The United Nations Office of the High Representative
for the Least Developed Countries,
Landlocked Developing Countries and
Small Island Developing States
(UN-OHRLLS)

Acronyms and Abbreviations

A DB	African Development Bank
A A	Almaty Programme of Action
ECE	Economic Commission for Europe
FDI	Foreign Direct Investment
G8	Group of Eight
GA	General Agreement on Trade and Tariffs
GD	Gross Domestic Product
HDI	Human Development Index
IC	Information and Communication Technology
DC	Landlocked Developing Country
DA	Official Development Assistance
I	Logistics Performance Index
C	Multinational Corporation
ECD	Organisation for Economic Cooperation and Development
E	Small and Medium-sized Enterprises
A	Sub-Saharan Africa
E	Science, Technology, Engineering and Math
E	Technical and Vocational Education and Training
	United Nations
CDF	United Nations Capital Development Fund
C AD	United Nations Conference on Trade and Development
D	United Nations Development Programme
ECA	United Nations Economic Commission for Africa
ID	United Nations Industrial Development Organization
- H	United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States
G A	United Nations Secretary-General's Special Advocate for Inclusive Finance for Development
A	Vienna Programme of Action
	World Trade Organisation

Landlocked developing countries (LLDCs) are confronted by structural challenges that are directly or indirectly related to their remote position from global markets that put them at a comparative disadvantage relative to other developing countries and severely constrain their growth and development prospects. In 2003, under the auspices of the United Nations, the Almaty Programme of Action was adopted that was specifically aimed at addressing the special needs of the LLDCs. Under the resolution 66/214 of the United Nations General Assembly, a ten-year review of the Almaty Programme of Action was undertaken in November 2014 to take stock of the performance of LLDCs over the past decade and adopted the Vienna Programme of Action (VPoA).

While the Almaty Programme of Action was focused on the development of transport systems and transit trade, it is important to emphasize that these issues are only part of the impediments to growth and development in LLDCs. The LLDCs also face other challenges critical for enhancing structural transformation that include inadequate supply of energy

Energy infrastructure

In addition to relatively weaker transport and ICT infrastructure, LLDCs also face severe challenges in access to energy. Moreover, there are substantial variations within LLDCs, with LLDCs in Africa fairing worse relative to their counterparts in other regions. LLDCs face challenges at three levels: generation, transmission, and utilization of energy. Most LLDCs have very low power generation capacity, despite substantial untapped potential including in renewable sources notably hydroelectricity, solar, and wind energy.

Finally it is important to note that other forms of infrastructure also depend on energy. The lack of adequate energy supply limits options for expansion of the transport infrastructure as it makes all options for power-propelled transport equipment unviable. It also severely undermines the development of information and telecommunication infrastructure which also relies on electricity. Thus it is important to think of infrastructure development as a comprehensive industry-wide strategy that takes into account all the interconnections between the various forms of infrastructure.

Performance of LLDCs during the implementation of the Almaty Programme of Action

T 2003 A P A 6 6

This is a serious impediment to their medium and long term growth and development. Industrialization is in fact even more important for LLDCs relative to their coastal counterparts as it enables them to alleviate the impediments due to their landlocked position. In particular, through industrialization, countries are able to produce goods with a higher value to weight ratio, which reduces the relative cost of transport. Thus the development of manufacturing is critical for the ability of LLDCs to compete in global markets. It is therefore critical to reflect on the causes of this failure to industrialize and the strategies that can help LLDCs to reverse this course.

Private sector development

The private sector in LLDCs is predominantly composed of small and medium-sized enterprises (SMEs). It is dominated by informal activities, and it is characterized by low technical capacity and low productivity. The key constraints to private sector development as singled out in various firm level surveys include lack of access to stable long term financing, inadequate infrastructure, cumbersome regulation, and low human capital especially due to skills mismatches between training and the needs of enterprises.

Institutions and the regulatory environment

It is well recognized that the quality and efficiency of institutions and the regulatory environment are key factors of long-term economic growth. In the case of LLDCs, institutions and regulation are important tools for ameliorating the conditions for private sector activity. They specifically reduce the costs of doing business through lower political and economic uncertainty, transparency and predictability of the rules of the game, and by enforcing competitiveness.

Overall, while the majority of LLDCs have made substantial progress in improving political institutions, democratic governance and the rule of law, they have made much less progress in the areas of institutional support for private sector activity. In the 1980s and 1990s, the focus was on privatization, the retrenchment of the state, and economic liberalization in general; but this proved to be ineffective in stimulating a dynamic private sector. The institutional and regulatory environment in most LLDCs remains a constraint to private sector activities.

Why focus on productive capacity in LLDCs?

The analysis of the economic situation and performance of LLDCs over the past decades clearly shows that there is a need to rethink their development strategy for several reasons. First, the majority of the LLDCs, like other developing countries, continue to face high and stubborn levels of poverty as well as slow progress along important dimensions of economic development. Second, LLDCs face structural disadvantages due to their remote position relative to global markets. Hence, LLDCs need to develop production and trade systems that are less dependent on transport.

The third reason to rethink development strategy in LLDCs is that globalization continues to increase pressure to become competitive and innovative in order to gainfully integrate into the global system. Thus far, the production base in LLDCs continues to be narrow with a heavy dependence on primary commodities, and technology intensity is also very low, which is a major reason for the low productivity in most sectors, especially agriculture and manufacturing.

In this report, productive capacity is understood as the whole set of capabilities that enable countries to produce efficiently and competitively. It is the combination of physical, human, technological, institutional, and environmental assets that determine the level and dynamic path of a country's efficiency and competitiveness in production. In that sense, productive capacity is a critical determinant of not only the country's current economic performance but also its future performance internally and in comparison to other countries.

Seven main pillars of the strategy are emphasized: infrastructure, productive resources (natural resources, human capital), private sector development, regional integration, financing, science and technology, and institutions, policy and regulations. These pillars interact in a complex fashion in such a way that successful implementation of each pillar of the strategy depends and determines the success of implementation of the other pillars.

Pillar #1: Infrastructure

A key pillar of the strategy for productive capacity building in LLDCs is the development of infrastructure and associated services. While infrastructure is critical in all developing countries, in the case of LLDCs it is especially essential for alleviating the specific

For LLDCs, transport infrastructure is a critical element of the infrastructure network given their remote position relative to the sea. This includes roads, rail, and air freight. The road network includes both national roads as well as the transit corridors linking the LLDCs to the sea.

