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Item 6 of the provisional agenda

**Logistics performance in the Arab region****Summary**

The importance of logistics has grown sharply in recent years, owing to intensified competition and increased demand for faster and better services to meet global markets requirements. Developed and developing countries are investing heavily to improve logistics, and the Arab region is no exception. Over the years, many Arab countries have improved their logistics performance and other related matters, such as connectivity to global maritime networks, but many still have a long way to go to meet the challenges of today's markets in terms of parts and components and of final goods. Various investments in hard and soft infrastructure are taking place across the region to improve future capacity.

The present document considers the various pillars of logistics in the Arab region according to the latest data in major global databases, and provides recommendations to enhance logistics performance in Arab countries.

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## Introduction

1. Globalization requires countries to integrate into the global economy, so as to build on comparative advantages to move up the global value chain and increase competitiveness. The rise in global trade has made the logistics sector an integral support structure in the economy. Accordingly, countries seek to maintain and improve the quality and efficiency of logistics services as a step towards long-term competitiveness.
2. A paper published by the Organisation for Economic Co-operation and Development (OECD)<sup>1</sup> estimates that logistics costs range between 6 per cent and 15 per cent of total turnover, which shows that it plays an important role in international competition. Using input-output data, Shepherd and Hamanaka<sup>2</sup> estimate that, on average, logistics constitute between 5 per cent and 17 per cent of total value added in the economy, depending on whether a narrow or broad definition is used.<sup>3</sup> A significant part of this total is accounted for by domestic logistics activities. The logistics sector is a clear contributor to national output, but to varying degrees depending on numerous factors.
3. Research on logistics and trade links indicates a positive correlation between enhanced logistics quality and increased trade: a better business environment with enhanced logistics quality and implementation of trade facilitation measures lead to a higher probability of increased exports for firms.
4. Enhancing the performance of logistics requires tackling various issues, including improving transport connectivity, developing transport services and improving customs operations. Countries that have implemented trade logistics reforms have witnessed an increase in the flow of exports and imports, increased revenues as a result of higher trade volumes, savings from the efficiency of administrative customs procedures, and greater utilization of existing infrastructure and capacity. Such improvements in logistics have in many cases rationalized investment in expanding infrastructure and other capacity.
5. With a share of less than 5 per cent of global trade and around 11 per cent of intraregional trade, the Arab region remains one of the least integrated globally and regionally for numerous reasons, including the performance of logistics. The present document considers the various pillars of logistics in the Arab region according to the latest data in major global databases.

## I. STATE OF LOGISTICS IN THE ARAB REGION

### A. LOGISTICS PERFORMANCE INDEX

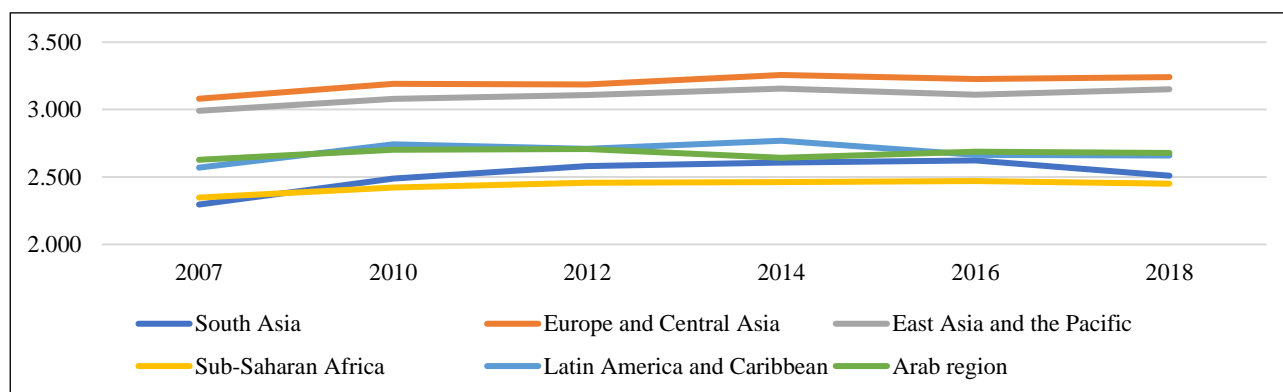
6. The Logistics Performance Index (LPI) developed by the World Bank identifies challenges and opportunities in trade logistics. LPI 2018 ranks 160 countries on six components of trade, including customs performance, infrastructure quality and timeliness of shipments, which have increasingly been recognized as important to development. Data are based on worldwide surveys from logistics professionals interviewed about foreign countries where they operate.
7. Figure 1 shows trends in overall LPI across regions over the period 2007-2018. Results show a general positive trend for the Arab region except for a slight drop of 2.41 per cent in 2014, reflecting the effects of instability and political turmoil. The region performs better than sub-Saharan Africa and South Asia, but lags behind East Asia and the Pacific and Europe and Central Asia.

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<sup>1</sup> Karri Rantasilai and Lauri Ojala, "Measurement of national-level logistics costs and performance", Discussion Paper, No. 04 (Paris, Organisation for Economic Co-operation and Development, 2012).

<sup>2</sup> Ben Shepherd and Shintaro Hamanaka, "Overcoming trade logistics challenges: Asia-Pacific experiences", *Asia Pacific Journal of Marketing and Logistics*, vol. 27, No. 3, pp. 444-466.

<sup>3</sup> The narrow definition includes only transport and related activities, while the broad definition includes wholesale and retail distribution activities.

**Figure 1. Trends in the overall Logistics Performance Index**

Source: World Bank, "The LPI 2018", Logistics Performance Index database. Available at <https://lpi.worldbank.org/> (accessed on 1 August 2018).

Note: 1.000=low; 5.000=high.

**TABLE 1. ARAB COUNTRIES COMPARED WITH INCOME GROUPS IN LPI 2018**

United Arab Emirates	4.0
Qatar	3.5
Oman	3.2
<b>High income: non-OECD</b>	<b>3.1</b>
Saudi Arabia	3
Bahrain	2.9
Kuwait	2.9
Egypt	2.8
<b>Upper-middle income</b>	<b>2.8</b>
Lebanon	2.7
Jordan	2.7
Djibouti	2.6
Tunisia	2.6
<b>Lower-middle income</b>	<b>2.6</b>
Comoros	2.6
Morocco	2.5
Algeria	2.5
Sudan	2.4
<b>Low income</b>	<b>2.4</b>
Mauritania	2.3
Syrian Arab Republic	2.3
Yemen	2.3
Somalia	2.2
Iraq	2.2
Libya	2.1

