EFFICIENT TRANSPORT AND TRADE FACILITATION TO IMPROVE PARTICIPATION BY DEVELOPING COUNTRIES IN INTERNATIONAL TRADE

Note by the UNCTAD secretariat

Executive summary

The achievement of trade and transport facilitation objectives requires, inter alia, that countries be able to identify their priorities; this prioritization can benefit from the work of trade facilitation organizations, such as pro-bodies or trade and transport facilitation committees. Ensuring an enabling legal and regulatory framework is also paramount in facilitating transport and trade, as is access to global transport networks. Developing countries need to be kept abreast of developments pertaining to these issues and integrate such considerations into their policies in the area of trade and transport facilitation. Lack of transport connectivity and trade facilitation, in addition to high transport costs, increases the risk of marginalization of landlocked developing countries.
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INTRODUCTION

1. Trade facilitation and transport connectivity are important determinants of developing countries’ supply capacity and competitiveness in global markets. Countries need to set an appropriate regulatory and legal framework, reflecting national circumstances and priorities. In view of the above, this issues note discusses four related topics in the area of trade logistics that are of particular interest for developing and landlocked developing countries.

- The first chapter deals with trade and transport facilitation, with special focus on setting facilitation priorities. Given limited resources, countries need to prioritize which trade and transport facilitation measures they should undertake, and in which order.

- The second chapter examines the issue of international transport, with special focus on maritime transport connectivity. Although containerization has helped improve connectivity between practically all countries, large differences remain that have a bearing on transport costs and trade competitiveness.

- The third chapter looks at the legal and regulatory framework for transport and trade facilitation, with special focus on security and environmental issues.

- The fourth chapter considers the three issues of facilitation, transport connectivity and the legal framework from the perspective of landlocked developing countries (LLDCs). In view of their geographic disadvantage, trade facilitation, improved transport connectivity and legal reforms are of primary importance for LLDCs.

I. TRADE AND TRANSPORT FACILITATION PRIORITIES

2. Implementing trade and transport facilitation measures requires financial and human resources. As these resources are scarce and not necessarily earmarked for trade facilitation issues, countries need to set priorities as regards the measures that need to be implemented, as well as the appropriate sequencing of their implementation. Setting these priorities will also be essential when countries have to determine their negotiating position in bilateral, regional or multilateral negotiations, such as the negotiations seeking to improve and clarify GATT Articles V, VIII and X at the WTO.

3. The wider framework within which a country is to set its priorities is determined by international obligations, as well as the human and financial resources available. Not setting trade and transport facilitation priorities would mean that, by default, very low priority would be assigned to almost any trade and transport facilitation measure, or that priorities would be those of prevailing lobby interest groups.

A. The process of prioritization

4. The overall priority attached to trade and transport facilitation will depend on numerous factors, including a country’s economic openness to foreign trade. Key players in the determination of trade and transport facilitation priorities are the country’s institutions responsible for national economic development. In this context, national trade facilitation bodies, where they exist and function efficiently, can play an important role. During a recent joint UNCTAD/UNECE workshop on “Strengthening National and Regional Trade
Facilitation Organizations”,1 several such organizations explained their respective roles in the definition of national priorities, both regarding the implementation of trade and transport facilitation measures and regarding national negotiating positions in bilateral, regional and multilateral negotiations.

5. Trade and transport facilitation organizations may vary widely in their structure and composition. They range from well structured institutions receiving public and private financial support to less formal or informal groups of stakeholders who meet irregularly to discuss topics of common concern. Their activities may include: supporting and advising Governments in terms of promoting trade facilitation; providing advice, information, training or other services to their institutional members; carrying out research and analysis; and possibly also contributing to the implementation of trade facilitation measures. Examples of the latter include cooperation in setting up port community systems, supporting the development of simplified documents, or contributing to drafting of new legislation.

6. The actual formulation of national trade and transport facilitation priorities – be it as a negotiating position or concerning the allocation of national or donor resources – will to a large extent depend on the national capacities available, including institutions and organizational mechanisms of prioritization. Most countries do not have dedicated trade facilitation organizations, and priorities are often set with little or insufficient consultation with stakeholders. Even when trade facilitation committees or other dedicated bodies exist, a balanced and properly structured prioritization process is not necessarily guaranteed.