A key feature of the transport infrastructure for LLDCs is their reliance on transit systems that fall outside of their direct control. The complexity of transit systems implies that action has to be engaged at various levels. The focus of action should be especially on improving the maintenance of hard infrastructure, increasing efficiency in border crossing, promoting and enforcing competition in the trucking industry, and reducing corruption in the public sector, especially by eradicating informal charges incurred by trucking service providers.

In addition to transportation infrastructure, LLDCs must also scale up infrastructure in the energy sector, ranging from generation, to transmission, to utilization of electricity. They also need to scale up investment in ICTs. ICT infrastructure remains unreliable even when it is available, and it is expensive relative to the purchasing power of the population in LLDCs.

Pillar #2: Productive resources

.

Some of the LLDCs are among the top resource-rich countries in the world; others have substantial reserves, and although they may not rank high on a global scale, they are in fact resource dependent in the sense that natural resources represent a large share of their exports of goods.

Many of the resource-endowed LLDCs have failed to utilize their resource endowment to develop a base for sustained long-run growth and development. It is therefore urgent for LLDCs to establish a strategy for maximizing the gains from natural resource endowment. Such a strategy should be organized around three interrelated objectives: maximizing revenue accruing to the producing LLDCs; moving up the value chain in the resource exploitation process; maximizing synergies with and spillover effects on non-resource sectors.

.H

While there has been some progress since the turn of the century, developing countries in general still face substantial shortage in human capital at all levels of skills from semi-skilled to highly skilled labor. This is the result of a combination of inadequate investment in human capital as well as lack of alignment of the supply and demand sides of skills development. Traditionally, discussions on human capital have focused on formal schooling, while practically, human capital development encompasses a wider range of channels through which the productive capacity of the labor force is acquired and enhanced. These include pre-labor market training, on-the-job experience, health and nutrition, and "early life investments" or investments in children. Thus the productive capacity building strategy must take this comprehensive approach to human capital development.

The productive capacity building strategy for LLDCs must emphasize human capital for a number of important reasons: human capital enhances the productivity of physical capital in all sectors; it is an essential ingredient for innovation and technological progress, which are important drivers of economic dynamism and competitiveness; it is an important tool to reduce social inequalities through improved social mobility; and it is critically important for LLDCs to help alleviate the disadvantages of remoteness.

Pillar #3: Private sector development

Developing a vibrant and dynamic private sector is an indispensable element of the productive capacity building strategy for all developing countries in general and for LLDCs in particular. The development of the private sector requires a comprehensive strategy aimed at reducing production and trade costs, ensuring protection of property rights, and creating an overall conducive business environment. The proposed productive capacity building strategy for LLDCs aims to achieve these goals through investment in physical and soft infrastructure, increasing the quality of human capital, facilitating access to long-term investment capital and, stable and transparent institutions.

Pillar #4: Regional integration

As LLDCs are highly dependent on their neighbours for transport and trade, regional integration through development of regional transportation networks, improved trade facilitation, and strengthened connectivity is critical for building productive capacities of these countries. It is imperative to complete the numerous missing links in physical transport infrastructure, which requires forging sub-regional and regional cooperation on infrastructure projects, strengthening national budgets and international development

Policy suggestions

The objective of the proposed productive capacity building strategy for LLDCs is to focus policy on the priority factors that constitute the most binding constraints to productivity and growth in these countries so that unlocking those constraints will generate a substantial impetus on growth and structural transformation in these countries.

At the national level, governments in LLDCs need to put priority on alleviating the most binding constraints to productivity and trade. All LLDCs must put a *priority on infrastructure* with a focus on hard and soft transport infrastructure, energy infrastructure, and ICTs. With regard to resource mobilization, LLDCs should consider developing dedicated financing instruments for infrastructure. One option is to design domestic-currency infrastructure bonds targeted at specific infrastructure programs such as roads, power generation, and ICTs.

LLDCs need to scale up efforts in the area of *human resource development. Private sector development* is critical for the success of the proposed strategy. Thus LLDCs need to focus on creating an enabling environment for private business, and facilitating and incentivizing the channeling of financing into the private sector, including SMEs. The proposed development strategy requires LLDCs to bring *science, innovation and technology* at the center of development policy in two ways: increasing acquisition of skills in science and technology; increase the connection between training and practice, and the diffusion of scientific knowledge into industry, agriculture and private sector activity in general.

Finally, at the national level, LLDCs must also focus on improving *policy coordination*, and most specifically, the coordination between a flexible and developmental macroeconomic framework on the one hand and strategic sectoral policies on the other hand.

More and technology447.29(oun)3.9T BT9(

References 43

F

Figure 1: Remoteness and import-export prices 6
Figure 2: ICT penetration in LLDCs – mobile phone and internet, 2000-12 8

1. Introduction

Landlocked developing countries (LLDCs) are generally among the poorest of the developing countries. This can be demonstrated by the fact that about half of the LLDCs are also classified as least developed. LLDCs are confronted by structural challenges that are directly and indirectly related to their remote position from global markets that put them at a comparative disadvantage relative to other developing countries and severely constrain their growth and development prospects. Due to long distance from the sea, these countries face disproportionately high transport and transactions costs which are exacerbated by poor infrastructure, inefficient logistics systems, costly and cumbersome procedures along the transit corridors, weak institutions and poor regulation. These high costs undermine the capacity of LLDCs to take advantage of globalization as illustrated by low and stagnant share in international trade.

The difficult conditions faced by LLDCs have steered efforts by the international community to design special programs and frameworks to assist this group of countries reach their growth potential and accelerate their progress towards national and international development goals. In this context, in 2003, under the auspices of the United Nations, the Almaty Programme of Action was adopted by the Conference. It was specifically aimed at addressing LLDCs' special needs to accelerate economic development. The main objective of the Almaty Programme of Action was to "establish a new global framework for action for developing efficient transit transport systems in landlocked and transit developing countries" (United Nations, 2003, article 10). Under the resolution 66/214 of the United Nations General Assembly, a ten-year review of the Almaty Program of Action was undertaken in 2014 to take stock on the performance of LLDCs over the past decade. Based on the review, an outcome document – the Vienna Programme of Action - was adopted at the Conference in Vienna.

Compared to the Almaty Programme of Action, the three priorities found in APoA have been further reinforced and expanded in the VPoA. For example, infrastructure development and maintenance has been expanded to encompass energy and ICT infrastructure; the international trade and trade facilitation priority further seeks to increase value addition and manufactured component of LLDC exports and takes note of the importance of timely implementation of the WTO Trade Facilitation Agreement. In addition, the VPoA includes three new priorities on regional integration and cooperation, structural economic transformation and means of implementation. The structural economic transformation priority for example focuses on capacity building, increasing value addition, economic diversification, promoting services sector, and private sector development.

