern media also includes the scanning of containers, which allows viewing the content of selected boxes without opening them, using fast, non-intrusive processes. Information technologies thus allow customs to strike the right balance between efficient controls for stopping the import or export of dangerous goods – whatever the risk that may be posed to security, the environment or business (fraud) – and facilitation for the legitimate trade. In the future, it is expected that technological developments will continue improving the security of the entire supply chain without hampering trade.

E. Customs-centric single-window development

43. The implementation of a single-window system (SWS) for international trade is considered to be an efficient means to facilitate trade procedures. The concept was defined by UNECE recommendation 33 as " … a facility that allows parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfil all import, export and transit-related regulatory requirements." If information is electronic, then individual data elements should only be submitted once. In practical terms, the single window aims to expedite and simplify information flows between trade and government and brings meaningful gains to all parties involved in cross-border trade.

44. In general a single window is managed centrally by a lead agency, enabling the appropriate governmental authorities and agencies to receive or have access to the information relevant for their purpose. In addition, participating authorities and agencies should coordinate their controls. In some cases, the single window may provide facilities for payment of duties, taxes and fees.

45. Conceptually, a single window does not necessarily imply the implementation and use of ICT. In practice, however, most of the information is currently submitted by the

trade and transport industry in an electronic format. Therefore it is advisable for governments to identify and adopt relevant ICT technologies for a single window, paving the way towards a paperless environment and taking full advantage of those technologies.

46. According to recommendation 33 of UNECE, the leading role in the development of an SWS should be under the responsibility of a government agency. For UNCTAD, this role seems naturally devoted to customs in the concept of a customs-centric SWS for international trade. Unlike other agencies, customs are involved in every step of the international trade process at import and export from and prior to the arrival of the goods up to their ultimate release after payment of duties and taxes. This permanent involvement and follow-up provides customs with a lasting global supervision and a unique knowledge of the clearance process. Additionally, in many cases, customs are already entrusted with delegated powers to enforce regulations or carry out checks on behalf of other governmental agencies at border-crossing locations. For these reasons, customs generally remain the best-equipped government agency to lead the development and operation of a single window and link with other government agencies to optimize the use of such tools and continue the reform and modernization process.

III. Policy options, the role of UNCTAD and other partners

47. After a brief review of the challenges that are expected to have an impact on trade and transport in the near future, it becomes clear that there is a need for a cohesive transport and trade facilitation approach in developing countries. Such an approach should be shaped by policy and investment measures that would enable countries to develop efficient transport systems to promote a country's competitiveness and global integration in a sustainable manner. Below are possible responses to these challenges.

A. Building integrated multimodal transport networks

48. In order to tackle high transport costs and environmental impacts, governments need to provide the private sector with viable transport alternatives that link into an integrated transport network capable of adapting to changes in demand or usage. Transport modes need to be connected not only at the national level, but at the regional level as well. Logistics corridors that connect to regional and global trade routes offer more efficient transport choices. An example is Africa's Northern Transport Corridor that joins Burundi, the Democratic Republic of Congo, Kenya, Rwanda and Uganda. The Corridor has contributed to the reduction of charges and the simplification of customs processes at border crossings through the introduction of a single document for road transit. As a result, transit traffic volumes along the Corridor doubled between 1998 and 2003.[20] A corridor approach is especially valuable where LLDCs are concerned and should be reflected in a corridor development strategy.[21]

49. An integrated network should provide transport nodes where value-added services can be provided, for example, dry ports or inland container depots. In Dar es Salaam, United Republic of Tanzania, a number of dry ports located around the city now handle

[20] United Nations Economic Commission for Africa (2010). Study for the establishment of a permanent regional corridor development working group in PMAESA (Port Management Association of Eastern and Southern Africa) region. Available from http://www.uneca.org/atpc/events/23-25Nov10Mombasa/Study%20Done%20by%20Consultant.pdf . Accessed on 8 February 2011.

[21] UNCTAD (2003). Development of multimodal transport and logistics services. Available from http://www.unctad.org/en/docs//c3em20d2_en.pdf. Accessed on the 8 February 2011.

vehicle imports. These privately run dry ports also house customs officials and allow customers to pay their taxes, obtain number plates and collect their cars in one place. The port of Dar es Salaam has now more space to process other cargo more efficiently. Dry ports are also located in other parts of the country at road and rail nodes, allowing for containerized goods to be stuffed and unstuffed. In India, the Container Corporation of India Ltd. took over seven inland container depots from the Indian Railway in 1988 and today has a network of more than 60. Most of them offer customs services (customs-bonded) and link road and rail transport modes.

