



Kingdom of the Netherlands



The Role of Development Cooperation in China-Africa Production Capacity Cooperation: Promoting Sustainable Industrialisation in Africa

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Contents

Abbreviations	6
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Executive Summary	8
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PART I.	
Industrialisation in China and Africa	12
CHAPTER 1 Background	13
CHAPTER 2 Industrialisation in Africa	14
CHAPTER 3 China's industrial process and economic transition	18
CHAPTER 4 China's production capacity cooperation with Africa	21
References	22

PART II.	
Research objective and methodology	24
CHAPTER 1 Research objective	25
CHAPTER 2 Research methodology	25
2.1 Field work	25
2.2 Desk review	25
2.3 Analytical method	26
2.4 Structure of the case study	26



PART III.

Promoting Industrialisation: China-Africa Production Capacity Cooperation **27**

CHAPTER 1 **Angola** **28**

1.1 Country profile	28
1.2 Actors and priorities of Angola for industrialisation	30
1.3 Needs and gaps in Angola's industrialisation	33
1.4 Development Cooperation by Major Development Partners in Support of Angola's Industrialisation	35
1.5 China's Production Capacity Cooperation with Angola	36
1.6 The challenges for Chinese investment in Angola	40
1.7 Points to Consider	41
References	43

CHAPTER 2 **Ethiopia** **44**

2.1 Country profile	44
2.2 Actors and priorities of Ethiopia for industrialisation	45
2.3 Needs and gaps in Ethiopia's industrialisation	47
2.4 Development Cooperation by Major Development Partners in support of Ethiopia's Industrialisation	49
2.5 China's Production Capacity Cooperation with Ethiopia	50
2.6 The challenges for Chinese investment in Ethiopia	55
2.7 Points to Consider	56
References	59

CHAPTER 3 **Kenya** **60**

3.1 Country profile	60
3.2 Actors and priorities of Kenya for industrialisation	62
3.3 Needs and gaps in Kenya's industrialisation	65
3.4 Development Cooperation by Major Development Partners in support of Kenya's Industrialisation	65
3.5 China's Production Capacity Cooperation with Kenya	67
3.6 The challenges for Chinese investment in Kenya	71
3.7 Points to Consider	72
References	75

CHAPTER 4 **Zambia** **76**

4.1 Country profile	76
4.2 Actors and priorities of Zambia for industrialisation	78
4.3 Needs and gaps in Zambia's industrialisation	81
4.4 Development Cooperation by Major Development Partners in support of Zambia's Industrialisation	83
4.5 China's Production Capacity Cooperation with Zambia	84
4.6 The challenges for Chinese investment in Zambia	89
4.7 Points to Consider	90
References	93



PART IV.

Cross-country Analysis and Policy Recommendations 94**CHAPTER 1 Cross country analysis 95**

1.1 Industrialisation priorities of the African countries 97

1.2 Donor and Chinese aid 98

1.3 China's production capacity cooperation with the four African countries 98

1.4 Common gaps and challenges 99

CHAPTER 2 Policy Recommendations 101

ANNEX 1

Field visit interviews 107**Figures and Tables**

Figure 1 Manufacturing Value Added as a % of GDP 15

Figure 2 African merchandise trade 17

Figure 3 Chinese export development 19

Figure 4 Chinese FDI stock and flow in and to African countries 21

Figure 5 Comparison graphs 96

Table 1 Comparison statistics 95

Table 2 Cross comparison between the four case countries 105

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Abbreviations

AfCFTA	African Continental Free Trade Agreement
AfDB	African Development Bank
AGOA	African Growth and Opportunity Act
ATDC	Agricultural Technology Demonstration Center
AU	Africa Union
BRI	Belt and Road Initiative
CADFund	China-Africa Development Fund
CAITEC	Chinese Academy of International Trade and Economic Cooperation
CARI	China Africa Research Initiative
CCECC	China Civil Engineering Construction Corporation
CITIC	China International Trust and Investment Corporation
CNMC	China Nonferrous Metal Mining Group
COMESA	Common Market for Eastern and Southern Africa
DFID	United Kingdom Department for International Development
EAC	East African Community
FDI	Foreign Direct Investment
FOCAC	Forum on China-Africa Cooperation
IDA	International Development Association
ILO	International Labour Organization
IMF	International Monetary Fund
JICA	Japan International Cooperation Agency
LDC	Least Developed Country
MFEZ	Multi-Facility Economic Zone
MSME	Micro, Small and Medium Enterprise
NDP	National Development Plan
ODA	Official Development Assistance
OPEC	Organization of the Petroleum Exporting Countries
SADC	Southern African Development Community
SDG	Sustainable Development Goal
SEZ	Special Economic Zone

THE ROLE OF DEVELOPMENT COOPERATION IN CHINA-AFRICA PRODUCTION CAPACITY COOPERATION:
PROMOTING SUSTAINABLE
INDUSTRIALISATION IN AFRICA



SGR	Standard Gauge Railway
SME	Small and Medium Enterprise
TAZARA	Tanzania Zambia Railway
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization
UNPAF	United Nations Partnership Framework
USAID	United States Agency for International Development
WTO	World Trade Organization
ZCCZ	Zambia-China Economic and Trade Cooperation Zone



PROMOTING SUSTAINABLE INDUSTRIALISATION IN AFRICA

Executive Summary

Industrialisation is considered a prerequisite for a country or region striving to achieve prosperity and a higher standard of living for its citizens. Industrial development has been called the “quintessential escalator for developing countries”, boosting job creation on a large scale, stimulating innovation, and enhancing productivity across many sectors. Industrialisation, when economically, socially and environmentally sustainable, can also contribute greatly to the achievement of the Sustainable Development Goals (SDGs) in developing countries.

Although Africa has abundant natural resources, a dynamic population and has demonstrated impressive economic growth in the past, this remarkable economic performance has not been matched by parallel industrial development and greater job opportunities. Today the continent is less industrialised than it was four decades ago. The share of sub-Saharan Africa’s manufacturing value added (MVA) declined from around 16% of GDP in the mid-1980s to 10% in 2018. The pressing need for an effective industrialisation strategy has triggered strong political will from African governments in support of policy change.

With a similar starting point of development, China has achieved much. It is now considered an upper middle-income country and is close to full eradication of rural absolute poverty. Behind its industrialisation success is China’s continued political commitment, effective development and industrial policies and an effective export and FDI attraction strategy. These were established in line with the country’s initial advantages and designed to boost industrial exports and encourage diversification. Further backed by its “going global” strategy, China has gradually become one of the major economic partners of the African continent in terms of trade, investment and development cooperation. China’s increasing direct investment in Africa, marked by infrastructure development and industrial parks that follow China’s own industrialisation model, is a key driver in supporting African industrialisation. China has been present in other areas too, such as research and development, information technology, agriculture and education, while its development cooperation has supported Africa’s production capacity development and industrialisation.

African countries are diverse in their economic and social characteristics and have different industrialisation needs. In order to maximise economic and development benefits for both China and Africa, China can further strengthen its production capacity cooperation, while deepening its understanding of the local contexts. In doing so, China can mitigate potential challenges through effective engagement with various local and international actors in the process, support the creation of an enabling environment for sustainable development

PROMOTING SUSTAINABLE INDUSTRIALISATION IN AFRICA



and making an effective contribution to the continent's sustainable industrialisation process and SDG attainment.

In this context, UNDP and the Chinese Academy of International Trade and Economic Cooperation (CAITEC) conducted this joint research around four country case studies to:

- 1 provide a country-specific and sector-specific analysis, identifying good practices and lessons across different country contexts;
- 2 deepen the understanding of production capacity cooperation and its role for development cooperation and how African countries can learn from China's industrialisation experience; and
- 3 provide practical, evidence-based analysis on China's production capacity cooperation, and recommendations on how to tailor it to different country contexts with a view to supporting sustainable industrial development and accelerating SDGs in partner countries.

Angola, Ethiopia, Kenya and Zambia were selected for the case studies as among the priority partners of China-Africa capacity cooperation projects in the region with different income levels and resource endowments. Through a cross-country comparison, the report highlights the following commonalities and differences:

1. Industrialisation priorities and progress - all four African countries consider industrialisation to be the main driver for sustainable and inclusive growth and focus on the development of agriculture, agroprocessing and manufacturing. However, they present different levels of progress and the industrial sector's contribution to growth and productivity varies in each country. Comparatively speaking, Kenya and Ethiopia have shown better industrialisation progress, while Angola and Zambia are slower. Kenya is relatively more industrialised and has a more diverse industrial sector. The strategic priority of Kenya Vision 2030 is to promote industry cluster development, targeting industries such as agroprocessing, fisheries, textiles and apparel, leather, construction materials and services, through the creation of an enabling environment. Ethiopia has a nascent industrial sector that recorded strong growth in the last decade, leveraging its abundant and relatively inexpensive labour force and the advantages of its geographical location. However, Ethiopia still faces many challenges in achieving its industrialisation goals that aim at strengthening domestic manufacturing and value chains. The economic structure of Angola and Zambia, on the other hand, depends heavily on natural resource exploitation and the level of industrialisation is limited. The priority of their Governments is economic diversification away from the oil and copper sectors to foster domestic agriculture, energy resources, and manufacturing through value addition.

2. Chinese and donor aid – except for Angola, Ethiopia, Kenya and Zambia

PROMOTING SUSTAINABLE INDUSTRIALISATION IN AFRICA

receive large amounts of aid. Traditional donors focus more on governance and on building an institutional and enabling environment, while China focuses more on technology transfer and infrastructure building, especially transportation infrastructure. While the development of small and medium enterprises (SMEs) or the private sector is an area in which many traditional donors and international organisations are heavily involved, China has few initiatives in this field.

3. China's current production capacity cooperation in Africa – all four countries are among China's top ten African investment destinations, but as their economies differ, so does the level and areas of Chinese engagement. Overall, the two main areas of Chinese investment are manufacturing production, alongside the development of special economic zones (SEZ), exemplified by the Zambia-China Economic and Trade Cooperation Zone (ZCCZ). SEZs are a central part of Chinese engagement in Ethiopia and Kenya too. The second major area of Chinese investment is infrastructure, as in Kenya, where it focuses, among other sectors, in clean energy or in Zambia, with the landmark TAZARA Railway.

4. Industrialisation challenges – the four countries all face difficulties with inadequate infrastructure, a lack of skills and capacity, limited access to finance, external imbalances and an uncompetitive business environment. Zambia also highlights research and innovation as another of its major challenges. Chinese investors note additional concerns associated with potential terrorist attacks and security issues in Ethiopia and Kenya; government inefficiency in facilitating businesses in Ethiopia, Kenya and Zambia; currency volatility in Angola, Kenya and Ethiopia; relatively strict environmental protection rules in Kenya; and communication difficulties between Chinese investors and local people in Zambia.

Based on the above analysis, the following recommendations are presented to the Chinese Government for consideration.

First, China should strengthen the role of development cooperation in supporting China-Africa production capacity cooperation. This should be backed by evidence-based analyses of the development needs and priorities of the partnering countries and the sustainability of the projects. China-Africa production capacity cooperation is mainly market-based. However, development cooperation can act as a helpful and important facilitator, playing a bigger role in building an enabling environment for production capacity cooperation and mobilising more commercial funds or private sector participation in the process. Greater transparency and alignment with national needs, priorities and the SDGs are important preconditions for the success of China's assistance cooperation in industrialisation in Africa and its contribution to sustainable development in partner countries.



Second, China could provide further support for human capacity building, both at the macro- and micro-level, further strengthening human resource development cooperation. This would include experience sharing in designing and implementing industrialisation strategies and policies, vocational training, and technical cooperation.

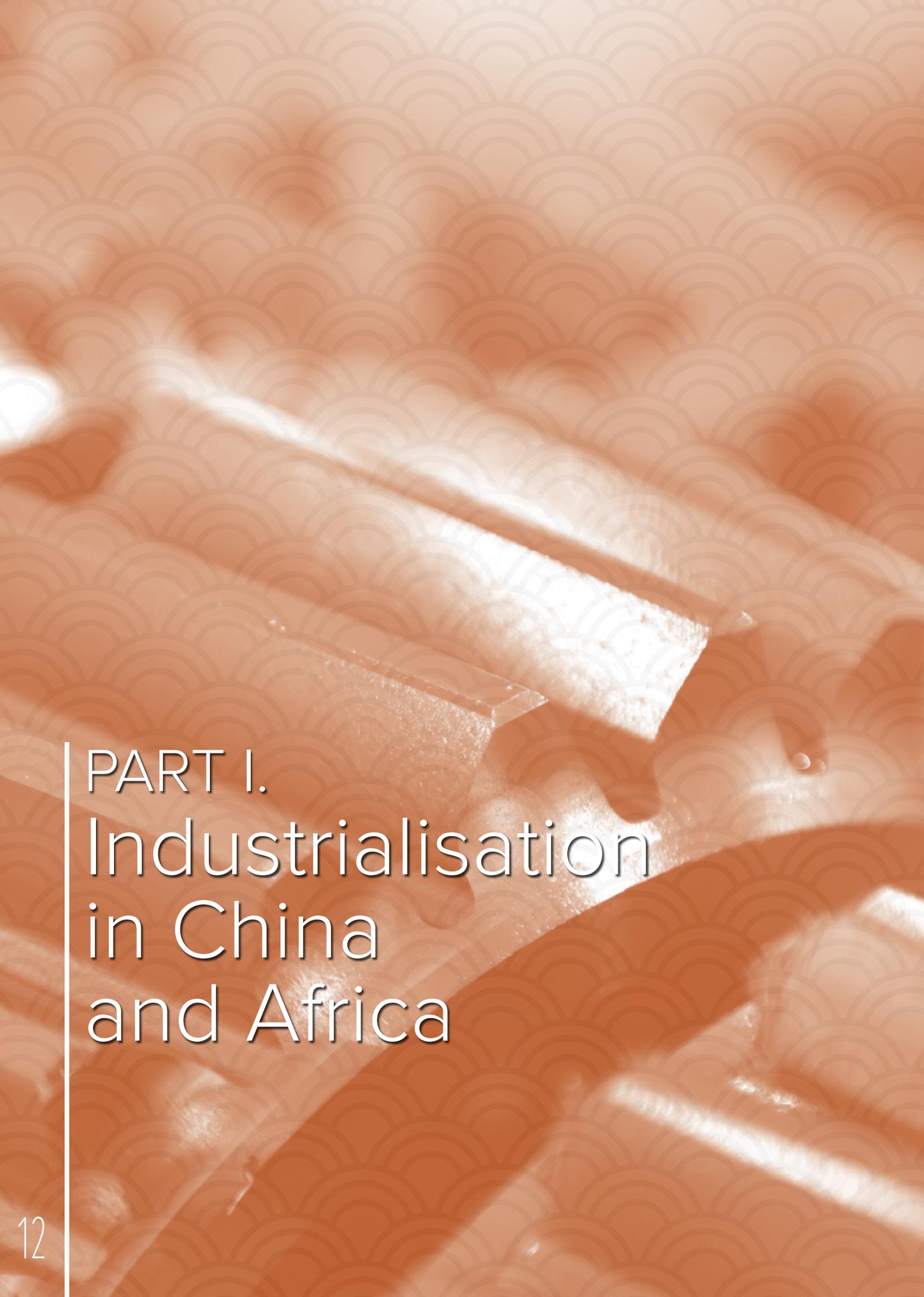
Third, China should continue to consider infrastructure and agriculture as priorities for supporting industrialisation in Africa. In doing so, China could further increase its “software” support, and its support for the enhancement of local construction and management capacities and expand its technical assistance to agroprocessing and agricultural science research areas for example.

Fourth, China should provide additional support for African subregional organisations to facilitate their role in stimulating regional industrialisation. China could strengthen its exchanges and cooperation with sub-regional organisations and provide adequate financial and technical assistance to strengthen the role and enhance the capacity of these organisations in promoting regional industrialisation, building on the strength of each of the country’s economy involved and promoting inclusive development within the country and across the region.

Fifth, experience sharing with partner countries and cooperation between China and traditional donors and international organisations could be enhanced. Given China’s expertise and comparative advantage in agriculture, construction and manufacturing, for example, there are opportunities for China to work with development partners actively engaged in these sectors to complement each other’s efforts and effectively promote the sustainable development of the continent.

The research draws from existing literature and official documents from both Chinese and partner country sources and used desk review to identify relevant stakeholders in each of the countries that are involved in production capacity cooperation with China. Field research was conducted, during which the research team visited major Chinese production capacity cooperation project sites and conducted face-to-face interviews with key stakeholders. Both quantitative and qualitative analysis have been used for writing the report. The report commences with a brief analysis of the industrialisation processes in Africa and China, China’s production capacity cooperation with Africa (Part I) and background and methodology (Part II). The four country case studies follow in Part III, where local industrialisation development needs and gaps, major development partners, and the comprehensive status of China’s production cooperation with each country are analysed. Part IV concludes with a cross-country analysis and policy recommendations.