Developing productive capacities is among the integral elements for achieving the identified objectives in the VPoA. Paragraph 12 of the VPoA states the following: "…many LLDCs rely heavily on a few mineral resources and low-value agricultural products for their exports to a limited number of markets, making them highly vulnerable to commodity price and demand volatility. The problem is further exacerbated by their low productive capacities and structural weaknesses, which limit the adding of meaningful value to their exports and the diversification of their exports and markets" (Vienna Programme of Action, 2014).

While the Almaty Programme of Action largely focused on the development of transport systems, it is important to emphasize that transport costs are only part of the impediments to growth and development in these countries. As such, in addition to transport, the VPoA recognises that LLDCs also face challenges arising from inadequate supply of power generation and transmission infrastructure as well as information and communication

2.1 Transport infrastructure and the high costs of remoteness

Landlocked developing countries face special constraints due to remoteness relative to international markets that predispose them to perform less than coastal developing countries that have easier access to global markets. Moreover, and most importantly, the economic performance of LLDCs depends both on their own domestic circumstances as well as conditions in neighbouring and transit countries. In other words, the economic fate of LLDCs is dictated to some extent by factors that are under the control of other countries. For this reason, the analysis of development performance and the setting of global development strategy must pay special attention to the case of LLDCs.

The attention on the problems of LLDCs has typically focused on the implications of their long distance to markets. But in fact distance to markets is only one factor. The ability of LLDCs to achieve their potential depends, in the first instance, on their own domestic conditions, in particular, the quantity and quality of their infrastructure, especially transport,

1: **DC**

2.4.2 Energy infrastructure

In addition to relatively weaker transport and ICT infrastructure, LLDCs also face severe challenges in access to energy. Moreover, there are substantial variations within LLDCs, with LLDCs in Africa fairing worse relative to their counterparts in other regions. As can be seen in Table 4, average consumption of electricity in LLDCs located in Africa is about half the average in LLDCs as a whole. In addition to shortage of supply, regulatory inefficiencies and red tape increase the cost of access to electricity. In many LLDCs, it takes three or more months to get a connection to the grid. The monetary cost of electricity is very high; in Africa it is twice as high as the average for the group.

LLDCs face challenges at three levels: generation, transmission, and utilization of energy. Most LLDCs have very low power generation capacity, despite substantial untapped potential including in renewable sources notably hydroelectricity, solar, and wind energy. These countries lack the capacity to mobilize the large amounts of financing that are required to invest in major power generation projects. Thus the bulk of energy generation resources at their disposal remain idle. LLDCs also face challenges with regard to transmission of energy from the generation point to the end users. In particular, there are large gaps in access to power between the rural area and the urban area. Power generation and transmission typically relies on public financing, which is in short supply in these countries due to budget constraints and limited attractiveness of the energy sector vis-à-vis external private financing.

The lack of adequate energy supply is a serious structural constraint to economic development in LLDCs. It not only reduces overall economic performance in terms of growth but it is also a constraint to economic diversification. For example, in agriculture based LLDCs, economic diversification can be achieved through moving up the value chain by developing the agro-processing industry. However, this requires adequate supply of energy for transformation of the produce and conservation of raw material and manufactured output. In the absence of reliable public energy provision, private operators tend to rely on private power generators which are both expensive and bad for the environment.

Moreover, the shortage of energy supply has implications for health and poverty in general. Due to lack of clean heating and cooking energy, rural households are forced to rely on energy sources (such as kerosene and biomass) that expose them to major safety hazards. Women and girls are particularly heavily exposed as they are responsible for cooking and thus incur more risk due to indoor air pollution. The lack of access to energy for the poor, or "energy poverty" is an often overlooked and yet extremely development issue in LLDCs.

In this context, the United Nations Sustainable Energy for All (SE4ALL) initiative is important as it stresses among others, the need for universal access to modern energy services, increasing the use of renewable energy, m[Span, ∋DC 19 Tm2h3em.9(,)68.9energy for

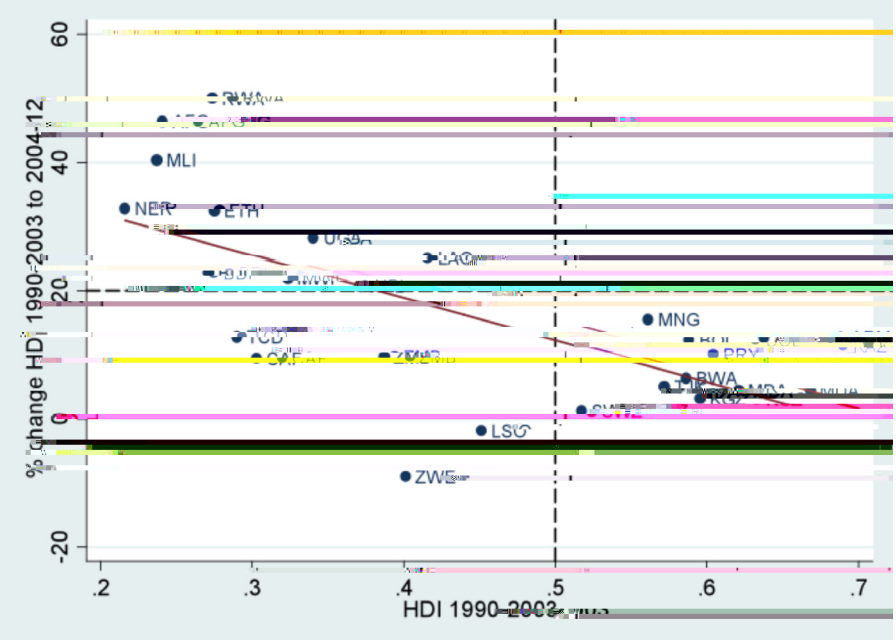
3.1 The Almaty Programme of Action as a reference

The 2003 Almaty Programme of Action was the first international policy framework dedicated explicitly and solely to the group of LLDCs. Previous policy frameworks did not distinguish LLDCs from other developing countries. Starting from the 1990s, there was increasing attention to the concerns and difficulties faced by LLDCs. This increased awareness derived from the recognition of the role of trade for growth on the one hand and the role of transport and transit for trade in the international policy frameworks and debates on the other hand. Under the Washington Consensus that dominated economic policy thinking in the 1980s and 1990s, trade was recognized as a major driver of long-run growth. In 1995, in the context of this heightened attention to the role of trade and trade policy the General Agreement

6: 1990-2012, . A A

It is worth noting that the countries that have made the largest improvements are those that were at the bottom of the scale in the pre-Almaty period. This can be clearly seen on Figure 3. The leading countries in that regard are Rwanda, Afghanistan, Mali, Niger, Ethiopia, and Uganda. In that sense there has been convergence in human development characterized by catching up by countries that started at lower levels of human development. This is a positive development for the group as a whole but most importantly for the least developed countries within LLDCs.

