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Major issues in transport: development and operation of dry ports of international importance

Development and operation of dry ports of international importance

Note by the secretariat

Summary

Statistics show that the share of intraregional trade in the overall exchanges in the region continues to increase. However, there is a risk that this growth momentum could slow because of inadequate transport infrastructure and logistics services. Locating well-connected dry ports at strategically advantageous inland locations along the routes of the Asian Highway and Trans-Asian Railway networks may assist member countries in defining a hinterland development strategy, facilitating access to markets for landlocked countries and advancing the emergence of an efficient logistics industry across the region. Related actions will help to realize the vision of an international integrated intermodal transport and logistics system for the region. The Intergovernmental Agreement on Dry Ports, which was opened for signature in Bangkok on 7 and 8 November 2013, is a first step towards attaining this objective.

The Committee is invited to share its experiences regarding the development and potential benefits of dry ports and to provide the secretariat with further guidance on the issues identified in the document.

Contents

	<i>Page</i>
I. Introduction.....	2
A. Background.....	2
B. ESCAP activities in the area of dry ports development.....	2
C. The Intergovernmental Agreement on Dry Ports: its structure and objectives.....	3
II. Development and operation of dry ports.....	4
A. Dry ports and intermodal transport corridors	4
B. Functions of dry ports.....	6
C. Ownership and financing of dry ports.....	8
D. Encouraging comprehensive government involvement.....	13
III. Issues for consideration.....	13

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Tables

1. Traditional functions of dry ports 7
2. Dry port development: stakeholders and benefits 12

I. Introduction

A. Background

1. The development of a sustainable international integrated intermodal transport and logistics system for Asia and the Pacific is a vision of the transport ministers in countries of the region. The intergovernmental agreements on the Asian Highway and the Trans-Asian Railway networks have been successfully developed and are being implemented with the aim of establishing two essential regional infrastructure assets best suited to enable the region to exploit its vast internal market, meet the mobility requirements of its people and ensure shared prosperity. This development paradigm requires a new approach to how transport policies are envisaged, that is, an approach based on the recognition of emerging trade flows to avoid a possible future mismatch between those trade flows and current transport infrastructure.

2. To avoid such a mismatch, it is essential that transport development be increasingly looked at from a regional perspective. This involves a detailed analysis of trade flows, a deep understanding of industry requirements and clockwork integration of the transport mode, which can happen only at intermodal interfaces, such as dry ports, and through the provision of logistic services.

3. As a link in the transportation chain, dry ports have proven to have a positive effect on the efficiency of the transport and logistics chain. Well-managed dry ports, particularly those located at a significant distance from a seaport, help reduce transportation costs and total transit time. This feature is particularly important for the ESCAP region, which has vast hinterland areas and accounts for 12 of the world's 30 landlocked countries. In the European Union, successful dry ports have increased the efficiency of logistics and enabled a modal shift from roads onto rail or inland waterways, thereby supporting policies aimed at reducing carbon emissions within the logistics chain. At the same time, a number of dry ports have provided valuable space for a range of value adding logistics services, enabling some of them to turn into large logistics parks or become the nucleus for special economic zones.

4. In the ESCAP region, after a phase that was focused on the development of maritime ports, experiences have started to appear by which transport development has moved inland. Thus, in India (facilities operated by the Container Corporation of India (CONCOR)), in the Republic of Korea (Uiwang Inland Container Depot (ICD)) or in Thailand (Ladkrabang ICD), dry ports have appeared as a way to “co-locate” transport and logistics services close to or even within manufacturing clusters. In China too, investment has been channelled into developing a network of dry ports with similar logistic offerings under both public and private initiatives. However, most countries in the region are at the beginning of the process.

B. ESCAP activities in the area of dry ports development

5. Following early recognition of the importance of promoting activities encompassing road, rail and port infrastructure as well as logistics services as a way to push forward the development agenda of the region, the secretariat,

together with member countries, enunciated the vision of an international integrated intermodal transport system, which the region needs in order to meet the growing challenges of globalization. This vision was expressed in the Busan Declaration on Transport Development in Asia and the Pacific adopted by the Ministerial Conference on Transport held in Busan, Republic of Korea, in November 2006.