50. The efficiency of transport modes can also be raised through the promotion of competition, facilitating market access to alternative logistics operators and private investors. Care must be taken not to focus on one specific transport mode, as this could increase logistics costs. In Indonesia, 85 per cent of national freight is transported by road, resulting in logistics costs accounting for up to 30 per cent of the country's gross domestic product, while in Thailand, a more varied use of transport modes means that the corresponding figure is 15 per cent.[22]

B. Energy, oil prices and shipping costs

51. Understanding the interplay between transport costs, energy availability and access, and oil prices is fundamental, especially for many developing countries, whose trade is already hindered by relatively prohibit transport costs. As stressed by experts at the third session of the Multi-year Expert Meeting, further research and analytical work, as well as information sharing, are needed in order to improve understanding of some of the main challenges facing international transportation. These include the nexus between energy and transport costs and the broader economic impact of higher transport costs. Experts expressed the view that building on its existing empirical work on oil prices and maritime freight rates, UNCTAD, in cooperation with other relevant partners, could continue to provide a forum and a platform for relevant research and analytical work, information sharing and the dissemination of key findings.

C. Sustainable transport policies

52. Making a shift to environmentally friendly transport policies requires a holistic transport strategy that combines economic, environmental and social measures. These measures call for different actors, including government and the private sector, to take various actions and adopt policies. These include, among others, integrating transport systems at the national and/or regional levels; harnessing new technologies that allow for more energy-efficient and environmentally friendly transport systems and vehicles; promoting a modal shift to more environmentally sustainable forms of transport where possible, such as rail or waterways; adapting and developing appropriate infrastructure; and reshaping the operating environment for green logistics.

53. An example of such a comprehensive approach is, for instance, the White Paper on transport adopted by the European Commission in March 2011. The Paper sets clear

[22] Jakarta post (2011): RI's logistical costs among the highest in Southeast Asia, available from http://www.thejakartapost.com/news/2011/02/11/ri%E2%80%99s-logistical-costs-among-highest-southeast-asia.html , accessed on 27 July 2011; Frost & Sullivan (2011). Market report: Multi-modal transport across Indonesia – current situation and future trends, available from http://www.growthconsulting.frost.com/web/images.nsf/0/DB06AFF78216F8006525786D0041BBA4/$File/LogisticsPlus.April.Asrofi.2011.pdf , accessed on 29 July 2011.

objectives, such as optimizing the performance of multimodal logistics chains, including by using several more energy-efficient modes of transport on a larger scale, facilitated by efficient and environmentally friendly freight corridors; and strengthening the role of rail in freight and passenger traffic, which will also contribute to the overall objective of reducing by 60 per cent transport-generated emissions by 2050. [23]

54. Another example is provided by China, where the Government, through the Ministry of Transport, has developed a range of policies and plans, namely the Twelfth Five-Year-Plan, and Guidance for the Establishment of a Low-Carbon Transport System. The key targets include reductions of 16 per cent in energy consumption and 17 per cent in CO_2 emissions per unit of gross domestic product in 2015, compared with 2005. For the trucking sector, which accounts for 54 per cent of total transport sector fuel consumption, this translates into energy reductions of 12 per cent and CO_2 emission reductions of 15 per cent per 100 tons/kilometre. Five strategies will be employed to achieve these: alternative energy, energy efficiency, the optimization of freight logistics and intermodal connections, low-carbon technologies, and tax and fee adjustments.[24]

D. Financing sustainable transport

55. A fundamental element in the promotion of a sustainable transport system lies in the shift in investment patterns. A collaborative approach between investment partners – from the public and private sectors, donors and multilateral partners – is required to meet the huge investment requirements for more sustainable transport systems. Domestic public finance must be made available to foster sustainable infrastructure transport development at the national and regional levels. The government should also facilitate financing by providing incentives and/or providing guarantees or collateral to promote energy-efficient, low-carbon technologies.

