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7th Global Commodities Forum
15-16 July 2016, Nairobi, Kenya

BACKGROUND NOTE*

Breaking the Chains of Commodity Dependence

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I. A bleak economic outlook for commodity dependent developing countries

From 2003 to 2008, a boom took hold on commodities markets, with, for example, UNCTAD’s commodities price index rising 244 per cent from 2003 to 2008 (Figure 1), and its minerals, ores and metals sub-index rising 339 per cent over the same period.\(^1\) The fast-growing world economy was a major force driving this commodity boom: global gross domestic product (GDP) grew by an average of 4.8 per cent per year, peaking at 5.7 per cent in 2007.\(^2\) A weak U.S. dollar, depreciating by approximately 17 per cent against the Chinese yuan and 45 per cent against Brazilian real between 2003 and 2008,\(^3\) also contributed to the boom as most commodities are traded in U.S. dollars.

However, the last months of 2008 witnessed the start of “the worst financial crisis since the Great Depression”.\(^4\) In 2009, the world economy tumbled into recession; the advanced economies’ GDP contracted 3.4 per cent, and the growth of emerging and developing economies slowed down from 8.6 per cent in 2007 to 5.8 per cent in 2008, and then to 3 per cent in 2009.\(^5\)

The weakening global economy and subdued demand pushed down commodity prices: the commodity price index decreased by 16.7 per cent between 2008 and 2009 (Figure 1). Revived growth of emerging economies in 2010 almost back to their pre-crisis growth rate speeds\(^6\) drove commodity price index back to its level in 2010 and a further 18 per cent increase in 2011.

Through their commodity exports to global markets, commodity-dependent developing countries (CDDCs) benefited from this boom, generating an average annual GDP growth rate of 5 per cent from 2003 to 2011.\(^7\) In most of these countries, economic growth was accompanied by increased government revenues, improved current account balances and growing foreign exchange reserves, but not always accompanied by comparable gains in job creation or poverty reduction.\(^8\) Many CDDCs have not been able to use the windfall revenues to transform their economies to reduce their commodity dependence and embark on a strong, steady and sustainable growth path.

In fact, the number of CDDCs has been essentially unchanged since 1995 (88 CDDCs in 2014 compared to 90 CDDCs in 1995) (Figure 2). Moreover, 79 out of 90 CDDCs in 1995 remained commodity dependent in 2014. Only 9 developing countries broke out of commodity dependence over the last two decades, while another 7 developing countries fell into the trap of commodity dependence.\(^9\)

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\(^1\) UNCTADStat: both cited indices are calculated in current dollars.
\(^2\) International Monetary Fund, World Economic Outlook Database, April 2016
\(^3\) International Monetary Fund: simple average percentage change in the values of the Brazilian and Chinese currencies, per USD.
\(^4\) Mark Gertler, Wall Street Journal, Sept 18, 2008
\(^5\) International Monetary Fund, World Economic Outlook Database, April, 2016
\(^6\) International Monetary Fund, World Economic Outlook Database, October 2012
\(^7\) UNCTADStat: GDP growth in constant USD terms for 96 CDDCs.
\(^9\) UNCTAD calculations
Meanwhile, there was a shift among CDDCs, with dependency on extractive commodities rising, while dependency on agricultural commodities fell (Figure 3). Arguably, this could be attributed to the increased investments in the extractive sector during the commodity boom.

Figure 3. Number of commodity dependent countries by commodity group, 1995 and 2014

Source: UNCTAD calculations from UNCTADStat.

As of mid-2011, the commodity booms began to unravel into busts, growth in emerging economies started to fall reaching 4.6 per cent in 2014 and only 4 per cent in 2015. Modest and uneven recovery in advanced economies also slackened the pace of the pickup in global activity and demand for commodities.

Concurrently, the supply of most commodities has grown rapidly since 2011, outpacing demand and creating a supply overhang for most commodity groups. Production cuts taken so far have been insufficient, as many governments and companies continue to resist the deep, across-the-board production cuts necessary for the market to return to balance. For example, despite crude oil stockpiles in OECD countries reaching an unprecedented 3 billion barrels by the end of 2015, there remained a global production surplus of 1.45 million barrels per day.

On commodities markets, by April 2016, UNCTAD’s commodities price index had fallen 41 per cent from its February 2011 peak. This major rebalancing was accompanied by a strengthening US dollar, which, for example, appreciated by approximately 85 per cent against the BRICS currencies since the 2011 peak, despite its depreciation of 2 per cent against the Chinese yuan.

The global economy appears to be entering a period of a modest growth as a number of "cyclical and structural headwinds persist". With the engine of commodity-based trade in emerging economies stalling, current trends in capital flows suggest a rebalancing of the global growth model towards advanced economies. For instance, the US economy has recovered from its 2008-2011 recession and is projected to grow at 2.6 per cent in 2015 and 2.8 per cent in 2016. Nevertheless, for CDDCs, growth of advanced economies is unlikely to be high enough, or contain a sufficiently large industrial component, to replace lost commodities demand from emerging economies.