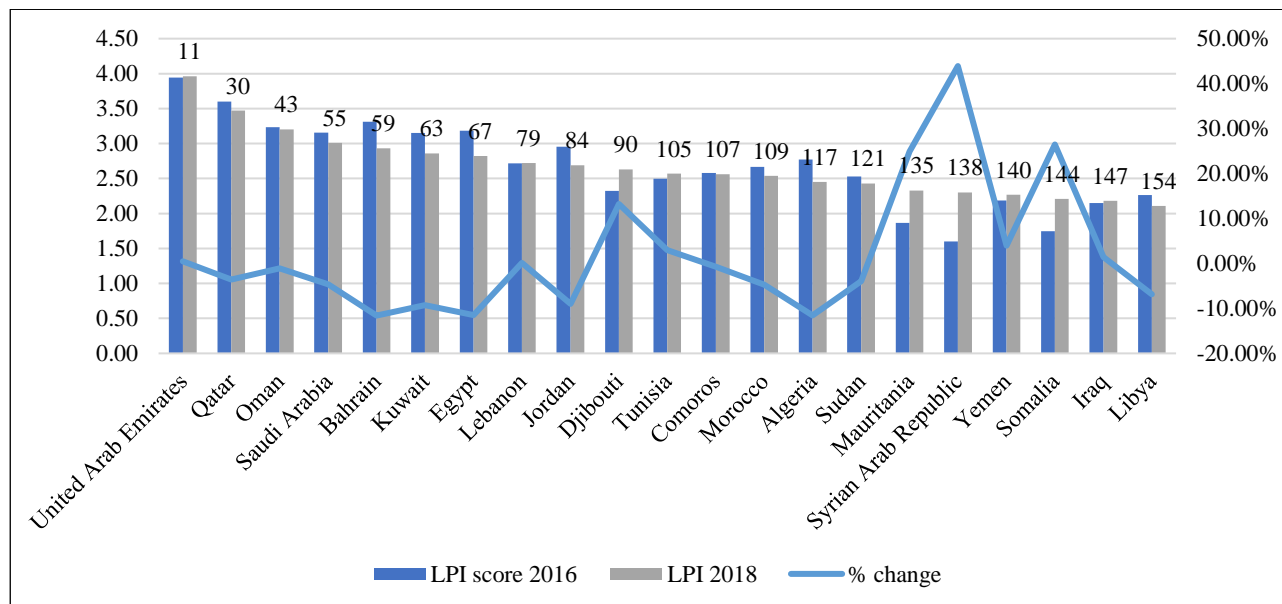
Source: World Bank, "The LPI 2018", Logistics Performance Index database.

8. Measured against the average performance rating for the upper-middle-income peer group, the United Arab Emirates, Qatar and Oman scored above the high-income non-OECD group, while Saudi Arabia, Bahrain and Kuwait scored below. Lebanon, Jordan, Djibouti and Tunisia scored better than lower middle-income countries. Libya performed the poorest among Arab countries, scoring below the low-income peer group. Among Mashreq countries, Egypt performed the best, reporting a score similar to the upper-middle-income average; Lebanon and Jordan scored higher than the lower-middle-income average, and Iraq and the Syrian Arab Republic performed badly, scoring lower than the low-income group. Lastly, Djibouti, the Comoros and the Sudan reported the highest numbers among the least developed countries (LDCs), exceeding the low-income average; while Mauritania, Somalia and Yemen performed the worst, scoring below the

low-income group (table 1). Overall scores for Arab countries in 2018 range between 2.1 (Libya) and 4.0 (United Arab Emirates), with ranks between 154th (Libya) and 11th (United Arab Emirates).

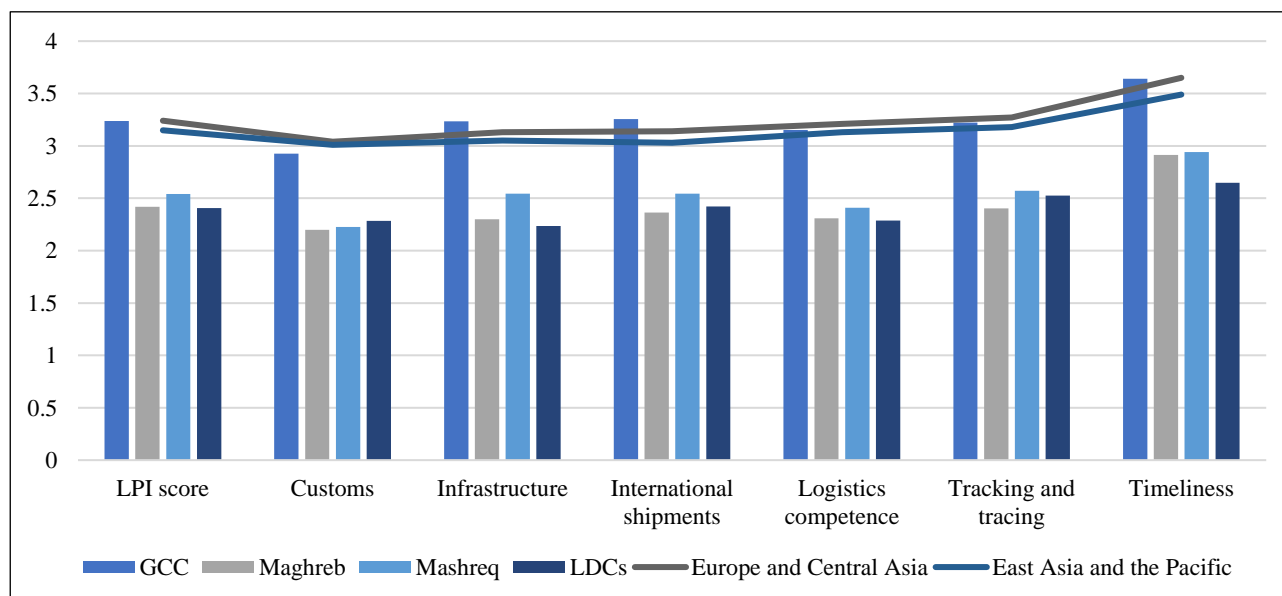
9. Overall LPI for the Syrian Arab Republic has improved by 43 per cent since 2016, moving up 22 places to 138th place in 2018 from 160th in 2016. Scores for Somalia, Djibouti and Mauritania have undergone a significant rise since 2016 of 26 per cent, 13 per cent and 24 per cent, respectively; while Algeria, Bahrain and Egypt regressed by 11 per cent each (figure 2).

**Figure 2. Arab region’s LPI performance in 2016 and 2018**



Source: World Bank, “The LPI 2018”, Logistics Performance Index database.

**Figure 3. Subregional performance in the six subindicators of the 2018 LPI**



Source: World Bank, “The LPI 2018”, Logistics Performance Index database.