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PART I.
Industrialisation
in China
and Africa



CHAPTER 1

Background

Industrialisation – the structural transformation from traditional agriculture to modern manufactures and services - is considered a prerequisite for any country or region wishing to achieve prosperity and higher standards of living for its citizens. Industrial development has been called the “quintessential escalator for developing countries” (AfDB, 2019), boosting the large-scale creation of decent jobs, stimulating innovation, and enhancing productivity across all sectors. It contributes significantly to the accumulation of physical and human capital, providing relatively better-paid and formal jobs for large numbers of unskilled or under-educated workers, increasing household income and, hence, domestic demand. Through backward and forward linkages with other sectors, industrial development provides opportunities for a wide range of stakeholders.¹ It essentially becomes a fundamental tool with which to achieve prosperity and addresses many of the issues raised in the United Nations 2030 Agenda for Sustainable Development. Indeed, industrialisation in Africa touches upon many SDGs, starting from no poverty and zero hunger (SDG 1 and 2) to decent work, economic growth and infrastructure (SDG 8 and 9). However, through the support of different donors in many sectors of the economies, industrialisation also involves significant initiatives around SDG 4 quality of education through many vocational training and technical cooperation in all the countries analysed, SDG 5 - gender equality, SDG 6 - clean water and sanitation and SDG 7 - clean energy and all the way to support to build government capacity and stronger institutions (SDG 16).

Throughout history, scholars have identified three waves of industrial revolution.² The “first industrial revolution” began in England around 1760 and lasted until the 1840s. The “second industrial revolution” commenced around the 1870s, enabling countries like the United States, Germany, Japan and the so-called newly-industrialised countries of Southeast Asia and Latin America to move into an industrialised or semi-industrialised state. The third phase of industrialisation, although more controversial, generally refers to the industrialisation that occurred after World War II, which was centred around electronics and the information technology that automated production. Many now refer to a “fourth industrial revolution”; the digital revolution that has been ongoing since the middle of the last century. According to the World Economic Forum (WEF), it is characterised by “a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres”.³

- 1 <https://www.brookings.edu/wp-content/uploads/2018/09/Manufacturing-and-Industrialization-in-Africa-Signe-20180921.pdf>
- 2 The dates of the industrial revolutions are still debated among historians, mainly due to the different conceptualisation of industrialisation in their respective studies.
- 3 <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>

While controversy may surround the timing of global industrial development, one fact is widely acknowledged: since the beginning of the industrialisation process, many countries have continued to lag behind in an underdeveloped state. As of December 2018, 47 countries were categorised as Least Developed Countries (LDCs): “low-income countries suffering from structural impediments to sustainable development” by the United Nations (UN),⁴ 33 of which are in Africa. According to the 2019 Competitive Industrial Performance Index⁵ presented by the UN Industrial Development Organization (UNIDO), South Africa is the highest-ranking African economy (45th out of 150 countries). There are only six other African countries within the middle quintile. Most African economies score in the lower and bottom quintiles, while the top, upper and middle quintiles are dominated by European, American and Asian economies. The ranking illustrates not only the great need and potential for Africa to move towards industrialisation, but also a significant development gap between Africa and other continents.

CHAPTER 2

Industrialisation in Africa

Africa has an abundance of natural resources, a dynamic population and cultural diversity, all key inputs for advancing towards an industrial economy. Over the past few decades, Africa has demonstrated impressive economic growth. According to the World Bank, sub-Saharan Africa has maintained positive annual GDP growth since 1985, with the only exceptions being 1992 and 1993 due to economic collapse and adjustment programmes. Growth has averaged 4.3% year-on-year during the last 20 years (World Bank), largely driven by a prolonged commodity boom and development assistance. Foreign direct investment (FDI) inflow increased significantly, from around USD 2.4 billion in 1985 to USD 45.9 billion in 2019, having peaked at USD 56.6 billion in 2015 (UNCTAD). FDI stock as a percentage of GDP rose to 38.6% in 2018, up from 13% in 1995. Nevertheless, sub-Saharan Africa only received less than 2% of global FDI in 2017.

This remarkable economic performance has, however, not been matched by parallel industrial development and greater job opportunities. In the immediate post-independence years, Africa’s manufacturing experienced a period of growth, which was mostly state-led and driven by protectionist policies. However, following a series of external shocks - commodity price volatility, real interest rate

4 <https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/Snapshots2018.pdf>

5 The Competitive Industrial Performance Index benchmarks the ability of countries to produce and export manufactured goods competitively and can be used as a measure to gauge the industrialisation level of an economy given the correlation between the stage of development of a country and its competitiveness level.

INDUSTRIALISATION IN CHINA AND AFRICA

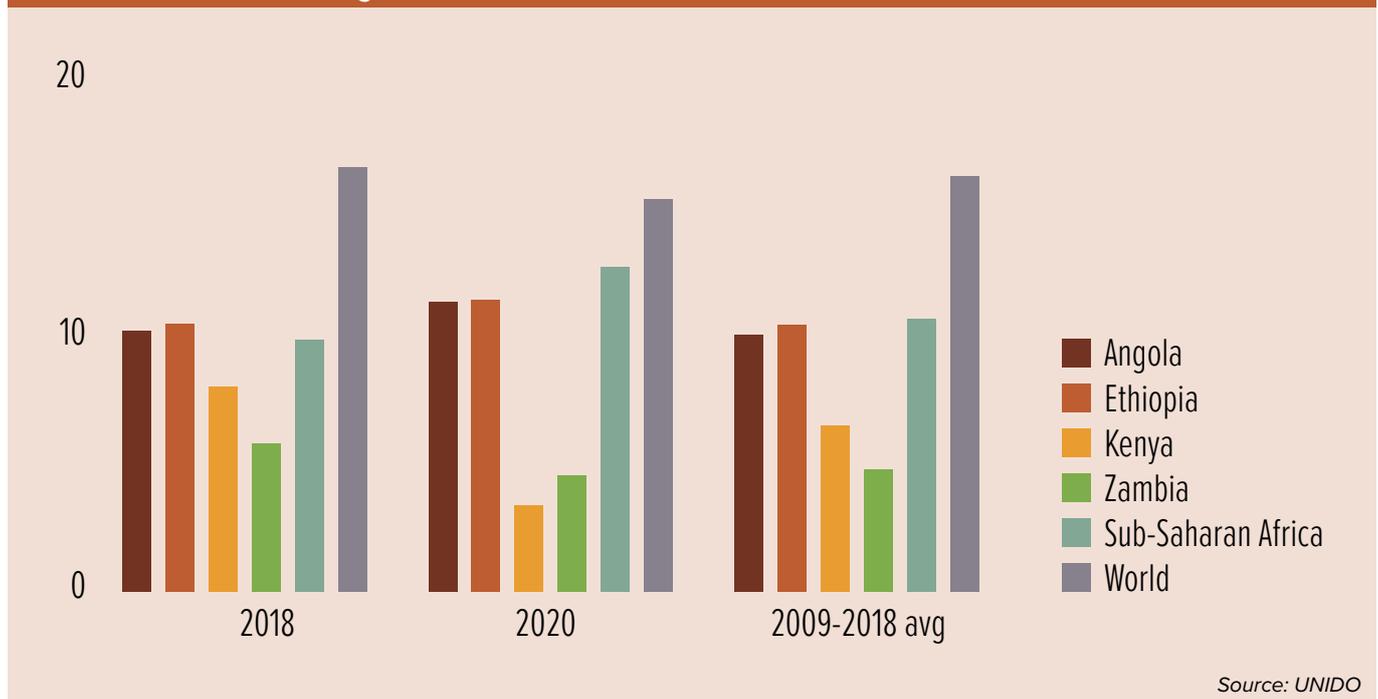
increases, weak public finances, and the limitations of domestic markets followed by increased competition from foreign products and new pressures on currencies - African industrial development became volatile and fragile.

Today the continent is less industrialised than it was four decades ago: the share of sub-Saharan Africa's manufacturing value added (MVA)⁶ declined from around 16% of GDP in the mid-1980s to 10% of GDP in 2018. MVA has been stable around this level since 2014. In contrast, MVA more than doubled in the East Asia and Pacific region, at 23% of GDP in 2017, driven mainly by countries like China, Korea and Thailand (UNIDO).

An equally worrying fact is that, according to UNIDO, the technological component of MVA in Africa has worsened in the last decade.⁷ The share of medium-high and high-tech products declined from 21% in 2005 to 19% in 2015, in contrast to all the other regions in the world where the share of medium-high to high-tech manufacturing products increased in the same period (UNIDO, 2017). Meanwhile, new evidence on changes in industrial production in 18 African economies shows Africa's industrial sector is in many

- 6 The manufacturing value added (MVA) of an economy is the total estimate of net output of all resident manufacturing activity units obtained by adding up outputs and subtracting intermediate inputs. To capture the different levels of countries' industrial development, UNIDO generally uses MVA per capita as the main indicator.
- 7 An increase in the share of medium-high and high-tech industries in total MVA indicates a region's technological intensity in manufacturing and its capacity to introduce new technology in other sectors.

FIGURE 1 Manufacturing Value Added as a % of GDP



ways less advanced now than in the first decade following independence (Page, 2011).

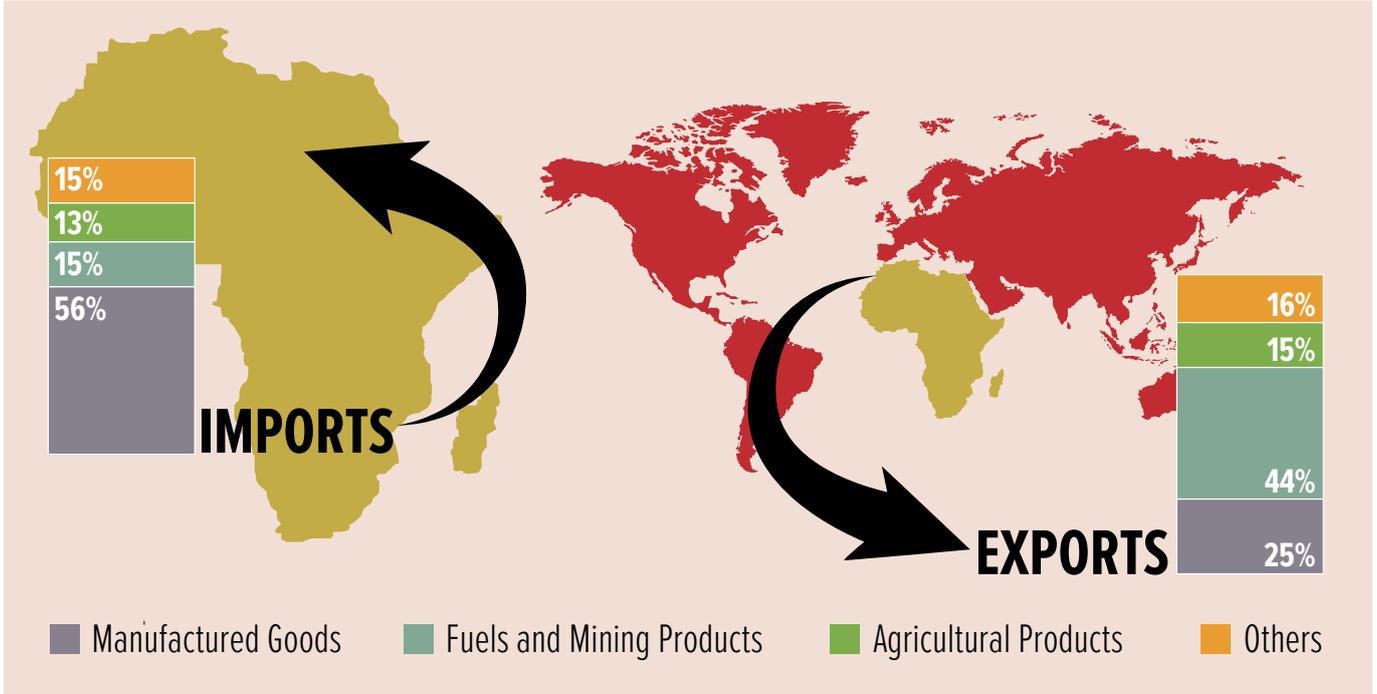
Furthermore, Africa's fast and sustained GDP growth did not translate into higher employment rates. As noted by the African Development Bank (AfDB, 2019), a 1% increase in GDP growth during 2000 to 2014 was associated with only a 0.4% growth in employment. The ILO estimates that the African extreme working poverty rate is still high, at 33% in 2018, while a further 22% of workers live in moderate poverty.⁸ The relatively low unemployment rate (6.8% in 2018) does not reflect the high share of informal employment, which is characterised by job insecurity, low pay and a lack of social protection. African wage and salaried workers constitute 28% of total employment, with that share being lower in sub-Saharan Africa, at 22.4%. On average, informal employment accounts for around 86% of total employment in Africa (ILO, 2019), whereas the proportion is 68.2% in Asia and the Pacific and 25.1% in Europe and Central Asia.

Africa presents a paradox: a buoyant GDP growth rate versus increasingly marginalised industrial and manufacturing sectors and poor job creation. The reasons for the paradoxical trend are due in part to Africa's resource-rich character. According to UN Environment Programme (UNEP),⁹ Africa holds some 30% of the world's mineral reserves, 65% of the world's arable land, 40% of the world's gold and up to 90% of its chromium and platinum, alongside the largest reserves of cobalt, diamonds, platinum and uranium. Because of this richness, Africa became a raw material producer before independence. This resource-based export pattern has changed little since then, with primary commodities continuing to dominate production and exports and the share of manufacturing remaining low. Many studies have highlighted the inverse relationship between exports, which concentrate on natural resources, and economic complexity. This is particularly evident in countries like Angola and Zambia, where the natural resources sector crowds out manufacturing production and the negative effects of "Dutch disease", i.e. the dependency on natural resources to develop the country's economy, can easily be detected. However, non-resource dependent economies, such as Ethiopia and Kenya, are also struggling to reallocate resources away from labour-intensive, low-productivity raw materials towards tradable industries with higher external economies of scale; a bottleneck that jeopardises the continent's growth prospects.

African economies are also remarkably import-dependent for even basic products, ranging from apparel to shoes and electronics. Ms. Yamina Karitanyi, the current High Commissioner for the Republic of Rwanda to the United Kingdom, noted that "when you look at what Africa imports, it is everything fully-

8 Moderate and extreme working poverty rates refer to the shares of workers living in households with income or consumption per capita between USD 1.90 and USD 3.20 per day, in PPP terms, and less than USD 1.90 per day (PPP), respectively.

9 <https://www.unenvironment.org/regions/africa/our-work-africa>

FIGURE 2 African merchandise trade

processed highest value goods, limiting our chances to build our manufacturing industries.”¹⁰ This implies that an increasingly interconnected global economy further complicates the situation, reinforcing Africa’s heavy reliance on natural resources and the lack of diversification in its industrial base. The Africa Center for Economic Transformation (2014) highlighted that African economies are only integrated at the lower rung of the ladder with respect to global value chains. Determining how to move up the global value chains, increase export sophistication, and improve the balance of trade are major challenges for Africa.

According to the African Development Bank (AfDB), the deficit in infrastructure, the lack of skilled labour, a large financing gap, and an unfavourable business environment are the main obstacles to growth. For the infrastructure gap alone, AfDB (2019) estimates that Africa needs between USD 130-170 billion a year in infrastructure investments (approximately 7% of GDP), and has a funding gap of USD 68-108 billion.

The pressing need for an effective industrialisation strategy has triggered strong political will from African governments to support a policy change. Notably, several national and cross-continental initiatives have been initiated to promote industrialisation. In 2015, AfDB outlined five development priorities that constitute an ambitious strategy to transform the continent: the *High 5s* – “Light up and

¹⁰ <http://podcasts.ox.ac.uk/diplomacy-21st-century-african-perspective>

Power Africa, Feed Africa, Industrialise Africa, Integrate Africa, and Improve the Quality of Life for the People of Africa". The *High 5s* should accelerate Africa's transformation into a modern economy and help achieve close to 90% of the United Nation's SDGs.¹¹ In particular, AfDB plans to help double the continent's industrial GDP by 2025 by investing USD 3.5 billion per year over the next 10 years. The African Union's (AU) *Agenda 2063* places industrialisation and manufacturing at the centre, aiming to transform African economies through revitalising manufacturing, industrialisation, value addition and utilising the continent's abundant resources. In its efforts to boost continental integration, in 2018 the AU brokered the signature of the African Continental Free Trade Agreement (AfCFTA) creating a tariff-free area to encourage local business growth, boost intra-African trade, revitalise industrialisation and create jobs. A year from its signature, all but three of the 55 AU members have signed the agreement, and 22 national parliaments have already approved its ratification. Its operational phase was launched, on target, in July 2019.¹²

Alongside the initiatives driven by African governments, global initiatives also reaffirm the importance of promoting industrialisation in Africa. On 25 July 2016, the United Nations General Assembly adopted a resolution proclaiming 2016-2025 as the Third Industrial Development Decade for Africa (IDDA III), to firmly anchor Africa on the path towards inclusive and sustainable industrial development. The same year, the G20 presented the New Industrial Revolution Action Plan as a blueprint to support industrialisation in developing countries, especially in Africa.