7. The interests of users and providers of trade and transport services may often collide. For example, the financing of given public entities or private sector associations sometimes depends on fees charged for established import or export procedures, and any proposal to reduce or abolish such fees might face strong resistance from the institutions concerned. The negotiating power of different stakeholders during the process of prioritization may be decisive for the final outcome.

8. The process of prioritization may also depend on the degree of decentralization of powers, decision-making processes and the administrative autonomy within a given country. In some smaller countries, where most trade moves through one seaport and one airport, a streamlined national structure may be the best approach. In a larger country, possibly with a federative structure and different regions specializing in different trades, it may be more appropriate to involve local authorities and business sectors in setting regional priorities. Examples of the latter situation could include cooperation between Customs and port communities. National negotiating positions, on the other hand, will always require a centralized definition of national priorities.

9. Ideally, the determination of priorities should be based on an objective analysis by the Government of a country’s existing and potential trade, as well as of the associated transaction costs. Such analysis should identify those facilitation measures that would be the most beneficial to a country’s foreign trade and economic growth. It should take into account multiple criteria to set priorities (see below), and quantify the costs associated with existing inefficiencies.2

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1 The workshop took place from 31 October to 1 November 2006 at the Palais des Nations in Geneva. For more information see www.unece.org/trade/workshop/geneva_oct06/welcome.htm.

2 An example of a recent study that aims at quantifying the costs of international trade procedures for a landlocked country is “Impact of transport and logistics on international trade competitiveness in Paraguay”.
B. Criteria for setting priorities

10. The importance that a country will assign to a specific trade facilitation measure will depend on numerous factors, which may vary from country to country. The following provides a brief overview of these factors.

11. Depending on the composition and the structure of its foreign trade, a country may give higher priority to facilitating exports rather than imports. It may – for instance – decide to first create a single electronic window for exports and only after that establish one for imports. By the same token, the level of technology use varies from country to country, and accordingly so does the priority that is attached to electronic trade facilitation solutions. In such a context, however, the introduction of an electronic trade facilitation measure by the public sector may effectively contribute to encouraging national SMEs that until then might have operated solely with manual procedures to also make a more intensive use of modern technologies and Internet connections. By way of example, in one case, the introduction of an electronic single window for export procedures has led to a significant boost in the set-up of Internet connections by small national exporters.

12. Some countries are hosts to large trade-support and transport-service providers, whereas others depend on services provided by foreign companies. The priority attached to facilitation measures that would benefit a particular type of company will differ if a country is host to such companies or not. A factor that would thus be taken into account when setting priorities is the ripple effect or the impact of the measure not necessarily on trade but on investment and employment in trade-support and transport services.

13. Large differences in domestic priorities exist when it comes to the facilitation of transit trade, where landlocked countries tend to be in a demand position and coastal transit neighbouring countries in a supplier situation. Traders in a landlocked country will naturally often assign high priority to the facilitation of transit trade even for international trade that transits their own territory, hoping to receive similar or reciprocal favourable treatment from neighbouring coastal territories.

14. Other factors that are of relevance to the priority-setting exercise include the composition of a country's trade, the mode of transport most commonly used, and the level of concentration of a country's foreign trade. The relevance of the composition of trade and more specifically the type of commodities traded can be illustrated by the case of perishables and fresh produce. In this regard, large volumes of imports might lead to higher priority being given to the separation of goods release from Customs. As regards mode of transport, depending on the mode of transport used, a country may decide to facilitate trade at ports, for example, by introducing pre-arrival clearance for seaborne trade, or at border crossings, for example by working towards joint border operations with neighbouring countries. Finally, with respect to the level of concentration of trade, diversified trade in terms of structure or trading partners may result in across-the-board solutions and multilateral agreements being given higher priority, whereas a concentrated trade structure may result in higher priority being given to specific solutions or bilateral agreements. The requirements of trading partners

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3 For a detailed description of specific trade facilitation measures, see UNCTAD’s Technical Notes, [http://r0.unctad.org/ttl/technical-notes.htm](http://r0.unctad.org/ttl/technical-notes.htm).

may also have a bearing on the priorities of a given country, for example if trading partners request advance information or security controls.