6. In drafting that declaration, the ministers recognized both the important role of dry ports in the establishment of such a comprehensive system by extending the reach of the Asian Highway and Trans-Asian Railway networks, and their potential to become centres for economic development, particularly in landlocked countries and wider domestic hinterlands. That mandate received renewed support in December 2009 in the Bangkok Declaration on Transport Development in Asia, which was adopted at the Forum of Asian Ministers of Transport at its first session. In the Bangkok Declaration, the important role of dry ports was stressed in integrating modes of transport, reducing border crossing and transit delays, facilitating the use of energy-efficient and lower emission means of transport and creating new opportunities for the growth and establishment of development clusters. That declaration also went one step further; it contained a request for the secretariat to provide connectivity and integration of the Asian Highway network, the Trans-Asian Railway network and other transport modes by working towards the development of an intergovernmental agreement on dry ports.

7. In taking action on this mandate, the secretariat prepared a working draft of such an agreement, which was reviewed and refined through a series of subregional meetings that took place in Vientiane (July 2011), Dhaka (September 2011) and Dushanbe (December 2011), as well as at an intergovernmental meeting in Bangkok in June 2012. The finalized draft of the agreement was approved by the Committee on Transport at its third session in October 2012 and adopted by the Commission at its sixty-ninth session. On that occasion, the Commission also requested the secretariat to organize a signing ceremony for the agreement during the second session of the Forum of Asian Ministers of Transport, which was held in Bangkok from 4 to 8 November 2013. The signing ceremony took place on 7 November 2013, on which date 14 member States¹ signed the Agreement, including one (Thailand) which deposited an instrument of ratification. Since then, one more country has become a party to the Agreement through ratification, namely the Republic of Korea, and one more has become a signatory to it, namely Sri Lanka.

C. The Intergovernmental Agreement on Dry Ports: its structure and objectives

8. The Agreement is composed of three main parts, namely: (a) the main body which comprises a preamble and 17 operative articles; (b) annex I which contains a list of dry ports of international importance in member countries; and (c) annex II which provides a number of guiding principles for the development and operation of dry ports. Importantly, article 1 of the Agreement defines a dry port as “an inland location as a logistics centre connected to one or more modes of transport for the handling, storage and regulatory inspection of goods moving in international trade and the execution of applicable customs control and formalities”.

¹ Armenia, Cambodia, China, Indonesia, Islamic Republic of Iran, Lao People's Democratic Republic, Mongolia, Myanmar, Nepal, Republic of Korea, Russian Federation, Tajikistan, Thailand and Viet Nam.

9. This definition contains the following three important notions. A dry port is: (a) a site where different transport modes may converge; (b) a location at which goods in transit to their final destinations are subject to a number of operations; and (c) a place where customs control and formalities are completed.

10. The obligations of the parties under the Agreement are to adopt the list of dry ports contained in annex I as the basis for the coordinated development of important nodes in an international integrated intermodal transport and logistics system and to develop these dry ports within the framework of their national programmes and in accordance with national laws and regulations. In addition, the development and operation of these dry ports are to be guided by the principles set out in annex II to the Agreement. These principles concern the functions of a dry port, the establishment of institutional, administrative and regulatory frameworks conducive to the development and smooth operation of dry ports, the design, layout and capacity of dry ports, and the desired minimum infrastructure, equipment and facilities to handle expected freight volumes efficiently.

11. Altogether 27 ESCAP member countries have designated a total of 240 dry ports to be included under the above-mentioned obligations, including 153 dry ports that already exist and 87 potential ones. These dry ports were selected on the basis that they:

(a) Were located in the vicinity of: (i) inland capitals, provincial or state capitals; and (ii) existing or potential production and consumption centres with access to highways and/or railways, including the Asian Highway and the Trans-Asian Railway, as appropriate;

(b) Had transport connections to other dry ports, border posts, land customs stations, integrated check posts, seaports, inland waterway terminals and airports.