CHAPTER 3

China's industrial process and economic transition

1978 is often regarded as the beginning of the contemporary phase of industrialisation and development in China and is associated with rapid economic growth and structural transformation.

With the implementation of China's first Five-Year Plan in 1953, between 1953 and 1978, the Chinese economy was in the planning period. At that time, China was a low-income country with agriculture being the largest sector in terms of employment and oriented toward heavy industry, with only a few labour-intensive manufacturing exports. China was dependent on the export of raw materials, such as crude coal, crude oil, minerals, and agricultural products,

11 https://www.afdb.org/fileadmin/uploads/afdb/Documents/Financial-Information/Investor_presentation_AFDB_-_April_2018.pdf

12 <https://au.int/en/pressreleases/20190531/afcfta-one-year-later-road-travelled-and-road-towards-launch-operational>

INDUSTRIALISATION IN CHINA AND AFRICA

to earn foreign exchange – a structure not dissimilar to that of many African countries today. The estimated growth rate between 1952 and 1981 was a mere 0.5% (Lin, Wang, 2012).

From 1978, China began to reform the economic system through the introduction of a mixed-economic transition strategy that slowly placed market elements into the planned economy, opening it up to foreign trade and FDI. Because of this strategy, Chinese exports experienced significant changes in the following 20 years, shifting from resource-intensive products to labour-intensive manufactured goods and then to capital-intensive products. In 1985, exports of primary products and resource-based manufactures represented 49% of all exports, whereas in 2017 this had reduced to only 11.5%. At the same time, the share of non-resource-based manufactures rose significantly, from 50% to just below 90%, with high-technology exports boosted from 3% to 33% (UNCTAD).

2001 marked another important turning point as China entered the World Trade Organization (WTO). Owing much to its WTO membership, many Chinese exporters accelerated their transition process and gradually became an

FIGURE 3 Chinese export development



integral part of the global supply chains of large multinationals. The ten-year period following 2001 turned out to be the fastest and longest growth spurt in the history of Chinese industrialisation, with an average growth of 10.2% per annum (based on per capita real income) (Harry, 2011).

China's industrialisation is a story of success. Behind this success is China's continued political commitment and effective development strategy and industrial policy, aimed at boosting industrial exports and encouraging diversification, and coupled with an effective export and FDI attraction strategy. Industrial policies were established in line with the country's initial advantages, such as abundant and cheap labour, huge potential markets, a high savings rate, a culture of patience, persistence and learning, and an efficient, centralised governance system. Strategies were also adjusted accordingly to adapt to the evolving competitive advantage. For instance, low labour cost was considered key to support exports and foreign-invested labour-intensive manufacturing enterprises. However, as labour costs increased, the focus gradually shifted to high-tech-intensive exports.

Nevertheless, as the World Bank noted, rapid economic growth also brought many challenges, including high inequality, rapid urbanisation, challenges to environmental sustainability, and external imbalances, alongside demographic pressures related to an ageing population and the internal migration of labour.¹³ In this context and in view of the changing global environment, China began promoting a new round of economic transformation. In 2015, the Chinese Government announced the "Made in China 2025" strategic plan, aimed at strengthening high-tech industries and lessening China's dependence on imported technology. The Government is also focusing on reducing excessive production capacities, encouraging Chinese enterprises to operate overseas, promoting domestic consumption and technological and social innovation – all aimed at boosting future industrial development.

In addition to domestic policies, China is actively seeking regional cooperation through trade, investment and production cooperation. Prominent initiatives include the 17+1 framework¹⁴ and the "1+3+6" cooperation framework¹⁵. More broadly, under the Belt and Road Initiative (BRI), China has already signed 171 BRI cooperation documents with 29 international organisations and 123 countries, both developed and developing.

¹³ <https://www.worldbank.org/en/country/china/overview>

¹⁴ The 17+1, originally known as the 16+1, is an initiative by the Chinese Ministry of Foreign Affairs to promote business and investment relations between China and 17 Central and Eastern European countries. It was founded in 2012 in Budapest.

¹⁵ The 1 + 3 + 6 cooperation framework with Latin American countries is guided by the China-Latin American and Caribbean Countries Cooperation Plan (2015-2019). "1" refers to one plan, "3" to the three engines of trade, investment and financial cooperation, and "6" to six fields of industry connections to be strengthened as priorities between China and Latin America: agriculture, energy and resources, construction of infrastructures, manufacturing, scientific and IT and technological innovations.



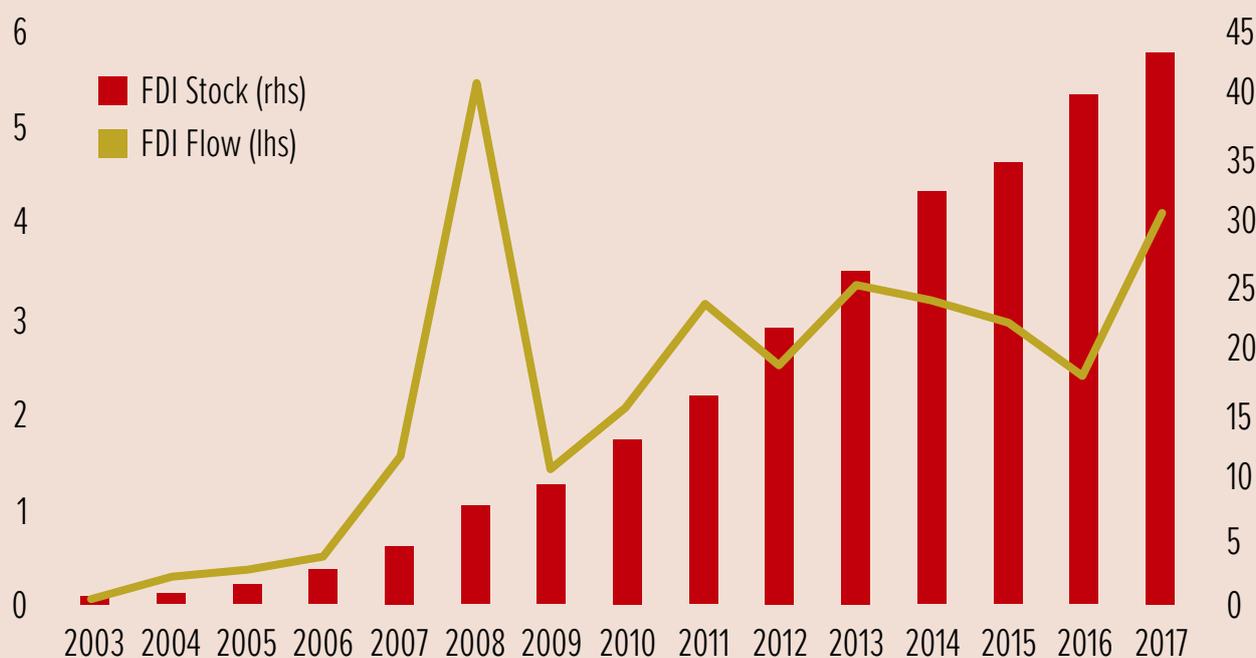
CHAPTER 4

China's production capacity cooperation with Africa

China has become one of the major economic partners of the African continent, in terms of trade, investment and development cooperation. In 2000, the Forum on China-Africa Cooperation (FOCAC) was launched to coordinate China's bilateral cooperation with African countries and provide an institutional framework for both political dialogue and economic cooperation. The FOCAC primarily facilitates institutional and collective dialogue for cooperation on various issues of mutual concern. Since 2000, seven FOCAC summits have been held. In both 2015 and 2018, a USD 60 billion financial commitment was pledged by China, in the form of grant, loans, credit lines and other funding from, for instance, China-Africa Development Fund. At the 2018 Summit, China also emphasised industrial partnering and industrial capacity cooperation, by facilitating Chinese private investment, providing technical assistance and training for local workers. The development of industrial parks to attract foreign investors was also identified by China as a key initiative to promote African industrialisation.

The Chinese investment presence in Africa is large. A 2017 McKinsey report noted more than 10,000 Chinese-owned enterprises operating in

FIGURE 4 Chinese FDI stock and flow in and to African countries (USD billion)



Source: CARI

Africa – 90% privately owned – with more than 30% in manufacturing. In 2016, China became the first source of foreign direct investment in the African manufacturing sector (Signè, 2018). According to the CARI database, Chinese FDI has been steadily flowing in at an average rate of USD 3 billion a year during the last 10 years. One-quarter of all Chinese investments is concentrated in South Africa and the Democratic Republic of the Congo, followed by Zambia, Nigeria, Angola and Ethiopia. Chinese enterprises are mainly focussed on the construction (29.8%), extractives (22.5%), and manufacturing sectors (14%). The stock of FDI rose to USD 43.3 billion in 2017, almost reaching that of the United States, at USD 50 billion. That said, as a percentage of Chinese global FDI stock, Africa accounted for just above 3% over the last five years.

China has been present in other areas too, such as research and development: information technology, agriculture and education. On the technological front, for instance, the share of Chinese companies in the African market is notable. The country's telecommunications giant Huawei has built half of the 4G networks on the continent and most of the 2G and 3G; two of the three most popular smartphone brands are Chinese.¹⁶ In agriculture, China launched the Agricultural Technology Demonstration Centers (ATDCs) in 2016, to increase production, improve agricultural technology and enhance food security, while also spearheading research and capacity building. Around 30 ATDCs have been established across Africa.

The extent to which China-Africa production capacity cooperation can achieve win-win outcomes for both sides remains to be seen. History repeatedly shows that there has never been a universal path to industrialisation. Despite its successful development at home, it will be worth observing how China adjusts its cooperation strategies and priorities to the different African countries and to what extent Chinese strategies will be aligned with local development needs.

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PART II.

Research objective and methodology



CHAPTER 1

Research objective

China's development cooperation can play an active role in supporting production capacity cooperation with Africa and in further promoting the region's industrialisation process, contributing to sustainable industrialisation strategies and SDG implementation. However, as African countries are diverse in their economic and social characteristics, a joint research project was undertaken by the UNDP and the Chinese Academy of International Trade and Economic Cooperation (CAITEC) in order to:

- 1 provide a country-specific and sector-specific analysis, identifying good practices and lessons across different country contexts;
- 2 deepen the understanding of production capacity cooperation and its role for development cooperation and how African countries can learn from China's industrialisation experience; and
- 3 provide practical, evidence-based analysis on China's production capacity cooperation, and recommendations on how to tailor it to different country contexts with a view to supporting sustainable industrial development and accelerating SDGs in partner countries.

Angola, Ethiopia, Kenya and Zambia were selected for the research. These countries are among the priority partners for China-Africa capacity cooperation projects in the region.

CHAPTER 2

Research methodology

2.1 Field work

Semi-structured interviews were conducted for general assessment and data collection purposes between 2015 and 2018. The target group comprised central government officials, local government officials, representatives of international organisations, local partners, and project managers (see Annex I). The sample was chosen based on recommendations and references from recipient countries and the Ministry of Commerce of the People's Republic of China (MOFCOM).

Representatives from in-country embassies and international organisations also participated through group interviews.

2.2 Desk review

The country studies were based on data and reports up to August 2019

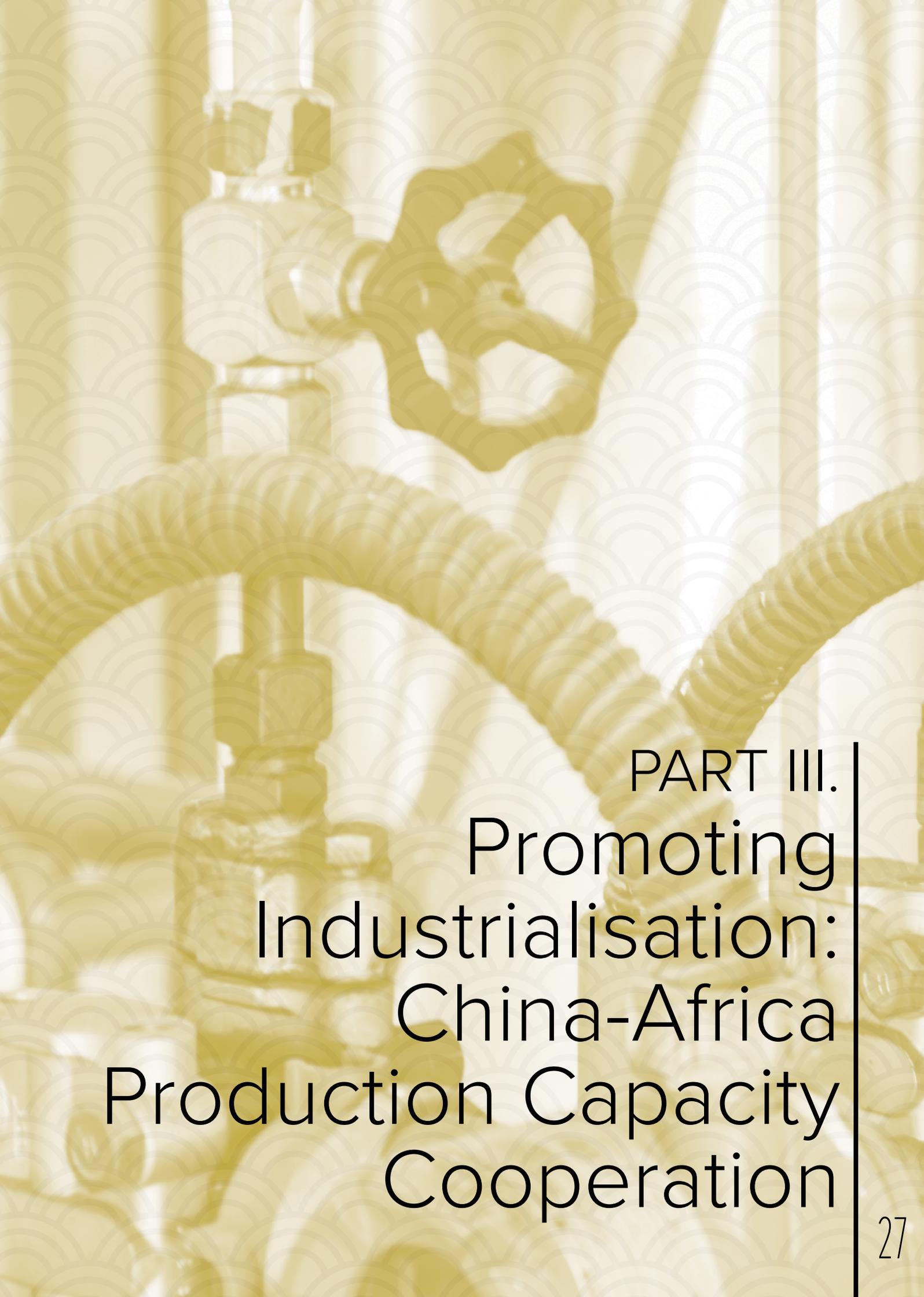
from a number of international organisations, China's policy documents and development cooperation reports, as well as project implementation documents. The information obtained from the different Chinese projects in the relevant economies was used to summarise and analyse the implementation and results of each project.

2.3 Analytical method

Qualitative methods were used to analyse the data from interviews, policy documents and other relevant sources, to understand project achievements, effects, and challenges, and to draw conclusions and provide suggestions for the Chinese Government. Triangulation was used during data collection and for analysis related to specific indicators of the assessment frameworks, to cross-examine the information from different angles, thereby ensuring the credibility of the research results.

2.4 Structure of the case study

In each case study local industrialisation development needs and gaps were analysed, major development partners were identified, and the comprehensive status of China's production cooperation was assessed. Based on the analysis, country-specific policy recommendations were then presented (see Part III). A cross-country comparison analysis was also undertaken and policy recommendations made regarding China-Africa production capacity cooperation (see Part IV).



PART III.
Promoting
Industrialisation:
China-Africa
Production Capacity
Cooperation



CHAPTER 1 Angola

1.1 Country profile

The Republic of Angola is located in the western region of Southern Africa. It is a member of the Southern African Development Community (SADC), the Common Market for Eastern and Southern Africa (COMESA), and the Organization of the Petroleum Exporting Countries (OPEC). Angola signed, but has not yet ratified, the African Continental Free Trade Agreement (AfCFTA). Soon after gaining independence from Portugal in 1975, Angola became embroiled in almost three decades of civil war, which lasted until 2002. Since then, the country has experienced growth acceleration, largely due to its oil exports. From 2002 to 2018, Angola's GDP growth averaged 6% per year, peaking at 14% in 2007 (World Bank). However, since the sharp drop in oil prices in 2014, Angola continues to face a challenging macroeconomic environment. This, coupled with the COVID-19-driven recession, makes for a relatively bleak and uncertain economic outlook. The IMF expects 2020 GDP growth to contract for the fifth consecutive year (IMF, 2020). Structural reforms are expected to contribute to the economic recovery from 2021 onward, while investments in infrastructure, human capital, and credit markets should diversify Angola's economy away from oil.