56. Private-sector involvement through public-private partnerships can also be effectively developed and implemented to help scale up and speed up access to resources such as specialized skills, innovations and new technologies that are necessary to build, operate and maintain environmentally sustainable and more resilient freight transport infrastructure and services. Moreover, multilateral banks and development finance institutions have a major role to play, as they are increasingly integrating sustainable finance into their project finance programmes.

57. For instance, the Inter-American Development Bank has put in place a fast-disbursing fund (InfraFund) for the preparation of climate-resilient and sustainable infrastructure projects in Latin America and the Caribbean. The Asian Development Bank has launched the Sustainable Transport Initiative Operational Plan, which recognizes the need to mainstream aspects of sustainability in its lending portfolio and to increase support provided to its recipient countries in the areas of transport, climate change and energy efficiency.

[23] By 2050, all core network airports should be connected to the rail network, preferably a high-speed network, and ensure that all core seaports are sufficiently connected to the rail freight and, where possible, to the inland waterway system. Source: European Commission White Paper 2011, available from http://ec.europa.eu/transport/strategies/2011_white_paper_en.htm .

[24] Clean Air Initiative for Asian Cities Center (2011). Green Freight China Seminar Summary Report – Draft: Clean Air Initiative for Asian Cities (CAI-Asia) Center – May 2011. Pasig City, Philippines. Available from http://cascadesierrasolutions.org/Documents/Green-Freight-China-Seminar-Summary-Report.pdf .

58. As to climate finance and within the context of the ongoing negotiations on climate change, the design of financial instruments is looking more closely into tools to be fully applied to the transport sector, something that existing instruments, such as the clean development mechanism (CDM), do not cover (see box 1). [25]

Box 1. The future role of climate finance in enacting green transport

Under a post-2012 framework, mitigation actions in transport in developing countries are likely to fall under the umbrella of nationally appropriate mitigation actions (NAMAs), which could be financed by the following means:

(a) A transport window under a mitigation fund such as the future Green Climate Fund;

(b) A scaled-up, programmatic CDM;

(c) A transport-specific instrument;

(d) Other potential funds specific to capacity-building or technology.

NAMAs supported by developed countries are likely to be supported by fund-type instruments, whereas actions taken to acquire credits would be enacted through a crediting scheme such as a scaled-up CDM.

Source: United Nations Enviroment Programme, Available from - http://www.unep.org/greeneconomy/Portals/88/documents/ger/GER_10_Transport.pdf .

E. Climate change impacts and adaptation in maritime transport

59. Improving the understanding of climate change impacts on maritime transport and associated adaptation requirements is crucial, in particular in view of the importance of international shipping and ports for global trade. Accurate information on the likely vulnerability of relevant climatic impacts on maritime transport including their type, range and distribution across different regions, is required for the design of effective and adequate adaptation strategies. As noted above, UNCTAD has already carried out some activities aimed at raising awareness and helping improve one's understanding of the magnitude of the challenge, in particular for ports. Consensus-building activities provide an important platform for debate and an opportunity for policymakers, key public- and private-sector stakeholders, international organizations, scientists and engineers, among others, to discuss, exchange views and share best practices.

F. Implementing trade facilitation reforms and future World Trade Organization commitments

60. Once decided at the national level, trade facilitation reforms need to be implemented, and for each measure and context, a country's situation may be different. Some reforms may require technical assistance, while others depend more on political will. Some reforms can be undertaken at the national level, whereas others depend on

[25] As of October 2010, of the 2,400 registered CDM projects, only three are transport projects and only 32 out of the 5,529 CDM projects in the pipeline relate to the transport sector. Transport therefore only constitutes less than 0.l per cent of expected certified emissions reductions. Source: UNEP-Risoe Centre.

cooperation with neighbouring countries. Some reforms are costly and others are not. Sometimes all stakeholders have a common interest, while on other occasions there is opposition from stakeholders who benefit from the inefficient procedures or business practices. For some reforms, it suffices to work with customs, for others, many stakeholders need to join forces.

61. A three-step approach that builds on UNCTAD's experience with trade facilitation reforms is proposed. Firstly, the country concerned needs to put in place the institutional setting that allows for the involvement of all relevant stakeholders. Secondly, making use of this institutional setting, national trade facilitation needs and priorities should be developed; this increasingly includes compliance with regional or multilateral trade facilitation commitments. Thirdly, the country needs to develop a trade facilitation implementation plan that includes the identification of areas that require international cooperation.