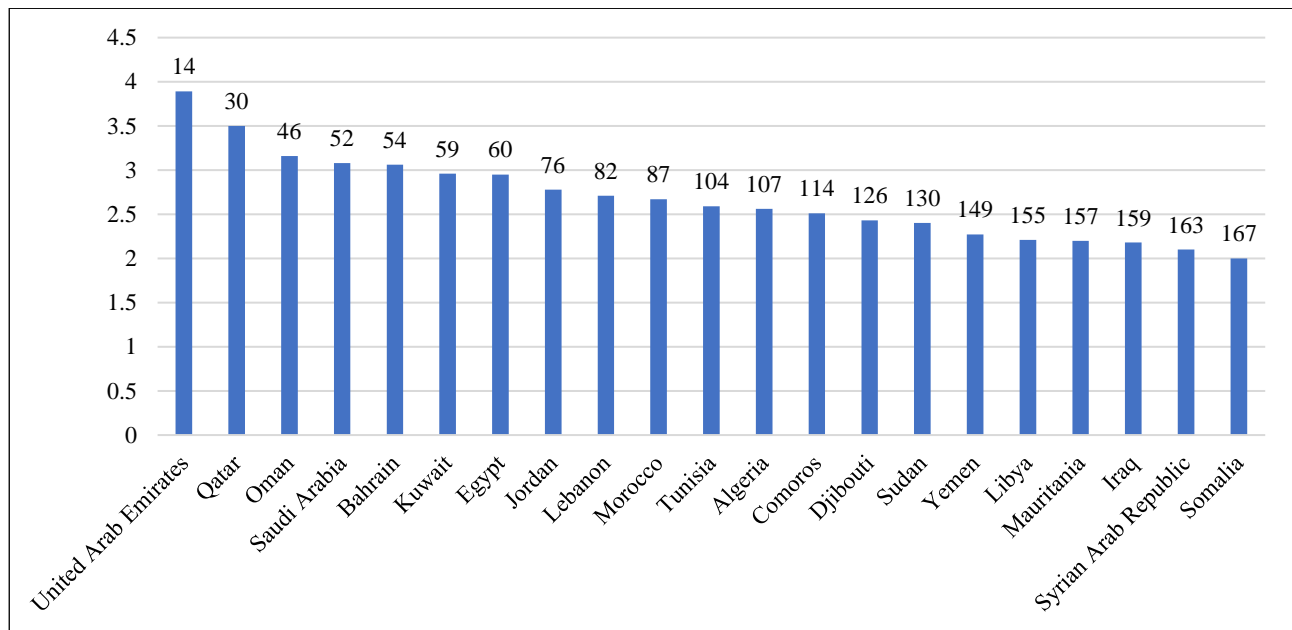
10. The Gulf Cooperation Council (GCC) group is the best performer among all groups, outperforming East Asia and the Pacific on all LPI subindicators (except customs), and scoring higher than Europe and Central

Asia on infrastructure and international shipments. The Mashreq group follows, succeeded by the Maghreb group and the LDC group. The gap between the GCC group and the rest of the region is significant in areas of infrastructure, logistics quality and customs clearance quality (figure 3).

1. *Aggregated Logistics Performance Index 2012-2018: the big picture*

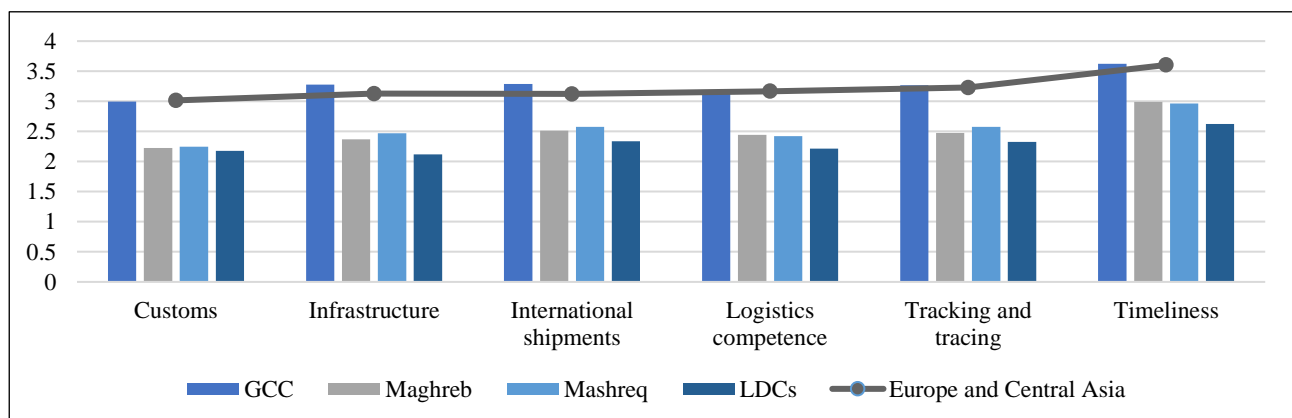
11. The aggregated LPI combines the four most recent LPI editions. Scores of the six components across the 2012, 2014, 2016 and 2018 LPI surveys were used to generate a ‘big picture’ to better indicate countries’ logistics performance. This approach reduces random variation from one LPI survey to another and enables the comparison of 167 countries. Each year’s scores in each component were given weights: 6.7 per cent for 2012, 13.3 per cent for 2014, 26.7 per cent for 2016, and 53.3 per cent for 2017. As such, the most recent data carry the highest weight. Missing values are filled according to previous years’ scores.

**Figure 4. Arab region’s aggregated LPI 2012-2018 score and rank**



Source: World Bank, “The LPI 2018”, Logistics Performance Index database.

**Figure 5. Arab region’s aggregated LPI 2012-2018 performance in subindicators**



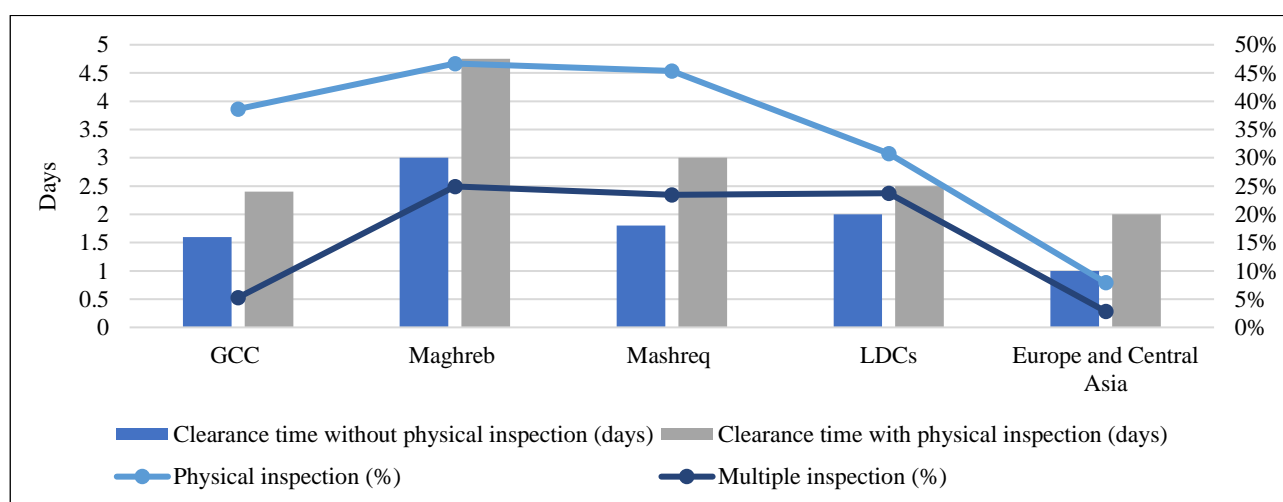
Source: World Bank, “The LPI 2018”, Logistics Performance Index database.

## 2. Domestic Logistics Performance Indicator

12. The domestic LPI looks at the logistics environments in 116 countries: surveyed logistics professionals assess the logistics environments in their own countries. This domestic evaluation contains detailed information on countries' logistics environments, core logistics processes and institutions, and performance time and cost. It looks at logistics constraints within countries, not just at gateways such as ports or borders. It uses the following four major determinants of overall logistics performance to measure performance: infrastructure, services, border procedure time, and supply chain reliability.