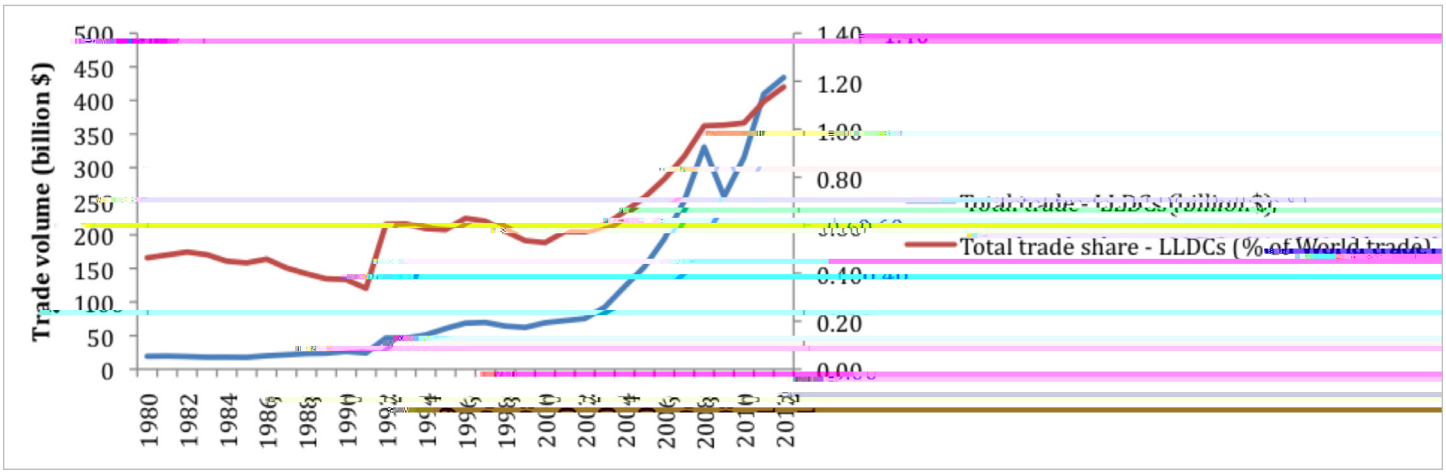
F 3: C DC A



3.4 Performance in international trade

Overall international trade by LLDCs has expanded during the Almaty period with increasing exports and imports. Total trade for the LLDC group increased from $123 billion in 2004 to $434 billion in 2012, representing a 17 percent average annual increase

F 4: DC , 1980-2012



Source: Computed using data from UNCTAD database (online).

Source: http://hdr.undp.org/en/data-explorer.

Total trade contracted in ten countries and increased by 10% or less in four other countries. On balance, the trade position improved for the majority of LLDCs. For the group as a whole, the trade balance improved from a deficit to a surplus (from -6.4% to 2.8% of GDP). In fact six LLDCs went from a trade deficit in 1990-2003 to a trade surplus in the Almaty period (Azerbaijan, Bolivia, Chad, Kazakhstan, Uzbekistan and Zambia). The improvement was especially higher in the group of European LLDCs compared to other regions. But an important concern is the substantial deterioration of the trade balance in several countries resulting from a combination of slow growth in exports and fast increase in imports. In the case of the group of LLDCs in Africa, the trade balance deteriorated in the Almaty period (from -9% to -10% of GDP). Therefore, trade imbalance remains a structural problem for a substantial number of LLDCs.

3.5 Structural transformation

While many LLDCs have been able to make progress in several areas of overall economic performance, trade and even in human development, the critical challenge remains their inability to initiate a sustained process of structural transformation of their economies. It involves the process of creating new areas of activities and the shifting of resources from low value-added and low productivity to higher value-added and high productivity activities. Structural transformation is an essential condition for successfully integrating in the global economy and achieving sustained, broad-based and employment-creating economic growth. The record of structural transformation in the Almaty period is rather disappointing for the majority of LLDCs. Here we present two sets of indicators to gauge progress in structural transformation in LLDCs. The first is the contribution of the key sectors to aggregate output; that is, the percentage of the value added of agriculture, manufacturing, and services in total GDP. The second set of indicators focuses on exports and specifically the degree of concentration as well as the technology content of exports.

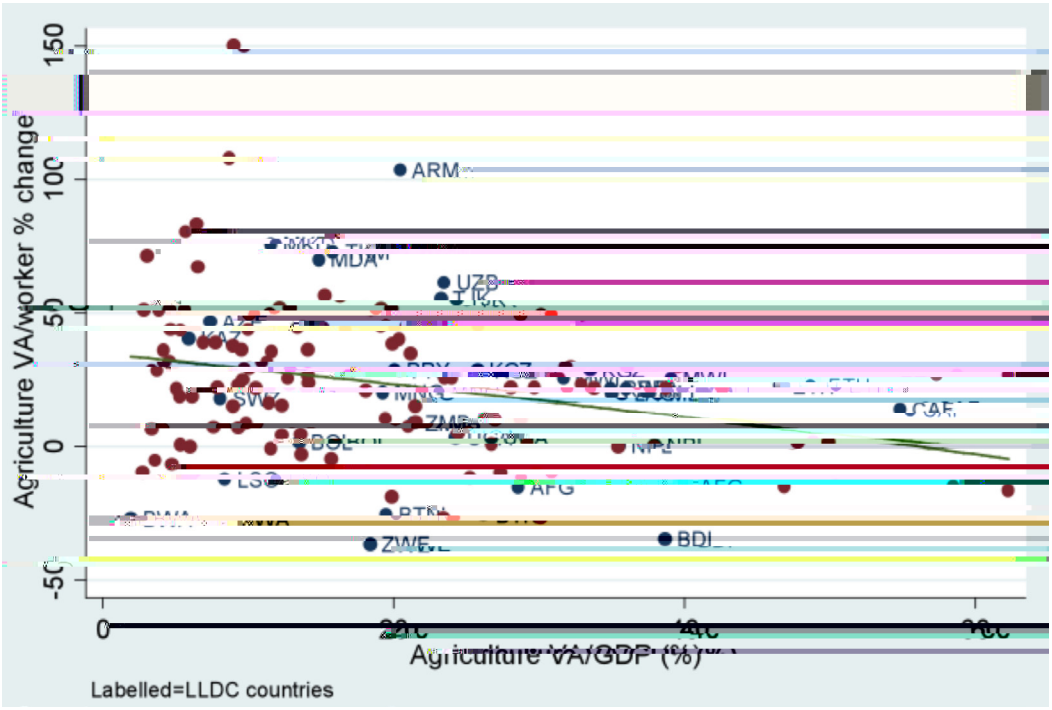
Analysis of the trends in the sectoral composition of GDP shows a systematic decline in the contribution of agriculture and the manufacturing sector to GDP and an increase in the share of services in total output (Table 8). The share of agriculture in total output increased in only four LLDCs in the Almaty period relative to 1990-2003: Burkina Faso, Central African Republic, Paraguay and Zimbabwe. The share of the manufacturing sector in GDP increased meaningfully in only three countries – Swaziland, Turkmenistan and Uzbekistan. In contrast, the share of services increased in all LLDCs except for four countries – Azerbaijan, Bolivia, Chad, and Zimbabwe.