12. As Governments struggle to reconcile the increasing demand for transport infrastructure and services with the imperative of a reduction in the negative externalities of the transport sector, the Intergovernmental Agreement on Dry Ports, together with the Intergovernmental Agreements on the Asian Highway and Trans-Asian Railway networks, form an institutional framework aimed at supporting member countries in their efforts to work together towards the development of regional transport corridors using the routes of the Asian Highway and Trans-Asian Railway and identified dry ports of international importance as a canvas to define a hinterland development strategy, help landlocked countries access markets at lower costs than is currently the case and advance the emergence of an efficient logistics industry across the region.

II. Development and operation of dry ports

A. Dry ports and intermodal transport corridors

13. Traditionally, the smooth flows of international trade have relied on maritime transport. While this is naturally the most optimum way to ensure the efficient movement of vast volumes of cargo between Asia and its trading partners in Europe and North America, it has also represented the preferred choice for exchanges between Asian countries. As a result, coastal areas have attracted the establishment of manufacturing and trading centres, which in turn became magnets for the settlement of populations in ever larger communities enjoying higher incomes, greater employment opportunities,

better access to education and health facilities and higher standards of living. Yet, the concentration of large segments of population in a reduced number of locations has also brought with it a number of problems, such as unbalanced spatial development, social inequalities and overexploitation of resources in certain areas. In recognition of this situation, while the development of individual modes of transport is expected to remain important for some time to come, the integration of wider networks encompassing all modes is gaining in importance.

14. The integration of transport infrastructure and services is also desirable from the point of view of industry. Indeed, developments in information and communications technology have changed the management of production activities and made possible the integration of value adding activities into globe-spanning industrial networks that would benefit from the emergence of efficient international transport corridors.

15. A number of socioeconomic considerations give added urgency for the emergence of such corridors. The growth of populations around the world and their increasing affluence will continue to amplify global demand for traded products. At the same time, existing modes which are mostly being used independently are being stretched to capacity, and policymakers realize that the building of new infrastructure will not be able to keep pace with this increase in demand. Finally, at a time when the environmental performance of many industries is improving, the transport sector remains a major contributor to greenhouse gas emissions and continues to be highly dependent on fossil fuels for its operation. In this regard, the outcome document "The future we want" adopted at the United Nations Conference on Sustainable Development in June 2012 calls for Governments worldwide to put into place policies aimed at providing better access to goods and services in support of economic and social development while at the same time minimizing the negative impacts of a rapidly growing transport sector. To date, the focus on development with regard to sustainable transport has been very much on urban transport and mainly passenger transport. However, increased attention is being given to issues relating to the "greening" of long-distance freight transport through better integration of different transport modes.

16. In this context, developing intermodal transport corridors seems to offer a framework within which the above-mentioned concerns can be addressed holistically. These corridors provide a vehicle for countries to put into place efficient intermodal transport and develop their logistics industry, thereby giving the ESCAP region an opportunity to keep its global economic position, expand benefits for the labour market and continue to improve the standard of living of its people.

17. Intermodal transport corridors optimize the planning of land acquisition and use among different entities and make it easier to make adequate provision for future extension. They enhance mobility and create economies of scale for industry, and they offer a wide availability of services and a pool of trained manpower within a core strip of land.

18. At the same time, communities along the corridor enjoy greater employment opportunities as well as higher standards of living. Finally, by facilitating mode integration, intermodal transport corridors optimize the use of each transport mode, generate capacity reserves and reduce the carbon footprint of the transport industry, while generating economic vitality.

B. Functions of dry ports

19. In 1982, the United Nations Conference on Trade and Development (UNCTAD) described a dry port as: “An inland terminal to which shipping companies issue their own bills of lading for import cargoes assuming full responsibility of costs and conditions and from which shipping companies issue their own bills of lading for export cargoes”.² This definition implies that the main users of a dry port were to be shipping lines; therefore, the main function of a dry port was to serve as a spatial extension of a seaport. Limited in scope as it may seem, this definition served the primary purpose of a period when the growth of seaborne international trade was accelerating and the efficiency of freight movements, in particular containerized cargo, started to feel the pinch of limited expansion space within or in the vicinity of urban areas where maritime ports were located.