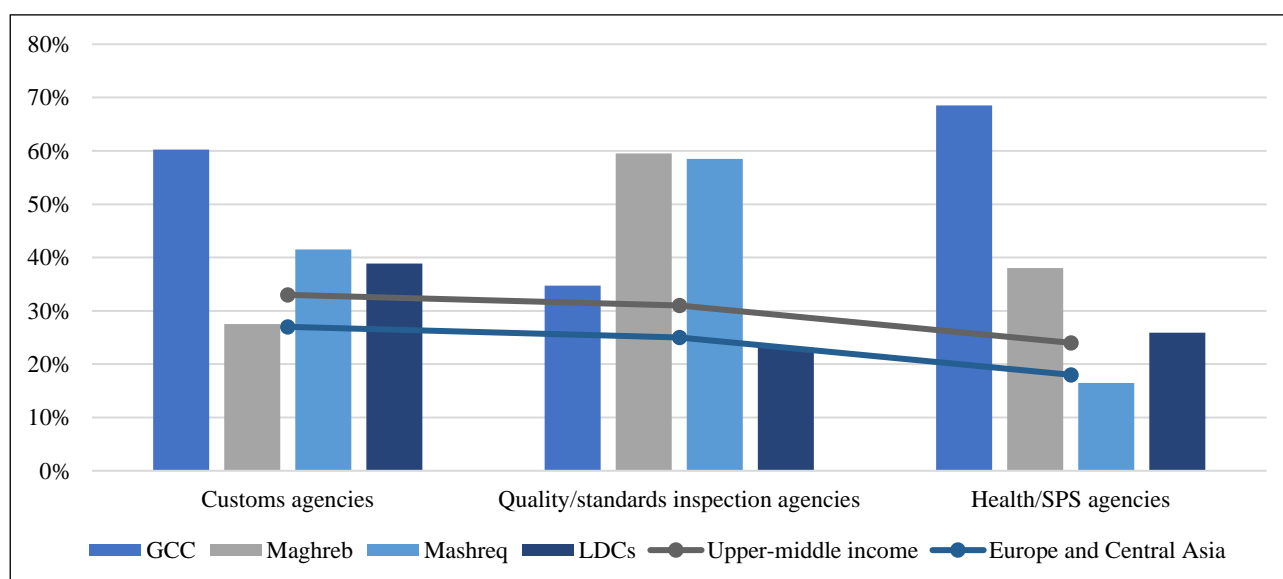
13. Clearance times with and without inspection for GCC and the Mashreq countries are comparable to Europe and Central Asia, while clearance times for Maghreb countries take much longer. Clearance times without inspection for Maghreb countries are similar to those of the middle-income group. The range of physical inspection across Arab countries is 31-47 per cent, reflecting border delays in the region (figure 6).

**Figure 6. Border clearance times with and without inspection, and rate of physical inspection, 2018**



Source: World Bank, "The LPI 2018", Logistics Performance Index database.

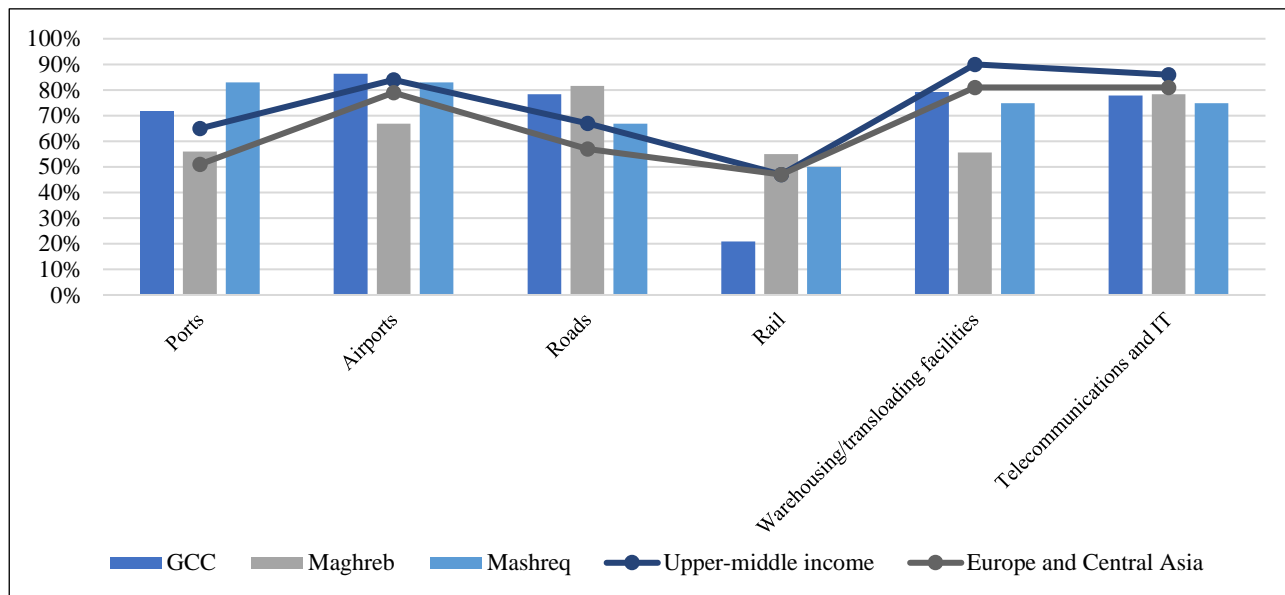
**Figure 7. Performance of border agencies**



Abbreviation: SPS, sanitary and phytosanitary.

Source: World Bank, "The LPI 2018", Logistics Performance Index database.

**Figure 8. Infrastructure quality in the Arab region, 2018**

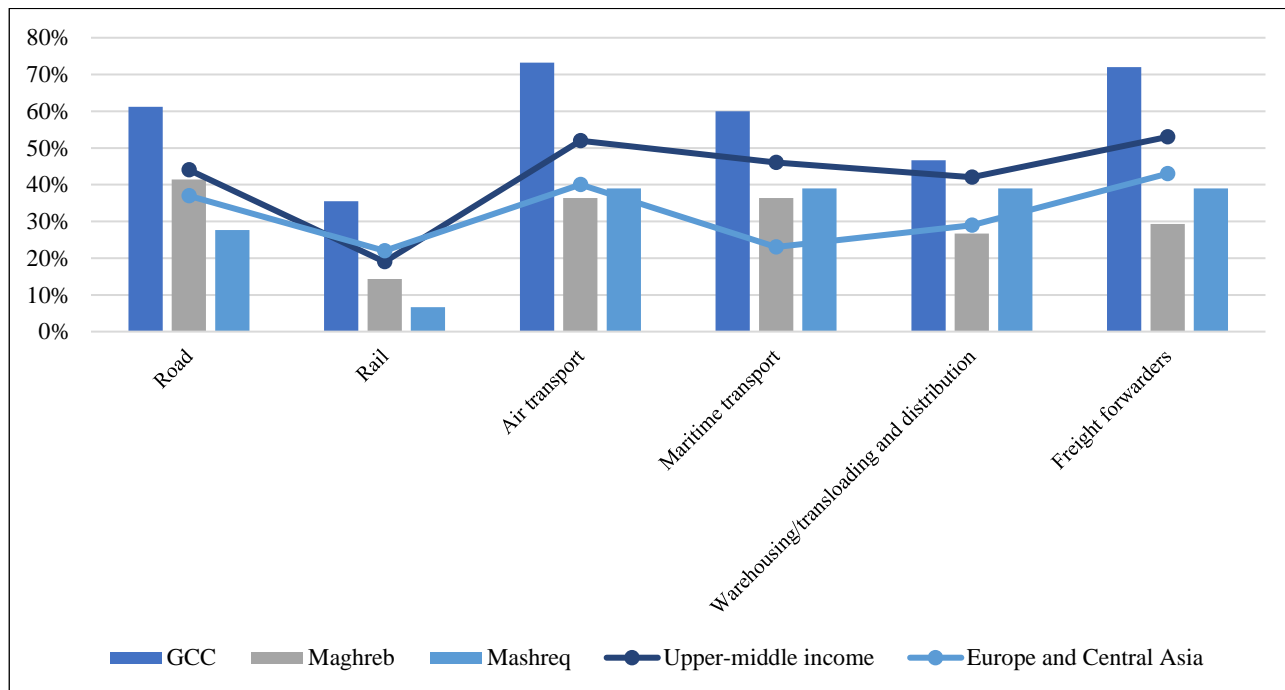


Abbreviation: IT, information technology.