These developments raise two main concerns. The first concern is with regard to the agricultural sector. The decline in the share of agriculture to GDP in LLDCs is problematic given that it is not accompanied by a reduction in the share of employment in the sector. This would require an increase in productivity to enable the transition of labor toward other sectors notably the manufacturing sector and services. In contrast, in the case of LLDCs, the decline in the share of agriculture in GDP has been accompanied by a decline in productivity. In Figure 5, average agriculture productivity measured by the value added per worker is plotted against the average size of the agriculture sector over the period 2004-12 for all developing countries. LLDCs are labelled for comparative purposes and to focus the attention on their position relative to other developing countries. Two facts emerge from the graph. First, countries with a larger agricultural sector have also lower productivity in agriculture. Second, non-landlocked countries are relatively more concentrated in the top left corner of the scatter points, indicting lower size of agriculture and higher productivity. In contrast, as we move to higher size of agriculture sector and lower productivity, the points are dominated by LLDCs. Therefore, compared to other developing countries, LLDCs have both lower productivity in agriculture and a higher size of agriculture sector.

In Figure 6, the size of the agriculture sector is plotted against agriculture productivity growth measured by the percentage change of the agriculture value added per worker between the pre- and Almaty period; i.e., 1990-2003 relative to 2004-12. The same picture emerges as in the case of the level of productivity. Here also, non-landlocked countries are clustered on the top left of the figure, indicating that these countries have both relatively smaller agriculture sector and higher productivity growth. Within LLDCs, it is also the case that the countries that have experienced more rapid increase in agriculture productivity are among those with relatively small size of the agriculture sector. The low productivity growth in agriculture must therefore feature prominently in the discussions on how LLDCs can move to a path of higher growth rate in the VPoA era. A key part of the strategy is to increase productive capacity geared to transforming agriculture into a launching pad for industrialization in addition to guaranteeing food security.

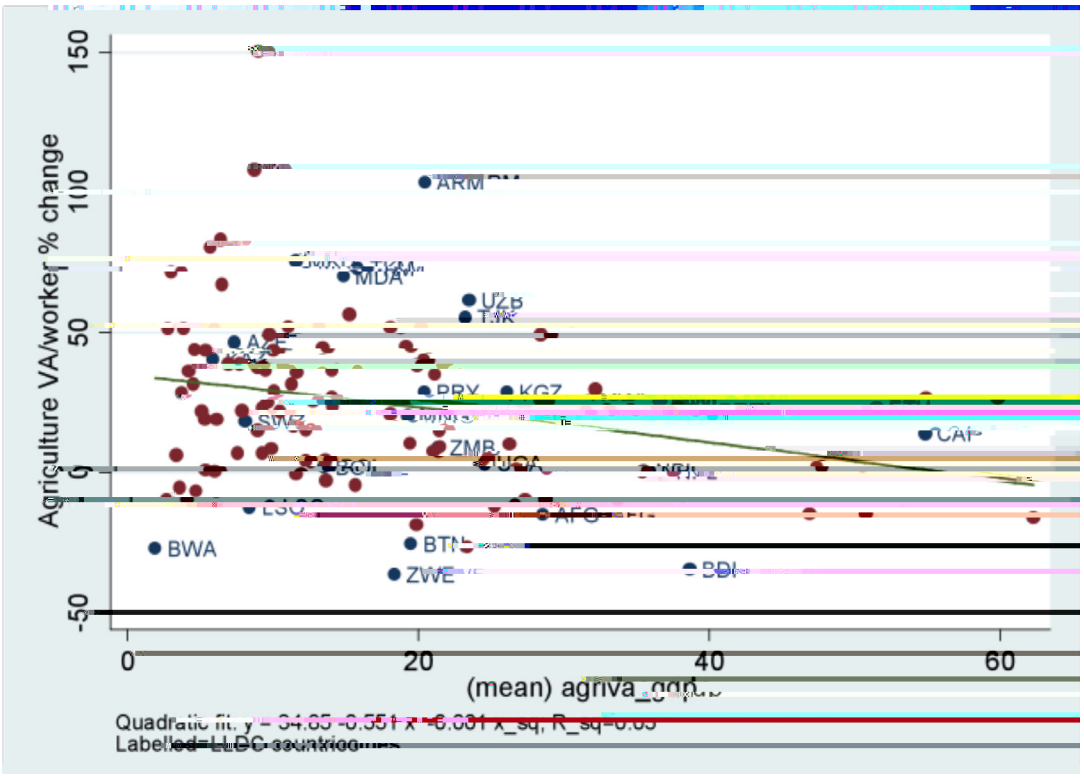
The second concern is with regard to the manufacturing sector. The share of manufacturing production in GDP is a strong indicator of industrialization of an economy and a measure of the process of value addition in the production system. It is an indication of the creativity and innovation in the economy. The evidence presented in Table 8 shows that LLDCs have failed along

F 5: A : , 2004-12



Source: World Bank, World Development Indicators (online)

F 6: A : , - .A



Source: World Bank, World Development Indicators (online)

8: **GD (%)**

important for LLDCs relative to their coastal counterparts as it enables them to alleviate the impediments due to their landlocked position. In particular, through industrialization, countries are able to produce goods with a higher value to weight ratio, which reduces the relative cost of transport. Thus the development of manufacturing is critical for the ability of LLDCs to compete in global markets. It is therefore critical to reflect on the causes of this failure to.(TJompd9(eflst w)8.9(eigh)3ic)-1(g)11(eh(eigh)3lec)-12.9n help

in LLDCs. While small and medium enterprises make the bulk of the private sector and are major contributors to employment creation, they lack the necessary capital to expand their activities and meet the growing demand for jobs especially from the educated youth. As the public sector in most LLDCs has reached its employment creation capacity, it is imperative to bring financing for private enterprises, especially SMEs, at the forefront of the development strategy in LLDCs.

