A SILK ROAD FOR THE 21ST CENTURY:
INITIAL REFLECTIONS ON NEW OPPORTUNITIES FOR PARTNERSHIPS

This paper presents a preliminary overview of main issues that could contribute to realising the potential of trade, investment and production complementarities along the Silk Road. It explores the potential benefits and challenges of enhancing economicties based on a preliminary overview of facts on trade, investment, infrastructure and skills in the countries and regions along the Silk Road. Itconcludes by suggesting areas for further development.

Economic integration involves many different components and the coordination and cooperation of a wide range of actors. To realise the Silk Road's potential, new forms of mutual understanding, alliances and partnerships at multiple levels, including with businesses and local actors, are complements to improved infrastructure and connectivity to sustain development in the 21st century.

TheSecretariat of the OECD Development Centre prepared this draft paper for discussion at the Silk Road Forum (27-28 October 2015, Madrid, Spain).This paper should not be reported as representing the official views of the OECD or of its member countries, or the Development Centre or its member countries. The opinions expressed and arguments employed are those of the authors. This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

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SUMMARY

People, companies and ideas are increasingly mobile across interconnected economies. Trade and investment flows have intensified between and within different regions and continents, creating new forms of economic partnerships and connecting areas previously unconnected. In the global economy, the new Silk Road deserves targeted attention.

The Silk Road area is dynamic and diverse. Improved connectivity, better infrastructure and increased economic and technological ties could have a significantimpact on not only the development trajectories of countries along the route, but also overall global dynamics. Yet, connecting heterogeneous blocks and countries could also increase asymmetries.

Growing economic ties impliesmore than improved infrastructure and connectivity. New forms of mutual understanding, alliances and partnerships at multiple levels, including with businesses and local actors, are also complements to realise the Silk Road's potential to advance development in the 21st century.

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INTRODUCTION

1. China's Silk Road Initiative presents opportunities to improve livelihoods by promoting economic ties across countries stretching from Southeast Asia to Europe. With more than 60 countries and international organizations expressing interest in participating, over an area encompassing an estimated 4 billion people, the heterogeneous nature of the regions covered by the Silk Road Initiative presents both exciting prospects for development and challenges for implementation.

2. This paper provides a first attempt to identify potential benefits and complexities of enhancing economic ties along the Silk Road. It presents a preliminary overview of facts about trade, investment infrastructure and capabilities in the countries and regions along the Silk Road. It highlights the importance of enabling increased ties based on the perceived existence of potential complementarities. It looks at ways of improving hard and soft infrastructure, and closes with suggestions about issues that will need to be further analysed to realise the potential of production complementarities along the Silk Road.

3. The Silk Road will bridge diverse regional economies, many of which are already undergoing some degree of integration. Characteristics of and dynamics between Silk Road regions and China are widely varied, and a preliminary consideration of trade, investment and skills reveals interesting potentials for economic complementarities. Intelligent prioritisation of hard and soft infrastructure is crucial, but taking full advantage of the opportunities offered by the Silk Road will depend on a broader approach focused on increasing mutual understanding, dialogue and trust and identifying ways to realise the potential of production complementarities.

4. This draft paper is structured in three sections. First, it explores the potential benefits of increasing economic ties along the Silk Road. Second, it highlights the variety and potential complementarities along the Silk Road based on a preliminary analysis of key facts on trade, investment and skills. The available evidence shows that there is room for increasing development by boosting economic ties, even though further analysis is needed on the dynamics and trends of these issues, and on the potential production complementarities along the Silk Road. Third, it focuses on the need to address the gaps in hard and soft infrastructure. It concludes by identifying additional areas beyond economics and infrastructure that would help to realise fully the potential benefits of the Silk Road in the 21st century.

The potential benefits of connecting economies along the silk road

4. Regional economic ties have become increasingly relevant over the past half century, with many of the regions in the Silk Road Initiative involved to varying degrees. Europe and Southeast Asia are at an advanced stage, with Europe being the furthest along the curve, with a shared currency, unique market, free mobility of people, and supranational economic, financial and political bodies. The member countries of the Association of Southeast Asian Nations (ASEAN) are building regional institutions and already operate as a Free Trade Area; plans are in place to become more fully integrated with the ASEAN Economic Community (AEC) at the end of 2015. The Eurasian Economic Union, which has announced working with the Silk Road Initiative, recently expanded its membership by adding Kyrgyzstan. The Gulf Cooperation Council has been

evolving towards greater integration, introducing a customs union in 2003 and a common market in 2008.

5. Countries and regions are intensifying regional supply networks to sustain competitiveness (OECD, forthcoming (a); OECD 2013a).Lower tariff and non-tariff barriers (NTBs) to trade are better for consumers, providing more choice and product availability, and for firms, by increasing the size of their available market, lowering the cost of importing inputs and favouring participation in value chains. Trade facilitation contributes to support the development of effective supply chains, as it happened in Asia where dense networks of suppliers operate in many sectors, including electronics, automotive and textiles. However, the benefits of greater integration between countries at different levels of development tend not to be distributed equally across firms, countries and regions. Often targeted measures for coping with economic restructuring and spurring new endogenous sources of growth are needed to sustain local businesses and helping them compete in the new, regional marketplace. The European Union offers, in this sense, an interesting example with the Regional Development Fund and the Smart Specialisation Strategy.