20. In subsequent years, however, with containerization continuing at an unabated pace, a revised definition came to encompass different users – in particular customs – and different functions, mostly those associated with containers, and a dry port came to refer to: “A common user facility with public authority status, equipped with fixed installations and offering services for handling and temporary storage of any kind of goods (including containers) carried under customs transit by any applicable mode of transport, placed under customs control and with customs and other agencies competent to clear goods for home use, warehousing, temporary admissions, re-export, temporary storage for onward transit and outright export”.³ This definition does not contradict the original one and even complements it usefully by turning dry ports into places that fulfil port functions away from the sea front. In other words, while still bringing the benefits of speeding up transit through ports and reducing congestion in the vicinity of ports, a dry port now also offers customs services to shippers.

21. With the notion of “services to shippers” implied in the definition, a new dimension arose, namely that of a dry port as an inland freight-handling entity that is a key component in supply chains. This means that the dry port could also offer value adding services to make the place attractive to businesses through an array of logistics activities, such as storing, packaging and labelling, as well as be a place where ancillary services, such as banking and insurance, could also be made available. This leads to an even more detailed concept and definition which ESCAP outlined in 2006 when the secretariat wrote the following:

...the term “dry port” refers to a defined inland location for the consolidation and distribution of goods that has functions similar to those of a seaport, and which includes customs clearance services. Seaport functions that could be expected to be typically present at these dry ports include container (and possibly bulk) handling facilities; intermodal infrastructure connections; a geographical grouping of independent companies and bodies dealing with freight transport (including, for example, freight forwarders, shippers and transport operators); and the provision of accompanying services such as customs inspections, tax payment, storage, maintenance and repair, banking and information communication technology connections.⁴

² United Nations Conference on Trade and Development, *Handbook on the Management and Operation of Dry Ports* (Geneva, UNCTAD, 1991) (UNCTAD/RDP/LDC/7), p. 2.

³ Ibid.

⁴ E/ESCAP/CMG(3/I)/1, p. 2.

Under this definition, it is suggested that the dry port is more than just a means for relieving pressure on facilities at congested seaports; it has also become a pole of attraction for the clustering of industrial activities and a driver for the economic development of specific areas. In the document, it is suggested that this expansion of activities would be particularly beneficial to small and medium-sized enterprises in providing opportunities for joint procurement, as well as consolidation and distribution services.

22. Although the dry port concept encompasses all types of cargo – containerized, non-containerized break-bulk and bulk cargoes – containerized cargoes tend to dominate the composition of volumes exchanged in foreign trade, with the result that dry ports may therefore be planned and designed with a container orientation in mind. In this respect, existing container yards in the region could gradually evolve into dry ports, with the location of value added services as a first possible step towards further expansion into full import/export processing zones or special economic zones, keeping in mind that an essential function for a facility to act as a dry port is that it should be an interface able to process cross-border trade and therefore should provide customs services on a full-time basis during its operating hours, according to the definition provided in the Intergovernmental Agreement on Dry Ports, as described in paragraph 8 above.

23. With the availability of customs services common to all, other traditional functions for different facilities are usually those shown in table 1 below, as outlined in a 2008 ESCAP study:⁵