3.7 Institutions and the regulatory environment

It is well recognized that the quality and efficiency of institutions and the regulatory environment are key factors of long-term economic growth. In the case of LLDCs, institutions and regulation are important tools for ameliorating the conditions for private sector activity. They specifically reduce the costs of doing business through lower political and economic uncetitutions n they lack the nece

Thematic Pillars

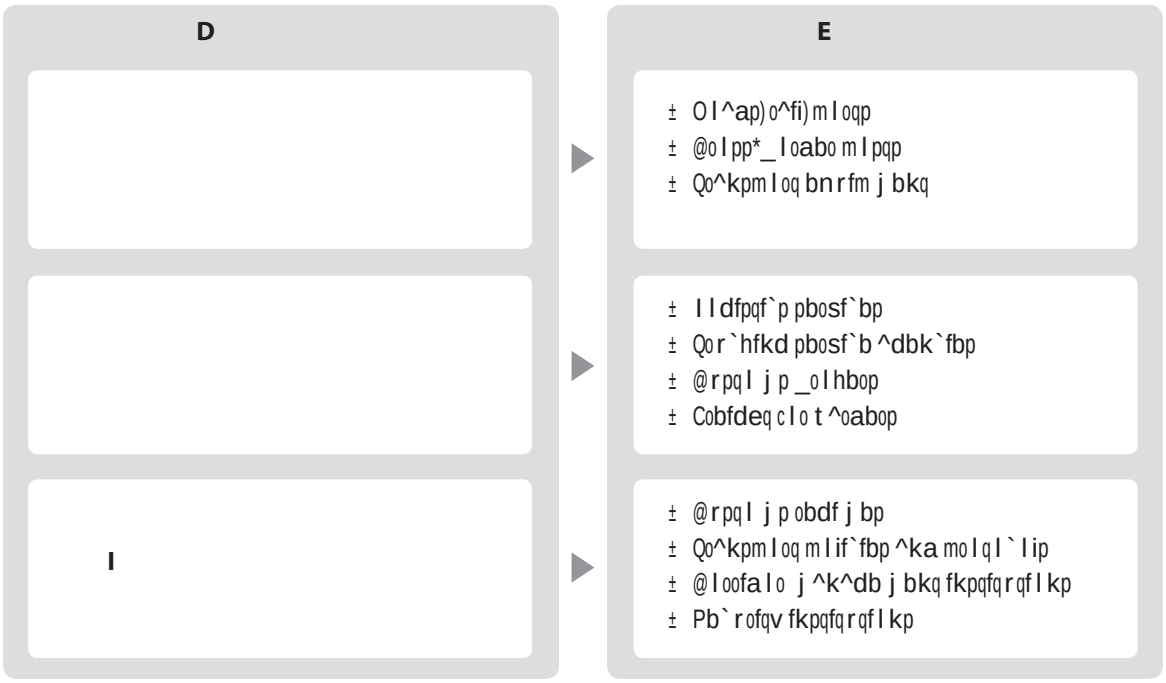
4.1 Infrastructure

specific diagnostic analysis of the infrastructure network in order to design appropriate intervention strategies to increase both the capacity and efficiency of infrastructure at national and regional level. Note that while the discussion typically focuses on 'productive infrastructure', social infrastructure – such as education and health infrastructure – is also critically important for building productive capacity in LLDCs. In particular, social infrastructure is essential for human capital development, which is an important factor of productive capacity.

4.1.1 Transport infrastructure

At the domestic level, the challenge is to identify priority infrastructure given limited resources and urgent development goals. For LLDCs, transport infrastructure is a critical element of the infrastructure network given their remote position relative to the sea. This includes roads, rail, and air freight. The road network includes both national roads as well as the transit corridors linking the LLDCs to the sea. The main challenge regarding the road infrastructure is that LLDCs depend not only the capacity and quality of their own roads but also on those in neighboring and transit countries. Thus the policy for improving the road network involves a major dimension of cooperanet

F 9:



4.1.2 Energy infrastructure

In addition to transportation infrastructure, LLDCs also face severe constraints due to inadequate infrastructure in the energy sector. As shown earlier (Table 1), the problem is especially severe for LLDCs in Africa. LLDCs face problems ranging from generation, to transmission, to utilization of electricity. Because power generation has not kept pace with the expansion of urbanization and industrialization, these countries experience severe excess demand for electricity, resulting in frequent and costly power blackouts and rationing of electricity. This forces enterprises to invest in private fuel-powered generators, which are both costly and bad for the environment.

The shortage of power supply constitutes a severe constraint on economic diversification as it raises production costs. Thus for instance, the development of domestic processing of natural resources – both mining and agriculture – is hindered by inadequate power supply to transformation and storage facilities. As a result, LLDCs are unable to compete in moving up the value chain in the natural resources and agricultural sectors. Another challenge in the power sector is inefficient transmission and utilization of electricity, resulting in high wastage of power between the generation point and the end user. Therefore, in addition to scaling up power generation, LLDCs also need to scale up efforts to improve efficiency in the transmission and utilization of electricity and facilitate enhanced structural transformation.

Information and communication technologies (ICTs)

With regard to information and communication technologies infrastructure, while there has been substantial improvement in access to mobile telephony over the past two decades, much less progress has been recorded in the case of fixed telephony. In fact mobile telephony has enabled people in LLDCs to leapfrog in the area of telecommunication, thus enabling rapid penetration of telecommunication services in the rural areas.