II. TRADE COSTS AND TRANSPORT CONNECTIVITY

15. Most international trade in manufactured goods is handled by liner shipping services, which provide regular transport services for seaborne trade, especially for containerized cargo. Access to international liner shipping networks is thus a crucial determinant of a country’s trade competitiveness.

16. The “connectivity” of countries with the global liner shipping network depends on a number of factors that include a country’s ports, the size of the deployed ships, the number of destinations served, and also the level of competition among shipping companies. Based on these criteria, the best connected countries are located in East Asia, followed by European countries, and the United States. Most of the worst connected countries are LDCs. The specific situation of landlocked countries will be looked at in chapter IV.

A. The geography of trade

17. The global geography of trade is changing, and transport costs and connectivity are playing an important role in these changes.

18. According to mainstream economic theory, countries that are further away from each other will trade less with each other. It is interesting to note, however, that empirical research by UNCTAD that incorporates not only distance but also transport cost data and indicators measuring connectivity suggests that transport costs and connectivity are more important determinants of trade volumes than distance.

B. Connectivity and transport costs

19. It has been shown that distance, trade balances, economies of scale, the type and value of the commodity involved, various port characteristics and transport connectivity are among the main determinants of maritime freight rates. For obvious reasons (such as additional fuel expenditure), a greater distance between a pair of countries leads to higher freight rates. However, the actual impact of distance on freight rates is not very strong; various studies have concluded that a doubling of maritime distance will lead to an increase in the freight rate by only around 15 to 20 per cent. Connectivity and economies of scale are more important than distance.

20. Freight rates for services that include one or more transshipments are significantly higher than for direct services. At the same time, freight rates have been found to be lower if other competing companies provide a direct service for the same pair of countries. By the same token, a higher number of companies in the market with more ships and a larger total container carrying capacity on direct services have a significant impact in terms of reducing freight rates, i.e. more competition, surplus capacity and direct connectivity help to reduce transport costs.

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5 For a more detailed comparison of connectivity levels, see UNCTAD Transport Newsletter No. 34, 2006. For a more detailed discussion of reciprocal relationships between connectivity, transport costs and trade volumes, as well as additional references, see UNCTAD Transport Newsletter No. 33, 2006. www.unctad.org/transportnews.
21. Security measures have also had an impact on transport costs and connectivity. For certain trades, it is paramount to comply with certain security requirements, and this on the one hand can make a port more attractive to shipping lines, yet on the other hand also entails higher operating costs. In this context, too, larger volumes of operation may contribute to lower unit costs. A recent survey by UNCTAD shows that the costs of security measures per tonne of cargo are in fact higher for smaller ports than for larger ports.6

C. Ways to improve maritime transport connectivity

22. Although in principle “supply follows demand” when shipping lines deploy their ships to those countries with the largest trade volumes, it is also true that “demand follows supply”, as trade volumes can be enhanced as a result of improved transport connectivity.

23. The supply of direct liner shipping services is to a large extent determined by traded volumes, port characteristics and the geographic position of a country’s ports. The countries that are the least connected to global shipping networks include those that are more distant from the main trade routes or those whose ports are considered inefficient or unreliable by shipping lines. A higher GDP per capita also appears to attract additional liner shipping services, which is consistent with other research showing that higher GDP per capita is closely related to port efficiency and liner shipping connectivity.

24. In order to achieve high transport connectivity, it is important to be able to count on modern port services and infrastructure, as well as information and communication technologies. Good hinterland connections also help to attract shipping services, as do intra- and inter-port competition. In particular, experience shows that improved access to foreign ports can significantly help to enhance inter-port competition, i.e. increase choices for traders, and thus improve a country’s effective transport connectivity. Transit trade and access to foreign ports are thus not only important for landlocked developing countries, but will also increase the cargo base of coastal countries and consequently help improve their transport connectivity.