6. Regions and countries are strengthening their trade and investment ties, within their areas and beyond. Regional integration in Southeast Asia is a case in point (Box 1). The ASEAN Economic Community (AEC) Blueprint, the document that forms the basis for strengthening integration between members' economies, explicitly calls for ASEAN to look towards the global economy. ASEAN has already signed free trade agreements with Australia, New Zealand, Japan, South Korea, India and China. These agreements incorporate rules on trade, investment and finance and are complementing broader multilateral trade liberalisation efforts. The ASEAN Plus Three (APT) grouping (ASEAN members plus China, Japan and Republic of Korea), which held its first meeting at the 1997 ASEAN Summit in Kuala Lumpur, institutionalised its cooperation in 1998 by forming the East Asian Vision Group (EAVG). The East Asia Summit (EAS), encompassing the APT grouping as well as India, Australia and New Zealand, first met in 2005 and expanded in 2011 to include the United States and Russia. Deepening integration between the ASEAN countries has resulted in stronger links with neighbouring and global economies.

6. Enhancing regional ties entails a broad agenda for business and policies. Addressing gaps in hard and soft infrastructures between and within areas along the Silk Road will contribute to foster development and greater economic ties between the different areas. However, the agenda for businesses, governments and societies overall is broader and can be mobilised by actions at different levels. Some possible areas for enhancing ties along the Silk Road include competition and consumer protection, science and technology, promotion of SMEs (small-and medium-size enterprises) development, food, agriculture and forestry management, tourism and actions devoted, in general, to identifying and enabling production complementarities along the different areas.

7. Increased ties between countries and regions are expanding beyond trade and investment. Such ties can also contribute to new forms of partnerships and interaction among citizens. Initiatives to sustain knowledge and technology transfer, scientific cooperation and joint research programmes often accompany growing trade and investment. Additional initiatives facilitate knowledge-sharing and the mobility of talents, thus enabling the creation of new business ventures. Growing economic ties also improve institutions and policies, as co-operation across countries boosts the exchange of best practices and enhances cross-learning opportunities.

Box 1. Regional integration in Southeast Asia

Evolving from the Preferential Trading Agreement in 1987 and the ASEAN Free Trade Area (AFTA) in 1992, ASEAN is working towards establishing a common market through the ASEAN Economic Community(AEC) by the end of 2015. Intraregional tariffs have fallen over the past decade, landing in 2012 at just 0.05% between advanced ASEAN economies and 1.69% between Cambodia, Lao, Myanmar and Viet Nam. This has contributed to intraregional trade rising from 19% in 1990 to 26% in 2014, and facilitated flexibility in supply chain participation in Southeast Asia. The AFTA caps tariffs for goods originating within the AFTA at 5%, but does not set common external tariffs on goods imported from outside the region to encourage Southeast Asia's involvement in global and regional value chains. The system has supported the growth of regional supply chains, and in 2012 intermediate goods accounted for 40% of intra-ASEAN trade. Implementing the ASEAN Single Window to connect and integrate the various National Single Windows of member states has been a priority to facilitate the exchange of information, although implementation has been uneven so far. Investment and capital market liberalisation is also a key component of ASEAN economic integration through the ASEAN Comprehensive Investment Agreement, and intra-ASEAN investment now accounts for 19.7% of total ASEAN foreign direct investment.
ASEAN's regional economic integration goes beyond lowering barriers to trade and facilitating economic exchange. It has resulted also in harmonisingand improving standards across member countries. Regional standards in industries ranging from the automotive sector to electronic equipment to cosmetics have been introduced, although member countries have required varying amounts of time to adopt them due to differences in economic development and technology levels. Through ASEAN Plus Three (APT), member countries formalised the APT Cooperation Work Plan (2007-2017) that sets out initiatives in political and security co-operation; economic and financial co-operation; energy, environment, climate change and sustainable development co-operation; and socio-cultural and development co-operation. Through the East Asia Summit(EAS), members have agreed on the priority areas of energy, education, finance, global health issues, environment and disaster mitigation, and ASEAN connectivity.
Source : Economic Outlook for Southeast Asia, China and India, 2015, 2016 (forthcoming), OECD Development Centre

VARIETY AND OPPORTUNITIES ALONG THE SILK ROAD

7. Different specialisation patterns and different models of integration into the world economy open up potential opportunities for new forms of partnerships. The Silk Road Initiative has the potential to deepen economic ties and foster integration among different economies across and within regions. The Silk Road encompasses Europe, with its scientific, technological and industrial base, the Gulf Co-operation Council countries, the Middle East and North Africa (MENA) region, Central Asia, which is strong in natural resources, and Southeast and South Asia with its dense regional manufacturing supply chain (Box 2).

8. Economic ties between and within the different areas in the Silk Road evolved over centuries in different ways, sometimes with reversing patterns. So, while now Chinese companies increasingly invest in Europe for acquiring technology and brand management capacities, France imported from China the technique for silk manufacturingin the past.

9. Rich and varied connections exist within the Silk Road area and beyond. In fact, the countries and regions along the Silk Road not only include dense regional industrial poles such as Europe and Asia, but also emerging linkages as in the case of the automotive industry between Morocco and France. In addition, the economies along the Silk Road are also strongly linked with the rest of the world. China's growing partnerships with Latin America is just an example of this trend (OECD, forthcoming (b)).

10. The challenges of the middle-income trap, caught between rising labour costs and lagging productivity, are common for many nations and regions along the Silk Road. In Central Asia, rich endowments of natural resources have not contributed yet to economic diversification, leaving countries susceptible to swings in commodity prices. In ASEAN countries, there are strong opportunities for

upgrading and moving up value chains as wages rise and the comparative advantages of abundant labour are reduced. Many previously low-income countries have risen to middle-income status by taking advantage of relatively low labour costs. But more is needed. As the pool of surplus labour is exhausted, wages begin to rise, and new policies and institutions are needed to shift towards higher value-added activities, foster entrepreneurial development and promote innovation to sustain growth in productivity (OECD, 2013b).

Box 2. Characteristics and heterogeneity in selected regional groupings along the Silk Road

This section illustrates the wide variance across selected regions encompassed by the Silk Road Initiative.