62. The first step is crucial. Countries should have in place a mechanism that allows policymakers to undertake a comprehensive national assessment of trade facilitation needs and priorities before engaging in regional or multilateral commitments. They need to set up a task force, a trade facilitation committee or other type of consultative mechanism. The mandate of this collaborative mechanism should be broad enough to bear in mind that trade facilitation is a wider concept than that which would be included, for example, in the future WTO Trade Facilitation Agreement.

63. Even in the rather narrow context of WTO trade facilitation, developing countries may face implementation difficulties once the Trade Facilitation Agreement is concluded. Some countries will have to overcome a lack of capacity, infrastructure or resources. Additionally, it will be challenging for some countries to ensure legal consistency with domestic laws or regulations. Finally, developing countries may experience the need for additional personnel if institutional arrangements are agreed upon. Therefore, once obligations are agreed, the international community will most likely be called upon to continue and even expand its technical assistance and capacity-building support in order to implement the arrangements. UNCTAD, along with other Annex D partners,[26] has embarked upon a programme aimed at supporting developing countries in the negotiation process carrying out practical reforms. UNCTAD is committed to keeping the momentum going, as the ongoing active participation of developing countries is key to the successful conclusion of the Doha Development Agenda with regard to trade facilitation.

64. In addition to collaboration at the multilateral level, UNCTAD will continue its support to national reforms and regional integration processes. For all three levels – national, regional and multilateral – emphasis will be placed on strengthening national capacities, including trade facilitation committees or similar collaborative platforms. These mechanisms play a major role in the identification of national trade facilitation needs and priorities and the subsequent implementation of trade facilitation reforms.

G. Supporting trade facilitation in the least developed countries

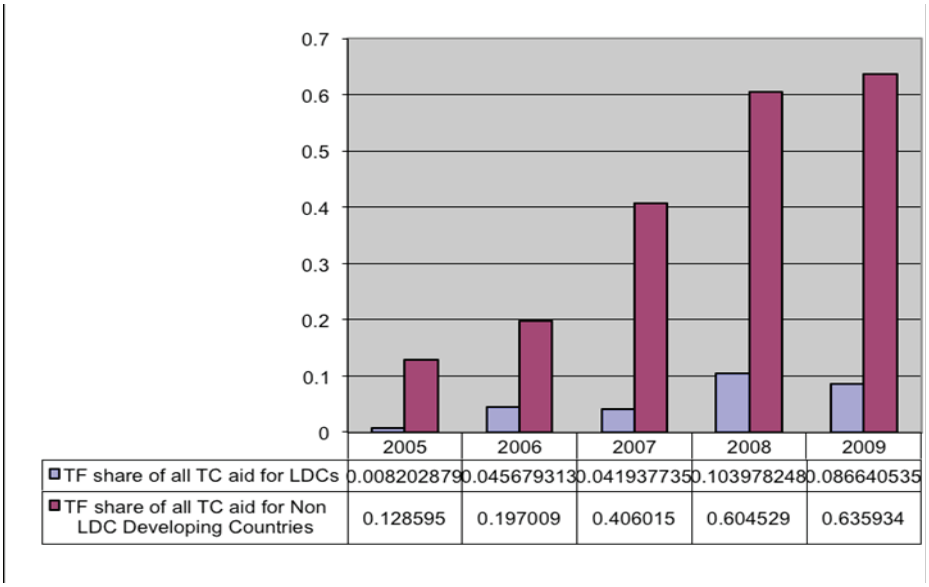
65. The international community, including UNCTAD, is confronted with the challenge that trade facilitation is generally advancing at a faster pace in middle-income developing countries than in LDCs. Often building upon larger trade flows, middle-income developing countries can achieve a higher rate of return on investments in trade facilitation reforms,

[26] International Monetary Fund, Organization for Economic Cooperation and Development (OECD), World Bank, World Customs Organization (WCO).

and thus find it easier to mobilize the necessary financing. By the same token, middle-income developing countries will often start from a stronger basis than LDCs as regards institutional, technological and human capacities. Consequently, reforms in LDCs are likely to be more costly in terms of required financing and time, while LDCs have less capacity to assess their needs, formulate requests and effectively absorb assistance available for trade facilitation reforms. Further, basic needs in most LDCs concerning education, health or infrastructure compete for attention and resources.