Despite the solid GDP performance, per capital income grew at a slower rate,¹⁷ at 2.4% per year on average during the same period (World Bank). Angola remains a country with a high extreme poverty rate, although poverty has reduced significantly since the early 2000s, falling from 68% in 2000 to 37% in 2018 (AfDB, 2019). While Angola has been listed as a least developed country since 1994, in 2016, the UN General Assembly endorsed the decision to graduate the country in February 2021.

Angola is rich in natural resources, particularly petroleum, diamonds and iron ore. Together with Nigeria, it is the largest oil producing country in Africa;¹⁸ the

¹⁷ Population growth has averaged 3.5% per year since 2002 (World Bank).

¹⁸ http://www.opec.org/opec_web/en/about_us/147.htm. 2018 production of crude oil from OPEC's African member states: Nigeria (1.6 mb/d); Angola (1.5 mb/d); Algeria (1.0 mb/d); Libya (0.9 mb/d); Gabon (0.2 mb/d); Equatorial Guinea (0.1 mb/d).



country's economy depending heavily on oil. This dependence is reflected in the UNCTAD product concentration index of exports,¹⁹ scoring above 0.9 for the past decade, versus the average concentration index for Africa as a whole, which is below 0.5. Angolan export is concentrated on only seven products, having fallen dramatically from an average of 68 products in the period between 2002 and 2008 (UNCTAD). Statistics show that oil production contributes to around half of the country's GDP, around 93% of national exports and more than 70% of government revenue (CIA World Factbook). Diamonds are the second most important export item, accounting for 4.3% of total exports in 2017.²⁰ As a consequence, Angola enjoys the largest trade surplus among African economies, amounting to USD 27 billion in 2018, followed by Nigeria (UNCTAD).

Angola's heavy dependence on oil exports makes its economy vulnerable to global oil price fluctuations, causing external imbalances, pressure on the currency, and unstable government revenues. For instance, following the 2009 global financial crisis and a sharp decline in oil prices, Angola had to take a USD 1.4 billion loan from the International Monetary Fund to balance its economy (UNCTAD, 2017). In mid-2014 oil prices again began to plunge, negatively affecting Angola's foreign exchange and macro-economic position and forcing the Government to request additional financial assistance from the IMF in 2016.²¹

Furthermore, this oil dependency causes an imbalance in Angola's economic structure, particularly in agriculture, which accounts for only 10% of Angola's total GDP (World Bank), while the oil sector contributed to about 50% of GDP in 2011 (CIA Factbook). This is in contrast to the 1970s, when the country was a leading exporter of agricultural crops, such as coffee, cotton and sisal.²² Manufacturing is also weak in Angola, accounting for only 6.5% of GDP (2017), up from 4% between 2002 and 2012 (World Bank). Indeed, almost all the country's consumed goods are imported. Angola has a small, dual private sector, comprised of mostly informal microenterprises, and with the key sectors dominated by uncompetitive state-owned or government-affiliated firms (World Bank, 2018). It is estimated that the informal sector employs around 60% of the Angolan labour force.²³

19 The product concentration index of exports measures the extent to which a large share of exports is accounted for by a small number of product groups. The index has a value of 1 when an economy exports only one group of products and a value of 0 if all product groups are equally represented.

20 <https://atlas.media.mit.edu/en/profile/country/ago/>

21 <http://www.bbc.com/news/business-35981850>

22 <http://www.fao.org/in-action/plant-breeding/our-partners/africa/angola/en/>

23 UNCTAD Trade Policy Framework: Angola.



1.2 Actors and priorities of Angola for industrialisation

1.2.1 Major actors and policy strategies

In Angola, a number of government and non-governmental institutions are engaged in promoting industrial development. The Ministry of Economy and Planning provides overall coordination for all ministries regarding the planning and monitoring of economic and social development. The Ministry of Industry is the main body responsible for formulating, implementing and evaluating industrial policies and initiatives for the industrial sector and industrial services. Under the Ministry of Industry, the Institute of Industrial Development of Angola is responsible for carrying out those industrial policies and initiatives. The Institute focuses on four pillars of work: (1) financing; (2) industrial production capacities; (3) the development of small- and medium-sized enterprises (SMEs); and (4) large-scale industrial planning.²⁴ Its current focus is on infrastructure, water, agro-industry, chemicals and the wood industry.²⁵ The Ministry of Industry also collaborates with other ministries to jointly promote industrialisation, such as the Ministry of Commerce,²⁶ which is responsible for the development and implementation of trade policies. Besides government ministries and agencies, major local business associations, such as the Angola Industrial Association and the Angolan Federation of Women Entrepreneurs, also provide technical support and capacity building to local businesses.

In recent years, Angola has developed a series of policies to guide its industrialisation process. Its long-term strategy, *Angola 2025*, was approved in 2008 and serves as an overarching framework for Angola's socio-economic development. *Angola 2025* aims to transform Angola "into a prosperous, modern country, without poverty [...] and with a growing insertion in the world and regional economy".²⁷

Within this framework, the Government launched the country's first National Development Plan (NDP) 2013-2017,²⁸ which aims to promote stability, growth and jobs.²⁹ Noting the dominating position of the oil sector, the NDP emphasises the importance of economic diversification and calls for the development of labour-intensive industries in non-oil sectors to drive job creation and tax revenues. Increasing domestic production and reducing imports is recognised as a clear national goal in the NDP 2013-2017 and the related "Industrialization Programme of Angola". Four priority sectors are identified in the NDP: energy and water; food and agro-industry; housing; transportation and logistics (Angola, 2013).

24 Interview with Angolan Government officials and development partner representatives, 4-8 March, 2018 in Luanda, Angola.

25 Ibid.

26 <http://www.minco.gov.ao/>

27 <https://eneken.ieej.or.jp/data/6871.pdf>

28 The Angolan Government's NDP 2011-2012 was considered a transition plan.

29 <https://www.mindbank.info/item/5513>



In September 2017, Angola held a national election and the newly-formed Government developed an interim plan for October 2017 to March 2018. In April 2018, the Government presented the NDP 2018-2022, which also focuses on the non-oil sectors: agriculture, fisheries, the manufacturing industry, construction, and services, including tourism. The new Government presented several measures to restore macroeconomic stability and improve social outcomes, such as fiscal consolidation and rebalancing the foreign exchange market by unpegging the currency from the US Dollar. To improve the business environment as well as to introduce financial incentives to economic activities, revisions were made to the investment law to remove restrictions to foreign investments and to open markets to competition. Measures against corruption and in favour of modernising tax and customs administration were also introduced (World Bank, 2018).

1.2.2 Industrialisation priorities

Export diversification

Economic diversification efforts are at the top of the Angolan Government's agenda, which seeks to prioritise several major non-oil sectors: agriculture, fisheries, mining and manufacturing. Angola has abundant natural resources apart from oil, such as land, water, and mining resources. For example, the country is one of the world's largest diamond producers,³⁰ yet only 10% of its diamond resources have been tapped.³¹ Angola also has vast iron, gold, limestone and special minerals resources, and the Government plans to build the capacities of local mining companies to develop their export potential.³²

Among the most recent initiatives promoting diversification are the Programme to Support Production, Diversification of Exports and Import Substitutions that aims to diversify domestic production and promote exports in the non-oil sectors, and the Regulation of the Commercial Chain of Supply of the Basic Basket and Other Priority Goods of National Origin, approved by Presidential Decree 23/19 at the beginning of 2019. The latter focuses on prioritising the consumption of domestic products over imports.³³

In 2014, the European Union and the Angolan Ministry of Commerce began implementation of the four-year "Project for Supporting Trade"³⁴ to develop Angola's non-oil exports and strengthen its integration in the

30 The 2019 United States Geological Survey ranks Angola 4th in gem diamond mine production. <https://www.usgs.gov/centers/nmic/mineral-commodity-summaries>

31 Interview with Angolan Government officials and development partner representatives, 4-8 March, 2018 in Luanda, Angola.

32 Ibid.

33 <https://macauhub.com.mo/2019/04/11/pt-banco-nacional-de-angola-adverte-banca-comercial-para-apoiar-processo-de-diversificacao-economica/>

34 The initiative is part of the broader "EU-Angola Joint Way Forward" framework. Signed in 2012, it takes the relationship between the parties to a new level, through the deepening of political dialogue and cooperation in areas of common interest.



regional and global economy. In 2018, the launch of the “EU-UNCTAD Joint Programme for Angola: Train for Trade II” was announced, which focusses on improving human and institutional capacities to foster appropriate economic diversification policies.³⁵

Import reduction

An important consequence of export diversification is import reduction, another priority for Angola’s industrialisation process. Depending heavily on oil export, the country has failed to develop its domestic production capacity and it relies on imports to supply its domestic demand for food, consumer goods and other materials. Moreover, a heavy reliance on imports consumes a large proportion of the country’s foreign currency reserves, which could instead be used to import advanced technologies to facilitate industrialisation.

In 2017, Angola spent USD 2 billion on food imports.³⁶ According to the WTO, 13% of Angolan imports are agricultural products and 55% are manufacturing products. The main import markets are the European Union (33% of the total) and China (17% of the total). Service imports form a large part of the trade mix. The WTO reports that in 2017 Angola exported USD 675 million in commercial services, mainly tourism, versus USD 13 billion in imported services.

While Angola has the potential to produce and process many of the products it imports, such as coffee, honey, fishery products and by-products, wood, iron ore, alcoholic and non-alcoholic beverages, vegetables, tubers and textiles,³⁷ it must overcome many challenges in order to do so. In the agricultural sector, productivity is low and constrained by the limited use and availability of quality seeds, fertilisers and mechanisation, poor agronomic practices, limited areas under irrigation, and poor dissemination of agricultural knowledge. In the food processing industry, there is limited capacity for producing items such as flour, chicken, eggs and milk,³⁸ while in the textile industry, textile production units, supported by Japanese credit lines, are unprofitable due to a lack of skilled management and low productivity capacity.³⁹ The situation is the same in the wood industry, where the processing capacities are basic. At the same time, Angola’s oil sector also needs upgrading, going beyond just production to develop value-adding capacities for processing petroleum and gas products. By and large, the value addition by local SMEs continues to be minimal in many sectors.⁴⁰

35 <https://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=1714>

36 Interview with Angolan Government officials and development partner representatives, 4-8 March, 2018 in Luanda, Angola.

37 Ibid.

38 Ibid.

39 Ibid.

40 Interview with Angolan Government officials and development partner representatives, 4-8 March 2018 in Luanda, Angola.



1.3 Needs and gaps in Angola's industrialisation

Angola must overcome many challenges to achieve its industrialisation goals, the most frequently noted are its infrastructure deficit, the lack of production capacity, and the need for foreign investment and an enabling environment.

1.3.1 Infrastructure deficit

Angola's lack of infrastructure has been identified as one of the most significant barriers hindering the country's industrial development process, imposing high costs on the country's industrial production. Despite strong commitments and investments, the AfDB (2019) estimates that, in addition to its current spending, Angola will need an additional USD 2 billion per year, over a ten-year period, to meet its infrastructure targets. According to the 2019 Africa Infrastructure Development Index,⁴¹ Angola ranks 30th out of the 54 African countries listed. Problematic issues include a lack of transport and poor road quality and safety, inadequate power transmission and distribution, and insufficient water supply systems.

Angola's inadequate power supply has seriously impeded development. In many cities, including Luanda, the daily electricity supply cannot be guaranteed. Versus an annual consumption of 9 GW (2016 estimates from CIA World Factbook), it is estimated that the 2018 total installed capacity was only 6.4 GW, with 58% from hydropower generation, 12% from natural gas, and 30% from diesel.⁴² Despite the improvements achieved through the large scale projects that came online in 2018, the total power generation available does not fully support the basic needs of industrial and agricultural production. Although Angola has more than 40 major rivers with great hydropower potential, only a small proportion of this water resource is used. In 2014, the Ministry of Energy and Water identified the potential for 18 GW in hydropower, 17.3 GW in solar power and 3.9 GW in wind power throughout the country.⁴³ The Kapanda power station, the largest in the country, has an installed capacity of only 520,000 kW, while the rest are small hydropower and thermal power stations with a capacity of below 50,000 kW.⁴⁴

Ensuring an adequate water supply for industrial development is another challenge. For example, in the Luanda-Bengo Special Economic Zone, of the initial 127 companies that had planned to install operations there, less than 10% were able to become operational due to the insufficient water supply.⁴⁵ The recently established industrial zones also lack other basic infrastructure,

41 The Africa Infrastructure Development Index, produced by the African Development Bank, has several key objectives: 1) to monitor and evaluate the status and progress of infrastructure development; 2) to assist in resource allocation; and 3) to contribute to policy dialogue among relevant stakeholders.

42 <https://www.usaid.gov/powerafrica/angola>

43 <https://www.export.gov/article?id=Angola-Electric-Power-Generation>

44 China's Ministry of Commerce website: <http://fec.mofcom.gov.cn/article/gbdqzn/>.

45 Interview with Africa Development Bank representatives, 4-9 March, 2018 in Luanda, Angola.



such as a reliable electricity supply, making it very difficult to attract firms and for firms to operate.⁴⁶ Furthermore, the limited transport connectivity between Angola and its neighbours prevents Angola from developing trade relations with other countries in the region.

The infrastructure reconstruction undertaken during the past decade has been somewhat successful, however after 30 years of civil war and weak post-war economic governance, the need for infrastructure improvements is significant. China has been a major infrastructure development partner in Angola for quite some time, relying on the external bilateral credit line mechanism and some modest private sector investment. Angola also works with other partners on infrastructure development, such as the World Bank and the AfDB.⁴⁷ In addition to the lack of finance and limited building and operational capacity, governance is another area that requires strengthening. Efforts are now being made to enhance local government control and oversight of infrastructure projects (AfDB, 2019).

1.3.2 Capacity gaps

The lack of technical capacity is another major barrier for Angola's industrialisation process. Indeed, many of the factories built in the 1960s have since been dismantled because of the limited availability of skills, technology, qualified engineers and competent professionals.⁴⁸ Vocational training, in particular, has been identified as a major area that needs strengthening.⁴⁹ While vocational training centres have been established by the Government throughout the country, they are substandard and limited in scope.⁵⁰ The private sector also provides vocational training, but essential business skills remain inadequate. The capacity to create value addition by SMEs is minimal due not only to weak management skills, but also to limited infrastructure, a lack of capital, a disadvantageous taxation system, numerous bureaucratic barriers and corruption. In the agricultural sector, there is a clear requirement for agricultural producers to increase their processing capacities, thereby reducing Angola's dependence on food imports.⁵¹

1.3.3 Need for foreign investment and an enabling environment

The Angolan Government has been making efforts to attract investment, such as revising the Private Investment Law to remove the requirement of 35%

46 Interview with Angolan Government officials and development partner representatives, 4-8 March, 2018 in Luanda, Angola.

47 Ibid.

48 Interview with Angolan Government officials and development partner representatives, 4-8 March 2018 in Luanda, Angola.

49 Ibid.

50 http://www.sadc-dfrc.org/sites/default/files/documents/forum/cunha_angola.pdf

51 Interview with Angolan Government officials and development partner representatives, 4-8 March, 2018 in Luanda, Angola.



local business participation in any foreign investment.⁵² However, despite this amendment, foreign investment is still impeded by the unfavourable business environment. The World Economic Forum's Global Competitiveness Report 2018 ranked Angola 137th out of 140 economies; the country was also ranked 173rd out of 190 economies in the 2019 World Bank Doing Business Report. Investors report corruption, an underdeveloped financial system, and a high level of bureaucracy, combined with inefficiencies that complicate trade and increase the cost of doing business in the country. More emphasis on governance reforms that promote transparency and accountability is therefore needed.

1.4 Development Cooperation by Major Development Partners in Support of Angola's Industrialisation

Because of its relatively strong economic performance over the past decade, Angola has not been a major aid recipient compared with some of its African counterparts. During 2010-2017, on average Angola accounted for only 0.5% of all official development assistance (ODA) from OECD donors to all African countries (OECD)⁵³. Likewise, Angola has one of the lowest ODA/GNI ratios among African countries. Angola's net ODA/GNI ratio declined from over 5% during 1992-1994 to under 5% during 2002-2004, and to an almost negligible ratio of 0.17% in 2017 (OECD)⁵⁴.

OECD data indicates that, from 2009 to 2016, an average of USD 274 million per year was committed to Angola. The United States, after the World Bank's International Development Association (IDA), has been by far the biggest bilateral donor committing, on average, USD 57 million per year in 2016-2017, accounting for around 23% of the total commitment made by all donors. 2016-2017 data suggests that 77% of all donor commitment was directed towards health and social infrastructure, with very little allocated to the production sector (OECD).

The World Bank and the AfDB are two of the major concessional loan providers. The World Bank is engaged in education, health, smallholder agriculture, water and basic infrastructure. Since 2018, it has been working with the French Development Agency (AFD) co-financing a commercial agriculture project totalling USD 300 million, which supports ongoing water and sanitation service delivery initiatives. The World Bank has also been requested by the Angolan Government to conduct analytical work in various sectors, such as the financial and business sector. The AfDB's interventions focus on agriculture, fisheries, rural development, environment, health, education, water and sanitation. It also provides loans to support SME

52 Ibid.

53 <http://www.oecd.org/dac/stats/documentupload/Africa-Development-Aid-at-a-Glance.pdf>

54 <https://www.oecd.org/dac/financing-sustainable-development/development-finance-data/statisticsonre-sourceflowstodevelopingcountries.htm>



development. The AfDB currently has eight projects under implementation, worth USD 122 billion.