The Gulf Co-operation Council (GCC) consists of Bahrain, Kuwait, Qatar, Saudi Arabia, Oman and the United Arab Emirates. The countries in the GCC all rely on hydrocarbons for the vast majority of their economic wealth. They are governed by monarchies. The state is involved in the economy and wealth is redistributed to the nationals of the various countries. They have a young and growing labour force, with significant levels of unemployment in some states, but also rely substantially on foreign labour. Countries are relatively integrated with each other. Tariffs are low between states, and a well-developed network of hydrocarbon export infrastructure exists. However, after introducing a customs union in 2003 and a common market in 2008, a planned switch to a single currency in 2010 has stalled, at least in part now because of political differences between member states.

The Middle East and North Africa (MENA) minus GCC consists of Algeria, Egypt, Iran, Iraq, Jordan, Lebanon, Yemen, Libya, Morocco, Palestine, Israel, Syria and Tunisia. The countries in MENA-GCC include both resource-rich/labour-abundant countries and resource-poor countries. High unemployment levels, low levels of entrepreneurship and inefficient state enterprises are issues in most of these states. Recent years have been tumultuous for some countries, with major political changes in some countries through the Arab Spring and violent conflicts in Syria, Iraq, Libya and Yemen contributing to slow implementation of economic reforms and slow growth more broadly in the region.

Central Asia includes Mongolia, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan and Turkmenistan. This group contains countries that depend either on revenue from resource extraction or from remittances from those working in other resource-dependent countries. This area is resource-rich and sparsely populated. It enjoys high literacy rates but requires large investments in infrastructure. In addition to shrinking revenue from declining commodity prices, the countries of Central Asia recently had to contend with a declining Russian rouble, making their exports less competitive. Countries such as Mongolia, Kazakhstan, Turkmenistan and Uzbekistan have had growth driven by natural resource extraction since transitioning to market economies, and the potential exists for diversification beyond natural resources. Although trade with Asian countries like China, South Korea and Japan continues to increase, and tariffs are getting smaller, the EU remains a more important trading partner for Central Asian states due to the low tariffs that the EU levies on goods from Eurasian states (0.4%) (Gill et al, 2014).

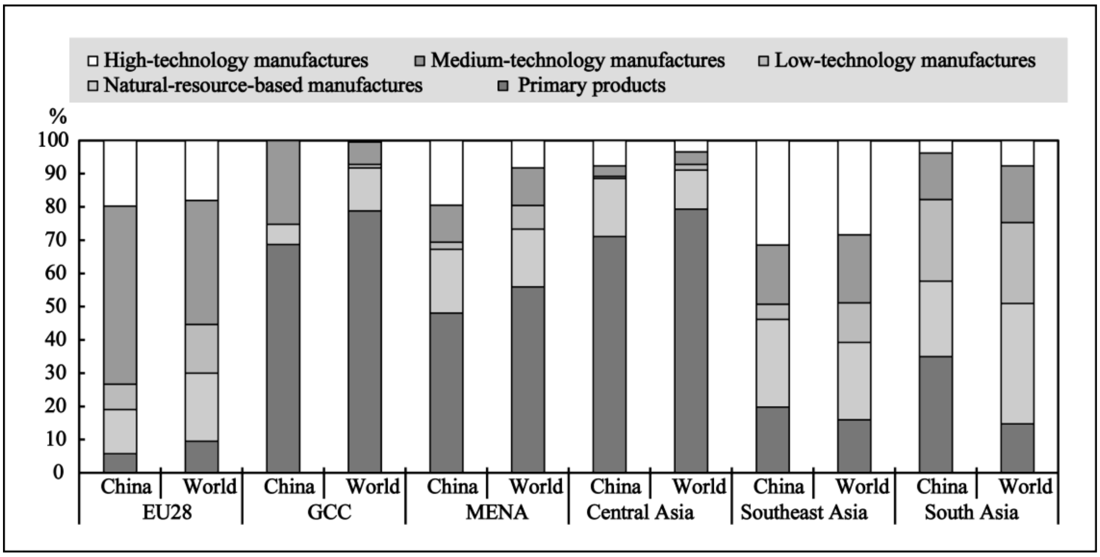
Southeast Asia includes Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam. This group is brought together under the Association of Southeast Asian Nations (ASEAN), a political and economic forum. ASEAN economies benefit from their abundant labour, achieving strong growth and building well-developed regional value chains integrated into the global economy. Considered as an economic whole, ASEAN was the seventh largest economy by GDP in 2013 with USD 2.4 trillion, and its 600 million people make it a larger market than the EU or North America.

South Asia includes Afghanistan, Bangladesh, Bhutan, Nepal, India, Maldives, Pakistan and Sri Lanka. Strong and robust growth has helped to raise living standards and decrease the poverty rate. However, about 399 million people still live on less than USD 1.25 a day, and 200 million people live in slums. Infrastructure gaps are substantial. Opportunities remain to harness the demographic dividend and benefit from an expanding labour force. However, in order to do so, job creation must be encouraged through politically stable environments, access to public services and sufficiently supportive infrastructure. Major disparities between and within countries remain in terms of infrastructure, with half a billion people lacking access to electricity. Infrastructural gaps of this magnitude make it difficult for companies to grow and compete globally.

Trade along the Silk Road is already happening

10.Trade within the Silk Road resembles global trade specialisation, but some specificities regarding trade with China emerge. A preliminary analysis of trade along the Silk Road shows that trade specialisation with China resembles the one with the world for GCC, MENA, Central Asia, Southeast Asia and South Asia1. For Europe, there are some significant differences, most notably in manufacturing. Medium-tech manufacturing accounts for 54% of European exports to China and for 37% of European exports to the world (Figure 12). In terms of imports, the major difference between export specialisation with China and with the world emerges for South Asia, where manufacturing accounts for 96% of imports from China versus 56% of imports from the world. Southeast Asia also imports in proportion more medium- and high-tech manufactures from China than from the world. The existence of "Factory Asia" is confirmed, despite the recent off-shoring trends and the pressures of growing salaries in China (Figure 2[3]).

