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The potential of AID FOR TRADE to improve infrastructure and logistics performance of landlocked developing countries of Latin America

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1. Landlocked countries and development

Landlockedness, i.e. the lack of territorial access to the sea, is broadly recognized as a major impediment to trade, due to the dependency on transit countries for access to seaports, additional border crossings, high transport and transit costs, inadequate physical infrastructure and logistical and institutional bottlenecks (UN-OHRLLS, 2013).

According to United Nations Office of the High Representative for the Least Developed, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS) there are 31 landlocked developing countries (LLDCs), 16 of which are classified as least developed.

Landlocked developing countries in general, face similar challenges around the world (Cipoletta Tomassian, Pérez-Salas, Sánchez, 2009), such as:

- a) Coordination problems,
- b) Lack of reliability of transport systems,
- c) Distance and difficulties to access the sea ports,
- d) Costly bureaucratic procedures, especially referred to transport and trade's facilitation,
- e) Excessive logistic and transport costs,
- f) Weak infrastructure, with growing bottlenecks,
- g) The dependency of using the infrastructure of transit countries, and
- h) The lack of the effective implementation of some regional agreements which should improved the LLDC conditions related to infrastructure and transport.

2. The United Nations Almaty Programme of Action

The special development needs of (LDCs) have been recognized in many outcomes documents of the United Nations System, including the Millennium Development Goals (MDGs) and the Rio +20 Conference on Sustainable Development, just to mention some. Following the creation of the UN-OHRLLS in 2001, a ministerial intergovernmental conference held in Almaty in 2003 agreed to the Almaty Programme of Action (APoA) as a means to pursue the commitment to address the special needs of LLDCs. The APoA is a broad call for joint efforts by the international community, the landlocked and transit countries to revise regulatory frameworks affecting trade and to improve trade-related infrastructures for the benefit of LLDCs.

The APoA includes five priority areas: (i) fundamental transit policy issues, (ii) infrastructure development and maintenance, (iii) international trade and trade facilitation, (iv) provision of development assistance and technical support from the international community, and (v) implementation and review, to pursue the commitment to address the special needs of LLDCs.

3. ECLAC and Landlocked countries in Latin America

According to the UN-OHRLS, in the area of the Economic Commission for Latin America and the Caribbean (ECLAC) Bolivia (Plurinational State of) and Paraguay are the two cases under the denomination of Landlocked Developing Countries in Latin America and the Caribbean.

The Infrastructure Services Unit of Natural Resources and Infrastructure Division of ECLAC is in charge in the technical implementation of the APoA through substantive contributions, capacity building programmes, advisory services and support towards transport and logistics infrastructure development. In this context, ECLAC publishes periodic reports about the current situations of Bolivia and Paraguay. The last report was published in June 2009 on the occasion of the regional mid-term review of the implementation of the Almaty Programme of Action: addressing the special needs of the Landlocked Developing Countries. The next report will be presented in the *Comprehensive Ten-Year Review Conference of the Almaty Programme of Action* to be held 3-5 November 2014 in Vienna, Austria.

In the course of this work, the following broad observations could be made.

First, according to ECLAC's Panel of regional experts in infrastructure, transport, logistics and transport facilitation, losses of competitiveness can be observed for LLDCs mainly originating from: i) inadequacies in infrastructure due to lack of investment in new works and maintenance (e.g. insufficient dredging and deficiencies in road connections); ii) problems with trade and transport facilitation, in LLDCs and in the transit countries; iii) failure of the public and private sectors to comply with international standards, and iv) regulatory and institutional coordination problems.

Second, the relationship between LLDCs and transit countries in Latin America is positive and that there is a willingness of both groups to move forward to solve the challenges of transit transport systems. However, some issues remain pending, including, for example:

- a) inconveniences are related to transit rules;
- b) persistent red tape problems at border crossings;
- c) cargo restriction policies, such as the double taxation of freight, excessive administrative requirements, the practice of detaining containers in transit, cargo reservation policies, and especially, the failure to execute the widening, signalling and installation navigation aids in the Paraguay Parana river;
- d) Lack of infrastructure.

Third, neither LLDCs nor transit countries have a coherent planning and implementation of public policies for infrastructure, transport, logistics and facilitation, causing negative effects on the efficiency of the logistic chains within countries. For this reason, ECLAC has emphasized the importance of establishing national and regional transport policies based on an integrated approach, taking into account the individual characteristics and existing asymmetries between the countries as well as the necessity of growing the public investment flows for infrastructure development and maintenance.