Table 1
Traditional functions of dry ports

Type	Services provided
Container yard	<ul style="list-style-type: none"> - Container handling - Storage - Intermodal transfer-bonded cargo
Container freight station	<ul style="list-style-type: none"> - Stuffing and destuffing of international and domestic International Organization for Standardization (ISO) and non-ISO containers - Short-term storage of cargo (bonded and un-bonded) - Limited freight forwarding, cargo consolidation and banking services
Inland container depot	<ul style="list-style-type: none"> - Container handling and storage - Container stuffing and destuffing - Breakbulk cargo handling and storage - Container light repairs - Freight forwarding and cargo consolidation services - Banking, insurance and financial services
Freight village depot (under different terminology, this is also called a “logistics park”, “industrial park”, “trade processing centre”, “hinterland terminal”, among other names)	<ul style="list-style-type: none"> - Container handling and storage - Container stuffing and destuffing - Breakbulk cargo handling and storage - Customs inspection and clearance - Container light repairs - Freight forwarding and cargo consolidation services - Banking, insurance and financial services - Value added warehousing, inventory management and packaging/materials-handling services

⁵ ST/ESCAP/2556, pp. 5-9.

24. The range of value adding services that a dry port can provide reflects an evolution by which dry ports no longer serve necessarily a determined maritime port exclusively but are also embedded into the supply chain that governs trade between specific areas or countries. Significantly, this is important in view of dry ports serving landlocked countries. While dry ports are essential in providing these countries with efficient sea access, they are also bound to play in the future an important role in enhancing trade between them. Such a role can be foreseen within a subregion as large as Central Asia. This role can already be seen in countries with a vast hinterland, such as India where the Container Corporation of India (CONCOR) operates not only dry ports to serve traffic to and from the country's main ports, in particular Mumbai port, but also a number of terminals for domestic intermodal transport.

25. Finally, a dry port can also be “a fundamental structure promoting the export sectors of a region, particularly for smaller businesses unable to achieve economies of scale on their own. Through lower costs and better accessibility, new market opportunities become possible as both imports and exports are cheaper”.⁶

C. Ownership and financing of dry ports

26. Ownership defines the owner of the terminal site and facilities, including equipment. Under this broad definition, the ownership of a dry port can be either public or private, or a mixture of both. However, public ownership has traditionally been most common due to the importance of dry ports for the ports, which are most often owned by public authorities, and for the country in general. Often “since among the benefits of dry ports are job creation and a better usage of regional transport infrastructures, they tend to be perceived as projects of public benefit”.⁷ Under public ownership, the public authority commits the resources necessary to build the site and be responsible for its future development, but the expansion of activities at the site may offer opportunities for private sector intervention through such options as leasing or concessioning. These options often relate more to the operation side of a dry port.

27. Based on the above, since transport infrastructure has national strategic value, the financing is normally provided by the Government or by a public sector entity, such as a national railway organization or a port. In a 1991 UNCTAD report, it was recognized that, although the efficiency of a dry port may be restricted under such a regime, it could offer greater equality of treatment to all users and more equitable distribution of cargo among various modes within a centrally planned transport policy.⁸ In the literature on dry ports, it is recognized that both fully public and fully private ownership present benefits and drawbacks.

⁶ Theo Notteboom and Jean-Paul Rodrigue, “Inland terminals within North American and European supply chains”, *ESCAP Transport and Communications Bulletin for Asia and the Pacific*, No. 78, 2009.

⁷ Jean-Paul Rodrigue and Theo Notteboom, “Dry ports in European and North American intermodal rail systems: two of a kind?” presentation made at the Fifth Asian Logistics Round Table and Conference, Vancouver, Canada, 14-15 June 2012.

⁸ United Nations Conference on Trade and Development, *Handbook on the Management and Operation of Dry Ports* (Geneva, UNCTAD, 1991) (UNCTAD/RDP/LDC/7), p. 53.

28. With regard to total public financing, under this model funds would come out of the national budget, either directly or through loans. If the investment also involves equipment, the Government may then be inclined to also manage the operation of the site. However, the draw back of an “only public” regime may be that public facilities are sometimes seen as too slow in responding to market conditions and tend to overinvest in non-economic developments, leading to unnecessarily high costs for the users. In addition, the public sector may lack experience in promoting the site. Sometimes, total government ownership may be felt as overbearing and discourage investment from other sources. This problem has sometimes been cited in India:

...public sector dry port owners who are also partially listed government companies have land available to use at token cost, well under market values. In several instances, land has been leased out to public sector corporations for long periods at very low, subsidized rates. The government thus becomes a price setter for dry port services. In contrast, the private sector is not accorded the same preferential treatment and has to acquire land at market values.⁹

29. With regard to total private financing, few countries will allow full private funding of what is considered investments of strategic importance, such as seaports and dry ports. In a best-case scenario, the Government will lease land to a private investor not always directly involved in transport or logistics. While private ownership can sometimes provide such benefits as greater flexibility and faster response to trade, as well as changing patterns of operations and the supply of special needs, the regime may present a lack of control over prices and a disregard of the interests of local communities.