Figure 1. Gross exports to the world and to China, by technological intensity, selected areas along the Silk Road, 2013

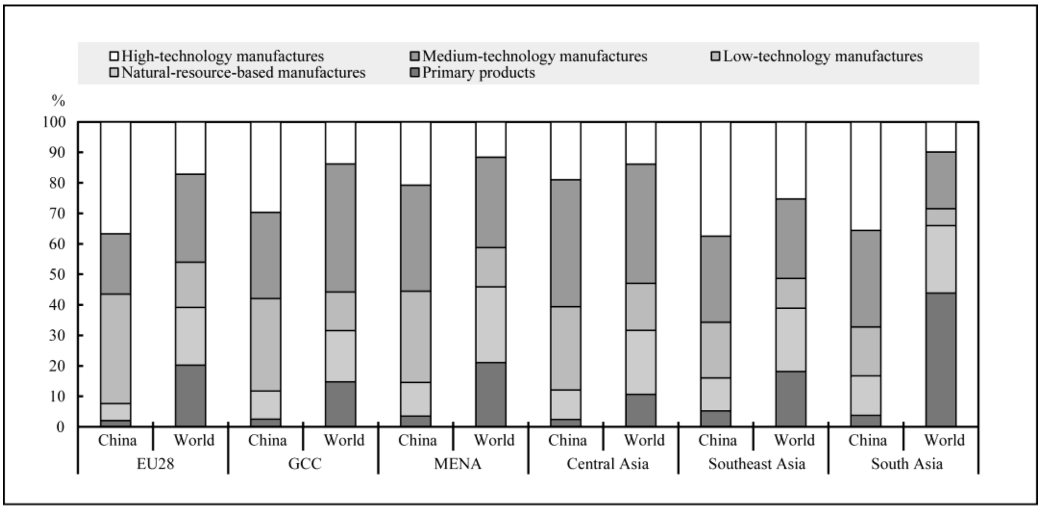


Note: EU28 includes Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Portugal, Poland, Romania, Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom. GCC includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. MENA includes Algeria, Djibouti, Egypt, Arab Rep., Iran, Islamic Rep., Iraq, Israel, Jordan, Lebanon, Libya, Morocco, Syria, Arab Rep., Tunisia, and Yemen. Central Asia includes Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, Uzbekistan, and Mongolia. South East Asia includes Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam. South Asia includes Afghanistan, India, Pakistan, Bangladesh, Maldives, Sri Lanka, Bhutan and Nepal.

Source: OECD Development Centre on the basis of information from the United Nations Commodity Trade Database (COMTRADE).

11. Asia's existing supply chain integration is dense, based on current trade and production specialisation. Trade in intermediaries between Central, Southeast and South Asia and China is higher than trade in intermediaries with the world4. The converse holds true for Europe and MENA countries, including GCC (Figure 3). This suggests opportunities for greater ties, and highlights the potential role that geographic proximity might play.

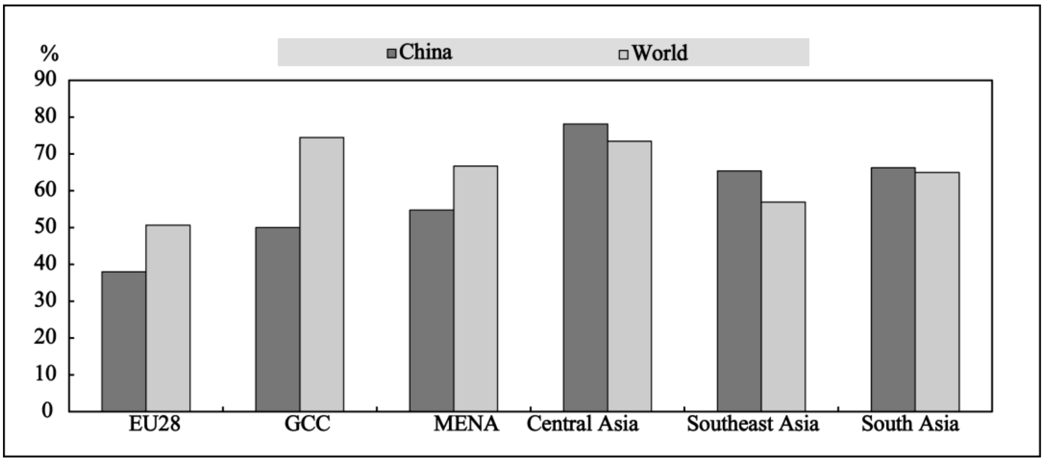
Figure 2. Gross imports by technological intensity, selected areas along the Silk Road, 2013



Note: EU28 includes Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Portugal, Poland, Romania, Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom. GCC includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. MENA includes Algeria, Djibouti, Egypt, Arab Rep., Iran, Islamic Rep., Iraq, Israel, Jordan, Lebanon, Libya, Morocco, Syria, Arab Rep., Tunisia, and Yemen. Central Asia includes Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, Uzbekistan, and Mongolia. South East Asia includes Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam. South Asia includes Afghanistan, India, Pakistan, Bangladesh, Maldives, Sri Lanka, Bhutan and Nepal.

Source:OECD Development Centre *on the basis of information from the United Nations Commodity Trade Database (COMTRADE).*

Figure 3. Trade in intermediary products with China and with the world, selected regions along the Silk Road, 2014



Note: Trade in intermediates is defined as total trade (i.e. the sum of gross exports and gross imports) in the sectors classified as Primary and processed food and beverages destined mainly for industry, other industrial supplies, fuels and lubricants other than processed motor spirits, and parts and accessories for capital goods and transport equipment. The sectors previously mentioned are drawn from the classification by Broad Economic Categories (BEC).