Source: World Bank, “The LPI 2018”, Logistics Performance Index database.

14. Satisfaction in infrastructure quality (ports, airports, roads, rails, warehousing/trans-loading, and telecommunications and information technology) is rated by logistics professionals. The least recorded satisfaction across all regions is in rail infrastructure given that the region has intensely limited rail connectivity, while the telecommunications and information technology infrastructure reflects the highest satisfaction with the least disparities among regional ratings, indicating that countries are catching up by investing in modern technology (figure 9).

**Figure 9. Competence and service quality in the Arab region, 2018**

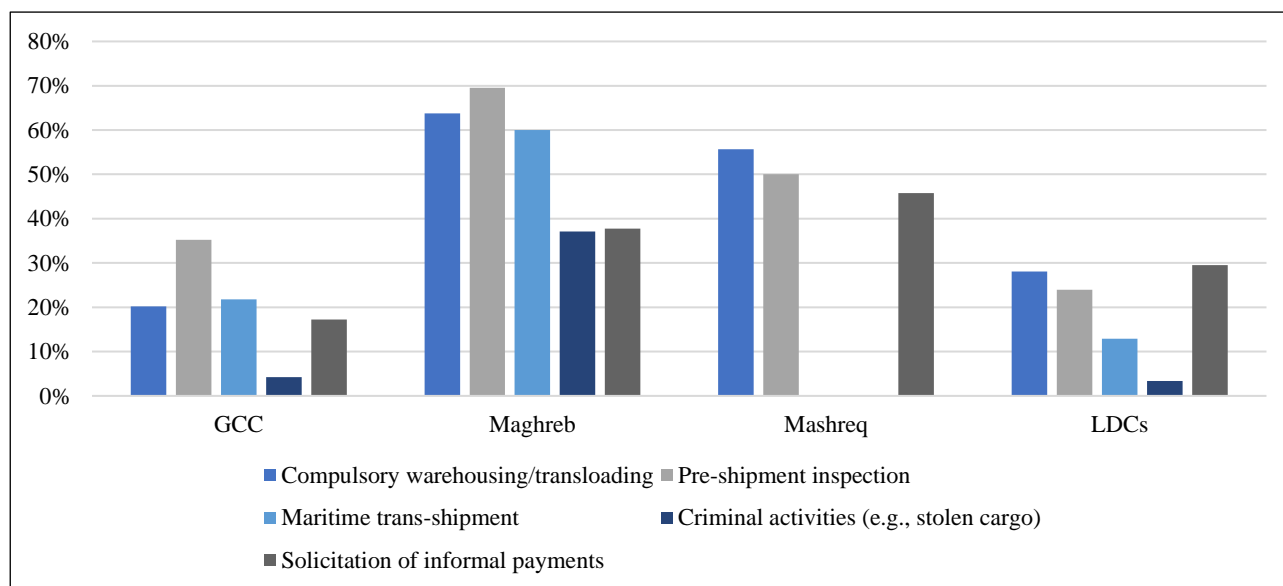


Source: World Bank, “The LPI 2018”, Logistics Performance Index database.



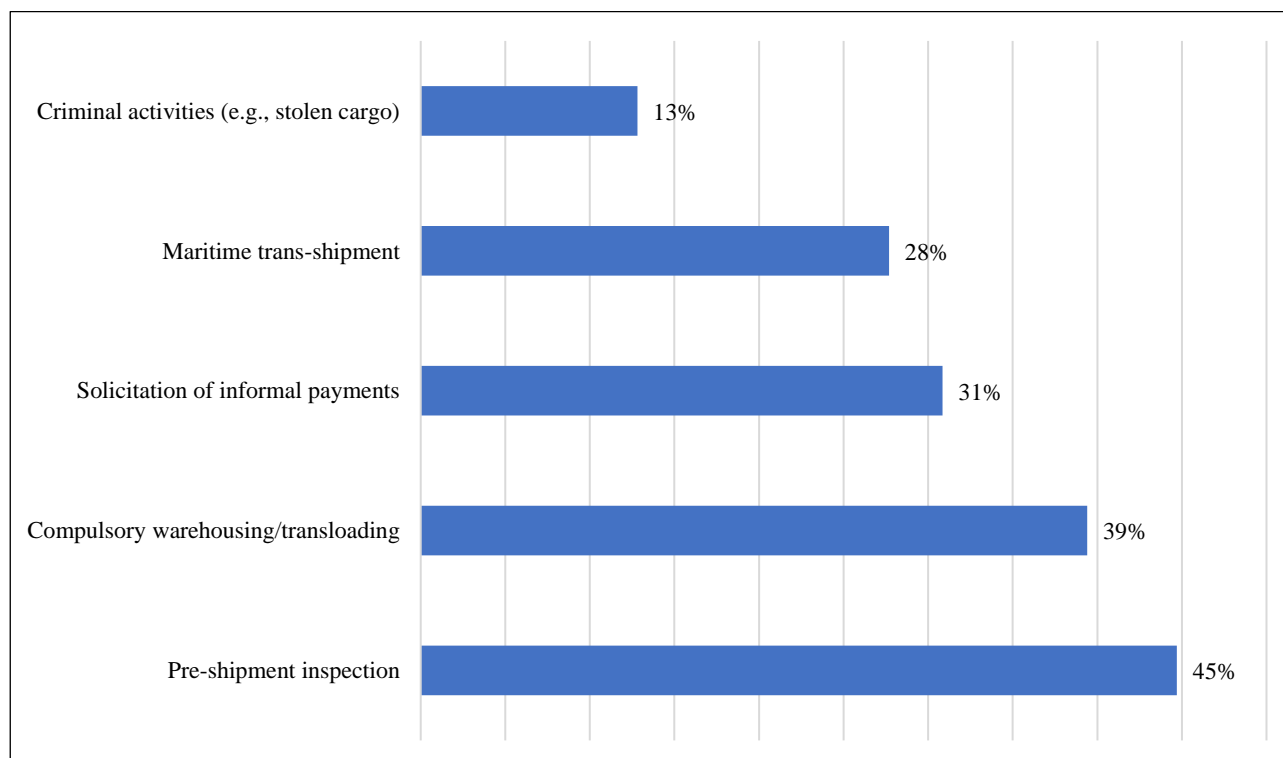
15. Service sector regulation and performance are closely interrelated with infrastructure quality and logistics sector outcomes. Service providers in air and maritime transport and freight forwarding are rated highly across the region.