30. In the context of public-private partnerships, the above description would seem to speak in favour of an intermediate regime under which a mix of public and private roles would be achieved. While infrastructure can be expensive and a disincentive for private sector investors, especially in main line rail infrastructure, other intermodal facilities may lend themselves well to public-private partnership (PPP) modalities, which ESCAP has been promoting as part of the implementation of the previously mentioned Busan Declaration as well as the Seoul Declaration on Public-Private Partnerships for Infrastructure Development in Asia and the Pacific (2007), Jakarta Declaration on Public-Private Partnerships for Infrastructure Development in Asia and the Pacific (2010), Bangkok Declaration on Transport Development in Asia (2012), Tehran Declaration on Public-Private Partnerships for Infrastructure Development in Asia and the Pacific (2012) and the Ministerial Declaration on Transport as a Key to Sustainable Development and Regional Integration (2013). In other words, given the levels of investment required for constructing and equipping intermodal facilities, Governments have a strong incentive to enter into collaborative arrangements or partnerships with the private sector for the development of such facilities.

31. A PPP involves the private sector in aspects of infrastructure development, or provision of new or existing infrastructure services that have traditionally been provided by the Government. PPPs are usually long-term projects based on a contract or concession agreement between the Government (or a statutory entity) on one side and a private sector company on the other, aimed at delivering an infrastructure service at a fee. The partners in a PPP, usually through a legally binding contract or some other

⁹ Hercules Haralambides and Girish Gujar, “The Indian dry ports sector, pricing policies and opportunities for public-private partnerships”, *Research in Transportation Economics*, vol. 33 (2011), pp. 5-58.

mechanism, agree to share responsibilities related to implementation and/or operation and management of an infrastructure project. This collaboration or partnership is built on the expertise of each partner that meets clearly defined public needs through the appropriate allocation of resources, risks, responsibilities and rewards.¹⁰

32. In the previously mentioned 1991 UNCTAD study, two possible types of combinations between public and private sectors were outlined as applying to dry port development: (a) the public sector provides some facilities, such as railhead and main container hoists, and the private sector provides other facilities, such as container freight station (CFS) facilities; or (b) the public and private sectors provide the funds for a joint site operation under one management with unified control.¹¹ In the first case, advantages may be realized if the public sector invests in the heavy capital-intensive equipment that requires longer-term investment in comparison with other facilities at the site. Meanwhile, the second option would ensure that the dry port functions as an integrated organization and develops in a coherent manner combining the interests of business with those of local communities.

33. The two forms of PPP most commonly applied throughout the ESCAP region are the build-operate-transfer (BOT) contract and the management contract. BOT contracts involve commitments by private sector contractors to construct, equip, manage and operate terminals for a predetermined period – usually not shorter than 30 years – at the conclusion of which ownership of the terminal assets will revert to the Government. Under such arrangements, the financial obligations of the government party are usually limited to the provision of State-owned land, but may also include an obligation to provide road and rail access up to the gate of the site. The private sector developers would recover their investment in terminal assets from operating revenues generated over the term of the contract. Such a mechanism was adopted in the Republic of Korea for the development of facilities at Uiwang (near Seoul) and Yangsan (near Busan) for which BOT contracts were signed between the Government and private investors, most of whom were from the shipping and logistics sector. Meanwhile, management contracts are usually concluded between Governments and private investor/operators for periods of fewer than 30 years. Under these types of arrangement, Governments commit to invest in the provision of all terminal infrastructure and private partners commit to invest in the cargo-handling and transport equipment needed to operate the terminal. Operation of the terminal is then the responsibility of the private sector partners, but ownership of the terminal assets remains with the Government, which would recover its investment from concession fees paid by private partners for the duration of the concession contract. The Ladkrabang facility (in eastern Bangkok) was developed under such an arrangement, with concession contracts signed with six private partners.