EU28 includes Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Portugal, Poland, Romania, Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom. GCC includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. MENA includes Algeria, Djibouti, Egypt, Arab Rep., Iran, Islamic Rep., Iraq, Israel, Jordan, Lebanon, Libya, Morocco, Syria, Arab Rep., Tunisia, and Yemen. Central Asia includes Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, Uzbekistan, and Mongolia. South East Asia includes Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam. South Asia includes Afghanistan, India, Pakistan, Bangladesh, Maldives, Sri Lanka, Bhutan, and Nepal. There is no data available for the United Arab Emirates, Djibouti, Iran, Islamic Rep., Libya, Syria, Arab Rep., Tajikistan, Turkmenistan, Uzbekistan, Lao PDR, Myanmar, Bangladesh and Bhutan.

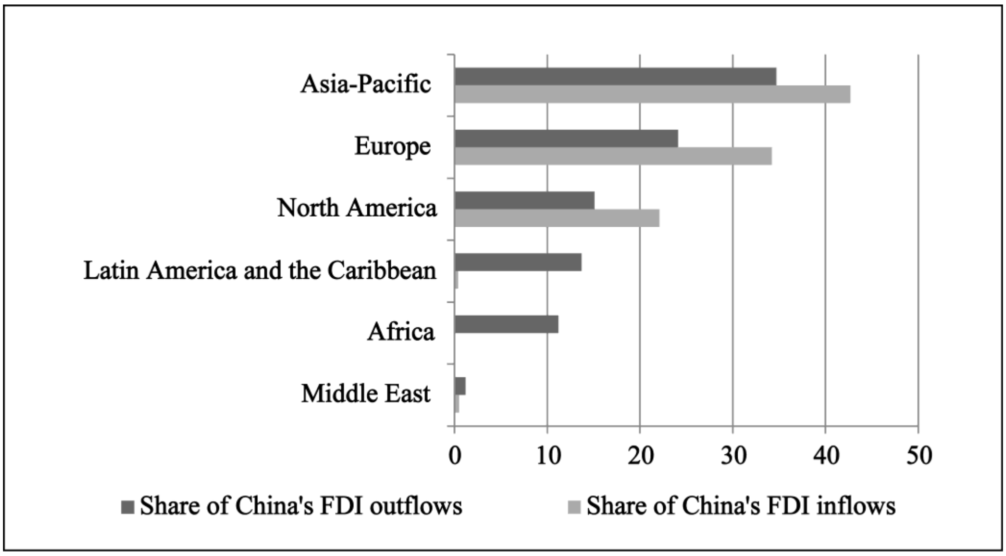
Source:*OECD Development Centre on the basis of information from the United Nations Commodity Trade Database (COMTRADE).*

New investment flows are emerging along the Silk Road

12. New investment flows are emerging along the Silk Road, and China is consolidating as a global emerging investor. Chinese companies investing abroad are creating jobs in the Asia Pacific region, Europe, North America and Latin America and the Caribbean, which account respectively for 35%, 24%, 15% and 14% of total foreign direct investment (FDI) outflows as measured by jobs created between 2012 and 2014. Africa is also receiving Chinese investments which account for 11% of total Chinese world FDI outflows. Despite recent changes, China remains at the core of a strong regional supply chain in Asia, but its appetite for European investments is growing. Asia Pacific countries account for 43% of total jobs created in China by FDI, followed by Europe accounting for 34% and North America for 22%.

Figure 4.China's FDI by macro-regions, 2012-14

Share of FDI outflows and inflows by macro-region as measured by number of jobs created between 2012 and 2014

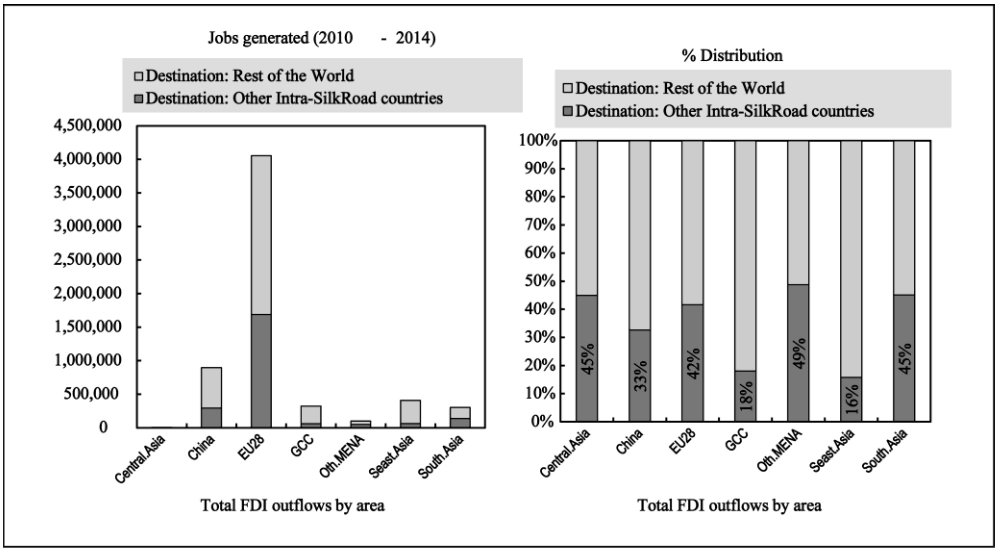


Source: *OECD Development Centre, calculations based on the fDi Intelligence data, from the Financial Times Ltd 2015.*www.fdimarkets.com.