CDDCs face a difficult immediate future, confronted by crashing prices and a supply glut on commodities markets, with few immediate prospects for sustained development. In most cases, their governments must cut commodities

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10 The number of commodity dependent countries by commodity group is defined based on UNCTAD calculations.
11 IMF: World Economic Outlook, 2016: average growth rates weighted by GDP.
12 IMF: World Economic Outlook, January 2016.
14 U.S. Energy Information Administration (EIA), 2015. Short-Term Energy Outlook, 8 December.
15 UNCTADStat.
16 IMF: simple average percentage change in the values of the BRICS currencies, per USD, 1 March 2011 – 9 December 2015.
17 UN, 2016. World Economic Situation and Prospects, June.
19 Ibid.
production, with painful consequences for revenues and jobs, at the same time as they tighten their macroeconomic belts to prevent currency and balance-of-payments shocks.\textsuperscript{20}

In this context, CDDCs must devise new growth strategies and, in some cases, even contemplate diversifying away from a commodity-led development model. Indeed, CDDCs will need to adjust their commodities strategies to have a reasonable chance of achieving their national development objectives, as well as their Sustainable Development Goals (SDGs) related to sustained growth, employment and poverty reduction.\textsuperscript{21}

\textbf{Box 1. The economic consequences of commodity dependence}

Entrenched commodity dependence can negatively affect economic and social sustainability through a number of channels.

First, Prebisch (1950) and Singer (1950) argued that primary commodity exporters suffer from negative terms of trade. An econometric study by Harvey et al. (2010), covering data from 1650 to 2005, revealed that, in the long term, a large number of primary commodities are characterized by deteriorating terms of trade. This result holds even if the part of the commodity boom period is included in the analysis.\textsuperscript{\textbullet}

The second channel is related to the appreciation of currencies due to a rise in foreign currency inflow during commodity booms (Dutch disease). Currency appreciation makes exports more expensive and less competitive on foreign markets, while making the imports cheaper. This creates constraints for economic diversification and even could lead to the de-industrialization of economy (Agenor and Montiel 1996). Moreover, high price volatility of commodities increases country-specific macroeconomic volatility (Andrews and Rees 2009).

Third, large windfalls tend to destabilize the government budget. Booms in commodity prices tend to lure governments into unsustainable increases in expenditures, into which they find themselves locked when revenue falls.

Fourth, primary commodity dependence is often associated with poor governance (Sachs and Warner 1995; Auy 2001, Pritchett et. al. 2001). This can occur when a government becomes beholden to the high rents generated by primary commodities and less reliant on broad-based taxation. Globally, the origins of representative government have been that governments conceded representation in return for taxation. The electorate used the power of representation to scrutinize the use of its tax revenues. Most of CDDCs are not through this process and as a result, governments of CDDCs face less domestic scrutiny than other governments (Collier 2002).

Fifth, commodity dependence can contribute to political instability and rebellion. Fights for the control of rents in CDDCs could negatively affect political stability (Caselli and Tasei 2011). Collier (2002) also argues that resource dependent economies have a higher risk of civil war than other countries. Based on the data for the period 1960-1999, Collier and Hoeffler (2001) found that a country without primary commodity exports would have a risk of civil war of 1 per cent over a five-year period, whereas with primary commodity exports at 30 per cent of GDP the risk rises to more than 20 per cent.

\textsuperscript{\textbullet} The Prebisch-Singer hypothesis has been contested in recent years. The literature shows that the results could vary depending on the periods under investigation or the methodological approaches used for the analysis. For example, Colman (2009) argues that prices of agricultural commodities and manufactures will keep in step because they are both tied to energy prices. Deaton and Laroque (2003) examine the commodity prices over the longer horizons and predict that prices of primary commodities produced by developing countries show no trend in the long run. Cuddington and Uruza (1989) find the earlier results based on the simple deterministic time trend model to be invalid, and the authors identify a downward shift in 1921. Several other studies also confirm this structural break in 1921 (see Gill and Yang, 1988; Powell, 1991; Cuddington et al., 2002).

To diversify their economies CDDCs could consider the following development strategies:

- **Building backward or forward linkages**, through producing domestically the inputs consumed by the main commodity sector (Hirschmann 1989) or moving into the downstream activities, such as transformation or logistics. This strategy, in particular, is de rigueur in contemporary development discussions, in the form of “local content” and similar concepts (Morris, Kaplinsky, and Kaplan 2012). Norway establishing oilfield services to supply its oil sector is an often-cited example. More recently, Chile has had some success in establishing mining services to supply its copper sector (OECD 2014).

- **Horizontal diversification**, or shifts into other sectors (manufacturing and services), creating high value added and development linkages throughout the economy (Newfarmer, Shaw, and Walkenhorst 2009). Indonesia has had some success, using oil revenues during the 1970s and 1980s to invest in manufacturing (Hill 2000). The other effective strategy is to focus on activities with the highest value creation: upstream activities (e.g., research and development (R&D) and manufacturing of key components) and downstream activities (e.g., marketing, branding and customer service).

\textsuperscript{20} IMF, 2015. World Economic Outlook, October.
\textsuperscript{21} United Nations (UN).
- **Enabling policies** to ensure access to markets, improved infrastructure, and good governance. For example, being a direct (e.g. used in industrial process and transport) and indirect input (the energy content of used goods, equipment, services) for most productive processes in agriculture, mining, manufacturing industries and services, energy could be a critical enabler for accelerated structural transformations in CDDCs. The strategy to better link family farms to markets could help fully realize the potential of agriculture to become an engine of sustainable growth, development and poverty reduction (UNCTAD 2015b).

The 7th Global Commodities Forum will carry out discussions on the above strategies in the following four thematic sessions:

- Development of local content for shared value creation in extractive industries
- Export diversification to create high value added and development linkages throughout the economy
- Linking family farms to market to realize the potential of agriculture as a source of development
- Ensuring improved access to energy infrastructure to enable accelerated structural transformations

II. From local content to shared value creation in extractive industries

Local content is an important channel by which extractive projects can provide opportunities for entrepreneurship, job creation and economic diversification. Local content is defined as “local resources utilised or developed along the value chain while investing in a host country” (OECD 2015a). This may include procuring inputs from local suppliers; creating local jobs; and improving local absorption capacity, by developing capabilities, infrastructure and technology transfers. Within the conceptual framework, that is defined by OECD (2015a) as “in-country shared value creation”, local content implies taking advantage of any opportunity for creating synergies with existing operations and includes innovation by business, governments and non-profit organizations working collaboratively and strategically to find areas where business operations can create high value added and shared benefits with scalable development impact.