The UN system supports Angola through the Partnership Framework (UNPAF) 2015-2019, which is aligned with the national priorities of the Angolan Government. The UNPAF identifies its working priorities in three areas: 1) human, social and equal development; 2) rule of law, and national cohesion; and 3) inclusive and sustainable economic development. The UN is committed to supporting Angola's economic diversification focusing on agriculture and agro-industrial food production, and on developing productive capacities, including in the informal sector (United Nations, 2016). Under the UN system, UNDP is actively supporting Angola with its LDC graduation by promoting domestic entrepreneurial development and strengthening the country's response to HIV/AIDS. UNDP has also provided assistance to the Government for the preparation of the National Development Plan for 2018-2022. Other UN agencies, such as UNIDO and ILO, are also involved, through the provision of support for SME development.

1.5 China's Production Capacity Cooperation with Angola

1.5.1 Brief overview of Sino-Angolan relations

China and Angola established diplomatic relations on 12 January 1983. Following the end of the civil war, the partnership between the two countries moved steadily forward and bilateral exchanges and cooperation expanded to all areas. In November 2010, the two countries established a strategic partnership. President Xi Jinping and Angolan President José Eduardo dos Santos met twice in 2015, and again in 2018, on the occasion of the FOCAC meeting, with the two leaders achieving consensus on the future direction for enhancing Chinese business investment in Angola.

The Chinese Government and Chinese enterprises have actively participated in Angola's post-war reconstruction, mainly in construction. Progress has also been made in bilateral cooperation in the form of preferential loans with flexible repayment conditions; most loans are used for building infrastructure. Through these infrastructure investments China has helped create the conditions for economic growth and sustainable development. In 2016, more than 100 infrastructure projects were signed between the two countries, with a total contracted volume of over USD 10 billion dollars, in sectors such as energy and electricity, ports and airports, highways and railways, municipal water supply, hospitals and schools, social housing, and industrial parks.⁵⁵

More recently, private Chinese investments have increasingly diversified into sectors such as agriculture, industry, human resources and health, engaging in

55 China's Ministry of Commerce Website: <http://fec.mofcom.gov.cn/article/gbdqzn/>.



more sustainable partnerships. Indeed, following the 2018 FOCAC⁵⁶ Chinese investors announced their interest in investing up to USD 10 billion in Angolan industry, agriculture and scientific research for the following three years. The Chinese Ministry of Commerce estimates that more than 200 Chinese-funded enterprises now operate in Angola, mainly in construction, trade, real estate and the manufacturing industries.⁵⁷

Compared to contracted engineering projects, foreign direct investment by Chinese enterprises is comparatively small. In 2017, new direct investment flows from China to Angola amounted to USD 637 million, an increase from USD 164 million in 2016, and non-financial investment stock was USD 2.3 billion by the end of 2017, making Angola the fifth-highest recipient of Chinese FDI in Africa (CARI).

Bilateral trade between the two countries has remained high. In 2017, Angola was the biggest African exporter to China, followed by South Africa and the Democratic Republic of the Congo, while China was the second largest source for Angola's imports (CARI). Trade volume between the two countries softened in 2015 and 2016, partly due to lower oil prices, before rebounding in 2018 (USD 28 billion). In 2018, China's export volume had reached USD 2.2 billion and its import volume USD 26 billion (CARI). China's primary exports to Angola include automobiles and automobile parts, furniture products and mechanical and electrical products, while China's major imports from Angola are crude oil, fossil fuels, mineral oil and products, lime and cement, wood, and mineral material products. In April 2015, the Governments of China and Angola signed an agreement for tariff exemption on 97% of Angolan exports to China.⁵⁸

As is the case with other donors, China does not consider Angola to be a foreign assistance priority, due to the country's relatively higher national income. China only has a few aid projects in Angola with health considered a priority. In 2009, China sent a medical team to Angola and provided some essential materials, such as anti-malaria medicine and medical equipment. China also assisted in the reconstruction and extension of the General Hospital of Luanda, which was successfully completed and handed over to Angola in February 2015. The General Hospital of Luanda, located in the Gammar district of Belas City, Luanda, covers an area of 22,000 m², has 301 beds and the capacity to care for 800 patients. It is Angola's largest provincial-level, comprehensive public hospital and is equipped with advanced medical equipment. China also sent a technical cooperation team to provide technical guidance and maintenance and a medical team to support operations. In addition to this, China has helped Angola to construct a primary school and

56 <https://allafrica.com/stories/201901100472.html>

57 Other estimates from Reuters note 50 Chinese state companies and 400 private businesses operating in Angola in 2015.

58 https://www.fmprc.gov.cn/web/gjhdq_676201/gj_676203/fz_677316/1206_677390/sbgx_677394/



social housing based on the needs and requests from Angola.

1.5.2 *China's major production capacity cooperation projects in Angola*

The largest aluminium alloy plant yet to be built in Angola was financed by CITIC Construction Co., Ltd. and CITIC Bohai Aluminium Industry Co., Ltd. The project is representative of Sino-African production cooperation, responding to the need to diversify from the oil sector, promoting both industrial development and job creation.⁵⁹ Inaugurated in May 2019, the plant is located in the Luanda-Bengo Special Economic Zone in the southern suburb of Luanda and covers an area of 0.2 km². The total investment for the first phase amounted to approximately USD 40 million. The processing machines were imported from China and, according to the plant manager, the production line adheres to China's waste disposal and exhaust gas treatment standards⁶⁰ and the environmental protection standard of Zambia. The plant mainly produces aluminium profiles for doors, windows, and curtain walling, responding to robust local construction needs. Eventually, it may also produce for the export market, if the production capacity increases further. With an expected annual output of 10,000 tons, the plant will create around 300 jobs,⁶¹ supporting the Angolan Government's efforts to promote employment. During the first phase, all the raw materials must be imported due to a lack of locally produced materials and backward linkages in the Angolan manufacturing sector; a key challenge in the industrialisation process. However, CITIC anticipates an expansion of operations upstream, which will significantly reduce the need to import raw materials and create additional jobs.

There are several Chinatowns in Luanda, all backed by investments from Chinese companies.

The Chinatown in Zango Street, 30 km from the capital, is one example. In 2017, it was considered the largest commercial project in Angola, covering over 2 km². The 70,000 m² of commercial stores built in the first phase have all been rented out. Construction of the second phase, a further 58,000 m², began in May 2017, and the third phase is planned for furniture, electronic products and clothing shops. Furthermore, to meet the housing needs of the retailers, 294 apartments will also be built. The Chinatown provides centralised management services for the retailers, including water and electricity supplies, sanitation and security. Through supporting job creation and moving workers from the informal to the formal sector, the initiative aims to build an official, urbanised market that can absorb Luanda's informal markets, and where economic agents can promote and sell their services

59 Interview with CITIC Construction, in Luanda, 4-8 March, 2018, and CITIC's website: http://www.cici.citic.com/content/details_47_1779.html

60 Interview with the factory manager, 4-8 March, 2018 in Luanda, Angola.

61 [https://africabusinesscommunities.com/news/citic-invests-\\$40-million-in-angolas-aluminum-plant/](https://africabusinesscommunities.com/news/citic-invests-$40-million-in-angolas-aluminum-plant/)



and products through rented real estate.⁶² The Chinatown has attracted not only Chinese merchants, but also locals and retailers from Lebanon, India, Turkey, Cameroon, Portugal, Malaysia and Brazil. Their businesses include automobile parts and repairs, home furnishings, building materials, fresh vegetables, second-hand clothing, etc.⁶³

China has also invested in Angola's agribusiness, such as the Longa Rice Planting Agro-Industrial Farm, Camacupa Agro-Industrial Farm, and Cuimba Agro-Industrial Farm. These are cooperation initiatives between China CAMC Engineering Co., Ltd and the Angolan Ministry for Agriculture, Rural Development, Fishing, and the Environment. The initiatives introduce advanced farming business models that involve predominantly maize, soybean, rice, and wheat production. The Chinese investment supports the transfer of specific technological knowledge on advanced irrigation storage, processing, and other agricultural technologies and management experience.

1.5.3 Major Chinese development cooperation projects in support of Angola's industrialisation

Since China's assistance to Angola is limited, its support for Angola's industrialisation is primarily through technical cooperation and capacity building.

On 7 December 2016, the construction of the China-Angola Agricultural Technology Demonstration Center (ATDC) was officially launched. The purpose of the ATDC is to promote the use of more effective agricultural skills and technologies to improve the production capacity of Angola's agriculture sector. The ATDC focuses on three key objectives: technology transfer, business development, and sustainability. Covering an area of 0.54 km² and comprising well-equipped office buildings, plantation demonstration areas and livestock breeding demonstration areas, the ATDC was formally handed over to the Angola government in January 2019.⁶⁴ The project, implemented by Xinjiang Production and Construction Corps., was designed to promote the competitiveness of Angolan crops, foster the knowledge development of agricultural professionals and promote development diversification in the Angolan economy.

In terms of human resource development cooperation, in 2017 China conducted two bilateral training courses on business culture integration and public health. More than 50 Angolan trainees travelled to China to attend courses on a variety of subjects from finance, to trade and investment, to food security monitoring technology. China also provides support for

62 http://jornaldeangola.sapo.ao/reportagem/a_chinatown_de_luanda

63 Sohu Website: http://www.sohu.com/a/190592970_271142

64 <http://ao.china-embassy.org/chn/sghd/t1632609.htm>



Angolan students wishing to study in China. In 2015, 714 Angolan students commenced studies in China, 154 supported by Chinese scholarships.⁶⁵

Chinese enterprises in Angola also provide vocational training for locals. In 2014, the CITIC Bainian Vocational School⁶⁶ was established by CITIC Construction. The school enrolls underprivileged locals, aged 16 to 24 years old, providing them with free training, food and accommodation, and career guidance on employment opportunities. Upon graduation, the students are awarded a vocational qualification certificate approved by the Angolan Government. In 2016, the school moved to a new site and added five new subjects to meet the skills demand of the Angolan market: electrical engineering, engineering construction, mechanical operation, hotel services and computer science. Along with professional knowledge, the school also provides practical courses, such as reading and writing, English language, law, and environment. Over 200 students have now graduated from the school and found employment.

1.6 The challenges for Chinese investment in Angola

Chinese investment has made good progress in supporting Angola's industrialisation and its efforts to diversify away from the oil sector and create jobs, directly helping the country achieve many of the SDGs. However, a number of more general challenges to foreign investment and to sustainable development continue to exist. The main hurdles reported by Chinese investors are infrastructure, limited access to finance and the lack of skilled workers. They also note the inadequate supply of materials and production inputs, security issues, and high inflation. Furthermore, not only are the non-oil sectors slow to develop, but Angola's strong currency makes them less competitive in international markets, increasing the difficulties of producing in the country.

1.6.1 Limited financial infrastructure

Although foreign enterprises are able to obtain financing from local banks, the cost is relatively high. In 2018, the local loan interest rate was 20.7%, versus a deposit rate of 6.9% (World Bank), making it difficult for Chinese and other enterprises to obtain loans from local banks. That said, the National Bank of Angola has now ruled that commercial banks must apply an interest rate equal to or lower than 7.5% for loans to the economy, for agriculture in particular,⁶⁷ to boost credit growth and support development and investment. Angola also implements strict foreign currency control to prevent profit repatriation by foreign enterprises. Foreign exchange remittances must be

65 Chinese Ministry of Foreign Affairs website http://www.fmprc.gov.cn/web/gjhdq_676201/gj_676203/fz_677316/1206_677390/sbgx_677394/

66 <http://dy.163.com/v2/article/detail/DOSFUHTJ0518CDDH.html>

67 <https://macauhub.com.mo/2019/04/03/pt-bancos-comerciais-de-angola-obrigados-a-conceder-credito-a-taxa-reduzida/>



accompanied by specific, evidential documents, and a quota limit exists for foreign currency. However, the recently extended agreement with the IMF prevents the Angolan authorities from “imposing new restrictions or strengthening existing ones to make payments and transfers related to international transactions”. Furthermore, the informal restrictions on the withdrawal of deposits in foreign currency must be eliminated by the end of 2019, relaxing some of the controls on capital movements.⁶⁸ Finally, there is the problem of currency risk. Local currency fluctuations are frequent which, together with high inflation rates – 20.2% in 2018, down from 32.4% in 2016 (World Bank), make holding local currency an unattractive risk for foreign investors.

1.6.2 *Lack of skilled labour*

Skilled labour in Angola is in short supply. Angola’s demand for a local workforce for its post-war economic reconstruction is high, however the 27 years of that war ruined the education and training opportunities for local people.⁶⁹ According to the UN Children’s Fund (UNICEF), the adult literacy rate in 2014 was 66%; 80% for the male population and 53% for the female population, which is in line with the sub-Saharan Africa average. However, for the 2010-2016 period, the net enrolment rate of 29% for secondary education is far below the African average of 51.8% (AfDB, 2019).

1.7 **Points to Consider**

1.7.1 *Facilitate infrastructure building*

One of the major challenges for businesses, indicated by the interviewees, is the lack of power, especially electricity. Current electrification rates are estimated to be 43% in cities and less than 10% in rural areas. Businesses and residents must rely heavily on diesel generators for power, making production costs higher. Many Chinese companies are already engaged in energy projects, including hydropower and biomass. The Ministry of Energy and Water estimates that USD 23 billion in investment will be necessary to achieve the Government’s target of 9.9 GW by 2025. China could provide more technical and financial support for electricity generation, both bilaterally and in cooperation with other development partners, to improve the basic infrastructure for businesses. Investments should, however, be carefully designed and planned with a focus on their financial viability, thus avoiding the issues experienced in other African countries. Public debt, largely external, increased from 40.7% of GDP in 2014 to an estimated 80.5% in 2018, raising concerns about its sustainability (AfDB, 2019).

1.7.2 *Conduct vocational training*

China can make a significant contribution in the development of human

68 <https://angolaforex.com/en/2019/03/30/imminent-end-of-restraints-to-the-lifting-of-foreign-exchange/>

69 China’s Ministry of Commerce Website: <http://fec.mofcom.gov.cn/article/gbdqzn/>.



capital. China's increased involvement and promotion of technical training would meet the urgent need for higher-level management staff and skilled workers and could cover various sectors like agriculture, food processing, manufacturing, mechanics and mining. Starting with the ATDC, programmes could be expanded to include agribusiness to build the basis for an agricultural value chain. Experience sharing and training on building a sound business environment, in fields such as finance, infrastructure management and electricity supply, would also be helpful. Improving and strengthening the vocational training centres across the country would also promote the development of much-needed skills, essential for the country's industrial development. China could identify local skills gaps and provide targeted training programmes for locals, specifically introducing work programmes that help locals find employment in Chinese companies.

1.7.3 Share China's industrialisation development experience with Angolan counterparts.

The enabling business/investment environment in Angola is limited and the Government has yet to provide clear guidance on which sectors to prioritise for the development of industrial zones. China could use its own successful experience with special economic zones and support Angola in developing feasibility studies and plans for SEZs. China could also share its recent experience in creating an enabling business environment and in attracting foreign investment. This could be done together with major development partners already engaged in supporting Angola's industrialisation, such as the World Bank and the AfDB.

1.7.4 Promote cooperation with local institutions

To enhance cooperation and the creation of local linkages, the Chinese Government should encourage Chinese enterprises to seek cooperation with the Angolan Government, international and local financial institutions, as well as China's foreign aid funds, particularly for building infrastructure. This should be complemented by parallel skills-transfer programmes to foster local linkages and improve local capacity. Training on operations management should also be provided at the governmental level.

On the private sector side, Chinese enterprises need to engage with the Angola Industrial Association, the Angolan Federation of Women Entrepreneurs and other non-governmental organisations, to establish wider partnerships and stronger linkages with local stakeholders, promoting the corporate image and becoming more embedded in the local economy.



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A decorative graphic of the Ethiopian flag, featuring horizontal stripes of green, yellow, and red, with a blue wreath and a yellow star in the center. The flag is shown as a ribbon that curves across the top of the page.

CHAPTER 2 Ethiopia

2.1 Country profile

Ethiopia is a vast country, the second largest in sub-Saharan Africa, with a population that reached 109 million in 2018 (World Bank). It is a member of the Common Market for Eastern and Southern Africa (COMESA) and has signed and ratified the African Continental Free Trade Agreement (AfCFTA). Since the mid-2000s, Ethiopia has been one of the fastest growing economies in the world, with an average growth rate of nearly 11% between 2004 and 2017, owing to a significant increase in industrial activity and large infrastructure investments. In 2007 and 2008, it was the fastest-growing, non-oil-dependent African economy. Growth slowed below 10% in 2016, dropping to 6.8% in 2018 (World Bank). The AfDB (2019) ascribes the slowdown to civil unrest, political uncertainty, and fiscal consolidation to stabilise public debt. GDP recovered in 2019, up 9% on the year. 2020 will be heavily impacted by COVID-19 led global recession and locust infestation, but the economic outlook should brighten from 2021, on the back of expectations of high levels of foreign investment, as the government is pushing ahead with its reformist agenda and continues to privatise state-owned enterprises.