III. LEGAL AND REGULATORY FRAMEWORK

25. The legal framework in which international trade and transportation is conducted is a critical parameter when considering trade facilitation. The development of internationally uniform laws, rules and standards is an important first step. However, effective national implementation and application of such internationally agreed sets of rules is also required to bring about genuine benefits in terms of trade facilitation and lead to a reduction of transaction and administrative costs.

26. Developing countries face particular challenges in this respect, for instance in the context of negotiations on international uniform laws and standards, where a considerable degree of expertise on complex technical issues may be needed, or in cases where effective national implementation of international conventions and standards requires sophisticated institutional systems and technology.

27. Two of the key global issues on the international agenda are anti-terrorism and, increasingly, the economic costs of climate change. Both of these issues are going to affect developing and developed countries alike in many ways, including in the form of internationally agreed regulatory frameworks that need to be implemented at national and

regional levels. For developing countries, participation in the relevant international consensus-building processes and consideration of relevant capacity-building needs to ensure compliance and implementation at national levels will be crucial.

A. Global supply-chain security standards

28. In respect of global efforts to enhance the security of international supply-chains, the Framework of Standards to Secure and Facilitate Global Trade (SAFE Framework), which was adopted in 2005 under the auspices of the World Customs Organization (WCO), represents the main set of relevant international standards. As of October 2006, 139 WCO Member Administrations had submitted a declaration of their intention to implement it. Moreover, the IMO’s Maritime Safety Committee and Facilitation Committee have begun to consider proposals to integrate into the Convention on Facilitation of International Maritime Traffic (FAL) and the International Convention for the Safety of Life at Sea (SOLAS) appropriate maritime cargo security procedures based on, or compatible with, the WCO standards. Accordingly, key elements of the SAFE Framework may, in due course, become part of (mandatory) international law for international maritime cargo transport.

29. The Framework rests on two “pillars”, namely Customs-to-Customs network arrangements and Customs-to-business partnerships, and it consists of four core elements: (i) the Framework harmonizes advance electronic cargo information requirements on inbound, outbound and transit shipments; (ii) each country that joins the Framework commits to employing a consistent risk management approach to address security threats; (iii) the Framework requires that, at the reasonable request of a receiving nation, based upon a comparable risk targeting methodology, the sending nation’s Customs administration will perform an outbound inspection on high-risk containers and cargo, preferably using non-intrusive detection equipment such as large-scale X-ray machines and radiation detectors; (iv) the Framework defines benefits that Customs will provide to businesses that meet minimal supply chain security standards and best practices, so-called authorized economic operators (AEOs).

30. A set of detailed AEO Guidelines, covering conditions, requirements and benefits, as well as validation, authorization and mutual recognition, was approved by the WCO Council in June 2006. At the same time, a resolution was adopted by the WCO Council which, among other things, deals with phased implementation of the SAFE Framework and outlines relevant future work. Requirements for AEO recognition and for electronic Customs data and document submission envisaged by the SAFE Framework may prove challenging for small commercial entities, particularly in developing countries. Of particular importance in the longer term will be the question of whether mutual recognition of AEO status can, in practice, be achieved.

31. In order to assist developing countries in the implementation of the SAFE Framework, the WCO’s Directorate for Capacity Building recently launched a major capacity building programme, known as COLUMBUS, under which diagnostic missions are conducted, a needs assessment is carried out, and an action plan is developed with a view to identifying donors that are willing to fund relevant projects, so as to ensure that at least one port in each country is compliant with the SAFE Framework. Integration of private sector concerns into this process will be important.