The logic behind the economics of local content is to ensure that a proportion of rents from foreign extractive companies stay in the host country to contribute to local economic and social development and generate linkages and spill-over effects into other industries. Proponents of local content in the academic literature argue that the latter can allow these linkages to develop in a way that can transform local businesses into world-class companies, thus maximizing value-added and job creation (John Anyanwu, 2013). Ado (2013) provides four major arguments to justify the use of local content for development: 1) protecting infant industry; 2) ensuring that the local industry is not at disadvantage in terms of the market power; 3) compensating for adverse social and ecological effects of exploration; and 4) protecting strategic sectors.

When designed well, local content policies tackle the market failures that prevent local industries from competing without government intervention (DiCaprio and Gallagher, 2006). In other words, local content policies enable governments to “direct” the market power of extractives multinationals towards developing sustained and broad-based economic development, through linkages and spill-overs, generating decent jobs, and ensuring structural transformation.

Over recent decades, the issue of local content has gained particular attention in a number of resource-dependent developing economies. Many governments of developing economies are now striving to increase the share of local content. More than 90 percent of resource-driven countries have introduced some form of local-content regulation (Mckinsey, 2013).

There are hard and soft local content regulations. For example, Nigeria, Brazil and Angola have hard local content regulations setting specific targets and quotas for the proportion of goods, services, or labour to be procured locally. Nigeria’s Local Content Act of 2010, for example, requires entities involved in any project in the Nigerian oil and gas sector to follow local content policies and meet targets for 23 specific categories of activities.

Although local content policies are gaining in importance among developing country governments, their potential for creating industrial linkages and value-added throughout the economy, remains largely unrealized. In fact, local content policies in most resource-dependent developing economies produced “shallow linkages with a small development potential” (Hansen 2014). For example, in Mozambique, local participation in the mining industry is concentrated in transport and logistics, catering, civil works, security and maintenance and repair (World Bank 2014). In Tanzania, local purchasing only exists for products and services with a low level of complexity and technological sophistication (Mjimba 2011). In some cases (e.g., Tanzania, Uganda, and Mozambique), local content regulations lead to much more expensive but less reliable local inputs (Hansen et. al. 2015).
In a number of countries, linkages between extractive MNCs and local firms appeared to be “window-dressing” activities, which were replacing imports of inputs by multinationals with far less efficient imports from local firms (Morris et. al. 2011). For instance, a study on local content policies in gold mining sector of Ghana found that local linkages developed by foreign investors were mainly with local representatives of foreign firms (Larsen 2009). Similarly, in Zambia, local firms were simply involved in importing inputs for copper industries (Fessehaie 2011). Such activities contribute little to the development of domestic supply chains and usually do not create high value added or shared benefits with scalable development impact.

The following policy recommendations can be implemented by governments to support the development of local content with effective shared value creation in extractive industries:

1. Formulate a comprehensive and realistic vision and develop effective implementation strategy and clear regulations to create local shared value from extractives, thus accelerating structural transformations

2. Improve contractual environment and ensure transparency of contractual relations

3. Improve absorptive capacity of local suppliers

Comprehensive and realistic vision and implementation strategy

Although consideration of local content has been growing in resource-dependent economies over the past decades, policies and regulations adopted are still vague and rudimentary. Based on the survey conducted by McKinsey Global Institute, there are four major gaps in design and implementation of local content policies:

a) Targets set by local content regulations in many resource-dependent economies are not sector-specific. More than 50 per cent of resource-dependent economies have local content regulations that apply to all sectors. For instance, in Kazakhstan, the share of local content in public procurement in all sectors should be at least 20 per cent for goods and 15 per cent for services. Venezuela also has blanket local content requirements, stipulating that foreigners can represent no more than 10 per cent of a company’s workforce.

b) Local content regulations fail to set realistic targets. More than two thirds of the countries surveyed did not target attainable results. For example, the Democratic Republic of Congo required that 98 per cent of management positions be reserved for locals, even though the economy does not produce enough qualified local candidates to meet this condition.

c) Most local content policies do not specify a timeframe or schedule for the measures to be implemented. Most resource-dependent countries require the immediate fulfilment of LC regulations. A very small number of countries develop the schedule and implement the gradual and realistic approach to local content policies. One such country is Brazil, which has set local content regulations that require certain equipment levels to increase every year to reach the target of 95 per cent by 2020.

d) Local content policies are not supported by relevant institutions. More than two thirds of the countries surveyed, do not have effective institutions to support government policies to enable attaining of the local content targets.

For all the reasons highlighted above, the first imperative for policy makers is to formulate a clear and realistic vision for extractives and their role in the economy in terms of their contribution to sustainable development (OECD Framework 2015a). The OECD Framework states it is the responsibility of governments to commit to good governance
and set out their expectations of the extractives sector and its contribution to the achievement of long-term strategic goals. This will imply the need to realistically assess and understand the potential of local content and determine where the value is in terms of revenue and employment, as well as what share of the total value could be absorbed locally without harming the competitiveness of extractive industries. It is important that strategies for local content development are: consistent with other development policies; effectively coordinated among government agencies, the private sector, NGOs etc.; sector-specific; and backed up with supporting government institutions. On the other side, extractive industries also need to take a strategic approach and identify opportunities to align business interests with national development objectives (OECD 2015).