Despite this fast growth, Ethiopia's GDP per capita is one of the lowest in the world. The number of poor people remains high, at around 25 million in 2016, although the extreme poverty rate reduced from about 46% in 1995 to 23.5% in 2016. Promoting inclusive growth through deep structural transformation is essential as Ethiopia is to succeed in ending poverty (SDGs 1 and 2), in creating decent jobs and in fostering sustainable economic growth (SDGs 8 and 9).

The agricultural sector employs around 70% of the labour force (World Bank). Many other economic activities depend on agriculture, including marketing, processing, and the export of agricultural products. Production is overwhelmingly led by small-scale farmers and enterprises, and the small, agricultural cash-crop sector provides a large portion of commodity exports. Principal crops include coffee, legumes, oilseeds, cereals, potatoes, sugarcane and vegetables. Coffee remain the largest foreign exchange



earner, but exports are slowly diversifying away from it, with commodities such as gold, sesame, khat, livestock and horticultural products becoming increasingly important. Manufacturing continues to represent a small portion of the economy, accounting for only 5.8% of GDP in 2018 (World Bank), while textiles, garments and footwear accounted for 8.6% of total exports in 2017 (World Bank). However, prospects are positive given Ethiopia's comparative advantage in sectors such as textiles and garments, leather goods and processed agricultural products, due to its abundant and cheap labour force and geographical location. The Government is actively supporting the development of these sectors through an export-led industrialisation strategy, which focuses on developing industrial zones across the country and introducing business enablers for energy, transport, and trade logistics. It has been actively working to ease the logistical constraints associated with being a landlocked country, through improving road and rail connections and building good air connections.

Ethiopia has 14 major rivers, which flow from its highlands, including the Nile. The country has the most significant water reserves in Africa. Estimates for 2017 show that hydroelectric plants represented around 86% of the total installed generation capacity, with the balance produced by fossil fuels and other renewable sources. The electrification rate for the total population in 2016 was 42.9%, with 85% coverage in urban areas and 26.5% coverage in rural areas. As of 2016, total electricity production was 11.1 billion kWh, and consumption was 9 billion kWh (2016 estimates from the CIA World Factbook).

The economy continues to face structural problems, impeding faster development. Among the key challenges, the World Bank⁷⁰ notes that limited competitiveness constrains manufacturing growth, negatively affecting job creation and exports, and external debt sustainability, a rising risk that may affect Ethiopia's access to external finance. Studies have indicated that many factors diminish the competitiveness of Ethiopian textile products, a key sector that will need to be enhanced if Ethiopia is to become the light manufacturing hub of Africa. These factors include loose supplier integration, a lack of locally sourced inputs for production, limited market linkages, high trading costs due to poor infrastructure, and red tape and complex customs procedures (Hailemariam et al., 2018). In 2018, Ethiopia ranked 143rd out of the 150 countries listed by the UNIDO Competitive Industrial Performance index and 122nd out of 140 countries in the World Economic Forum Global Competitiveness Index.

2.2 Actors and priorities of Ethiopia for industrialisation

2.2.1 Major actors and policy strategies

The Ministry of National Development Planning is responsible for coordinating

70 <https://www.worldbank.org/en/country/ethiopia/publication/ethiopias-steady-economic-growth-leads-to-poverty-reduction>



national development plans among the various stakeholders, coordinating public investments, and conducting the monitoring and evaluation of national development programmes. The Ministry of Finance and Economic Cooperation, the Ministry of Trade and the Ministry of Industry are the principal government bodies responsible for developing policies related to industrialisation and investment promotion. Other ministries, such as the Ministry of Agriculture and Natural Resources, the Ministry of Water, Irrigation and Electricity, the Ministry of Transport, the Ministry of Mines, Petroleum and Natural Gas, and the Ethiopian Investment Commission, are also involved and contribute to the industrial development planning process in their domains.

After the completion of Ethiopia's initial Growth and Transformation Plan I (GTPI, 2010/2015),⁷¹ the Growth and Transformation Plan II, (GTP-II) (2015/16 to 2019/20) began in 2016. The GTP-II continues to target industrialisation and poverty alleviation, as well as pursuing stronger and more inclusive growth; the aim being that Ethiopia will reach lower-middle income status by 2025. The GTP-II prioritises the economic development of both the agricultural sector, in order to improve its productivity and achieve rural transformation, and the manufacturing sector, to improve production quality and stimulate competition. The Plan also focuses on enhancing the construction industry, urban development and housing, and trade and culture.

2.2.2 Industrialisation priorities

Modernisation of the Agricultural Sector

The GTP II framework shifts focus to a system that goes beyond the piecemeal and ad hoc approaches of capacity building activities. The Plan envisages the establishment of systems for plant protection, animal health and quality control, agricultural input supply and credit services, increases in coffee production, urban agriculture, rural youth employment generation, contract farming, and agricultural product marketing. The GTP II strategy is wider in scope and richer in detail than its predecessor and will need to be supported by a technological transformation.

Cooperatives are promoted as part of Ethiopia's rural and agricultural development strategies and should become the leading actors in the agricultural marketing system. Many capacity building activities are also expected to be undertaken during the GTP II period. The GTP II includes the establishment of a rural financial system to accommodate savings generated in rural areas. Rural health and education service coverage, rural access road coverage, rural potable water supplies, electrical and telephone access and coverage will be expanded and the quality of each service improved.

71 Launched in 2010 by the Ethiopian Government, the first five-year plan focused on growth and education; strengthening democratic rule, governance and macroeconomic stability.



Manufacturing Industry

The development of the manufacturing industry is a Government priority and key factor for achieving the renaissance of the country, for ensuring sustainable growth and for realising the Government's vision of Ethiopia becoming a lower middle-income country by 2025. The Government's goal in the manufacturing sector is to sustain the rapid economic growth of the past 12 years, and to support job creation and income generation.

To achieve the Government's target, the GTP II places particular emphasis on the development of export-oriented manufacturing, such as the textile and garment, leather products and agroprocessing industries, and the promotion of industrial parks. A recent UNIDO study indicated that industrial parks have made a significant contribution to the nation's industrial development, creating employment, increasing government revenues and exports, diversifying industrial products, attracting FDI and foreign exchange, and introducing and implementing new and sophisticated technologies (UNIDO, 2018). Despite Ethiopia's positive economic performance, the country will still need to tackle its competitiveness issues and work towards more inclusive growth to achieve the target.

2.3 Needs and gaps in Ethiopia's industrialisation

The GTP II strategy identifies the challenges and requirements Ethiopia will need to address to achieve industrialisation. The key points are as follows:

2.3.1 Lack of competitiveness

Low competitiveness results in a deterioration of the trade balance, owing to the underperformance of the export sector. During the 2018/19 fiscal year the foreign exchange earned from exported commodities covered only 16.5% of the cost of imported commodities.⁷² The main reason for the underperformance was the decline in the price of export commodities like coffee and gold, and the lower price competitiveness of Ethiopian export commodities in the global market. A more competitive manufacturing sector would help rebalance this trade deficit. For example, a diversification of the product base of the mineral and agricultural sectors, combined with effective upgrading and adding value along the supply chain to retain a higher share of rents, could help boost exports.

2.3.2 Limited access to finance

During GTP-I, domestic savings increased from 9.5% in 2009-10 to 22.5% in 2014/15, while the share of total investment in GDP increased from 22.3% to 38.9%. The gap between investment and savings is widening. Although gross domestic investment during the last five years has been relatively strong, it has been primarily achieved through foreign capital rather than domestic savings. Therefore, the inadequate mobilisation of domestic savings and

72 <https://newbusinessethiopia.com/economy/ethiopias-foreign-currency-reserve-increases-to-3-2-billion/>



the resultant shortage of finance is one of the main challenges to Ethiopia's industrialisation. A higher share of private investment would also be welcomed to balance the relatively modest public spending going forward. As mentioned earlier, foreign currency debt is increasing and has already affected the Ethiopian Government's position in relation to its creditors. In early 2019, the Government had to renegotiate the repayment period for 60% of its external debt, which is currently over USD 26 billion.⁷³ As the private sector continues to face limited financial access, foreign currency shortages and a costly and weak business regulatory environment, the obstacles to private investment and upgrading become considerable.

2.3.3 Limited infrastructure

As a landlocked country, Ethiopia has no seaport and its railway and highway coverage still lags behind its rivals in the region. Although the pressure on goods transportation has been eased by the Ethiopia-Djibouti railway line, Ethiopia's sea access is still limited thus the Ethiopian Government is actively seeking alternatives. The implementation of the peace deal with Eritrea signed in September 2018 should provide a new route to the sea for Ethiopian products. However, uncertainties remain around the border dispute between the two neighbours and at the time of writing little has happened in terms of enhancing the flow of goods and people.⁷⁴ Ethiopia joined the Northern Corridor Integration Project initiated by Kenya, Rwanda, Uganda and South Sudan in 2013 to accelerate the implementation of a range of common infrastructure projects. It also joined the Lamu Port-South Sudan-Ethiopia project (LAPSSET), a mega-project for the construction of East Africa's biggest port with road and rail linkages from Kenya to Ethiopia and South Sudan.

The access to electricity is relatively low, supplies are inadequate and a low-cost energy supply for industry cannot be guaranteed. The power grids of the industrial parks and surrounding residential areas have not yet been integrated into the national system, and the power supply in the industrial parks is unstable. During the last two decades, the Ethiopian Government has made significant progress in expanding the economic infrastructure, however challenges continue to exist. Limited finance capacity and limited building and management capacity are two of the main obstacles to infrastructure development. First, the public sector faces budget constraints and can only fund a proportion of the projects, while the domestic private sector has neither the capacity nor the infrastructure to fill the gap. Second, although efforts have been made to build the capacity of the construction and engineering industry, domestic capacity remains inadequate. The country is

73 It is estimated that around half of the external debt is owed to China, which has invested in many projects. Among others, the Ethiopia-Djibouti railway accounts for a large part of such debt (<https://www.theafricareport.com/11080/ethiopias-china-challenge/>)

74 <https://www.africanews.com/2019/07/24/ethiopia-eritrea-relations-hampered-by-closed-borders-stalled-trade-deals/>



therefore likely to rely on foreign capacity for the design and construction of large projects in the medium-term, as well as for the management of operational phases; a further challenge for Ethiopia to overcome.

2.4 Development Cooperation by Major Development Partners in support of Ethiopia's Industrialisation

According to 2017 data, Ethiopia's largest development partner in terms of ODA was the IDA, followed by the United States of America, the United Kingdom, and the European Union. Ethiopia received USD 4.1 billion in net ODA from members of the OECD Development Assistance Committee, of which USD 954 million was provided by the USA, USD 437 million by the UK and USD 279 million by the EU (OECD).

The USA focuses on agriculture, technical cooperation and infrastructure. As part of its Country Development Cooperation Strategy (2011-2019), the Ethiopian office of US Agency for International Development (USAID) scaled up its support, targeting Ethiopia's production potential as the engine of food self-sufficiency and economic growth. In the agricultural sector, the projects focus on systemic change, from post-harvest to consumer, concentrating efforts on areas with scalable impact.⁷⁵

The UK focuses more on agro processing and solar energy. For example, the UK's Department for International Development (DFID) funds the Ethiopia-Enterprises Partners/Private Enterprise Programme for Ethiopia (2013-2020), which facilitates agro-industrial growth and enables access to finance. The programme is expected to result in new job and income opportunities and increased stability for poor people, particularly women, directly aiming at improving gender equality (SDG 5). The planned impact will create 45,000 jobs (75% for women) and increase incomes for 65,000 poor households. On the energy front, a weak point for Ethiopia, a significant initiative is the African Clean Energy Programme (2016-2021), also funded by DFID, which focuses on enabling decentralised access to clean energy for rural households. It catalyses a market-based approach for the private sector delivery of solar home-system products and services, improving energy access for many households in sub-Saharan Africa, including Ethiopia. The programme supports: (1) technical assistance to improve the enabling environment for a market-based approach for private sector delivery of solar home-system products and services; (2) finance for businesses wanting to enter new and emerging solar home-system markets in sub-Saharan Africa, financing both start-up and early commercialisation of business ideas; and (3) innovative approaches to stimulate private sector investment and market development.⁷⁶

75 USAID/Ethiopia: Country Development Cooperation Strategy (2011-2019)

76 DFID/Ethiopia: Operational Plan (2011-2016)



Japan is a comparatively small donor, providing USD 63 million in aid in 2016 (OECD). Japan's aid targets industrialisation-related areas, including infrastructure construction, agricultural research and training, and developing Ethiopia's energy capacity. Through the Japan International Cooperation Agency (JICA), Japan funded "The Project for Development of Road Maintenance Capacity of Addis Ababa City", a three-year programme operational from June 2015 until July 2019. Since the deteriorating roads within Addis Ababa required urgent maintenance work, especially after the rainy season, JICA began working with the Addis Ababa City Roads Authority in 2015 to develop both a road maintenance system and to increase their capacity. The JICA team reviewed the Road Authority's road maintenance implementation structure through discussions, interviews, surveys and site visits. Training sessions for local staff were also held in Japan and Addis Ababa on road maintenance, road inspections, maintenance planning and on developing maintenance management systems.⁷⁷

2.5 China's Production Capacity Cooperation with Ethiopia

2.5.1 Brief overview of Sino-Ethiopian relations

Ethiopia established diplomatic relations with China in November 1970, with 2013 marking the 10th anniversary of the establishment of the "All-Round Cooperative Partnership between the People's Republic of China and the Federal Democratic Republic of Ethiopia". China-Ethiopia relations and cooperation have continued to grow in various areas. The two countries have frequent high-level exchanges further deepening mutual political trust. The latest meeting between President Xi Jinping and Ethiopian Prime Minister Abiy Ahmed took place during the second Belt and Road Forum in April 2019.

China's development cooperation has long been an essential part of its overall cooperation with Ethiopia, which started soon after they established diplomatic relations. As Ethiopia lacks both financing and building capacity, the primary form of China's development cooperation is through full projects.⁷⁸ China's direct investment flow to Ethiopia was USD 181 million in 2017 and USD 282 million in 2016. Indeed, China is currently Ethiopia's top trading partner; by the end of 2017, the total stock of Chinese direct investment in Ethiopia was USD 2 billion (CAITEC), and bilateral trade continues to expand. According to Chinese customs statistics, the 2018 bilateral trade volume between the two countries was USD 2.9 billion, slightly lower than the USD 3 billion recorded the previous year. MOFCOM data shows that Chinese exports to Ethiopia amounted to USD 2.5 billion in 2018, recording a small decrease in 2018. Chinese imports from Ethiopia in 2018 totalled USD 345 million, down 3% from 2017. The principal exports

⁷⁷ <https://www.jica.go.jp/ethiopia/english/office/topics/171004.html>

⁷⁸ Complete projects refer to productive or civil projects constructed in partner countries supported by the assistance fund by China, while the Chinese side is responsible for the whole or part of the project process.



from China to Ethiopia are light industry products, high-tech products, machinery and equipment, textiles, medicines and chemical products. The main Ethiopian exports to China are sesame seeds, cattle, sheepskins and cowhide, cotton, niobium, and tantalum. Ethiopia is the largest exporter of sesame seeds to China.

China has provided support to Ethiopia for numerous construction projects, including highway interchanges, power stations, irrigation projects and, more recently, two large-scale projects - the Addis Ababa-Djibouti Railway (or Ethiopia-Djibouti Railway) and the Addis Ababa Light Rail Transit project. At the 2019 Belt and Road Forum, officials also announced a USD 1.8 billion investment deal between Ethiopia and the State Grid Corporation of China to provide power lines.⁷⁹ More than 400 Chinese investments, worth around USD 4 billion, are currently active in Ethiopia, creating more than 100,000 job opportunities.⁸⁰ The Chinese are the largest group of foreign investors per number of projects, usually in the Ethiopian Government's priority sectors, such as infrastructure and manufacturing. As of 2015, the Chinese Ministry of Commerce had 117 firms registered as active in the country's manufacturing, for instance (Tang, 2019). Chinese investors have also provided financing for a number of special economic zones, such as the Eastern Industrial Zone and the Hawassa Industrial Park.

In the agriculture sector, cooperation relies on mutual interests. From the Ethiopian government's point of view, there is the desire to replicate Chinese achievements in terms of agricultural and rural development and food security, generating great interest in learning from the Chinese experience. From the Chinese part, the aim is to strengthen China's outward economic development, including diversifying food supplies to ensure national food security, and supporting technical cooperation with Ethiopia in the agricultural sector (Alemu et al, 2015).