**Figure 10. Major sources of delay by Arab subregion, 2018**



Source: World Bank, “The LPI 2018”, Logistics Performance Index database.

**Figure 11. Major sources of delay in the Arab region**



Source: World Bank, “The LPI 2018”, Logistics Performance Index database.

16. Since time is money, one of the most important issues in logistics is the timeliness of goods delivery, which depends to a large extent on the efficiency of clearing goods at borders. This clearance can be affected by delays that impact the final release of shipments, which in turn affects the cost of shipments and of final products.

17. The LPI timeliness subindicator assesses this aspect by looking at various reasons that might cause delays at borders. Although the Arab region as a whole is doing relatively better in this indicator than other indicators, it is obvious that there is room for improvement, particularly in accelerating pre-shipment inspection and reducing compulsory warehousing requirements (figure 10 and figure 11).

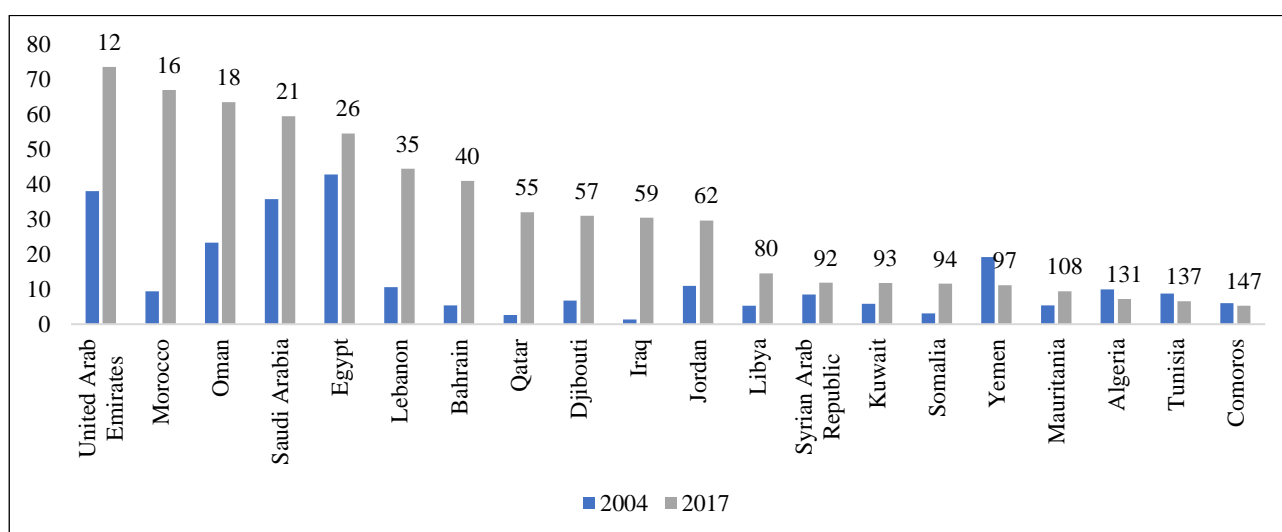
## B. MARITIME CONNECTIVITY

18. Another pillar of logistics is connectivity to global transport networks. Connectivity to maritime transport networks is an important logistics efficiency enabler. It is also a more significant source of variation in trade costs than geographical distance.

### 1. Liner Shipping Connectivity Index

19. To compare and analyse countries' positions within the global liner shipping network, the United Nations Conference on Trade and Development (UNCTAD) developed the Liner Shipping Connectivity Index (LSCI) in 2004. The Index, generated from schedules of the world's container shipping fleet, uses the following five components: the number of ships; total container-carrying capacity of those ships; maximum vessel size; number of services; and number of companies that deploy container ships on services from and to a country's ports.

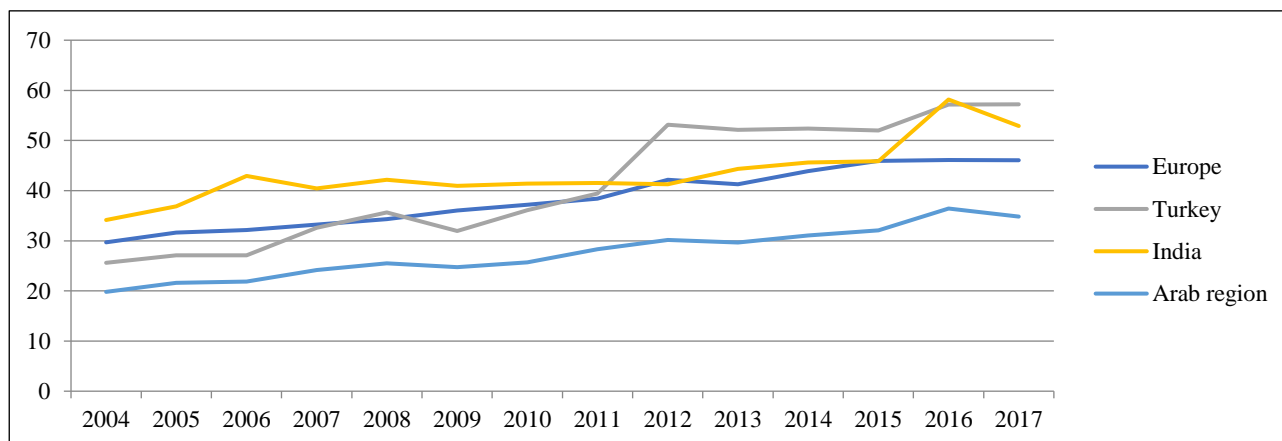
**Figure 12. Arab region's LSCI score and global ranking, 2004 and 2017**



Source: UNCTAD, "Liner shipping connectivity index, annual", LSCI database. Available at <http://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=92> (accessed on 1 August 2018).

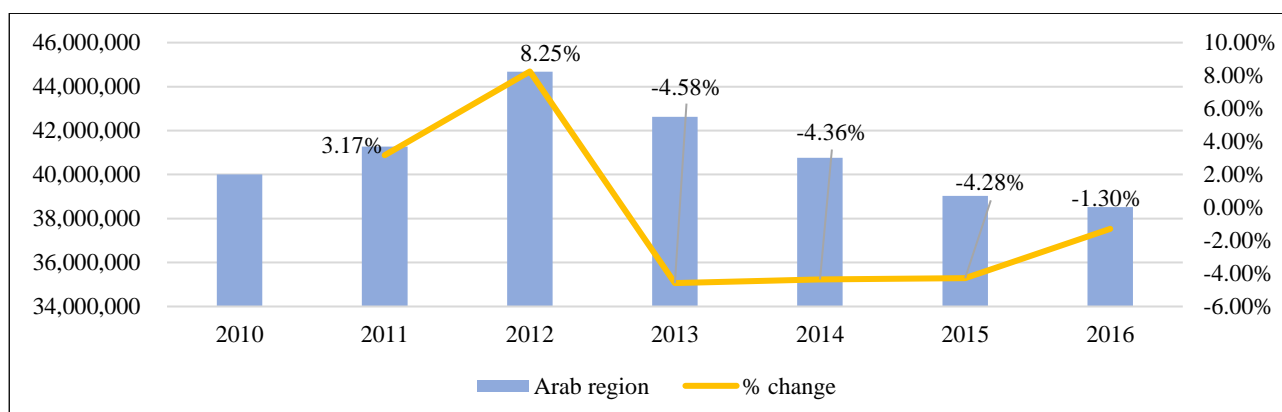
20. The efficiency of port and shipping services is a key determinant of a country's competitiveness. The strategic geographic position of several Arab countries, linking their ports to Africa, Europe and Southern Asia, has been beneficial in this domain. As measured by LSCI and displayed in figure 12, Arab countries vastly diverge in their abilities to encourage trade through an efficient shipping system.