Figure 5. Features of local content regulations in resource-rich countries (%; n=27)

Source: McKinsey Global Institute survey of 27 resource-driven countries with hard local content legislation

Improved transparent and contractual environment

Being a contract-based deal between two market entities, local content requires effective institutions to facilitate contracts. In many resource-dependent economies, the contractual environment is weak due to information asymmetries, high monitoring costs, high costs of contractual enforcement and poor reporting rules (Hansen et.al, 2015). This hinders effective implementation of contractual relations between multinationals and local firms, thus preventing effective fulfilment of local content goals and targets.

Effective local content development will imply the need to develop efficient courts, transparent reporting rules, introduce international accounting standards, etc. Strong institutional framework was one of the key factors explaining success of Norway in local content development (Ramdo, 2015).

The OECD (2015) Framework paper states that measures to improve business climate and contractual regulations are important not only in the sense of reduction of costs of doing business and facilitating and supporting contracts, but also to ensure that investment brings "the highest possible economic and social impact". In fact, in many countries contracts stipulate certain local content requirements. For example, a contract may require that the company to employ local workers, as long as they meet certain qualifications. The Azerbaijan Agreement on the Exploration, Development and the Production Sharing for the Shah Deniz Prospective Area in the Azerbaijan Sector of the Caspian sea, for instance, states:

"(b) Contractor shall require Operating Company to give preference, as far as is consistent with efficient operations, to employ citizens of the Azerbaijan Republic in the performance of Petroleum Operations to the extent reasonably practicable, provided that such citizens have the required knowledge, qualifications and experience. Such citizens shall be eligible for training in Accordance with Article 6.8" (Final Consolidation 3/30/96: Article 1, Section 6.7(b)) (Likosky 2009)"

An effective way to improve contractual environment is to share experience, ensure transparency and disclosure. According to Likosky (2009), "one of the successes of the OPEC renegotiations was that countries were able to share experiences, and this sharing led in turn to more favourable contractual terms for all members." The publishing of contracts to a wider audience may serve a similar purpose.

Improved absorptive capacity of local suppliers to capture the value

Sound policies and effective institutions are not enough to make the local content work. In fact, local content policies are futile if the local industry and skill base is underdeveloped. In many resource-dependent economies, local supply industries are too weak to capture value and develop local content. The value that can be captured locally varies
across countries depending on the level of industrial development, maturity of the private sector, skills and qualifications of the workforce, infrastructure available for business and a number of other country-specific factors (e.g. geographical location). Possible strategies to improve the absorptive capacity of local industries are as follows:

- Support industrial development through upgrading industrial and vocational skills and knowledge. For example, Norway channelled public investment and government subsidies into research and development to build industrial capacities and support industrial clusters. In fact, Statoil trained more than 80,000 people starting from 1970 (Jourdan et al. 2012).

- Support development of the private sector with a special focus on medium enterprises to overcome the small scale and limited linkage capacity of microenterprises. In many CDDCs, structure of enterprises in the economy is extremely skewed and comprising of: 1) a small group of big enterprises (mostly foreign or state-owned ones); 2) a small number of medium sized firms; and 3) a large number of informal microenterprises (Ramdo 2015). Given that medium sized enterprises have the largest capacity to produce on a scale basis, supply extractive industries, and harness effective linkages with strategic clustering and networking, lack of this stratum in the economy substantially limits the potential for effective local content development (Ramdo 2015). Introduction of suppliers’ development programme with a special emphasis on small and medium enterprises was one of the key elements of the strategy to foster the development of local content in Brazil and Malaysia.

- Ensure that foreign companies form effective joint ventures with local public or private companies and transfer knowledge and technology. Successful joint ventures ideally unite a foreign company’s advanced technologies with a local company’s access to an extensive network, lower costs of production. For example, as Indonesia is now moving into complex joint venture projects such as the construction of floating LNG platforms, international expertise is positioned to become more integral to domestic manufacturers now tasked with supplying these developments.

- Provide funding for development of local industry. Government could provide low-interest loans to local entrepreneurs to support expansion of local business. Such programmes were adopted in Brazil within the Programme for mobilization of oil and gas industry.

Successful experiences suggest that all the policies need to be developed and implemented in strategic, collaborative partnerships among host governments, extractive industries, local suppliers and civil society. All the parties should work in a structured and systemic way to enable in-country shared value creation. Local content policy is largely an issue of striking a delicate balance between the interests of all parties, between restricting and facilitating measures, between attaining objectives of industrial development and safeguarding the competitiveness of extractives. At the Forum, the session “From local content to shared value creation” will provide the insights on effective strategies to find such a delicate balance. In this session, panelists will review the conditions necessary for effective local content development as well as best practices among foreign investors and local entrepreneurs.

II. The changing landscape of export diversification

Export diversification is another channel that can contribute to structural transformation and, by extension, to sustainable growth and development. For instance, Hummels and Klenow (2005) found that “richer countries export not just more goods, but a broader variety of goods”. Much of the “resource curse” literature (e.g. Sachs and Warner, 1995) emphasizes that overspecialization in exports of primary products is often incompatible with sustainable economic growth. Within the two decades between 1995 and 2014 exports structure in developing economies became more concentrated: export concentration index for developing economies excluding China rose from 0.100 to 0.163, whereas export diversification index decreased from 0.281 to 0.226 (see Table 1). With the recent crash in commodities prices, therefore, broadening the export base through a more diversified national trade portfolio has become one of the most urgent priorities for CDDCs (Commonwealth Secretariat 2016).