China's technical cooperation with Ethiopia has been in the form of organised in-country visits by agricultural and health experts who provide technical guidance to local people. China has also organised various seminars and training programmes for Government officials and technical personnel and provided scholarships for Ethiopian students to study in China.

2.5.2 China's major production capacity cooperation projects in Ethiopia

China's involvement in the Ethiopian industrialisation process is mainly through the provision of support for the establishment of special economic zones and transportation infrastructure; notably, the Eastern Industrial Zone and the Ethiopia-Djibouti Railway, mentioned earlier. China's production capacity

79 <https://www.credendo.com/country-risk-monthly/ethiopia/debt-sustainability-remains-largest-risk-mlt-political-risk-outlook>

80 http://www.xinhuanet.com/english/2018-08/31/c_137431710.htm



cooperation has also been growing rapidly. It has concentrated on the manufacturing sector - sugar mills, and glass, leather, textile and automobile factories – the Huajian Shoemaking Factory being the most well-known.

The Eastern Industrial Zone in Ethiopia opened in 2009. Located in Dukem, Oromia State, around 30 km south-east of Addis Ababa, the original plan was to establish a 5 km² zone operated by the Yonggang and Qiyuan Groups. Over time, the industrial park grew from the original 17 enterprises to 82; it has been estimated that 20,000 jobs could be created.⁸¹ As with most Chinese-backed SEZs in Africa, the Eastern Industrial Zone is 100% Chinese-owned, and is developed and operated by the Qiyuan Group, a China-based, privately-owned steel manufacturer. In addition to the provision of land at a favourable rate - one Ethiopian Birr (ETB) (around USD 0.05) per square metre per year for 99 years. The Ethiopian Government also agreed to provide all the necessary infrastructure outside the Zone and to cover 30% of the cost of the internal infrastructure. Furthermore, companies operating inside the Zone enjoy special benefits. For instance, they can retain an additional 10% of foreign exchange and they enjoy transportation discounts from Ethiopian state shipping companies.⁸² This is a remarkable commitment from Addis Ababa and demonstrates the Ethiopian Government's strong willingness to promote industrialisation. The previous Prime Minister, Meles Zenawi, was a strong proponent of industrialisation, taking his inspiration from the Asian late developers. It was during his leadership term that the details of the Eastern Industrial Zone were agreed, and Ethiopia embarked on a remarkable capital spending programme on large investments (around 15% of GDP) in infrastructure projects. The Zone initially focussed on the production of construction materials as well as light industries, including the production of pharmaceuticals, electronics, chemicals and leather. It gradually diversified, and now includes hotels and packaging materials manufacturing. It is estimated that around 80% of production is for exports.⁸³

In 2014, the Ethiopian Industrial Parks Development Corporation was established and since then it has been actively developing plans and implementing strategies for the development of a plethora of industrial zones across the country. The country's SEZs are mainly operated by the Government, with most decisions taken centrally. To date, five industrial parks have been constructed and another six are expected to be commissioned by the end of the 2018-19 fiscal year. Hawassa Industrial Park, inaugurated

81 Estimates vary according to sources, ranging from 11,000 to 20,000 jobs. A recent article also reports that the number of jobs created for Chinese nationals are less than a tenth of the jobs created for the local population (<https://www.dailymaverick.co.za/article/2019-02-04-ethiopias-industrial-parks-hard-yards-but-whats-the-alternative/>).

82 <https://en.businesstimes.cn/articles/101013/20180102/eastern-industrial-zone-landmark-ethiopias-industry-magic-brought-one-chinese.htm>

83 <https://www.dailymaverick.co.za/article/2019-02-04-ethiopias-industrial-parks-hard-yards-but-whats-the-alternative/>



in 2017, is now the largest Government-run industrial park; it cost USD 250 million and was built by the Chinese Civil Engineering Construction Corporation (CCECC). The first phase covers 1.4 km² and has 52 factory sheds, housing 20 textile and apparel firms from 11 countries. Overall, the Government has invested around USD 1.3 billion in the construction of the industrial park, as estimated by the Ethiopia Industrial Parks Development Corporation. Furthermore, Ethiopia plans to have around 30 operational industrial parks by 2025, as part of its efforts to make the country a light manufacturing hub and raise it to lower-middle-income economy status.⁸⁴

The Ethiopia-Djibouti Railway Line Modernisation project, also known as the Addis Ababa-Djibouti Railway, is the first modern, electrified railway line in East Africa. It connects landlocked Ethiopia to the Red Sea port of Djibouti, providing the former with faster and cheaper access to a main port, a long-term solution for increasing export commodities, reducing import costs and in general supporting industrialisation and people connectivity. The project is jointly owned by the Governments of Ethiopia and Djibouti and was built by the China Railway Group and China Civil Engineering Construction Corporation (CCECC) through an investment of USD 4 billion. The Ethiopian section of the line cost USD 3.4 billion, 70% from the Export-Import Bank of China and 30% from the Ethiopian Government; the Djibouti Government contributed USD 878 million. Construction of the railway began in 2011, finishing in October 2016; the inauguration took place in January 2018. The modernisation of the railway involved replacing the metre-gauge section with a 1,435 mm gauge line, and electrification at 25 kV. Designed to accommodate trains travelling at 120 km/h, the new line was constructed in compliance with Chinese electrified railway standards. It involved laying double track for the first 115 km from Addis Ababa to Adama, and single track for the remaining 600 km to Djibouti. The construction provided employment for approximately 20,000 local workers in Ethiopia and 5,000 in Djibouti. This project has been applauded by officials from both Ethiopia and Djibouti as an important tool for improving economic growth and regional integration. That said, several challenges had to be overcome, such as lighter than expected loads, electricity shortages, disruptions due to protests and lack of trunk lines to industrial zones, dry ports, and depots.

The Huajian Group's Ethiopian plant was established in 2011 as part of a 10-year, USD 2 billion investment plan to develop manufacturing clusters focused on shoemaking for export. The plan was financially supported by the China-Africa Development Fund (CADFund),⁸⁵ a private equity facility promoting Chinese investment in the continent. The Group produces shoes

⁸⁴ <http://www.globaltimes.cn/content/1134213.shtml>

⁸⁵ First announced in 2006 during the Forum on China-Africa Cooperation, CADFund was launched in June 2007 with USD 1 billion provided by the China Development Bank. It has now reached USD 10 billion.



for brands such as Guess and Calvin Klein and hopes to realise Ethiopian-produced exports of USD 4 billion within ten years.⁸⁶ It employs 25,000 workers in China, and anticipates it will generate around 30,000 jobs in Addis Ababa by 2022. The financial benefits associated with operating in an Ethiopian SEZ, such as cheap electricity and rentals, duty-free access to the US market through the African Growth and Opportunity Act (AGOA), and plentiful labour at cheap rates, are main reasons for choosing Ethiopia as a production location. Huajian's Ethiopian operation is a successful example of production cooperation, having made important contributions in building backward linkages in the leather value chain in the host country. The company now relies entirely on Ethiopian leather for its products. The ambition of Helen Hai, the Vice-President of Huajian Group, is to make Ethiopia a global hub for the shoe industry, supplying the African, European and American markets. "We are not coming all the way here just to reduce our costs by 10-20%" Ms. Hai noted, "Our aim is in 10 years' time to have a new cluster of shoemaking here. We want to build a whole supply chain ... I want everything to be produced here".⁸⁷

2.5.3 Major Chinese development cooperation projects in support of Ethiopia's industrialisation

China's development cooperation covers several different areas, predominantly infrastructure, energy supply, training and technical cooperation.

The Gotera Interchange Road project, the intersection of four main roads in Addis Ababa, was financed by Chinese investment in 2007. Before the Gotera Interchange Road was built, it was the busiest road in the capital with a daily traffic volume of nearly 80,000 vehicles, and was referred to as "confusing squares" by the locals. The Gotera project dramatically eased the traffic congestion problem in Addis Ababa and enhanced the image of the city.⁸⁸

The Ethiopia-China Agriculture Technology Demonstration Center (ATDC) project, supported by the Chinese Government, was constructed by Guangxi International Construction Engineering, while the technical cooperation was provided by Guangxi Bagui Agricultural Science and Technology. Located in Ginchi, 80 km west of Addis Ababa, the 0.52 km² Center was completed in April 2012, at a cost of USD 6.2 million, and opened in November 2012. The Center consists of demonstration farms and buildings, training rooms, a dormitory, greenhouses, livestock barns, a warehouse, post-harvest facilities and an aquaculture/reserve pond. The Centre's technical staff and

86 Ethiopia Investment Commission: <http://www.investethiopia.gov.et/index.php/stories/success-stories/210-huajian.html>.

87 The Guardian: <https://www.theguardian.com/global-development/2013/apr/30/chinese-investment-ethiopia-shoe-city>.

88 Interview with the Chinese embassy, 15-19 December, 2015.



support staff are Chinese.⁸⁹ Among its other initiatives, the ATDC promotes the planting of drought-tolerant rice which enables farmers to plant rice on a bi-annual basis rather than only during the annual rainy season. It also introduces and promotes new corn planting and mulching techniques utilised by a number of farmers. Between 2012 and 2015 nearly 700 local people were trained at the Centre.⁹⁰

The Ethiopia-China Polytechnic College in Addis Ababa is Ethiopia's first higher vocational education college. The Chinese Government financed the construction of the campus with an investment of over USD 14 million and handed it over to the Ethiopian Government in 2007. China's Ministry of Education assigned Tianjin University of Technology and Education the responsibility of providing technical cooperation and operational support. In 2011, the management and operation of the college was given to the Ethiopians. The college is now fully managed by the local faculty and has been upgraded to a graduate institute; it has become an important centre for providing a well-trained workforce. Student enrolment in the near future is expected to reach 3,000 per year.⁹¹

2.6 The challenges for Chinese investment in Ethiopia

2.6.1 Geopolitical risk

As Ethiopia's neighbours, Somalia, Kenya, Eritrea, and Sudan continue to struggle with internal conflicts – some of them with violent extremism – the risk of violent extremist influences affecting the country may increase. Ethiopia's involvement in peacekeeping and its large ethnic Somali population are added factors that could increasingly make it a potential target for terrorists and terrorist recruiters. The Government has expressed its concern about the terrorist activities in neighbouring states, especially given the growing strength of al-Shabaab and other terrorist organisations in the sub-region, which may increase the lure of violent extremism for susceptible youth.

2.6.2 Relatively uncompetitive business environment

Ethiopia currently ranks 159th out of 190 countries in the World Bank's 2019 Doing Business Report. Specifically, the country ranks 167th in starting business, 168th in dealing with construction permits, 131st in getting electricity, 144th in registering property, 175th in getting credit, 178th in protecting minority investors, 130st in paying taxes, 154th in trading across borders, 60th in enforcing contracts, and 148th in resolving insolvency. The average performance of Ethiopia in reforming its business environment is remarkable, however it is still far below the average level of global economies.

89 http://english.agri.gov.cn/news/dqnf/201601/t20160111_164522.htm

90 <http://www.doc88.com/p-9042852339923.html>

91 "Enabling with Education," *CHINAFRICA*, December 2015. Accessed 3 July, 2018 from http://www.chinafrica.cn/Special_Report/txt/2015-12/03/content_709249.htm



2.6.3 *Volatile currency and external debt sustainability*

According to recent data, foreign exchange reserves were approximately USD 3.4 billion by mid-2018, only enough to cover less than two months of imports. The low level of reserves has been a long-standing challenge for Ethiopia, which sources most of its goods from abroad. An additional risk factor is that current account receipts are highly concentrated, as the export of agricultural products, air passenger transportation and, most importantly, private transfers, provide the bulk of total export receipts. The decrease in foreign exchange reserves has been further exacerbated by international debt obligations related to previously-built infrastructure projects.⁹²

Foreign debt was estimated to have reached USD 26 billion at the beginning of 2019. According to IMF and World Bank data, Ethiopia is on an unstable debt sustainability path, assessed “to be at high risk of external debt distress ... due to a deterioration in export-related indicators” (IMF, 2018). Facing the pressure of paying back foreign currency debt and foreign exchange shortage, Ethiopia devalued its currency in 2017 to promote its exports: the Ethiopian Birr was devalued by 15% in one day, a severe shock to foreign companies. The volatility and uncertainty caused by this devaluation has now eased, but the currency remains overvalued and external liquidity buffers are too thin for its sustained defence. As such, currency risk remains fairly high, although lower than previous years, as a result of slow inflation rates.⁹³

2.6.4 *Lack of a skilled labour force*

The increasing investment by Chinese companies has generated a high demand for skilled workers and technicians in various industries, but there is a big gap in the local labour market. Companies must factor in training time and cost when hiring local staff, therefore Ethiopia’s vocational training needs to be improved, especially in the fields of science and mechanics.

2.7 **Points to Consider**

2.7.1 *Further support the sustainable development of infrastructure*

Considering Ethiopia’s challenges in improving its infrastructure, China could continue its support for building infrastructure in the country, with greater attention given to combining aid and other development finance. In addition, the sustainability of infrastructure projects needs to be considered seriously, in favour of more carefully conceived initiatives that address proven economic bottlenecks.

China can design targeted capacity-building initiatives for existing transportation infrastructure projects, such as providing support for the

92 <https://www.export.gov/article?id=Ethiopia-Foreign-Exchange-Controls>

93 <http://country.eiu.com/article.aspx?articleid=507574034&Country=Ethiopia&topic=Risk&subtopic=Credit+risk&subsubtopic=Overview>



construction of a state-level transportation university, focusing in particular on training senior engineers and promoting technological research and development for railways, roads and bridges. China could also further support Ethiopia through the establishment of railway technology training centres in the cities along the Addis Ababa-Djibouti Railway, training railway management personnel and skilled workers to sustain the management, maintenance and operation of the railway. Local employees currently receive training in a range of fields, from technology to management, however it is not known if this training will be enough for Ethiopia to be able to manage the railway by itself in six years' time.

2.7.2 Design comprehensive support for the industrial zones

To facilitate the Ethiopian Government's efforts to develop industrial zones, China can provide comprehensive support through experience sharing, capacity building and energy access support. China can invite officials from the Ethiopian Investment Agency, Industrial Parks Development Corporation and other relevant departments and provinces, to visit China to learn from China's experiences in developing industrial zones. China could also arrange for experts to visit Ethiopia to provide policy recommendations and technical guidance to Ethiopian partners on how to address specific challenges. This type of exchange programme can also be extended to cover a wider range of relevant areas, including customs, tax, inspection and quarantine, to improve Ethiopia's export capacity.

Considering the energy supply issues in Ethiopia's industrial zones, China could also consider using concessional loans to support both energy supply improvements and power grid upgrades in the SEZs. Finally, based on the successful example of the Huajian shoemaking company's collaboration with the CADFund, the Fund could increase its involvement in the SEZs by providing financial incentives to bridge the gap to access financing locally.

2.7.3 Facilitate human resources development

First, China can support Ethiopia in developing further vocational training to address the shortage of skilled workers. The training courses could cover textile and other light industries, mechanical engineering, automobile repair, architectural engineering and agricultural products processing, targeting the main manufacturing sectors the country is currently developing. The Chinese Government could also renovate the private-public partnership (PPP) model to run vocational colleges, encouraging large Chinese investment companies operating in Ethiopia to provide teaching staff, or internship opportunities for college students, training them as future potential employees.

Second, China could expand its scholarship programme for Ethiopian students, especially for those pursuing mathematical and engineering majors,



where studying in China provides an educational advantage.

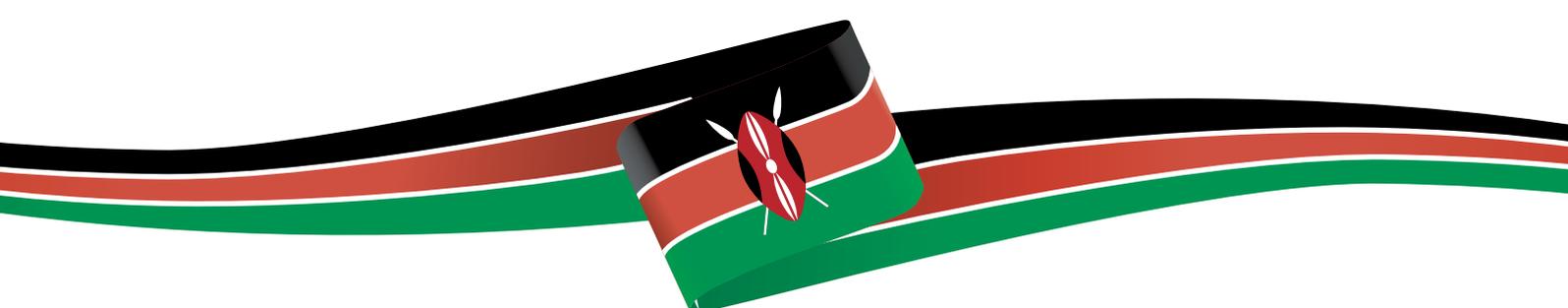
Third, China could support collaboration between Chinese and Ethiopian universities and think-tanks, for joint research on industrialisation, or for in-country programmes on economics, trade and relevant technical areas, to promote mutual exchange and learning among the academia.