34. The form of private participation selected will invariably depend on the Government's financial capacity and desired level of exposure to risk. From the standpoint of minimizing government responsibility in terms of investment, the BOT arrangement has certain advantages, but its main limitation is that it would not encourage competition in the operation of the

¹⁰ United Nations, Economic and Social Commission for Asia and the Pacific, *A Guidebook on Public-Private Partnership in Infrastructure*. Available from www.unescap.org/sites/default/files/ppp_guidebook.pdf.

¹¹ United Nations Conference on Trade and Development, *Handbook on the Management and Operation of Dry Ports* (Geneva, UNCTAD, 1991) (UNCTAD/RDP/LDC/7), p. 53.

terminal. An operating concession would expose Governments to a high level of investment risk, but to the extent that this arrangement allows the operation of individual terminals to be split among two or more operators, exporters and importers would have the potential to derive strong benefits from competition among operators.

35. Conceptually, PPPs do not differentiate between national and foreign investors. Yet, historically, many dry port projects, especially in the ESCAP region, have been developed and financed on domestic resources with few examples of recourse to international investors. This is in contrast with terminals at maritime ports which have traditionally attracted reputed international terminal operators, such as Hutchison Port Holdings Trust, DP World, and PSA International (formerly Port of Singapore Authority). About 90 of the 100 largest container and seaports globally operate in this manner, including those in Asia. Government involvement has gravitated towards port regulation, improving transport infrastructure linkages to ports and ensuring competition in the sector.

36. Seaport management and operations have naturally favoured the private sector, as private businesses have stronger incentives and logistics skills, ensuring they will operate the port more efficiently than the Government. This has the added macroeconomic benefit of ensuring that ports remain competitive and that they do not either unnecessarily restrict trade through inefficiency and lack of investment, or make claims on public funds that would be better used elsewhere. Differing perspectives in the region on government interventions aside, the development of dry ports should focus primarily on improving the quality of infrastructure and services provided to freight transport customers, with particular focus on access.

37. The high investment costs of new dry port infrastructure may pose a challenge, especially when rail infrastructure has to be provided. In addition, while dry ports may have benefits for a number of different stakeholders, these benefits may materialize in the shorter or longer term depending on the stakeholders concerned. For example, while benefits may be quick to show for port authorities, for logistics providers that are under heavy competition, they may materialize over a much longer period. Yet, notwithstanding such difficulties, dry port development touches both public and private sector entities so deeply that partnerships seems to be the only way to move forward in the consensual manner required for success. Various items in the literature on the subject agree on the benefits that different stakeholders may derive from successful dry port development. Table 2 contains a summary of these benefits. It would seem logical then that those who stand to benefit most from dry port development would also be the most inclined to invest and become partners in related projects.

38. It is therefore evident that, as countries in the region are moving progressively into more complex and higher-value manufacturing and are more strongly integrated into global production networks and value chains, logistics requirement have to be more sophisticated. The challenge for Asian countries is thus to identify improvements in logistics services and related infrastructure, including dry ports, that can be achieved in the short-to-medium term and that would have a significant impact on their competitiveness.