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Table 1. Concentration and diversification of exports, annual indices, 1995 and 2014

<table>
<thead>
<tr>
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<th>Export concentration index</th>
<th>Export diversification index</th>
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<tr>
<td>Developing economies,</td>
<td>0.100</td>
<td>0.163</td>
</tr>
<tr>
<td>Africa</td>
<td>0.250</td>
<td>0.364</td>
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Source: UNCTADStat

Strategies available for CDDCs to diversify their exports and economy as a whole include:

1) Shift to production of more sophisticated manufacturing goods and services with the focus on activities with the highest value creation: upstream activities (e.g. development of a new concept, research and development (R&D), manufacturing of key components) and downstream activities (e.g. marketing, branding and customer service).

2) Design policies to tap into the regional and global value chains.

Shifting to higher value goods and services

Export diversification is not just about extending the variety of exported goods. Hausmann et al. (2006) showed that countries that specialize in the types of goods that rich countries export are likely to grow faster than countries that specialize in other goods. To support this analysis, Hausmann et al. (2006) proposed a measure of the productivity of a country’s export specialization, as a factor of its overall economic growth. According to this measure, China and India, for example, achieved higher export productivity levels than what their incomes would predict, contributing to high rates of economic growth over recent years.

Therefore, creating an enabling environment that promotes entrepreneurship and investment into new, sophisticated products, services and activities generating high value-added and linkages throughout the economies will be a critical factor to ensure sustainable economic development.

Strategies to be proposed to achieve these results are as follows:

- Create favourable conditions for local producers and exporters. Exporters should be provided access to inputs and capital goods at world market prices. This could be achieved through tariff exemptions, creating special export processing zones, etc. Infrastructure development should be one of the focus areas of public investment.

- Allocate export incentives and preferences (e.g. tax exemptions) competitively. It is important to ensure proper enforcement of industrial policies: to get the support firms have to demonstrate positive results. Private sector should be the main actor to respond to various interventions. Foreign investors also need to play a major role.

- Look beyond manufacturing. As the idea of "smiling curve" suggests the highest value creation is found in upstream activities, such as the development of a new concept, research and development (R&D) and the manufacturing of key components; and in downstream activities, such as marketing, branding and customer service. Development of these high value added activities would require effective cooperation with the multinational and regional counterparts who have the technological knowledge and brand experience. This will also imply the need to ensure enough absorptive capacity through upgrading skills and knowledge, improved regulations on intellectual property rights, patents, etc.

- Establish intersectoral linkages with manufacturing industries. Important input-output linkages exist between the manufacturing and services sectors, which represent attractive opportunities for export diversification and structural transformation. This is true in Africa, where services represent almost 50 per cent of GDP, as well as in CDDCs more generally. For instance, in South Africa 25.3 per cent of intermediate inputs into manufacturing come from services and 24.7 per cent of intermediate inputs into services come from manufacturing (Tregenna, 2007).

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23 A smiling curve is an illustration of value-adding potentials of different components of the value chain. The concept was first proposed by Stan Shih, the founder of Acer, an IT company headquartered in Taiwan, around 1992. According to Shih’s observation, in the personal computer industry, both ends of the value chain command higher values added to the product than the middle part of the value chain. If this phenomenon is presented in a graph with a Y-axis for value-added and an X-axis for value chain (stage of production), the resulting curve appears like a "smile".

24 See “Made in the World: How value affects trade policy” in OECD Observer No 294, Q1, 2013
Tapping into the regional and global value chains

Participation in regional and global value chains can help developing country producers enter foreign markets, diversify their exports, and most importantly get new skills, knowledge and technology—all considered as key factors for productivity enhancement and growth (UNIDO 2004). Participation in GVCs could contribute much to structural transformation by fostering new activities, building vibrant and competitive manufacturing, agriculture, service sectors (Conde et.al. 2015). Recent research by the OECD (2015b) and AfDB (2014) shows that increased backward participation leads to higher per capita domestic value-added in exports. A higher backward participation is also associated with the production of more sophisticated export bundles and greater diversification of exports over time (OECD 2015b).

Promoting better integration into regional and global value chains will require a broad set of policy reforms, including:

- **Trade facilitation focusing on connectivity.** Policies could include measures that facilitate access to the most competitive inputs by reducing non-tariff barriers and facilitating logistics and transport. Comprehensive regional trade agreements with deep integration measures, including investment and competition policies, could also contribute to regional value chain integration.

- **Access to finance.** Firms in developing countries rank access to finance as the main obstacle preventing them from participating in global value chains (OECD et.al. 2014). Therefore, improving access to finance, including exports credits and trade finance, as well as affordability for SMEs, should be an essential element of government reform to boost GVC integration.

- **Investment policy frameworks** to maximize country’s capacity to participate in and benefit from global production networks. This should include wide-ranging policy frameworks that allow countries and firms to capitalize on their existing productive capacities and spillover benefits from foreign investment, including technology transfer and innovation.

- **Policy dialogue and improved quality of data.** Policy dialogues are important to promote to share best practices and increase policy impact. In addition, improved quality of data is essential for CDDCs to develop the right policies for enhanced participation in GVCs. It could also be feasible to include CDDCs in the databases relevant to GVCs (e.g. SME and Entrepreneurship Financing Scoreboard Database) to better inform policymaking.

- **Holistic approach to GVCs at the international level.** For example, according to the Commonwealth Trade Review (2015), although Aid for Trade (AfT) support has been in use for enhanced regional integration and improved trade facilitation measures, a narrow focus on trade facilitation measures, though necessary, will not suffice to induce more inclusive GVC development. What is needed is targeted policies and actions focused on the improvement of productive capacities to boost export diversification.\(^{26}\)

III. Linking family farms to market

Agriculture can be an important source of sustainable growth, development and poverty reduction in CDDCs. Agriculture is dominated by smallholder farmers. In fact, more than 90 per cent of farms are managed by an individual or family (FAO 2014). Therefore, ensuring sustainable growth and development in the sector will require policies that cater to the needs of smallholders.