66. All of the above makes it less likely that an LDC will request assistance to support trade facilitation reforms from international partners such as UNCTAD, as compared with more advanced, middle-income developing countries. As illustrated in figure 2, the share of technical assistance assigned to trade facilitation is higher in non-LDCs than in LDCs.

Figure 2
Percentage share of technical assistance in the area of trade facilitation for LDCs and non-LDC developing countries, 2005–2009



	2005	2006	2007	2008	2009
TF share of all TC aid for LDCs	0.008202879	0.045679313	0.041937735	0.103978248	0.086640535
TF share of all TC aid for Non LDC Developing Countries	0.128595	0.197009	0.406015	0.604529	0.635934

Abbreviations: TC – technical cooperation, TF – trade facilitation.

Source: UNCTAD calculations based on data provided by OECD. Trade facilitation comprised several concepts, such as the simplification and harmonization of import and export procedures (e.g. customs valuation, licensing procedures, transport formalities, payments and insurance) and support to customs departments.

67. On a positive note, figure 2 also illustrates that the overall share of technical assistance assigned to trade facilitation has been increasing significantly in recent years, both for LDCs and for non-LDCs. However, compared with other areas, it remains low. Less than 0.1 per cent of technical assistance for LDCs was assigned to trade facilitation in 2009. For non-LDCs, this figure reached 0.63 per cent in the same year.

68. UNCTAD, together with Annex D partners and other regional partners, should proactively approach and develop proposals for LDCs in cooperation with the local competent authorities.

H. International customs cooperation (globally networked customs)

69. Customs automation has been a reality in many countries for decades. Nevertheless, it must be constantly updated and upgraded to adapt customs to a changing environment. This adaptation is done at the operational level by implementing processes and techniques that simplify the procedures toward a paperless environment by taking advantage of the progress in ICT. At the national level, this will lead to the implementation of a single-window environment and multi-agency cooperation. At the global and regional levels, this will lead to international cooperation between customs administrations, including the interoperability of their systems in a globally networked customs environment to insure coherence and a high level of security.

70. Cooperation between the customs administrations was established a long time ago and was institutionalized in the former Customs Cooperation Council (1952) that has become WCO. Among other activities, this cooperation included the exchange of information related to fraud or commercial operations in the frame of mutual administrative assistance agreements. At the outset, this exchange of information was based on paper documents (e.g. faxes or telex) and was progressively improved using ICT to create the Customs Enforcement Network.

71. In the past decade, the focus of customs policies was placed on the security of the whole supply chain promoting data exchange between trade and customs and between customs administrations themselves, including the exchange of pre-arrival information, for securing the transport of goods under the 2005 WCO SAFE Framework of Standards. Meanwhile, customs control techniques were improved, moving from pure trade facilitation to targeting cargoes for security using automated selectivity systems and non-intrusive media.

72. The Globally Networked Customs Initiative has been launched by WCO to take advantage of solutions offered by modern ICT to extend data exchange between customs administrations for enforcement, combating commercial fraud and implementing international procedures (e.g transit). Clearly, the implementation of this global data exchange requires the continuation and extension of work in standardizing and normalizing data, documents and messages.

IV. Issues for discussion

73. Experts are invited to be guided by the discussions of the previous sessions of the Multi-year Expert Meeting on Transport and Trade Facilitation, which helped generate insight into existing and emerging issues that affect the transport, trade performance and competitiveness of developing countries, especially LDCs, LLDCs and SIDS.

74. Experts may wish to discuss the following issues:

(a) Analysis and dissemination of best practices and existing options:

(i) To promote integrated multimodal transport and logistics systems;

(ii) To support and finance sustainable freight transport including through public-private partnerships;

(b) Cooperation with relevant partners to provide a forum and platform for research on:

(i) The impacts of oil prices on transport costs and trade;

(ii) The impacts of climate change on ports and related adaptation requirements;

(c) Assistance to developing countries for:

(i) The ratification and implementation of transport-related legal instruments;

(ii) The implementation of trade facilitation reforms, including WTO commitments;

(iii) Customs automation and supply chain security information processing systems.