4. ECLAC and Aid for Trade initiative

In line with the APoA, the steps undertaken by international organizations to assist developing countries mostly relate to trade and transport issues.

The Aid for Trade (AfT) Initiative helps developing countries, and particularly least developed countries, to trade in a better and more competitive way. Many developing countries face a range of supply-side and trade-related infrastructure obstacles which constrain their ability to engage in international trade. This initiative encourages developing country governments and donors to recognize the role that trade can play in development. In particular, the Initiative seeks to mobilize resources to address the trade-related constraints identified by developing and least developed countries.

In this context, ECLAC jointly with the other United Nations Regional Commissions for Africa, Europe, Asia and the Middle East, has initiated the implementation of the project entitled “Facilitating the Effective Integration of Developing Countries in the Global Economy through Aid for Trade Schemes.”

The main objective of the project is to strengthen the capacity of countries in the region to maximize the benefits from AfT interventions at national and regional level. The project seeks to contribute toward the understanding of policy makers and other stakeholders, as well as their technical capacities and skills, in formulating Aid for Trade projects specifically aimed at enhancing intraregional trade and improving participation in the global trading system.

In order to achieve these objectives, the project will make policy recommendations on the basis of in-depth analysis of the projects developed and implemented with priority given to the following topics:

- a) Harmonizing of trade policy, norms and regulations;
- b) Building and improving infrastructure;
- c) Promoting trade facilitation;
- d) Transforming productive capacity;
- e) Reducing of costs associated with landlocked countries; and
- f) Promoting global value chains.

5. Logistics in landlocked countries

Logistics are a sector of increasing importance, because management in global trade structures has developed towards thinking in processes rather than tariffs. Further, final distribution costs in many logistics chains make up a major part of the total transaction costs. These costs of inefficiency have a direct impact on the export sector, because the extra costs have to be saved at other points of the transport chain to remain competitive. Also, due to competition from similar export products from other countries, selling prices are rather fixed to external market conditions, and cannot be modified to consider the inefficiency costs. On the other hand the costs of inefficiency are directly passed on to the end consumers for imported cargo. This impedes investment in the country.

Further, over costs are induced by infrastructure bottlenecks and deficiencies, resulting in loss of scale economies, delays or product damage which can account for one fifth of all over costs. The border crossing and customs organization also have significant impact on the competitiveness of LLDCs. The institutional inefficiency (time losses due to infrastructure deficiencies or in the issuing of certificates) and regulatory frameworks also generate additional costs within the logistics chain. All these factors imply a burden to international trade that requires urgent action.

The predictability and reliability of supply chains is increasingly important in a world of just-in-time production. Costs related to hedging against uncertainty can have significant influence on the competitiveness of a product. Equally, cost and quality of logistics are determined not just by infrastructure and the performance of public agencies, but also by the availability of quality and competitive private logistics and transport services (Wilmsmeier, Sanchez, 2009).

Policymakers should look beyond the traditional trade facilitation agenda, which focuses on road infrastructure and information technology in Customs, to also reform logistics service markets and to reduce coordination failures, especially those of public agencies active in border control; the realization of these is impeded largely by institutional inefficiency, absence of long term strategic frameworks, lack of administrative capacities and short term oriented politicized decision making (Arvis et al, 2007). This creates a vicious cycle, which is present in both countries, that holds back development and creates a high risk environment, adverse for investments especially in national small and medium enterprises. The above mentioned situation demands a more integrated, comprehensive approach to implement reforms all along the supply chain. Indeed, there are strong synergies among reforms to customs, border management, infrastructure, and transport regulations, because reforms usually reinforce each other. Bolivia and Paraguay so far have worked with a piecemeal approach in these areas and therefore long-lasting improvements have not been reached so far. However, it has to be stated that these reforms need to go hand-in-hand with synchronized activities in the transit countries, which adds further complexity to the already existing challenges (Wilmsmeier, Sanchez, 2009).

The Logistics Performance Index (LPI) from the World Bank provides an estimation of the supply chain performance using an average scale (from zero to five) that weighted the country scores on six key dimensions:

1. Custom: Efficiency of the clearance process (i.e., speed, simplicity and predictability of formalities) by border control agencies, including customs;
2. Infrastructure: Quality of trade and transport related infrastructure (e.g., ports, railroads, roads, information technology);
3. International Shipment: Ease of arranging competitively priced shipments;
4. Logistics Competence: Competence and quality of logistics services (e.g., transport operators, customs brokers);
5. Tracking and tracing: Ability to track and trace consignments;
6. Timeliness: Timeliness of shipments in reaching destination within the scheduled or expected delivery time.