A focus on smallholder farmers could contribute to sustainable growth, development and poverty reduction through several channels. First, smallholders are the major contributors to the national and global food security. In fact, although they use just 12 per cent of the world agricultural land, smallholder farmers produce more than 80 per cent of the world’s food (FAO 2015).

Given that 70 per cent of the developing world’s 1.4 billion extremely poor people live in rural areas (mainly, South Asia and Sub-Saharan Africa) (FAO 2011), improved welfare of smallholders could contribute to poverty reduction and nutrition security. A number of empirical studies also show that in the economies where the proportion of rural poverty is high, development of agriculture is an important factor of poverty reduction (UNCTAD 2015b).

Smallholders also make rational economic choices, thus contributing to economic growth. They could also stimulate economic growth through boosting aggregate demand (including demands for products of manufacturing industries, services) and leading to consumption and production linkages in the overall economy (Hazell and Haggblade 1990).

Moreover, given that smallholder farms are major contributors to employment in CDDCs, a focus on individual or family farms is important to help maintain social stability in these countries.

Despite smallholder farmers’ essential development role, their full potential remains unrealized. In fact, smallholders face many constraints in accessing markets to obtain inputs and sell their products. This lack of market access isolates smallholders and dampsens their productivity.

In many CDDCs, smallholders have difficulties accessing essential inputs, including seeds, fertilizers, land, labour, technology, credits, and innovative financing mechanisms. This limited access to input market precludes smallholders realizing their productive potential. For example, in African CDDCs, very few individual or family farms could afford unsubsidized seeds and fertilizers. As a result, cereal yields in Africa increased from 0.8 tons/ha in 1961 to 1.8 tons/ha in 2013. This compares poorly to growth in other regions, such as East Asia, where productivity increased from 1.4 to 5.9 tons/ha over the same period (UNCTAD 2015b). Due to the small quantities, high transaction costs, limited access to risk management tools and poor infrastructure, smallholders usually sell their products at the farm gate or in village markets. This limits their profitability and growth potential.

One of the most important constraints is the limited availability of the market information. For instance, the survey conducted by FAO in 1995-1996 found out that only 53 of 120 countries included in the survey had marketing information systems and most of these systems were not functioning properly (Shepherd 1997).

To overcome the constraints highlighted above and transform smallholder farms into viable businesses that drive sustainable growth, development, and poverty reduction in CDDCs, comprehensive strategies are needed at the national, regional and international levels. Market-based partnerships will be essential to ensure improved market access and agricultural productivity.

Core policies at the national level: policy, leadership and innovation

A great number of case studies on agricultural development and transformations suggest that the common thread towards sustainable agriculture is the combination of science, policy and leadership. Therefore, policies to be implemented at the national level are as follows:

- **Investment in rural infrastructure** should be given a high priority. Scaling-up investments into roads, irrigation, energy generation, ICT and other types of physical infrastructure could bring substantial benefits to smallholder farmers. For example, Chinese strategy to create a “socialist countryside” and aimed at developing physical infrastructure in 95 per cent of Chinese villages provided incentives to many former migrants to come back to rural areas and start new business ventures.

- **Improve access of smallholder farmers to financing (especially, innovative financing mechanisms) through developing effective partnership models.** A number of innovative financing schemes have already proven effective. For instance, Equity Bank Kenya has developed a credit model, focusing on smallholder farmers and helped more than 500,000 smallholders to move from subsistence to commercial farming. This example shows that it is possible for the private sector to contribute to the sustainability of smallholders and at the same time make a profit. This was possible due to the effective partnerships among the Government of Kenya, the private sector and international development agencies.

- **Create incentives for private sector to invest in smallholders and cooperate with them.** Some governments have had success establishing clusters for investments in agricultural value chains. For example, Nigeria’s Agricultural Transformation Agenda established 14 staple-crop-processing zones with reduced costs and internal rates of return of 25-50 per cent for farmers and processors. This initiative generated $2.6 billion in new investments in rice production in 2015.

- **Develop risk management mechanisms suitable for smallholder farmers.** Innovative market-based risk management instruments such as the weather-based index insurance scheme, linked to a measurable weather index such as rainfall could help protect smallholders from unexpected risks. Weather-based index insurance schemes have been recently piloted in Ethiopia and Malawi.

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26 The section draws mainly from UNCTAD (2015b).
Agriculture as a central topic at the regional and international levels

It is important to employ the regional integration processes and international negotiations to create business-friendly environment for smallholders. The proposed strategies could be as follows:

- Regional blocs’ initiatives need to focus on food and nutrition security. It is important that regional trade agreements include the elements relating to trade in food and agricultural products. One of the examples is the regional action plan for food security of the West African Economic and Monetary Union that adopted the Community Programme for Agricultural Transformation for Food and Nutrition Security.

- Formation of supranational food reserves could also be an effective means to mitigate the risks of food insecurity for CDDCs. According to UNCTAD, experiences across Asia and Latin America show that the management of food stocks is most effective at the regional level.

- Formation of regional agriculture financing facilities, supportive institutions for smallholder farming, regional centres for innovation and development, regional exchanges could promote intraregional and even interregional technology transfer, link smallholder farmers to agricultural and financial markets, promote regional agricultural value chains, thus effectively linking smallholder farmers to markets and contributing to sustainable development of the agricultural sector. One of the examples is the East African Exchange, based in Rwanda, which effectively links family farms to markets.