Table 2
Dry port development: stakeholders and benefits

Stakeholders	Benefits
Government	<ul style="list-style-type: none"> - Enhanced trade - Higher competitiveness ratings providing stimulus for increased GDP growth - Higher revenues
Port authorities	<ul style="list-style-type: none"> - Reduced congestion in ports - Greater attractiveness to shipping lines - Greater port expansion opportunities
Railway authorities	<ul style="list-style-type: none"> - Greater market share
Road operators	<ul style="list-style-type: none"> - Reduced time in congested terminals and roads, leading to greater asset utilization
Industry/shippers	<ul style="list-style-type: none"> - Greater integration of transport into supply chain leading to reduced transport costs - Cheaper logistics - More efficient access to customs and additional logistics services
Port cities	<ul style="list-style-type: none"> - Reduced road congestion - Better land-use opportunities
Local governments	<ul style="list-style-type: none"> - Enhanced local economic development
Society	<ul style="list-style-type: none"> - Greater employment opportunities - Reduced congestion and pollution through modal shift - Reduced number of road accidents

39. The prospect of added revenues through increased economic activity, corporate taxes and income taxes from a wider working population should also raise the interest of governments at the central, regional and local levels in the development of dry ports and related logistics-intensive clusters. In the United States of America, the development of the Alliance Texas logistics park had an economic impact estimated at US\$ 36.4 billion over the period 1990-2008. This compares with a total of US\$ 7.1 billion capital which was in place in 2008, including US\$ 6.7 billion from private sources and US\$ 387 million from public sources (State of Texas and Federal Government).¹²

40. On the social front, local governments and populations alike would also benefit from successful dry port development, in particular through the generation of new employment opportunities across a broad spectrum of job seekers, from low-paying ones in cargo-handling activities to high-paying ones in information technology and bank-related jobs, as well as managerial and executive positions. This is due to the fact that dry ports can be a structure promoting the export sector of a region, particularly for small businesses unable to achieve economies of scale on their own. While 28,000 jobs were created in the previously mentioned Alliance Texas park, that site also led to the creation of an estimated 63,400 jobs indirectly. In Europe, activities at Duisport, which serves as a hinterland site for the ports

¹² Yossi Sheffi, "Logistics-intensive clusters: global competitiveness and regional growth" in *Handbook of Global Logistics*, J.H. Bookbinder, ed. (New York, Springer Science+Business Media, 2013), pp. 463-500.

of Bruges-Zeebrugge and Antwerp in Belgium and Rotterdam and Amsterdam in the Netherlands, support an estimated 36,000 jobs in the area.¹³

D. Encouraging comprehensive government involvement

41. As illustrated above, both the Government and society stand to gain from efficient dry port development. However, for related benefits to materialize, a comprehensive and integrated approach across government ministries could help ensure the long-term success of dry ports as inland growth centres. Initially, this may include providing:

(a) Transport infrastructure connections and maintenance (ministries of transport, finance);

(b) A conducive policy environment for business (ministries of commerce, trade, finance);

(c) Government services and facilitation activities (ministries of customs and trade, and revenue authorities);

(d) Regularly scheduled rail services connecting ICDs to seaports (railway authorities, ministry of transport).

42. As services around dry ports expand and evolve towards export processing and industrial parks, additional government involvement may be required for:

(a) Appropriate land-use planning and zoning (ministry of planning);

(b) Cost-effective and reliable energy supply (ministry of energy);

(c) Cost-effective and reliable water supply (ministry of water/public works);

(d) ICT connectivity (ministry of communications, technology).

III. Issues for consideration

43. While initiatives in dry ports development may initially be championed by ministries responsible for transport infrastructure, long-term success will rely crucially on an integrated and comprehensive approach across ministries, as well as on the involvement of a number of stakeholders in the private sector.

44. The Committee may wish to invite delegations to provide information on progress made in individual countries with respect to the development of dry ports and growth centres away from coastal areas, and illustrate those factors considered to be crucial to success, such as public-private partnerships in development and operations.

45. In addition, the Committee may wish to provide guidance with respect to:

(a) The appropriate roles for national Governments, local governments and the private sector in fostering dry ports as growth centres, including how other ministries and institutions might be encouraged to become involved in exploring dry port issues further;

(b) The ways that the secretariat, jointly with other development partners, could assist in devising policies on dry port development, including through analysis and sharing of “good practices”, as well as potential pilot projects to be carried out with member countries.

¹³ For further information on Duisport, see www.duisport.de.