Internet usage also remains low in LLDCs. It is nearly absent in the rural areas. In addition, even when it is available, the internet is slow, unreliable, but still expensive relative to the purchasing power of the population in these countries. Moreover, a major constraint to the expansion of information and communication technologies infrastructure and services is the shortage of power supply. This underscores the critical importance of power generation and transmission for building productive capacities in LLDCs.

system as term deposits or other forms of financial assets. In turn, banks must be incentivized to intermediate these additional

13: C DC

30 J 2014

C	DC	
Convention on Road Traffic (1968)	13	12
Convention on Road Signs and Signals (1968)	8	9
Customs Convention on the International Transport of Goods under Cover of TIR Carnets (1975)	11	5
Customs Convention on the Temporary Importation of Commercial Road Vehicles (1956)	6	3
Customs Convention on Containers (1972)	6	3
International Convention on the Harmonization of Frontier Controls of Goods (1982)	11	3
Convention on the Contract for the International Carriage of Goods by Road (1956)		

4.5 Financing productive capacity building

The shortage of investment capital constitutes one of the critical constraints to LLDCs' ability to address the other constraints to growth such as lack of inadequate infrastructure and shortage of skilled labor. Financial systems in LLDCs as in most developing countries have not contributed to promoting productive capacity due to various structural inefficiencies. In particular, the cost of credit is high due to high interest rates and non-interest costs. Moreover, credit is skewed on the short end of the term structure, which is a constraint to long-term investment in the private sector. In the supply of credit, banks tend to ration against productive sectors such as industry and agriculture, which happen to be the most important drivers of growth and employment creation[15]. Access to credit is especially limited for micro, small, and medium-sized enterprises (MSMEs) although these are in fact the real "engines of rural growth" (World Bank, 2008). Even when MSMEs can access credit, they incur exorbitant costs. Effective borrowing costs can be as high as 25% even when advertised interest rates range from 8% to 12% (World Bank, 2008). The high borrowing costs are a result of both supply-side factors (e.g., lack of competition in the banking sector) and demand-side factors (e.g. lack of collateral and high correlated risk of activities in these sectors).

Financing productive capacity building in LLDCs requires refocusing financial policies to develop financing institutions and instruments that meet the needs of the private sector and especially those of the rural sector. The strategy should be organized around three main pillars: infrastructure-focused finance; specialized agricultural and rural finance; and SME and informal sector friendly finance.

Infrastructure financing

Alleviating the disadvantages associated with remoteness requires scaling up investment into infrastructure with the special focus on transport infrastructure and networks, energy and telecommunication. With regard to transport, the challenge is that a substantial fraction of the transport infrastructure lies outside of individual LLDCs' territorial boundaries. This implies that the strategy for financing transport infrastructure in LLDCs comprises a major regional dimension. Regional infrastructure falls in the domain of 'regional public goods' which are typically difficult to finance because the gains are non-excludable. This puts a heavy premium on coordination and political dialogue between LLDCs and transit states. Given the nature of the regional infrastructure, LLDCs need strong support from regional financial institutions as well as international development financing institutions to mobilize both public and private capital. While this constitutes a challenge for the donor community, it is also an opportunity given the potentially high returns to investment in regional infrastructure in terms of promoting growth, employment creation and poverty reduction in landlocked and transit countries.

Financing power generation and transmission also requires innovative strategies, especially to incentivize private financing. The generation of power requires large-scale investments which often exceed the financing capacity of individual governments in LLDCs, including domestic revenue and external borrowing capacity. Thus, governments in LLDCs need to find ways to attract

Second, science and technology are also critical for the development of efficient transportation networks that can enable LLDCs to connect to global markets more effectively and less expensively. Mastering science and technology is important for not only building efficient transport systems, but also for maintaining them.

4.7 Policies, regulation and institutions

The last pillar of the productive capacity building framework for enhancing structural transformation in LLDCs consists of the set of policies, regulation and institutions that enable and facilitate the implementation of the other pillars of the framework. In other words, the ability of LLDCs to develop their productive capacity hinges on the establishment of the right set of policies at the macro and sectoral level, an effective regulatory system and a set of institutions that stimulate and support the functioning of a dynamic private sector and provide a foundation for a socially and politically stable environment. These elements are briefly described below.

Macro and sectoral policies

Drawing on the experience over the past several decades, it is clear that economic policies in LLDCs will need to be substantially reconfigured, especially at three important dimensions. First, at the macro level, LLDCs need to move away from the tradition of macroeconomic policies designed to "do no harm" and instead adopt *developmental macroeconomic policies* that are flexible and aimed to achieve real development goals beyond the traditional narrow goals of price stability. Under the new scenario, macroeconomic policies must be conceived and used as tools for industrial policy and productive capacity building. To achieve this objective, LLDCs need to rethink their macroeconomic policy orientation with three key important features in mind: a broad mandate, real targeting, and flexibility. They must overcome the tradition of confining macroeconomic policy to short-run goals of macroeconomic stabilization. Thus the mandate of macroeconomic policy should be broadened to include short term as well as long term goals, and the set of targets should be expanded to include *real targets* corresponding to national developmental needs. Specifically, while the pursuit of price stability will remain an important goal, macroeconomic policies must also be used as tools for employment creation and growth, which in the past have taken a second order of importance relative to inflation.

With the reconfigured macroeconomic policy framework, LLDCs will need to expand their tool kit to match the expanded set of goals. Thus, in addition to standard tools of macroeconomic policy, they must exploit the full potential of financial and credit policies especially to reduce the costs of investment capital through low long-term interest rates. This will help to mobilize long-term investment capital into infrastructure, especially transport, energy and telecommunication, and other key employment-creating and growth-driving sectors including the manufacturing, small-holder agriculture sector, and small and medium enterprises.

The second innovation in policy design is to establish more systematic synergies between macroeconomic policies and sectoral policies. Traditionally these two sets of policies have been designed and implemented in near complete isolation. Yet, the success

goods (infrastructure), a higher premium on effective interaction between the public sector and the private sector, and a higher premium on coordination of policies across countries (i.e., between the LLDCs and transit states). Therefore efforts to improve the institutional and regulatory framework must be exerted simultaneously at the national and regional level.