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7 For the text of the SAFE Framework and other relevant documentation referred to here, see the website of the World Customs Organization, www.wcoomd.org.
B. Regulatory responses to environmental concerns

32. Environmental concerns, in particular those related to the threat of global climate change, will increasingly have to be taken into account in relation to efforts to improve economic development through trade facilitation and international regulatory frameworks. Economic development also involves significant energy consumption, pollution, resource depletion, congestion, greenhouse gas emissions, inadequate labour conditions and infrastructure degradation. These negative externalities are particularly detrimental for developing countries and require greater attention. This is particularly true in view of the UN strategy on sustainable development and, more recently, in the light of new insights into the considerable economic costs of climate change. It is suggested that such costs could be in the region of from 5 per cent to more than 20 per cent of global GDP if no action is taken to address the issue as a matter of urgency and priority at a global level.8

33. Against this background, regulatory frameworks to address the challenges of climate change, including existing and future environmental legislation, are likely to play an increasingly important role in all fields of human activity, with potentially significant repercussions for economic development policies, transport strategies and infrastructure, and associated capacity-building initiatives. Scoping studies to identify possible areas for research and analysis on relevant impacts for developing countries should, therefore, be reflected in UNCTAD’s future work programme.

IV. CHALLENGES FOR LANDLOCKED COUNTRIES

34. Over the last decades, landlocked developing countries (LLDCs) have, on average, experienced lower economic growth, less investment and decreasing participation in globalized trade and production as compared to other developing countries. In fact, in the 1990s, LLDCs as a group experienced negative per capita income growth.9 Of the 30 LLDCs, 16 are classified as least developed. The main causes for the LLDCs’ disappointing development performance are related to inadequate trade facilitation and transport connectivity.

A. Transport costs and LLDCs’ foreign trade

35. As discussed above, maritime distance is less important as a determinant of transport costs than many other variables, such as connectivity, port efficiency and economies of scale. For road and rail transport, however, the situation is different; distance is a major determinant of road and rail transport costs. Also, roads and railways require initial investments and they may deteriorate due to heavy traffic, which is not the case for the waterways. All in all, this means that geographic distance from global markets matters far more for countries that trade by land or whose economic centres are far away from seaports than for countries that trade by sea and whose economic centres are close to their seaports.

36. As regards transport costs, an often quoted study suggests that “doubling transport costs reduces a country’s trade volume by around 80 per cent”; put differently, this means

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8 See the recent Review on the Economic Costs of Climate Change, prepared by Sir Nicholas Stern, former Chief Economist of the World Bank, for the British Government. http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm
that if a country can reduce its costs of international transport by 50 per cent, its foreign trade would be expected to multiply by five.\(^{10}\) Although UNCTAD’s research confirms the crucial importance of transport costs and connectivity for trade competitiveness, the high correlation appears to hide a two-way relationship: not only are high transport costs detrimental to trade, but low trade volumes also lead to higher transport costs as a result of diseconomies of scale.

37. Most LLDCs have a trade deficit as regards manufactured goods, i.e. they import far more manufactured goods than they export. This leads to high transport costs for imports, because the freight rate also covers the transport of the empty container or the empty truck back to its place of origin. In this context, it is important to note that the often quoted cif/fob ratio can only be seen as an indicator of transport costs for imports; it usually does not provide any information on transport costs for exports.\(^{11}\)

38. Due to the trade imbalance of most LLDCs, transport costs for manufactured exports are often lower than for imports; a trucking company will be happy to take cargo on board, rather than having to drive back empty. This suggests that it may not be so much the high transport costs for exports that are detrimental to the export competitiveness of LLDCs, but rather the delays and uncertainty of delivery times at border crossings. Most importantly, high transport costs and long delivery times for imports will also lead to higher production costs for goods that are destined for export markets.

39. As most LLDCs have extremely low trade volumes, the use of railways is discouraged, small and often old trucks are used, and return cargo is more difficult to find for service providers. All in all, there exists a vicious circle where low trade volumes lead to high transport costs and high transport costs discourage further trade.

**B. Facilitating transit trade**

40. In a document presented to the WTO Negotiating Group on Trade Facilitation, it is suggested that it is possible to overcome the geographical handicap of being landlocked under three fundamental conditions: the development of adequate national transport networks and efficient transit transport systems; geographical proximity to a large regional market, as is the case for European landlocked countries; and the promotion of industries and activities that are not sensitive to distance.\(^{12}\)

41. Trade facilitation measures such as transit transport systems or joint border operations help to enhance trade with neighbouring countries. As regards the promotion of industries that are not sensitive to distance, such as services or high tech products, this, too, is related to trade and transport facilitation, as such promotion may require fast and reliable imports, and it may require a particular focus on high-value goods that may be traded by the costly mode of air transport.

