



# Bridging Transport, ICT and Energy Infrastructure Gaps for Seamless Regional Connectivity

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Side Event: Linking Landlocked Developing Countries to Regional Infrastructure Networks  
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# Foreword



*Bridging Transport, ICT and Energy Infrastructure Gaps for Seamless Regional Connectivity*, is a contribution by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) to deliberations at the Second United Nations Conference on Landlocked Developing Countries (LLDCs) in Vienna, Austria, from 3 to 5 November 2014. It follows the region's final review of the Almaty Programme of Action, as embodied in the 2013 Vientiane Consensus, which clearly recognized that improving connecting infrastructures and bridging infrastructure gaps would be critical for the Asian LLDCs, and that greater policy attention as well as international support is required.

Overall, the Asian LLDCs have performed relatively well during the decade of implementation of the Almaty Programme of Action (APoA). The infrastructure improvements that took place in some LLDCs demonstrate that there is no absolute inevitability in landlockedness, and that with large-scale investments and prioritization in policy planning, landlocked countries can match, if not outperform the achievements of their neighbouring sea-accessing countries.

The report also shows that, in many respects, regional connectivity remains an unfinished agenda. Bridging infrastructure gaps remains a complex and expensive medium- to long-term challenge for LLDCs and one that will continue to require strong political commitment and the involvement of a range of multi-sectoral stakeholders in both the public and private sectors across the region.

Consequently, the report's central premise is that while the deployment of physical infrastructure remains a priority, deeper regional integration, through regionally cohesive integrated and terrestrial networks, is key for effectively linking Asian LLDCs to the region's infrastructure networks. The report presents a number of strategies, policy recommendations and ESCAP initiatives, designed to reinforce the regional coherence of connecting infrastructure and their cross-sectoral synergies.

For example, new investments will be needed in more and better transport infrastructure and logistics services, particularly along international intermodal transport corridors serving LLDCs. Consequently, the report identifies a number of high priority investments in terrestrial cross-border fibre-optic infrastructure for ICT connectivity. It notes further that while such investments can improve competition, pricing and network robustness, such bilateral

solutions would bring even greater benefits if they were integrated into a regionally cohesive approach that provides multiple configurations of routings. This is the rationale underlying ESCAP's Asia-Pacific information superhighway (AP-IS) initiative.

ESCAP's analysis also shows that the exploitation of new technologies can augment existing infrastructure by improving its efficiency and operations. In this regard, members and associate members of the Commission recently agreed to consider ICT connectivity amendments to the intergovernmental agreements on the Asian Highway and Trans-Asian Railway networks. This decision could represent another major milestone in the continuum of regional cooperation, as Asian LLDCs evolve into regional and global transit corridors for the movement of goods, services, people, information, knowledge, electricity/power, among others.

Similarly, in the energy sector, ESCAP is promoting the concept of an Asian energy highway (AEH), which aims at developing power connectivity for enhanced energy security. The concept is focused on optimizing the use of all energy resources, i.e. renewable energy resources and fossil fuels. It is envisioned as a necessary system for sustainable development because the growing demand for electricity in the region cannot be met in an optimal and equitable way unless there is an integrated regional power grid and electricity market.

This publication is, therefore, a substantive contribution to the policy debates about wider LLDC connectivity at the Second United Nations Conference on Landlocked Developing Countries, and will help shape future policymaking in the region and beyond. The outcome of this event will, among others, help to shape the preparatory process for ESCAP's Second Ministerial Conference on regional economic integration in 2015, and will also feature prominently in the future 5-year Regional Action Programme to be adopted at the Asia-Pacific Ministerial Conference on Transport which ESCAP will organize in 2016.



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# Executive summary

Geography adds dramatically to the development challenges facing landlocked developing countries (LLDCs). The only industrialized LLDCs are those in the European Union, and they have already for some time resolved their transit problems. Consequently, the most important demand of LLDCs has always been free access to the sea.