13. Increasing business linkages along the Silk Road have potential. Europe and China are the top regions for FDI outflows in the Silk Road Initiative area (considering the Silk Road area as Central Asia, Southeast Asia, South Asia, MENA and EU28). But for EU28 and China, the FDI outflows towards the rest of the world are greater than those directed towards the Silk Road area (42% of FDI outflows from Europe and 33% from China are directed towards other areas of the Silk Road). For their part, Southeast Asia and South Asia strongly benefit from intra-Silk Road investments. In fact, in these two regions, more than half of jobs created by FDI come from inflows from countries in the Silk Road area (56% and 51%, respectively). Intra-Silk Road investments are strongly relevant also for China and Central Asia, where they account for 46% and 42% respectively of total jobs created by FDI (Figure 5 and Figure 6).

Figure 5. Total FDI outflows by selected areas along the Silk Road, 2012-14[1]

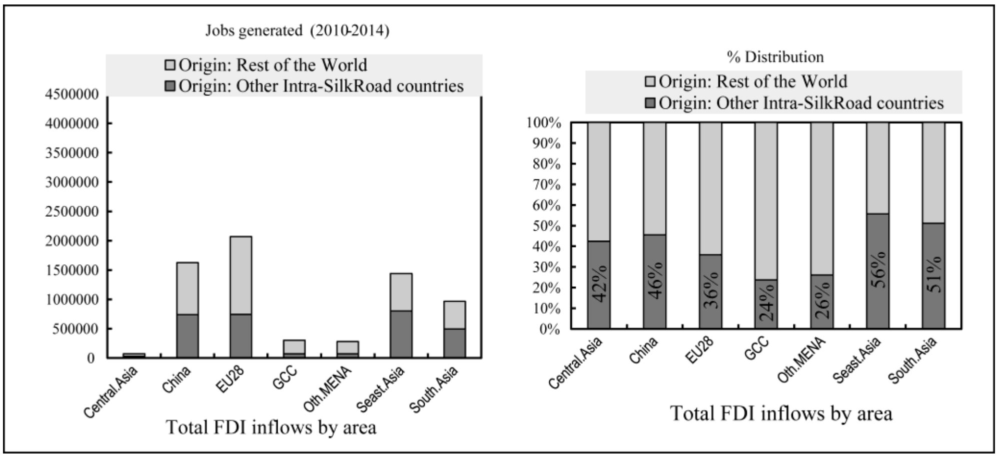
Numbers of Jobs and % distribution between intra-silk Rord versus Rest of world



Source: *OECD Development Centre, calculations based on the fDi Intelligence data, from the Financial Times Ltd 2015*.www.fdimarkets.com

Figure 6. Total FDI inflows by selected areas along the Silk Road, 2012-14[2]

Numbers of Jobs and % distribution between intra-silk Rord versus Rest of world



Note: For Figure 5 and 6, Intra-Silk Road is proxyed by the countries included in the selected areas (i.e. Central Asia, China, EU 28, MENA (including GCC), Southeast Asia and South Asia.

Source:*OECD Development Centre, calculations based on the fDi Intelligence data, from the Financial Times Ltd 2015*.www.fdimarkets.com.

[1] For this graph EU28 includes Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Portugal, Poland, Romania, Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom. GCC includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. MENA includes Algeria, Djibouti, Egypt, Arab Rep., Iran, Islamic Rep., Iraq, Israel, Jordan, Lebanon, Libya, Morocco, Syria, Arab Rep., Tunisia, and Yemen. Central Asia includes Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, Uzbekistan, and Mongolia. South East Asia includes Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam. South Asia includes Afghanistan, India, Pakistan, Bangladesh, Maldives, Sri Lanka, Bhutan, and Nepal.

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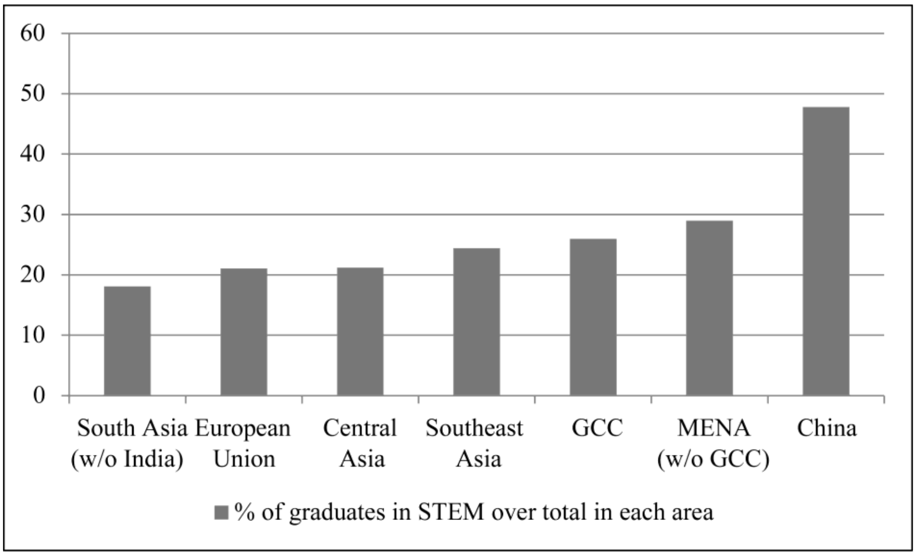
Connecting talents can enhance production complementarities along the Silk Road

14. The Silk Road encompasses a talent-rich and diverse area. Connecting regions along the Silk Road potentially will facilitate opportunities in talent mobility. China leads in the number of total graduates and of graduates in STEM, more than 9 million in 2013, 48% of which were in STEM. Europe follows, with more than 4 million in 2013, of which only 28% were in STEM. The mobility of talents, both at the level of students and entrepreneurs, between and within the areas of the Silk Road, can play an important role in knowledge transfer, trust building and mutual learning (Figure 7).