While all areas and sectors of economic activity require and benefit from efficient institutions and regulation, this report puts a particular emphasis on the case of the transport sector in the case of LLDCs. This is the sector that exemplifies the particularity of LLDCs regarding the three premiums stated above. At the national level, governments in LLDCs must build infrastructure that is reliable and efficient. In addition to having effective planning and execution of public infrastructure budgets and programs, this also involves incentivizing public-private partnerships in the financing and management of public infrastructure. At the same time, LLDCs must establish institutions and a regulatory framework that encourage optimal utilization of the public transportation infrastructure by private operators. Indeed, while it is important to build infrastructure, it is also vital that this infrastructure generates trade and other new economic activities. Roads and railways are good for growth only if there are trucks and trains riding on them. While the public sector builds infrastructure, it is actually the private sector that utilizes them. It is therefore important to have an institutional and regulatory environment that incentivizes dynamism in the private sector.

At the regional level, LLDCs must engage in effective negotiation and coordination with their neighbours and other countries along transit corridors. Managing transport corridors is especially difficult because of the fact that they require complex institutional and operational structures; they involve many parties including multiple stakeholders, notably governmental agencies, transport companies, logistics service providers and trade agencies; thus it is often difficult to agree and establish a single point of coordination; and they involve multiple sources of funding. The multiplicity of funding sources is especially important because it increases the premium on coordination (among corridor members and among funders). This coordination problem often results in underfunding due to the 'regional public good' nature of the infrastructure and costly delays in disbursement of allocated funds.

As recognised in paragraph 17 of the VPoA, partnership between LLDCs and transit countries is mutually beneficial for the improvement and constant maintenance of their infrastructure connectivity and of technical and administrative arrangements in their transport, customs and logistic systems. Investing in efficient transit transport systems, strong collaborative efforts in multi-modal transport infrastructure development and interlinkage, the promotion of an enabling legal environment and institutional arrangements, and strong national leadership on cooperative arrangements between LLDCs and transit countries are crucial for achieving structural transformation and sustainable economic growth and development.

Good institutions and effective regulation of transit systems and transport corridors are also essential for ensuring competitiveness in service provision which keeps costs low. Indeed, lack of competition in the trucking industry and related services is a major driver of the high transport costs observed in many corridors in developing regions. Moreover good institutions and especially good governance reduce the indirect costs of transportation associated with informal payments or bribery along the various nodes of the transport corridor.

Alongside its importance in facilitating the establishment, maintenance, and operation of regional transport corridors, effective regulation of transit corridors is also needed to maximize government revenue. A substantial number of private operators including trucking agencies, freight forwarders, and customs brokers are in the informal or semi-formal sector. As a result, these operators do not pay taxes despite the often high volume and profitability of their activities. This implies substantial revenue losses for the government. The ability of LLDCs to develop strong transport infrastructure at national and regional level therefore requires reform of the regulation of the transport sector to increase tax revenue mobilization by bringing into the tax net the majority of private operators.

In addition to not paying taxes, informal and semi-formal private operators in transit corridors are not adequately insured. This imposes risk on all parties involved with the transport of goods including equipment owners, as well as buyers and sellers of the transported goods. Improving regulation and better coordination of regulatory frameworks at the regional level are critically important for the safety of all stakeholders. It is important, however, to underscore that regulation must be aimed at facilitating movement of goods and must not impose unnecessary additional costs that may drive out effective private service providers in the sector.

5 Policy suggestions

The proposed framework for building productive capacities to enhance structural transformation in LLDCs focuses on seven pillars that are especially critical given the needs and circumstances of this group of countries. It is not intended to be exhaustive. In other words, there are several elements that are pertinent which have been deliberately left out. The objective is to focus policy on the priority factors that constitute the most binding constraints to productivity and growth in these countries so that unlocking those constraints will generate a substantial impetus on growth and structural transformation in these countries. However, even as selective as the design of the proposed strategy is, its implementation will require even further selectivity in focusing policy interventions. In this context this section presents some policy suggestions to guide action in the design and implementation of the proposed strategy. In simple words, if LLDCs and their regional and international partners cannot do everything to alleviate the structural constraints to productive capacity building, they will be served by focusing interventions on the elements described below.

5.1 Action at the national level

At the national level, governments in LLDCs need to put priority on alleviating the most binding constraints to productivity and trade. Given limited resources, each country must design its own specific short term and medium term plan for productive capacity building that is likely to generate both quick wins in the short term as well as substantial gains in the long run. While policy choices in this regard will be country specific, there are nonetheless common elements of the national strategy that apply to all LLDCs generally.

All LLDCs must *4ics9lc*

to $22.6 billion from 2003 to 2012. FDI represents a major proportion of private capital flows and is considered to be the most stable form of foreign capital. During the implementation of the APoA, FDI increased from $8.9 billion to about $35 billion during the same period.

In the context of this report, the development partners need to provide adequate financing to support the key pillars of the capacity building strategy especially infrastructure, trade facilitation, human capital development and regional integration. The development partners should scale up its assistance for the development of regional public goods, especially transport corridors. This involves funding as well as technical assistance for the design, construction, maintenance and management of regional infrastructure. In this regard, regional development banks should play a leading role in mobilizing official development aid as well as playing a catalytic role in incentivizing private investment into regional infrastructure. At the same time regional development banks should lead the way in improving the aid frameworks for regional public goods. In particular, they should promote and advocate an increase in the share of funding dedicated to regional public goods while also championing more flexible modalities for the allocation and disbursement of aid for regional infrastructure benefiting LLDCs.

In addition, the development partners need to do much more to support LLDCs in their effort to reduce the technological divide and embark on a technology intensive path of economic transformation. Thus, collectively and individually, development partners must promote flexible rules and frameworks for access to information and technology in favor of LLDCs. They should elaborate rules for technology transfer that give preferential treatment to LLDCs which are systematically at the bottom of the innovation pyramid so as to enable them to slowly catch up with emerging and developed countries.

The international community can immensely help LLDCs' to structurally transform their economies by promoting more transparency and accountability in the global financial system for the specific purpose of curbing illicit financial flows from developing countries in general. This would not only help LLDCs keep their capital onshore, but it would also increase the effectiveness of foreign financing by sealing the 'revolving door' whereby borrowed funds often end up financing capital flight (see, among others, Ndikumana and Boyce, 2011).

Given the critical importance of trade for LLDCs, the international community can help these countries by promoting a fair global trading system. This will facilitate access to global markets for their exports and help them successfully integrate into the global economy. Thus the global dialogue on assistance to LLDCs must continue to accord a high place to trade facilitation and preferential market access for LLDCs.

South-South and triangular cooperation can also play a very important role in complementing the efforts of countries to raise public resources domestically. Such kind of cooperation can contribute towards areas such as transfer of technology and innovations, capacity building, provision of market access, increased investment and sharing of knowledge and best practices on issues relating to transit transport systems and trade facilitation.