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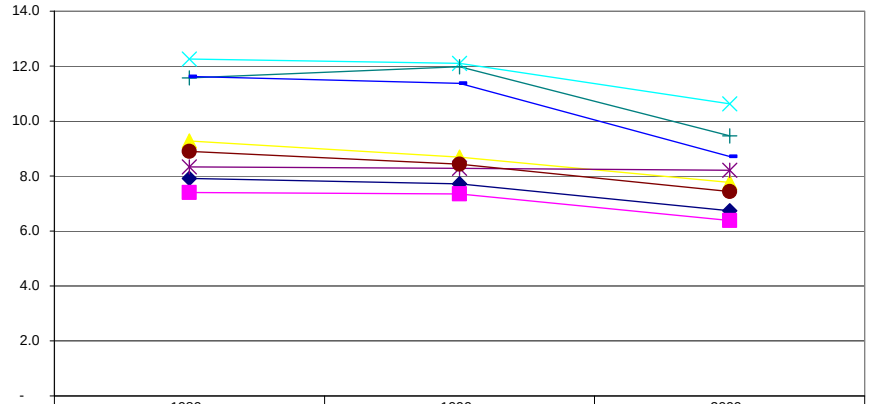
Item 3 of the provisional agenda

Challenges and policy options for transport and trade facilitation

Corrigendum

Page 5, figure 1. Replace with new figure 1:

Figure 1
Average cost of transport by decade and regional groupings (percentage value of imports)



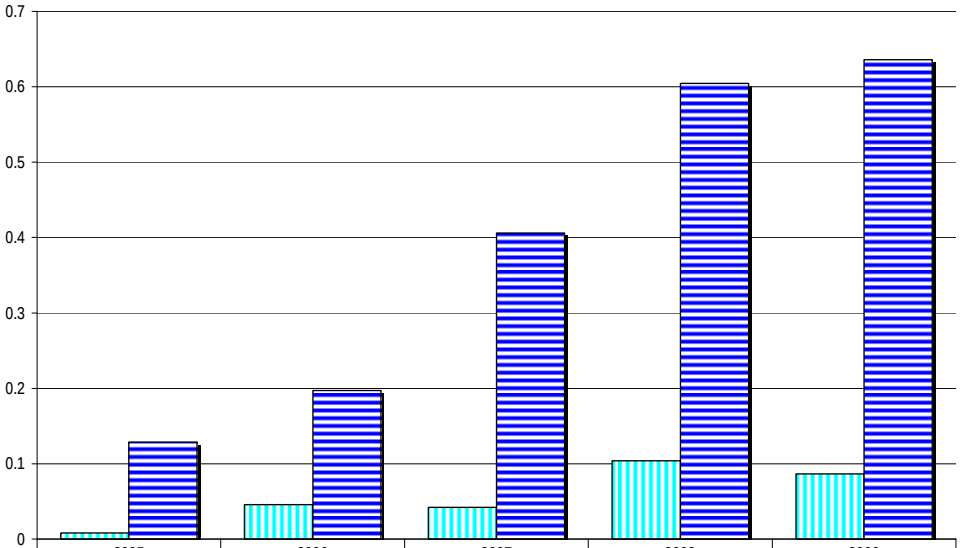
	1980s	1990s	2000s
World	7.9	7.7	6.7
Developed Economies	7.4	7.3	6.4
Developing Economies	9.3	8.7	7.8
Developing Africa	12.3	12.1	10.6
Developing America	8.3	8.3	8.2
Developing Asia	8.9	8.4	7.4
Developing Oceania	11.6	12.0	9.5
LLDCs	11.6	11.4	8.7

Source: UNCTAD secretariat.

Page 17, figure 2. Replace with new figure 2:

Figure 2

Percentage share of technical assistance in the area of trade facilitation for LDCs and non-LDC developing countries, 2005–2009



	2005	2006	2007	2008	2009
LDCs	0.008	0.046	0.042	0.104	0.087
Non-LDCs	0.129	0.197	0.406	0.605	0.636

Source: UNCTAD calculations based on data provided by OECD. Trade facilitation comprised several concepts, such as the simplification and harmonization of import and export procedures (e.g. customs valuation, licensing procedures, transport formalities, payments and insurance) and support to customs departments.