15. Areas along the Silk Road could benefit from realising potential production complementarities among them. An assessment identifying current and potential complementarities is needed first. An increased understanding of different competitiveness models is needed too. Further analyses, at the macro-meso-and firm-level, are needed to map these potential complementarities and identify the main factors that could trigger them and transform their potential into effective advantages.

Figure 7. Share of STEM graduates by area along the Silk Road, 2013



Note: European Union (EU) includes Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the UK. Germany not included due to missing data. GCC (Gulf Cooperation Countries): Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates. MENA (Middle East and North Africa): Algeria, Djibouti, Egypt, Arab Rep., Iran, Islamic Rep, Jordan, Lebanon, Malta, Morocco, Syrian Arab Republic, Tunisia; Iraq, Israel Libya, Yemen not included due to missing data. Central AsiaKazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Mongolia. Turkmenistan not included due to missing data. South Asia: Afghanistan, Pakistan, Bangladesh, Maldives, Sri Lanka, Bhutan, Nepal. India not included due to missing data. South East AsiaBrunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Vietnam; Singapore, Thailand not included due to missing data.

Source: OECD Development Centre based on World Development Indicators and National Bureau of Statistics of China.

Improved infrastructure can boost ties along the silk road

16. Improved logistics and infrastructure are essential to unleash the potential of the 21st century Silk Road. The complementarities among the different blocks and countries in terms of industrial and trade specialisation, skills and supply chain networks offer the potential for further integration and exchange. Such potential could be unleashed by increased connectivity through better information and communications technology (ICT), physical infrastructure and an enhanced business environment. In fact, many countries along the Silk Road, whether through size, location or geography, already face inherent barriers to competitiveness. Poor infrastructure can raise those further. For example, in South Asia it takes an average of 33.4 days to export a standard shipping container from the region (World Bank, 2015). Although huge disparities within the region (Afghanistan at 86 days and India at 17 days) skew the number, even for export-oriented countries such as Bangladesh and India, nearly two-thirds of shipping time is spent on paperwork and other institutional processes (Bacani and Mirza, 2013).

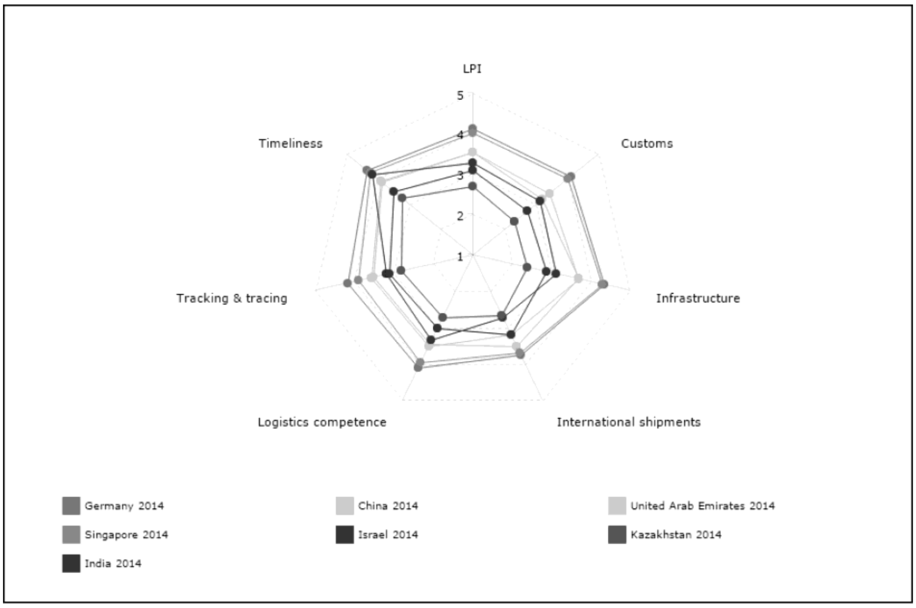
17. Improved infrastructure along the Silk Road could boost economic ties. Current plans for the Silk Road routes include rail lines that travel through Kazakhstan, including the already operational Chongquing-Duisburg rail line, and work is being done to upgrade highway linkages. With travel time between China and Germany by rail taking approximately 16 days, compared to twice that length by sea (Brautlecht, 2014), there are potential huge benefits to expanding transportation linkages. The comparison between top performing countries in selected areas along the Silk Road shows the potential for gains from improving hard and soft infrastructure. For example, Kazakhstan lags substantially behind top perfuming countries in other areas along the Silk Road, according to estimates from the World Bank Logistical Performance Index (Figure 8).

18. Many countries along the Silk Road are prioritising mobilising greater public and private investment in infrastructure. At a time where public finances are under strain, mobilising further private investment in infrastructure features at the top of the global policy agenda. At the same time, provided there is a favourable enabling environment, infrastructure sectors can present vast investment opportunities, and are natural candidates for greater private sector participation. However, about 70% of infrastructure funding in developing economies is still estimated to come from government budgets and national development banks – compared to about 20% provided by private investors and less than 10% by multilateral and development partners. More and better private investment can be achieved through improvements in the enabling environment and in the availability of risk mitigation instruments. Strengthening public sector capacities to design bankable projects and manage the whole infrastructure policy cycle, both at central and sub-national levels, is also crucial.