## From past to present

The problems of Asian LLDCs (ALLDCs) have always been high on ESCAP's regional policy-making agenda. Significantly, it was the Economic Commission for Asia and the Far East (ECAFE), the precursor of ESCAP that gave the issue international recognition for the first time.<sup>1</sup> Through ECAFE's Committee of Industry and Commerce, the Commission at its twelfth session in February 1956, adopted a resolution, opening up a new United Nations avenue that gave the needs of LLDCs a multilateral approach and credible international standing. Today, more than a half century later the issue remains a top priority for ESCAP. The secretariat's work has evolved in a manner that is well aligned with the *Draft Programme of Action for Landlocked Developing Countries for the Decade 2014-2024*. The findings of this report are particularly relevant to Priority Two of the Draft Programme of Action, namely "Infrastructure Development and Maintenance" in which transport, ICT and energy are recognized as priority sectors for achieving enhanced connectivity of LLDCs.

Overall, LLDCs have performed relatively well during the past decade of implementation of the Almaty Programme of Action (APoA). ALLDCs made tangible improvements in physical infrastructure to the extent that it is no longer an explicit binding constraint. Cross-border cooperation also improved, facilitated by international organizations that include ESCAP. Having said this, there is still a long way to go in linking LLDCs to regional infrastructure networks in a coherent way. Consequently, the report's central premise is that while the deployment of physical infrastructure remains a priority, deeper regional integration, through regionally cohesive terrestrial networks, is key for effectively linking LLDCs to the region's infrastructure networks. Furthermore, a related aspect is that as ALLDCs develop their transport and energy networks, they can enhance operational efficiencies by capitalizing on technological innovations. Information and knowledge are the new factors of production for achieving economic competitiveness and by strengthening cooperation in ICT connectivity, ALLDCs have unprecedented opportunities to mitigate, if not overcome, their longstanding problems of geographic disadvantage.

## From geographical disadvantage to geographic dividend

Indeed, the region's vibrant trade relations where the value of information embodied in goods traded continues to increase, have made it essential for approaches that go beyond single mode solutions (e.g. road, rail, ICT). Multimodal and cross-sectoral solutions along international corridors that are networked with each other are key for effectively linking ALLDCs to the region's infrastructure networks. Notably, cross-sectoral infrastructure synergies can be exploited by enabling the sharing

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<sup>1</sup> Uprety, K. (2006). *The transit regime for landlocked states: international law and development perspectives*. World Bank publications.

of passive elements of infrastructure, such as towers, ducts, and rights-of-way. This would not only cut costs of network expansion in all three sectors, but also augment revenue generation. Importantly, on 15 October 2014 in a joint session of the ESCAP Committees on Transport and ICT, the first time that such a session was held, members and associate members of the Commission agreed to consider, through the respective working groups, ICT connectivity amendments to the agreements on the Asian Highway and Trans-Asian Railway networks. This decision could emerge as another milestone in the continuum of regional cooperation, as ALLDCs evolve into regional and global transit corridors for the movement of goods, services, people, information, knowledge, and electricity/power, among others.

Likewise, the development of dry ports is all the more important for ALLDCs. Dry ports are essential to the advent of efficient intermodal transport corridors which offer a framework within which issues relating to trade, transport, technologies, as well as social and environmental concerns can be addressed in an inclusive manner. Supporting progress in dry ports is particularly timely, as the capacities of existing infrastructure in maritime ports are, in many cases, limited, operation costs are high and new facilities are urgently required. Furthermore, ICTs present an important means of augmenting the services provided by such facilities. By running fibre optic cables along the Asian Highway, and Trans-Asian Railway, networks, ICT infrastructure will converge at dry ports (many of which are already located, or planned for location along these intermodal transport corridors). The services provided by ICT hubs do not need to be located in physical proximity to the congested mega-cities of Asia - their virtual functions make them well suited to location in remote areas. Furthermore, through an ICT network infrastructure that connects LLDCs directly (rather than through transit countries onto submarine cables), the introduction of affordable state-of-the-art ICT applications will modernize customs clearance and a range of other operations offered by dry ports. It increases the efficiency of dry ports, augments the variety of services offered and in turn enhances the ability of dry ports to compete with maritime ports.

Some of the key sectoral issues highlighted in this report are the following:

## Transport networks

ALLDCs have made undeniable efforts to improve the quality of their transport infrastructure and services. Under various bilateral, multilateral and self-funded arrangements, ALLDCs have also consented investment to increase land transport connectivity with their neighbouring countries through the continued development or modernization of their road and rail networks.

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