- Regional investment strategies could also act as an effective instrument to attract more investment (especially, FDI) into agricultural sector and contribute to development of value chains within the sector. For example, Association of Southeast Asian Nations has led to increased FDI inflow in the palm oil sector.

- At the international level, support smallholders’ interests in international trade negotiations and investment treaties, as well as in commodity market regulations.

- Ensure that development finance and climate finance target financing strategies and policies to support smallholder farming. Similar initiatives have demonstrated positive results. For example, the Feed the Future Initiative supported by the United States Government contributed to the decline in stunting in Ethiopia, Ghana, Kenya. In these three countries improvement ranged from 9 to 33 per cent.

Align policies at national, regional and international levels. In particular, it is important to ensure consistency between the international climate negotiations, SDGs, commitments on aid effectiveness, regional integration initiatives and national food and nutrition strategies.

IV. Improved access to energy infrastructure

Energy is a critical enabler for economic development, structural transformation and poverty reduction. It is a direct (e.g. used in industrial process and transport) and indirect input (the energy content of used goods, equipment, services) for most productive processes in agriculture, mining, industry and services. Improved electricity infrastructure with stable energy supply is one of the key factors to raise the efficiency and durability of physical capital (OECD/IEA 2015). Calderon and Serven (2004) have shown that energy infrastructure is an important determinant of GDP per capita growth.

The role of energy sector for development goes beyond direct effects. Agenor and Moreno Dodson (2006) and Agenor (2009) argue that development of energy infrastructure improves access to education and health services, thus contributing to productivity growth. In fact, access to electricity reduces cost of boiling water, thus improving access to hygiene and health. Improved access to electricity provides more opportunities to use computers in the study process, thus contributing to the education quality. Improved access to affordable energy could also substantially reduce human labour required to cook and meet other basic needs (IIASA 2012).

Human well-being, poverty reduction, structural transformation and sustained economic development cannot be advanced without access to electricity and fuels. Meanwhile, despite the serious efforts already made, today an estimated 1.2 billion people -- 17 per cent of the global population -- remain without electricity (OECD/IEA 2015). Many more suffer from supply that is of poor quality. Lack of access to energy is an urgent issue for many CDDCs. For instance, energy poverty is one of the major challenges holding back Africa’s transformation, as clearly articulated.

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27 The section draws mainly from UNCTAD (2015b).
in the African Union’s Agenda 2063.28 In fact, more than 70 per cent of households in Africa do not have access to electricity.29 Therefore, national strategies for many CDDCs as well as the Sustainable Development Goals (SDGs) emphasize ensuring access to affordable, reliable energy for all as the core element of economic transformation and sustainable development.

Meanwhile, most CDDCs also agreed on undertaking actions to combat climate change, identify and develop plans to cut emissions from energy usage under a new Global Climate Agreement, signed in Paris in December 2015.

Attaining these two goals may lead to contradictions in formulating energy policies and development strategies to be implemented in CDDCs. For instance, for some countries, coal remains a promising fuel for generating affordable electricity. However, as a carbon intensive fossil fuel, coal could slow down energy transition and undermine efforts to achieve the objectives set under the Paris Climate Agreement.

To move forward it is essential to strike a delicate balance between a number of, at times, conflicting development objectives through implementation of practical yet sustainable country-specific and regional energy policies in CDDCs.

The main elements of energy policies to be proposed are as follows:

1) Sustained investment in the region’s energy supply and re-balancing of overall investment flows to ensure improved access to energy for domestic consumers

2) Improved effectiveness of resource management in the energy sector

3) Effective regional cooperation on energy

Sustained investment in energy supply and re-balancing of overall investment flows

Improved access to energy will require sustained investment in the sector at higher levels than have been seen in the past, as well as a substantial reorientation of investment flows. Although investment in energy supply has grown rapidly since the 2000s, most of these investment flows were channelled to the oil sector. For instance, for the period 2000-2013 oil accounted for almost three-quarters of total investment in Sub-Saharan African energy supply. Meanwhile, annual investment in the Sub-Saharan African power system accounts for 0.5 per cent of GDP, that is well below what is needed to improve coverage of electricity system (OECD/IEA 2014).

In the future, it would be important to rebalance the energy investment structure and channel more investment into electricity generation, transmission and distribution. A necessary condition to achieve this reorientation of capital flows is for governments to create favourable opportunities for investment and reform in the power sector. Some countries, such as Kenya, have already started to implement policies to improve access to electricity, reduce electricity losses, while ensuring affordable energy prices (OECD/IEA 2014).

Renewables could also contribute to ensuring better access to energy. A number of CDDCs, especially in Africa, have included renewable energy as a pillar for their development strategies. Ethiopia is developing wind power, biofuels and the Great Ethiopian Renaissance Dam as a part of its Growth and Transformation Plan for 2011-2015. Kenya is developing geothermal energy to reduce imports of fossil fuels and started building a wind farm. Morocco inaugurated the continent’s biggest wind farm in 2014 and is building Africa’s biggest solar farm in Ouarzazate.30

However, given the recent decrease in the prices of fossil fuels, renewables could be not as attractive as they were two or three years ago, and, therefore, it could be prudent to thoroughly revise the policies on green development and expansion of renewables. The way to green energy for some CDDCs, for instance, African countries, is not that straightforward. Given high energy poverty rates, it could be more feasible for some African countries to introduce and expand natural gas-based power first, to then start the campaign on green energy and renewables.31

It could also be feasible for African countries to shift the focus of energy transition from transformation of energy sources to the transformation of technologies for low-carbon energy production. For instance, for some countries it could be better to keep using biomass as the main source of energy. What is needed is the transformation of technology to utilize the diverse forms of biomass. For example, the devices currently used for its exploitation in Uganda are simple and include open earth systems for cooking, brick burning, etc. Wood cuttings from sawmills are usually burned to ashes or buried in the ground. Modern technology could, for instance, burn the cuttings to produce

29 Ibid
30 http://www.unesco.org/new/en/media-services/simple-view/news/africa_has_begun_the_transition_to_sustainable_development/#.V3foV-CirWU
gas that generates power. A number of demonstration projects have proven the feasibility of these techniques (Wambi M., 2016).