19. How and why infrastructure projects are selected and built areas important as having the money available in the first place. Building infrastructure is expensive, and history is littered with proverbial “bridges to nowhere.” The European Bank of Reconstruction and Development identifies a number of factors to consider – the current stock of infrastructure, institutional capacity to implement projects and the right balance between new projects and spending on maintenance and upkeep for existing projects (Nagy et al, 2015). The most valuable infrastructure projects for facilitating the growth of the Silk Road may not be the most obvious ones. Planning, designing and building infrastructure are complex tasks, and private sector expertise should be leveraged in financing and administration where possible (ADB, 2012). The amounts of funding already announced through two institutions alone to support projects on the Silk Road are substantial -- the Asian Infrastructure Investment Bank and the Silk Road Fund have pledged USD 100 billion and USD 40 billion, respectively. However, with the Asian Development

Bank estimating the need for USD 8 trillion in infrastructure spending in Asia between 2010-2020 (ADB/ADBI, 2009),attracting private finance will also be an important part of realising the potential of the Silk Road.

Figure 8. Logistical performance index, top performing countries from selected areas along the Silk Road, 2014



Source:*World Bank Logistical performance Index 2014, chart generated by amcharts.com*.

Conclusion

20. The Silk Road in the 21st century has the potential to bridge regions and reshape global ties. The widely heterogeneous regions present different opportunities for complementarities, and enhancing collaboration between them can contribute positively to their development and to the overall global economic landscape. However, this is easier said than done. Strengthening ties between different countries and regions is a complex process. It needs, in addition to vision, investments and infrastructure, time, trust and enhanced dialogue among a variety of actors.

21. Realising the potential of the Silk Road entails a broad agenda for both public and private sectors. Many areas deserve increased assessment to identify existing assets, potential benefits and challenges of increased ties and to clarify priorities for shared actions, including promoting SMEs development, tourism, food, agriculture, harmonisation in capital markets and knowledge-sharing on a wide range of aspects. Among them, three deserve particular attention in the near future:

- Dialogue and trust. Enabling economic partnerships and fostering business ties along the Silk Road matters, but it is equally important to identify spaces and forms to increase mutual understanding, dialogue and knowledge-sharing. Enhanced trust will be an essential pillar of shared visions and effective coexistence and co-operation between different countries, specialisations and development models. Experiences from other areas show that increased economic linkages can support growing exchanges in science, culture and development overall. These processes involve top-down and bottom-up relationships, and in general a participatory approach. It is crucial to identify concrete ways in which dialogue and trust in the Silk Road can flourish.

- Infrastructure planning and financing. Public and private investments will be required to bridge existing infrastructure gaps. Business and governments will need to have a vision to effectively mobilise long-term finance for improving logistics and infrastructure. To mobilise investment in infrastructure four issues are particularly important, as identified by the forthcoming OECD and World Bank Group report for the G20 Development Working Group: i) a country's investment policy openness and predictability; ii) the characteristics of its infrastructure markets; iii) the depth of capital markets and the overall financial framework; and iv) the quality of public governance. As first steps, it is important to identify infrastructure gaps along the Silk Road, clarify priority areas for action and strengthen management capacities for implementation.

- Strengthening ties in science and technology. Co-operation in science and technology is a component and an enabler of realising the potential of production complementarities. The areas along the Silk Road have different capabilities and specialisation in science and technology and creating opportunities for further exchange and co-operation can benefit the countries along the area, and beyond. Favouring mobility of researchers and talents, technology transfer and cross-national research networks can increase the capacity to deliver innovative solutions and strengthen production linkages. It couldpromote scaling up processes in lagging areas and sustain advances in leading areas Facilitating existing co-operation and mapping existing capabilities along the Silk Road would be key preliminary steps to identifying ways to further strengthen ties in science and technology along the Silk Road and beyond.

Acronyms and Abbreviations

ADB – Asian Development Bank

AEC – ASEAN Economic Community

ÁFTA – ASEAN Free Trade Area

APT – ASEAN Plus Three

ASEAN – Association of Southeast Asian Nations

EAS – East Asian Summit

EAVG – East Asian Vision Group

EBRD – European Bank of Reconstruction and Development

EU28 – the European Union

FDI – foreign direct investment

GCC – Gulf Co-operation Council

MENA – Middle East and North Africa

NTF – non-tariff barriers

SEA – Southeast Asia

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END NOTES

1. Information on trade dynamics and specialisation along the areas of the Silk Road is being developed to complement this preliminary assessment to map the current situation and identify potential for future improvement.

2. The definition of the five product categories is based on their technology content according to Sanjaya Lall (2000),? “The technological structure and performance of developing country manufactured exports, 1985-98”, Oxford Development Studies, vol. 28, No. 3.

3. The definition of the five product categories is based on their technology content according to Sanjaya Lall (2000),?“The technological structure and performance of developing country manufactured exports, 1985-98”, Oxford Development Studies, vol. 28, No. 3.

4. The definition of intermediate products is based on Miroudot, S., Lanz, R., and Ragoussis, A. (2009). “Trade in Intermediate Goods and Services”. OECD Trade Policy Working Paper No. 93

5. For this graph EU28 includes Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Portugal, Poland, Romania, Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom. GCC includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. MENA includes Algeria, Djibouti, Egypt, Arab Rep., Iran, Islamic Rep., Iraq, Israel, Jordan, Lebanon, Libya, Morocco, Syria, Arab Rep., Tunisia, and Yemen. Central Asia includes Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, Uzbekistan, and Mongolia. South East Asia includes Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam. South Asia includes Afghanistan, India, Pakistan, Bangladesh, Maldives, Sri Lanka, Bhutan, and Nepal.

6.For this graph EU28 includes Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Portugal, Poland, Romania, Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom. GCC includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. MENA includes Algeria, Djibouti, Egypt, Arab Rep., Iran, Islamic Rep., Iraq, Israel, Jordan, Lebanon, Libya, Morocco, Syria, Arab Rep., Tunisia, and Yemen. Central Asia includes Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, Uzbekistan, and Mongolia. South East Asia includes Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam. South Asia includes Afghanistan, India, Pakistan, Bangladesh, Maldives, Sri Lanka, Bhutan, and Nepal.