The comparison between Bolivia and Paraguay with their neighbouring countries (see Table 1) shows that in the LPI ranking (the average of the six areas before mentioned) Bolivia has the lowest performance of the group, ranked in the position 121 of 160 countries analyzed during the 2014 version. Paraguay is in 78th place above its neighbour Uruguay that it is in 91st place. At sub regional level, Chile has the leadership in the 42nd place, followed by Argentina (60th) and Brazil (65th).

TABLE 1
LOGISTICS PERFORMANCE INDEX RANKING 2014

Country	LPI Rank	Customs	Infrastructure	International shipments	Logistics competence	Tracking & tracing	Timeliness
Bolivia (LLDC)	121	108	133	135	88	94	141
Paraguay (LLDC)	78	90	97	79	78	74	70
Argentina	60	85	63	64	62	53	55
Brazil	65	94	54	81	50	62	61
Chile	42	39	41	53	44	40	44
Peru	71	96	67	69	76	83	66
Uruguay	91	111	90	103	100	75	91

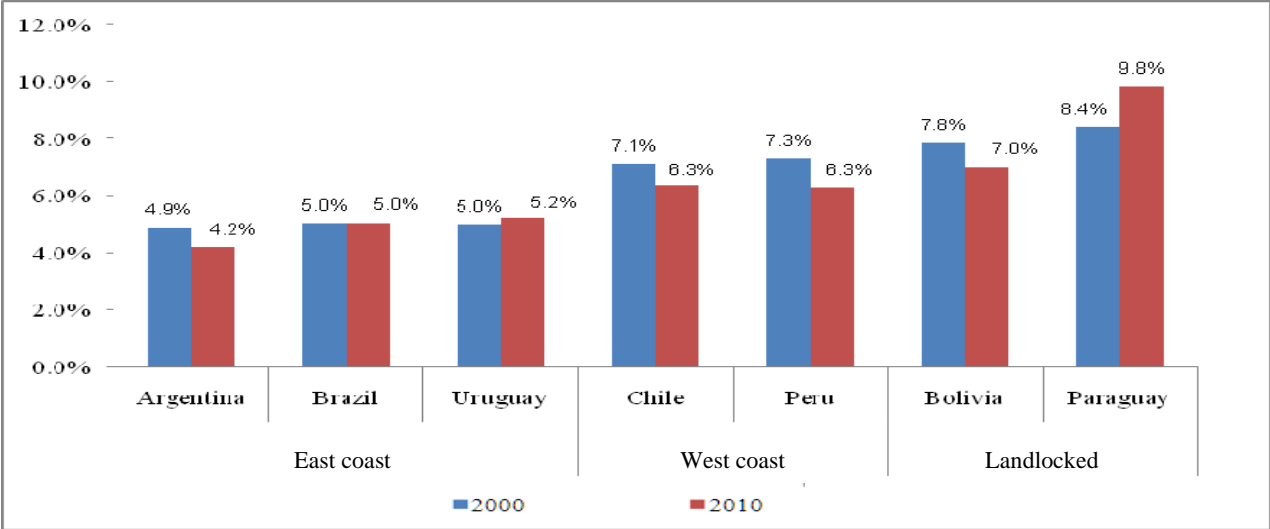
Source: Logistics Performance Index, World Bank 2014.

In a cross-sectoral analysis, the lowest performance of Bolivia is in Timeliness (Timeliness of shipments in reaching destination within the scheduled or expected delivery time) where it is in the 141st position, far from the best sub regional performance that is in the 44th place (Chile). For Paraguay the Infrastructure (Quality of trade and transport services related) is the area less developed (position 97th) also far from Chile with the best performance in this area (41st position).

It should be borne in mind that, even when some of the observations on the main shortcomings that LLDC showed in the LPI are valid, other results, according to the ECLAC experience and interviews with stakeholders in Bolivia and Paraguay, seem questionable. In consequence, a detailed analysis should take into account the different performances at border crossings; also depending on the performance in the neighbour and transit countries. A similar situation happens with figures on international transport costs that provide clear indications that

Bolivia and Paraguay have to cope with restrictions imposed by high costs in terms of international competitiveness of their export products, even when elevated international transport costs are common for all South American countries in comparison to other world regions, see Figure 1.