21. Maritime transport linkages have expanded significantly in the past 14 years, as all Arab countries (with the exceptions of Algeria, the Comoros, Tunisia and Yemen) have recorded improvements in liner shipping connectivity. Three Arab countries are in the global top 20: the United Arab Emirates ranks twelfth, Morocco ranks sixteenth, and Oman ranks eighteenth. Iraq displayed the highest growth in LSCI between 2004 and 2017, followed by Qatar.

**Figure 13. Liner Shipping Connectivity Index for selected regions, 2004-2017**

Source: UNCTAD, "Liner shipping connectivity index, annual".

22. In terms of average LSCI scores, the Arab region performed moderately compared with other regions, with an overall positive trend between 2004 and 2016 (figure 13). Container port throughput, also utilized as a measurement tool for port activity, grew in total by around 27 per cent between 2004 and 2016 in the Arab region (figure 14).

**Figure 14. Arab region container port throughput and percentage change**

Source: UNCTAD, "Maritime transport". Available at <http://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx> (accessed on 1 August 2018).

## 2. Liner Shipping Bilateral Connectivity Index

23. In 2006, UNCTAD developed the Liner Shipping Bilateral Connectivity Index (LSBCI) as an extension of LSCI to measure bilateral connectivity between pairs of countries. Bilateral connectivity is derived by assessing the availability of direct connections between two countries. The lower the value of LSBCI, the larger the number of trans-shipments needed. Consequently, types of connections are ranked based on available direct connections. LSBCI is an indication of a country's integration level in global shipping networks. LSBCI is based on the following five components: the number of trans-shipments required to get from country A to country B; the number of common direct connections; the geometric mean of the number of direct connections; the level of competition on services that connect country pairs; and the size of the largest ships on the weakest route.

24. Table 2 shows LSBCI for Arab countries and some of their trading partners. It indicates that many Arab countries (apart from the five most connected ones) have stronger bilateral connectivity with other partners than with Arab countries.

TABLE 2. ARAB REGION'S LINER SHIPPING BILATERAL CONNECTIVITY INDEX, 2016

Partner	Algeria	Bahrain	Comoros	Djibouti	Egypt	Iraq	Jordan	Kuwait	Lebanon	Libya	Mauritania	Morocco	Oman	Qatar	Somalia	Saudi Arabia	Sudan	Syrian Arab Republic	Tunisia	United Arab Emirates	Yemen
Algeria	--	0.18	0.11	0.23	0.32	0.1	0.19	0.17	0.3	0.28	0.19	0.32	0.24	0.17	0.11	0.26	0.19	0.22	0.27	0.26	0.11
Bahrain	0.18	--	0.18	0.32	0.36	0.17	0.3	0.26	0.32	0.18	0.12	0.33	0.34	0.25	0.19	0.41	0.26	0.21	0.17	0.41	0.19
Comoros	0.11	0.18	--	0.19	0.2	0.16	0.18	0.17	0.19	0.1	0.1	0.2	0.2	0.17	0.17	0.2	0.18	0.11	0.1	0.28	0.17
Djibouti	0.23	0.32	0.19	--	0.46	0.18	0.4	0.23	0.42	0.22	0.2	0.44	0.41	0.21	0.26	0.48	0.35	0.26	0.22	0.47	0.28
Egypt	0.32	0.36	0.2	0.46	--	0.18	0.42	0.27	0.56	0.32	0.22	0.52	0.54	0.27	0.22	0.61	0.31	0.37	0.25	0.61	0.22
Iraq	0.1	0.17	0.16	0.18	0.18	--	0.17	0.17	0.18	0.1	0.1	0.18	0.23	0.17	0.16	0.18	0.17	0.1	0.1	0.25	0.16
Jordan	0.19	0.3	0.18	0.4	0.42	0.17	--	0.2	0.34	0.2	0.19	0.4	0.39	0.19	0.2	0.43	0.27	0.24	0.18	0.4	0.25
Kuwait	0.17	0.26	0.17	0.23	0.27	0.17	0.2	--	0.26	0.17	0.11	0.24	0.24	0.26	0.18	0.27	0.2	0.17	0.16	0.31	0.17
Lebanon	0.3	0.32	0.19	0.42	0.56	0.18	0.34	0.26	--	0.29	0.21	0.47	0.39	0.26	0.21	0.48	0.28	0.36	0.24	0.49	0.21
Libya	0.28	0.18	0.1	0.22	0.32	0.1	0.2	0.17	0.29	--	0.18	0.25	0.23	0.17	0.11	0.24	0.19	0.27	0.28	0.25	0.11
Mauritania	0.19	0.12	0.1	0.2	0.22	0.1	0.19	0.11	0.21	0.18	--	0.3	0.21	0.11	0.11	0.21	0.17	0.19	0.18	0.22	0.11
Morocco	0.32	0.33	0.2	0.44	0.52	0.18	0.4	0.24	0.47	0.25	0.3	--	0.46	0.22	0.22	0.49	0.3	0.28	0.29	0.52	0.22
Oman	0.24	0.34	0.2	0.41	0.54	0.23	0.39	0.24	0.39	0.23	0.21	0.46	--	0.22	0.27	0.51	0.36	0.26	0.22	0.58	0.21
Qatar	0.17	0.25	0.17	0.21	0.27	0.17	0.19	0.26	0.26	0.17	0.11	0.22	0.22	--	0.18	0.27	0.19	0.17	0.16	0.29	0.17
Somalia	0.11	0.19	0.17	0.26	0.22	0.16	0.2	0.18	0.21	0.11	0.11	0.22	0.27	0.18	--	0.28	0.26	0.2	0.12	0.1	0.29
Saudi Arabia	0.26	0.41	0.2	0.48	0.61	0.18	0.43	0.27	0.48	0.24	0.21	0.49	0.51	0.27	0.28	--	0.37	0.29	0.24	0.63	0.28
Sudan	0.19	0.26	0.18	0.35	0.31	0.17	0.27	0.2	0.28	0.19	0.17	0.3	0.36	0.19	0.26	0.37	--	0.18	0.18	0.37	0.26
Syrian Arab Republic	0.22	0.21	0.11	0.26	0.37	0.1	0.24	0.17	0.36	0.27	0.19	0.28	0.26	0.17	0.2	0.29	0.18	--	0.21	0.3	0.12
Tunisia	0.27	0.17	0.1	0.22	0.25	0.1	0.18	0.16	0.24	0.28	0.18	0.29	0.22	0.16	0.12	0.24	0.18	0.21	--	0.24	0.11
United Arab Emirates	0.26	0.41	0.28	0.47	0.61	0.25	0.4	0.31	0.49	0.25	0.22	0.52	0.58	0.29	0.1	0.63	0.37	0.3	0.24	--	0.28
Yemen	0.11	0.19	0.17	0.28	0.22	0.16	0.25	0.17	0.21	0.11	0.11	0.22	0.21	0.17	0.29	0.28	0.26	0.12	0.11	0.28	--
European Union	0.26	0.27	0.15	0.34	0.44	0.14	0.3	0.19	0.37	0.26	0.21	0.46	0.4	0.19	0.17	0.43	0.25	0.28	0.24	0.45	0.17
China	0.28	0.4	0.21	0.47	0.66	0.19	0.42	0.25	0.52	0.26	0.23	0.64	0.57	0.23	0.23	0.64	0.32	0.31	0.25	0.68	0.23
Turkey	0.32	0.34	0.2	0.35	0.62	0.18	0.34	0.24	0.53	0.31	0.21	0.43	0.43	0.22	0.21	0.52	0.29	0.36	0.29	0.53	0.21

Source: UNCTAD, "Liner Shipping Bilateral Connectivity Index, 2017". Available at <http://unctadstat.unctad.org/wds/TableViewer/tableView.aspx> (accessed on 1 August 2018).