**Improved effectiveness of resource management in energy sector**

Effectiveness of resource management is the second factor that is essential to improve access to sustainable energy for all in CDDCs. Strategies for the effective resource management vary depending on the type of resources. For renewable energy sources, it is essential to ensure effective policies for land use and to move markets for charcoal and fuelwood into the formal sector. Similarly, a sound policy, regulatory and legal framework is required to develop solar, wind, hydro and geothermal projects.

To secure a positive return on non-renewable energy sources it is important to ensure improved governance and transparency in the management of oil and gas sectors. A well designed fiscal system, with a broader tax base and improved accountability and transparency mechanisms, will contribute to generating high tax revenues (OECD/IEA 2014). The additional funds available to governments could be invested in infrastructure development, thus contributing to economic growth.

Effective management of non-renewables also implies the need to ensure participation by local companies in the investment and supply chains. In fact, the broader context determines the extent of spillovers from extractives to other sectors and their contribution to industrialization, employment and welfare (see section on local content). These benefits could be utilized via the end users of the commodities produced.

**Effective regional cooperation in energy sector**

Regional cooperation could also contribute much to ensure improved access to energy in CDDCs. A number of projects on regional energy cooperation and integration are being implemented in Africa, including the Programme for Infrastructure Development in Africa, led by the African Union, the New Partnership for Africa’s Development and African Development Bank.

Meanwhile, there is a large gap between the potential and actual gains from regional cooperation. There are only few examples of successful cross-border cooperation in the energy sector. Regional power pools in many CDDCs still do not operate as integrated regional power markets. For instance, in Africa only one of the two cross-border pipelines (from Mozambique to South Africa) has functioned according to regional agreements (OECD/IEA 2014).

To fill these gaps, countries must address the main barriers to effective regional cooperation on energy sector, including lack of infrastructure, the lack of regional scale while formulating and implementing national strategies, difficulty of optimising supply chains on a regional basis, etc. This would enable countries to take advantage of opportunities for trade between their national power grids and move to more integrated regional power grids, thus reducing the costs of power generation and distribution and improving access to electricity.

**IV. Conclusion**

Looking forward, the global economy appears to be entering an extended period of low growth.\(^\text{32}\) CDDCs face a difficult immediate future, confronted by crashing prices and a supply glut on commodities markets, with few immediate prospects for sustained development.

Given that commodities prices and export earnings for CDDCs are unlikely to recover for the foreseeable future, CDDCs must devise new growth strategies to diversity away from a commodity-led development model and adjust their development strategies to have a reasonable chance of ensuring sustainable growth, employment and poverty reduction.

Over its two-day programme, the Global Commodity Forum will ask participants to reflect and debate on the theme “Breaking the chains of commodity dependence”. The Forum seeks to debate possible options how CDDCs could transform their commodity sector into a source of growth and development in pursuit of the SDGs.

The Forum will focus on four strategies to pursue the objectives of progressive transformations in CDDCs, namely, development of local content, export diversification, linking family farms to markets, and improved access to energy.

The local content session seeks to debate options to fully realize the potential of local content for harnessing industrial linkages, spillover effects and relatively high value-added throughout the economy. Given that early generations of

\(^{32}\) UN, 2015. World Economic Situation and Prospects, June.
local content policies often fostered activities with limited development prospects, panelists in this session will review the necessary conditions for greater local participation and shared value creation in extractive value chains.

Local content is always about striking a delicate balance between the interests of all parties, and between often-conflicting objectives. The session will collate the participants’ opinions on how to maintain such a balance and discuss strategies to maintain the effective collaborative partnerships among host governments, extractive industries, local suppliers and civil society.

The session on export diversification will identify the elements of the holistic strategy to broaden export variety by expanding the exports of technologically sophisticated goods and services and tapping into regional and global value chains. Participants will examine policy options to grasp the potential of manufacturing and service sector to break-up the chains of commodity dependence. The session will also pose questions on the limitations related to market entry and market access, find out whether there are any practices to estimate the linkages between services and manufacturing and adopt the policy decisions based on these results.

The third session aims to discuss strategies to transform smallholder farms into viable businesses that drive economic development, and poverty reduction. The session will ask participants to examine how smallholder farmers can participate competitively in markets, elaborate on effective partnership models for improving market access for family farms and smallholder agricultural productivity. Controversial questions on the roles of intermediaries and the private sector in supporting smallholders, innovative credit model and risk management instruments targeting smallholders, could be also discussed.

The fourth session will bring to the table a controversial issue of energy transition and access to energy for all. CDDCs on the one hand need access to affordable, reliable energy for all as the core element of economic transformation. On the other hand, most of CDDCs agreed on undertaking actions to combat climate change, identify and develop plans to cut emissions from energy usage under a new Global Climate Agreement, signed in Paris in December 2015. Attaining these two goals may lead to contradictions in formulating energy policies and development strategies to be implemented in CDDCs. This session will seek to collate the opinions on how to maintain an optimal balance between a number of objectives through implementation of comprehensive energy policies in CDDCs.

As they discuss strategies and policy options for CDDCs, participants at the 7th GCF will be encouraged to outline an ambitious, comprehensive and practical road map to break the chains of commodity dependence in this group of countries.

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