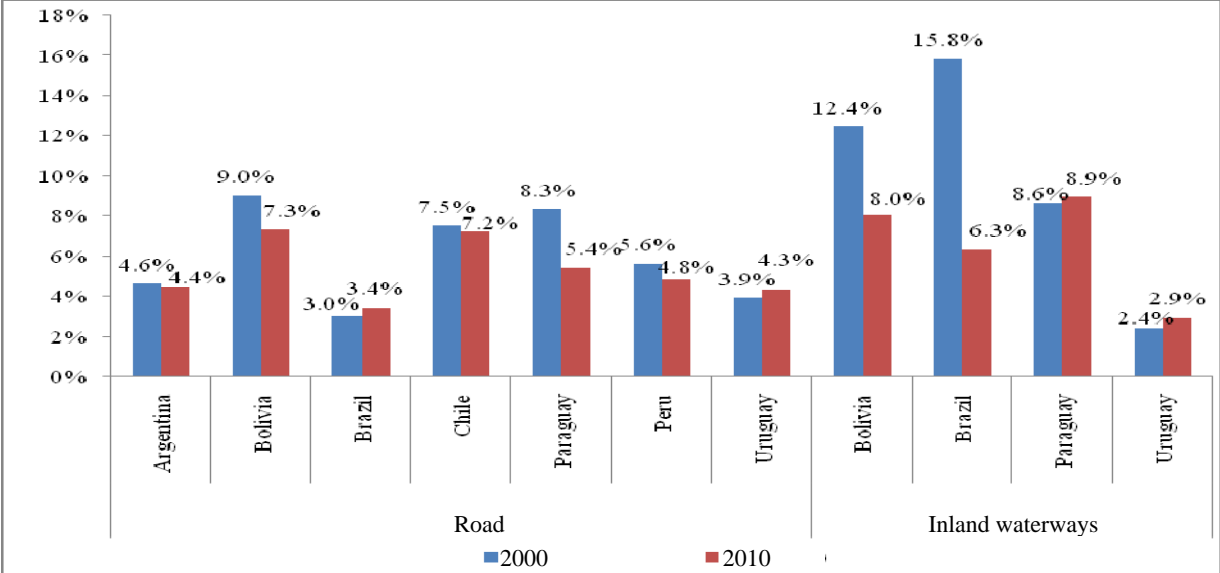
FIGURE 1
CONTRIBUTION OF INTERNATIONAL FREIGHT TO THE TOTAL COST OF IMPORTS (2000-2010)



Source: International transport database, Infrastructure Services Unit, ECLAC, 2011.

Similarly, the contribution of freight to the total cost of imports by mode of transport (Figure 2) shows that in spite of significant improvements made in the landlocked countries over the decade, in those countries freight costs continue to account for a larger share than in the transit countries.

FIGURE 2
CONTRIBUTION OF INTERNATIONAL FREIGHT TO THE TOTAL COST OF IMPORTS BY ROAD AND INLAND WATERWAYS (AS A PERCENTAGE)



Source: International transport database, Infrastructure Services Unit, ECLAC, 2011.

In the particular case of freight by inland water, Paraguay and the Plurinational State of Bolivia reported the highest values, with 8.9 per cent and 8 per cent, respectively. While in terms of road transport, the Plurinational State of Bolivia had the highest figure with 7.3 per cent of the total costs, followed by Chile with 7.2 per cent. This is a reflection of the fact that many of the difficulties or inefficiencies facing landlocked countries are also shared by the transit countries, and for this reason, finding effective solutions to these difficulties would benefit both parties. Thus it is important to deepen this kind of analysis on these issues before making policy recommendations to not to over-estimate or sub-estimate the landlockedness' impacts over the development.

6. Activities in the area of infrastructure and logistics where Aid for trade would be beneficial for landlocked countries in Latin America

A. Key infrastructural bottlenecks

An analysis of the physical infrastructure and transport services supply situation in Latin America's LLDCs, carried out by ECLAC, identifies the following key infrastructural bottlenecks and activities where AfT would be useful:

- Improvement of the road network:
 - Supervision and administration of road construction projects need to be reviewed and could be improved adopting international best practices. The existing differences in road construction costs in different tenders are not always justifiable referring to differences in road layout and geographic location factors. Cost and quality control need to be implemented providing strict supervision on all infrastructure projects.
 - Intensive cross border bi and multilateral cooperation between Bolivia, Paraguay and transit countries should be developed to solve the physical barriers. Even when this is highly dependent on the political willingness of each of these countries, physical and technological infrastructure gaps persist that could be solve trough AfT.
 - Improve the design of infrastructure projects in order to improve their performance, reduce the negative externalities on the environment and provide a higher resistance to natural disasters;
- Improvements of the inland waterways:
 - In particular, solve the problems regarding absence of dredging, signalling, navigation aids and maintenance of the existing river infrastructure.
- Improvement of the logistics facilities:
 - Lack of cold storage facilities in ports and airports;
 - Lack of storage facilities for dangerous goods in ports and airports;

- Promotion to co-modality options:
 - Railway is not a competitive option even when the greatest flows traded are bulk cargoes that could be transferred to this mode. An adequate integration among fluvial ports and train would be beneficial for LLDCs.

B. Key cross-border trade and facilitation activities

Trade facilitation can boost intra-regional trade and improve the situation of LLDC, but its implementation in practice requires capital investment, capacity building and regulatory and institutional arrangements that could benefit from AfT. In particular, the following activities should be considered:

- Agree on establishing integrated border controls with neighbour countries and in particular with transit countries to speed up the border crossings.
- Implement capacity building programs in order to avoid bureaucracy and reduce the cost (time and money) for preparation and provision of the documentation for customs. Also train public officials with regard to aspects of trade facilitation and regional and international trade negotiation to have a better understanding of the different strategies and alternatives that can be carried out.
- Promote mechanism for harmonization of vehicle standards to reduce discriminatory vehicle controls of LLDC at the transit's countries border.
- Support the organization of round tables for the transport and trade sector, in order to develop a long term strategy and implementation of projects and solve infrastructure and trade and transport facilitation problems.
- Create an information and knowledge centre on import–export procedures, tariffs, best practices in logistics operations and transport services, etc. to reduce the information asymmetries among LLDC companies and improve national competitiveness.
- Analyse current institutional responsibilities and regulatory powers in order to eliminate redundancies of responsibilities, red tape and ineffective governmental procedures among national authorities of LLDCs and with transit countries authorities.

C. Institutional bottlenecks

Beyond investment in infrastructure and facilitation, the institutional regulatory mechanisms need to be upgraded so as to render a facilitated service to the business sector. Activities to develop should include:

- Promote best practices for coordination between ministries and improve the decision-making processes, avoiding the politicization of trade facilitation and transit discussions.

- Avoid conflicts of interest between national and sub national governments and between different governmental bodies and the trade sector, especially related to infrastructure investment.
- Bolivia and Paraguay have signed various agreements to respect specific standards and procedures e.g. multimodal transport within ALADI and MERCOSUR, but both lack a proper national legislation to implement these nationally.
- Update laws in relation to trade standards and current logistics activities. While Customs should facilitate trade, customs regulations must still prevent the smuggling of goods and ensure proper control of cross-border trade flows to avoid terrorism and illicit trade. New investment need to focus in terms of Customs clearance, goods inspection and data collection to support selective controls.
- Improve labour conditions of national officer to avoid high fluctuation of personnel, enhance the training programmes, as well as widen the educational offer in the transport and logistics sector for the public and private field.

7. Conclusion

Aid for Trade could be an important tool to improve the trade of LLDCs and through this, promote a more sustainable regional development. The key areas related to infrastructure and logistics services where AfT could focus their action are related to increasing the investment in new infrastructure and maintenance programmes, especially for road maintenance and waterways infrastructures; reviewing and modifying the regulatory frameworks for a expeditious transit of cargo through procedures that promote transparency and mutual respect of transit regulations and agreements in force between the transit and landlocked countries; providing technical assistance and capacity-building activities for landlocked countries, giving special attention to the establishment of institutional capacities related to logistics and institutional development, avoiding isolated efforts.

Moreover, regional integration is a process that should continue to be strengthened and in which landlocked countries can and should play a more active role. This scenario is favourable for the coordination of intraregional investments; the establishment of a flexible and secure regulatory framework could expand the markets, reduce the cost of services and provide integrated solutions to the people of both landlocked and transit countries, with important synergic effects for the sustainable development of the entire region. In this connection, it would be advisable to explore the possibility of partnerships between countries, as well as between the public and private sectors, while seeking ways to share the costs and benefits of these investments equitably.

Finally, advance towards common logistics policies is a crucial issue for Latin America. These policies provide an institutional framework for the analysis and effective resolution of problems faced by the countries that are related to the availability of infrastructure and facilitation and promotes the coordination of actions and normative among countries.

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