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\(^{11}\) In fact, neither does the cif/fob ratio necessarily provide sufficient information on transport costs for import cargo, because transport costs are measured per container or per tonne. The cif/fob ratio compares the value of goods in US dollars at Customs entry with the value of the goods at Customs exit. Comparing cif/fob ratios of landlocked countries with coastal countries is not appropriate, because a coastal country will usually only report the transport costs up to the port even though the final destination will always involve some land transport as well, just as it does for the landlocked country.

42. The Almaty Programme of Action includes five priority areas, of which the first two relate to trade facilitation and improved transport infrastructure. The other three priority areas relate to international support in terms of assistance, preferential treatment and follow-up activities by the international community.13

43. Most trade facilitation measures that are applicable to international trade are also relevant for transit trade. General improvements in the standardization, harmonization and simplification of many import and export procedures will usually have the equivalent impact on transit trade procedures. In addition, transit trade may require further, transit-specific measures, such as guarantee systems, the promotion of regional transit arrangements, and simplified and preferential clearance for cargo and vehicles in transit.

C. Legal aspects of transit trade

44. A number of international conventions, as well as Article V of the GATT, provide the general international legal framework for a right to freedom of transit for landlocked States. However, individual transit agreements, which form the legal basis for transit arrangements on the ground, are made at regional or bilateral level, and problems often arise in relation to their implementation and enforcement. In the light of the major importance of effective transit arrangements for landlocked developing countries, effective legal protection of a right to freedom of transit remains a continuing challenge.

V. THE WAY FORWARD

45. Effective achievement of trade and transport facilitation objectives depends on countries’ ability to identify their priorities. Priority setting is also necessary in the context of trade and transport facilitation negotiations, whether bilateral, regional or multilateral. Priority setting is best undertaken by national trade facilitation organizations, such as pro-bodies or trade and transport facilitation committees. Prioritization should be based on an objective analysis of countries’ trade flows and structure, geographical position, the mode of transport most commonly used for the carriage of international trade, and projections pertaining to future trade and growth. UNCTAD can not only contribute to the analysis of trade and transport facilitation priorities, but – perhaps more importantly – can also support the creation of appropriate trade facilitation organizations and their institutional functioning.

46. Trade competitiveness is, among other things, determined by countries’ access to international maritime transport networks. In the particular case of liner shipping services, access to international liner networks depends, inter alia, on the availability and performance of ports, the size and type of ships deployed and the destinations serviced. Apart from benefiting from enhanced transport connectivity, developing countries may also seek to participate in the supply of trade-support and transport services. UNCTAD will continue to monitor and analyse relevant trends in trade logistics and trade facilitation, and it will maintain its close cooperation with other international organizations, including through the Global Facilitation Partnership (GFP).

47. Ensuring an enabling legal and regulatory framework is paramount to facilitating transport and trade. In particular, greater awareness of the prominence of security-related

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13 Almaty Programme of Action: Addressing the Special Needs of Landlocked Developing Countries within a New Global Framework for Transit Transport Cooperation for Landlocked and Transit Developing Countries. 
concerns and the environmental dimension of sustainable development is essential to enhancing countries’ understanding of the evolving international regulatory scene. Developing countries need to be kept abreast of developments pertaining to these issues and integrate such considerations into their trade and transport facilitation-related policies, as well as when devising national sustainable development strategies.

48. Because of lack of transport connectivity and the impact of transport costs in shaping trade patterns and volumes, landlocked developing countries are particularly exposed to the risk of marginalization from international trade and transport networks. Improving transport connectivity is, therefore, key to addressing the concerns of developing countries and, most importantly landlocked developing countries. UNCTAD will continue its research on transport connectivity in relation with the geography of trade. UNCTAD also contributes to practical solutions regarding transit trade, especially through its Customs automation programme ASYCUDA.