25. Table 3 shows that the top five country pairs with the highest LSBCI values over the period 2010-2016 were Saudi Arabia and the United Arab Emirates (0.63), Saudi Arabia and Egypt (0.61), Egypt and the United Arab Emirates (0.605), Oman and the United Arab Emirates (0.58), and Egypt and Lebanon (0.56).

TABLE 3. TOP FIVE ARAB COUNTRIES IN THE LINER BILATERAL SHIPPING CONNECTIVITY INDEX, 2010-2016

Economy	Year	United Arab Emirates	Morocco	Oman	Saudi Arabia	Egypt
United Arab Emirates	2010	--	0.5	0.47	0.55	0.48
	2016	--	0.52	0.58	0.63	0.61
Morocco	2010		--	0.49	0.43	0.41
	2016		--	0.46	0.49	0.52
Oman	2010			--	0.47	0.46
	2016			--	0.51	0.54
Saudi Arabia	2010				--	0.51
	2016				--	0.61
Egypt	2010					--
	2016					--

Source: UNCTAD, "Liner Shipping Bilateral Connectivity Index, 2017".

### Significant logistics improvements in Oman

The strategic location of Oman makes it a trans-shipment hub linking the East to the West. Its logistics industry currently employs over 30,000 people, and is expected to employ 80,000 by 2020. It currently handles a capacity of over 3 million twenty-foot equivalent unit (TEU), and is expected to handle over 10 million TEU by 2020. Investments worth \$180 million are underway for the extension of the Public Establishment for Industrial Estates.

Oman Global Logistics Group was launched to coordinate State investments in ports, free zones, and rail, maritime and land transport companies. The Sultanate of Oman Logistics Strategy 2040 was established as a wide-ranging action plan to identify objectives that improve the logistics sector: initiatives targeted port-handling capacity and land-transport connectivity to tackle infrastructure bottlenecks. The focus was on using innovative strategies to improve ports and airport facilities, and to construct new links to ease congestion and boost capacity.

The four major ports in the country, Sohar, Duqm, Muttrah and Salalah, are undergoing continuous expansion, each with a unique development focus: Salalah for regional distribution, Sohar for commerce and industry, Muttrah for tourism, and Duqm for oil and gas activities.

Omani investments in infrastructure, logistics quality, customs and tracking have led to a significant improvement in its LPI score. Its ranking rose by 16 places between 2014 and 2018. It now ranks forty-third globally up from fifty-ninth place in 2014, and it came third among Arab countries after ranking seventh in 2014. Its 16-place increase was the best recorded performance in the region.

Being a hub for global trade, Oman has solidified its trans-shipment role in global liner shipping networks. It scores among the top 20 countries worldwide, displaying a rapidly rising LSCI. Behind its success is the port of Salalah, handling over 1.5 million metric tons in January 2018. Its LSCI underwent a 29 per cent increase between 2016 and 2017, reaching an all-time high of 63.59, ranking third in the region.

### C. LOGISTICS AND CONNECTIVITY TO GLOBAL VALUE CHAINS

26. Logistics are the backbone of modern economies and are important enablers of competitiveness in international trade. The role of logistics increases when production is fragmented under a global value chains (GVC) production model, since trade in parts and components is more sensitive to efficiency than trade in final goods. As parts and components cross borders to be integrated into final products, delay and increased cost

resulting from inefficient logistics can render them uncompetitive and lead to an increase in the cost of the final product. Improving logistics is pivotal for connecting more efficiently to GVCs and moving up the value chains.

27. Providing advanced logistic services depends on adequate physical infrastructure, in line with technological development and efficient and environmentally friendly transport services. Ports need to be able to handle containers; inland infrastructure should match maritime infrastructure; roads need to be suitable for container transport; and just-in-time inventory and physical movements of goods require timely exchange of information helped by up-to-date information and communication infrastructure and technology, and by favourable legal and regulatory conditions. Moreover, customs and other border agencies need to work efficiently and trans-border transportation needs to be better harmonized, particularly in developing countries.

28. Trade facilitation capacity, the suitability of the business environment, connectivity to global transport networks, and low labour costs are essential for GVCs. Therefore, building the capacity necessary for firms to do business efficiently with minimum cost, such as efficient logistics, is a fundamental requirement for GVC operation. Trade facilitation measures, such as high-quality transport and logistics services, efficient border management procedures and regulatory requirement, play a larger role in the internationalization of production than traditional trade policy measures. It is estimated that improving logistics performance would on average reduce trade costs 10 times more than an equivalent reduction in tariffs.<sup>4</sup>

29. The technology revolution is likely to reshape the logistics industry and many other industries, including the GVC production model. The emergence of the Internet of things, tracking systems, drones, self-driving vehicles and robots, among other things, is leading to major shifts in the ways of doing business. The GVC model was built on labour cost saving. Companies outsource parts of their production to countries with cheap labour costs to achieve efficiency and reduce production cost. The rapid spread of robots and their gradual replacement of humans to save cost will lead to major structural changes in the production process, which will induce changes to the GVC model and subsequently to logistics.

## II. CONCLUSION AND RECOMMENDATIONS

30. The present document provides an overview of the trade logistics sector in the Arab region from both the international and domestic standpoints, and has reviewed its development over time. Arab countries vary greatly in their logistics performance: some are among the top performers globally while others are still struggling. Nonetheless, the region and its countries have made significant progress over the past decade in most indicators. In most Arab countries, there is room for improvement in terms of policy interventions by implementing trade facilitation measures, such as customs clearance; while others need investments in infrastructure.

31. Despite significant efforts by most Arab countries to modernize and upgrade maritime services, most approaches have focused on building and expanding infrastructure. Much progress has been made across the region, but with varying degrees in connectivity to global shipping networks. However, it is imperative that more is done as the region still lags behind others in connectivity, which affects trade costs and trade in general. Implementation of trade facilitation measures is a crucial first step to improve logistics performance in the region; however, this will only improve the LPI customs subindicator, which is the worst performer among all subindicators. Additional developments are necessary to improve other LPI components.

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<sup>4</sup> See [https://www.unescap.org/sites/default/files/ARTNeT\\_trading\\_Updated2015\\_infocus\\_TRADE\\_COST.pdf](https://www.unescap.org/sites/default/files/ARTNeT_trading_Updated2015_infocus_TRADE_COST.pdf).