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CHAPTER 3 Kenya

3.1 Country profile

Kenya is the economic, financial, and transport hub of East Africa. It has the second largest economy in the region after Ethiopia, and a relatively smaller population, just under 51 million in 2018. It is a member of the East African Community (EAC), the Common Market for Eastern and Southern Africa (COMESA) and has signed and ratified the AfCFTA.

Kenya's real GDP growth has averaged over 5.6% for the last ten years and reached USD 178 billion (PPP) in 2018 (World Bank). Growth stood at 5.6% in 2019 (IMF), backed by a combination of easing of political uncertainties, improved business confidence, and strong private consumption. 2020, though, is likely to see a sharp slowdown, if not a contraction, in growth, owing to severe disruption to the global and domestic economy caused by the COVID-19 pandemic. The Government plans to continue fiscal consolidation to stabilise public debt. Kenya's fiscal deficit fell to 6.7% of GDP in 2018 from above 10% in 2017, with the share of Government spending in GDP falling to 23.9% from 28.0% in 2017 (AfDB, 2019). Furthermore, prudent monetary policy has helped reduce inflation, which fell to 4.7% in 2018 (World Bank). Kenya's strategic geographic location, sea access, opportunities for private investors, the discovery of oil, gas, and coal, along with the continued exploration for other minerals, further support the country's positive economic outlook.

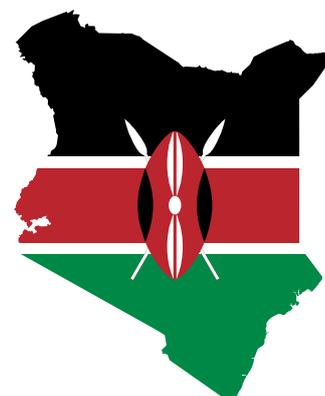
Respectively, agriculture, industry and services account for 34.2%, 16.4% and 42.7% of Kenya's economy in 2018 (World Bank). Agriculture is still the backbone of the economy, with rain-fed, small-scale farming and livestock production being the main output. In 2017, the sector employed at least 56% of the total labour force; it is also responsible for most of the country's exports, accounting for up to 65% of the total (World Bank). Such dependence on agriculture, however, puts the economy at risk of adverse climate situations.

Kenya is one of the most industrialised countries in East Africa, with the country largely self-sufficient on small-scale domestic consumer goods.



The World Bank ranks it 61st in its 2019 Doing Business Report, placing it third after Mauritius and Rwanda in sub-Saharan Africa. Its main industries include small-scale consumer goods, agricultural products, horticulture, oil refining, aluminium, steel, lead, cement, commercial ship repair, tourism, and information technology. The private sector is well developed by sub-Saharan and regional standards and takes the lead role in the Kenyan economy.⁹⁴ The country's growing economy has generated an expanding middle class bringing with it an increased consumption rate and a keen interest in entrepreneurial activities. Kenya's industrialisation foundation is relatively solid compared to sub-Saharan African standards. Kenya leads East Africa in the business-enabling environment since it has a relatively higher degree of marketisation, convenient financial services without foreign exchange control, and a reasonably comprehensive legal system, with a series of laws and regulations issued during the past few years, which have enhanced its regulatory and supervisory system. In 2010, Kenya started a new wave of political reform, including the new constitution that introduced a bicameral legislative house, devolved county government, and established a constitutionally-tenured judiciary and electoral body. Devolution is considered the biggest gain, introducing a new political and economic governance system. It is transformative, it promotes greater investments at the grassroots level, and it strengthens accountability and public service delivery at the local level.

In terms of infrastructure, Kenya has the largest port in East Africa – the Port of Mombasa, with railways connecting the hinterland to the coast. The transportation network extends to the surrounding areas and is used to export domestic products, as well as goods from Uganda, Tanzania, Burundi and Rwanda by providing access to the sea. Furthermore, the Lamu Port-South Sudan-Ethiopia project (LAPSSET) will open a new corridor, increasing trade opportunities in the region. Kenya is also regarded as one of East Africa's aviation hubs – home to Kenya Airways, among the top three African airlines, and with plans underway for new terminal projects and the expansion of the Jomo Kenyatta International Airport. Moreover, the country's information communications technology is one of the fastest growing business sectors, and Internet access rates are some of the highest in sub-Saharan Africa. Kenya recently recorded 43 Internet users per 100 inhabitants, well above the other economies analysed in this report (AfDB's African Infrastructure Knowledge Program). Kenya has taken a leading position in Africa in providing the best financial services through the promotion of mobile banking - around 82% of Kenyans have financial accounts.⁹⁵ Energy supply, on the other hand, is not so advanced. The lack of a reliable electricity supply and relatively high electricity prices are among the major constraints to economic growth. However, Kenya



94 AfDB and the Government of Kenya. 2013. The State of Kenya's Private Sector.

95 <https://www.businessdailyafrica.com/datahub/Mobile-lifts-Kenya-account-holders-82-pc/3815418-4677292-11we2n5z/index.html>

is rapidly expanding its geothermal power capacity. Taking advantage of its geographic location in the Great Rift Valley, the share of geothermal energy has risen to 50% of total electricity generation.

Challenges to development and industrialisation persist. Despite significant investments, inadequate infrastructure continues to hamper the country's efforts to improve growth. Weak governance and corruption are often mentioned as adversely affecting business opportunities. Despite being a lower middle-income economy since 2014, Kenya has yet to fully address the social challenges of poverty, inequality, the skills gap between market requirements and the education system, climate change, low investment and low productivity, to achieve rapid and sustained growth rates. Reliable data is scarce, but estimates show that unemployment and under-employment are extremely high, up to 40% of the population. Poverty has declined, but remained at 36.1% in 2015-16, down from 46.6% in 2005-06.

3.2 Actors and priorities of Kenya for industrialisation

3.2.1 Major actors and policy strategies

In Kenya, a number of government departments are engaged in formulating industrialisation policies and promoting industrial development. The Ministry of Devolution and Planning oversees national development planning and economic policy management.⁹⁶ The Ministry of Industry, Trade and Cooperatives is the main ministry responsible for promoting industrialisation and enterprise development. Its key tasks are the formulation and implementation of industrialisation and cooperative policy, private sector development policy and strategy, and the development of industrial standards and control quality.⁹⁷ The Kenya Investment Authority (KenInvest) is a statutory body, established in 2004 through an Act of Parliament, which has the main objective of promoting investments in Kenya. It is responsible for facilitating the implementation of new investment projects, providing after care services for new and existing investments, as well as organising investment promotion activities both locally and internationally.⁹⁸ The Kenya Special Economic Zones Authority is responsible for designing, approving, establishing, developing, operating, promoting and regulating SEZs. It also issues licences and implements the Government's policies and programmes.⁹⁹ The Kenya Export Processing Zone Authority also contributes to Kenya's industrialisation by promoting and facilitating export-oriented investments and developing an enabling environment for such investments.¹⁰⁰ The Kenya National Chamber of Commerce and Industry advocates a favourable commercial, trade and

96 <https://www.kenyans.co.ke/government/ministry-devolution-planning>, Accessed June 25, 2018

97 www.industrialization.go.ke

98 <http://invest.go.ke/who-we-are/>

99 <http://invest.go.ke/special-economic-zones/>

100 www.epzakenya.com/



investment environment that supports enterprise expansion.¹⁰¹

Kenya *Vision 2030*, the country's development programme from 2008 to 2030, aims to transform Kenya into a “newly industrialising, middle-income country providing a high quality of life to all its citizens by 2030 in a clean and secure environment”. *Vision 2030* targets industrialisation as the engine of future economic development and serves as the overarching policy for growth. The objective of the Economic Pillar of *Vision 2030* is to create a robust, diversified and competitive manufacturing sector and to increase the share of the manufacturing, industrial, and export sectors in three ways: 1) boosting local production, 2) expanding to the regional market, and 3) taking advantage of global market niches.¹⁰² As part of the *Vision 2030* strategy, every five years the Government releases a medium-term plan.

Since the 1990s, Kenya has been privatising state-owned enterprises, and gradually opening up industries that allow foreign investment. To attract foreign direct investment, the Kenyan Government not only issued the Foreign Investments Protection Act (most recently revised in 2009), it also introduced other measures, such as cancelling export licencing, reducing import tariff rates, repealing foreign exchange control, and establishing Export Processing Zones and Special Economic Zones. The legal system is relatively complete, with more than 30 Acts and regulations protecting investors' interests. For example, the Investment Promotion Act was introduced in 2004 and most recently revised in 2014, and the Special Economic Zones Act was issued in 2015.

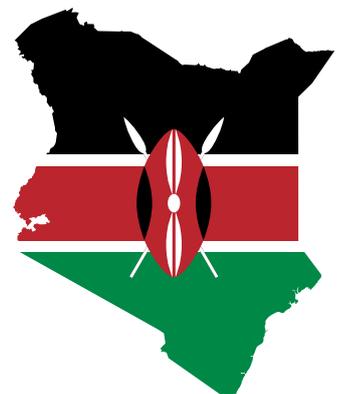
In July 2015, the former Ministry of Industrialization and Enterprise Development developed the Kenya Industrial Transformation Programme, identifying the following strategy to capture development opportunities for industrialisation: 1) launch sector-specific flagship projects in agroprocessing, textiles, leather, construction services and materials, oil and gas and mining services and IT-related sectors that build on Kenya's comparative advantages; 2) develop Kenya's SMEs by supporting promising entrepreneurs and businesses and building capabilities with model factories; 3) create an enabling environment to accelerate industrial development through industrial parks/zones along infrastructure corridors, technical skills development, and support to infrastructure and ease of doing business.¹⁰³

In 2017, the Government outlined four priorities for the next five years (2018-2022), also known as the “Big 4”: food security and agricultural productivity, affordable housing, manufacturing, and universal health coverage. To support

101 www.kenyachamber.or.ke/

102 Kenya (former) Ministry of Industrialization and Enterprise Development. 2015. Kenya's Industrial Transformation Programme.

103 Ibid.



manufacturing, efforts will be directed at job creation, a stable macroeconomic environment, ease of doing business, the establishment of industrial enclaves, technology adoption, and regional integration (World Bank, 2018).

3.2.2 Industrialisation priorities

Fostering industrial clusters

Several new industrial zones have emerged with support from international development banks. Examples are the Port of Mombasa Imported Food Processing Zone, local food processing zones in Kisumu, Mero, Galana, Nakuru and Kwale, the Lamu fishery-processing zones, the Naivasha Textile Industry Cluster, and the Machakos Leather Industry Cluster. Kenya also approved the free-trade zone in Mombasa and is planning to establish free-trade zones in Kisumu and Lamu. These clusters are paralleled by efforts in regional integration.

Emphasising targeted industries

Most of the targeted industries of Kenya's industrial development and transformation plan are labour-intensive, capitalising on the country's burgeoning population, especially its youth population.

- **Agroprocessing:** Kenya intends to increase the processed/raw product ratio in its agricultural industry. One of the measures being introduced is to utilise the strategic location of the Port of Mombasa to establish a "food hub".
- **Fisheries:** Kenya hopes to establish a fishing port to further develop its fish processing industry.
- **Textiles and apparel:** considered major growth drivers of Kenya's industrial exports.
- **Leather:** Kenya has one of the largest livestock herds in Africa, which is currently under-utilised.
- **Construction materials and services:** another major contributor to Kenya's GDP and formal employment and one of the fastest-growing sectors.

Alongside the above, oil, gas and mining services, IT and tourism are also included in the *Vision 2030* strategy plan.

Developing enabling factors

The Kenyan Government is looking at upgrading investment foundations and enabling factors for industrialisation, such as electricity, transportation infrastructures, ICT, and government service streamlining facilities, such as one-stop shop service delivery centres. Emphasis is also being placed on preventing corruption and improving governance and accountability, deepening public sector reforms and strengthening the capacity of county governments as well as coordination between the latter and the national government. In addition, the Government is seeking to develop micro, small



and medium enterprises, which currently employ 14.9 million Kenyans and contribute 28.8% to Kenya's GDP.¹⁰⁴

3.3 Needs and gaps in Kenya's industrialisation

Insufficient infrastructure

The World Bank estimates the Kenyan infrastructure financing deficit to be USD 2.1 billion annually. Almost USD 4 billion per year is required to meet the country's infrastructure needs. Despite having relatively better infrastructure than its peers, improvements are required to ensure a stable and sufficient electricity supply; a transportation infrastructure covering roads, railways, aviation and ports; an industrial clusters infrastructure, such as infrastructure and logistics for special economic zones, food processing zones, free trade zones, and one-stop shops; and an ICT infrastructure.

A lack of skilled labour

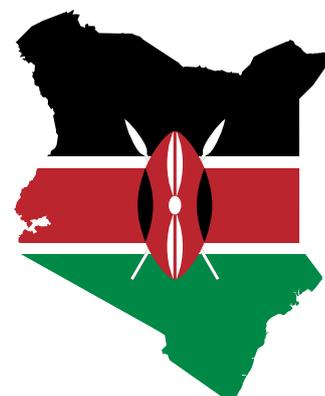
According to a report by the World Economic Forum, 30% of the Kenyan workforce have inadequate skills, negatively affecting productivity and efficiency. Many sectors report issues with a lack of skilled labour, despite the expanding population base that provides Kenya with the potential for accelerated growth. This inefficient labour market fuels the unemployment rate¹⁰⁵ and undermines the Government's efforts to fight poverty and generate prosperity. Furthermore, weak linkages between industry and training institutions, and a large informal sector are further exacerbating labour issues.

Negative trade balance

In 2018, Kenya exported USD 6 billion and imported USD 17.4 billion, resulting in a negative trade balance of USD 11.3 billion (UN COMTRADE). As a member of EAC and COMESA, Kenya enjoys benefits from many preferential trade policies in the region, in Europe and in the United States, but the share of manufactured exports to GDP has yet to be increased. Persistent negative trade deficits endanger macroeconomic stability, generating significant external imbalances and diverting financial resources from domestic economic development.

3.4 Development Cooperation by Major Development Partners in support of Kenya's Industrialisation

The United States was the largest Kenyan development partner in terms of ODA in 2017, followed by IDA, AfDB, the UK and Japan. Kenya received USD 2.5 billion in net ODA from members of the OECD Development Assistance Committee. Around half of this development assistance is for health and social initiatives and economic infrastructure and services (OECD).



104 Kenya (former) Ministry of Industrialization and Enterprise Development. 2015. Kenya's Industrial Transformation Programme.

105 <http://theconversation.com/kenya-has-a-massive-skills-gap-how-it-can-fix-the-problem-91170>

In particular, the World Bank provides support for Kenya's industrialisation through energy capacity development and private sector development. The World Bank Group envisages an investment of USD 1 billion a year, through its different agencies. Examples of their initiatives include the USD 457.5 million Kenya Electricity Modernization Project, approved in 2015. The total amount includes an IDA credit of USD 250 million, an IDA Guarantee of USD 200 million and a USD 7.5 million grant from the Strategic Climate Fund's Scaling Up Renewable Energy Programme for Low Income Countries. It is estimated that over 630,000 Kenyans will benefit from having access to electricity.¹⁰⁶ In 2018, the World Bank Group approved an additional USD 180 million IDA Guarantee to mobilise private sector financing to strengthen the financial position of the Kenya Electricity Generation Company Limited (KenGen) and build energy security.¹⁰⁷ The World Bank is also working to promote Kenyan entrepreneurship. The Kenya Industry and Entrepreneurship Project, which began in May 2018, is designed to increase innovation and productivity in selected private sector firms. Its aim is to improve the survival and growth rates of technology-enabled start-ups through a stronger innovation and entrepreneurship ecosystem and talent base, to strengthen the productivity and internal capabilities for innovation in SMEs, and to provide the resources for evaluation, dissemination and learning through which to facilitate expansion (World Bank, 2018b).

UNDP is also assisting the Kenyan Government with both policy development and capacity building to facilitate and design investment strategies. With UNDP's support, KenInvest finalised and launched the National Investment Policy to guide and support local and international investment. UNDP has also partnered with the Kenya National Chamber of Commerce and Industry and the Ministry of Devolution and Planning to provide skills development assistance for County Business Development Centre members in the management of business centres, which serve as one-stop shop facilities to empower SMEs at the county level (UNDP, 2018).

The USA supports Kenya's industrialisation by promoting trade, encouraging development credit, and supporting power generation capacity. USAID works alongside the Kenyan Government to increase their trade capacity, enabling them to take greater advantage of the AGOA and other global trade initiatives. It has also developed a practical tool to identify profitable opportunities within value chains, and to assist banks and microfinance institutions to design financial products that address the specific needs of microenterprises in the agricultural value chain. In the last five years, the programme catalysed over USD 29 million in local capital for agriculture,

106 <http://www.worldbank.org/en/news/press-release/2015/03/31/world-bank-kenya-scale-up-electricity-access-strengthen-kplc-finances-service-delivery>, accessed 25 June, 2018

107 <http://www.worldbank.org/en/news/press-release/2018/04/26/kenya-world-bank-approves-180-million-to-support-energy-sector>, accessed 25 June, 2018



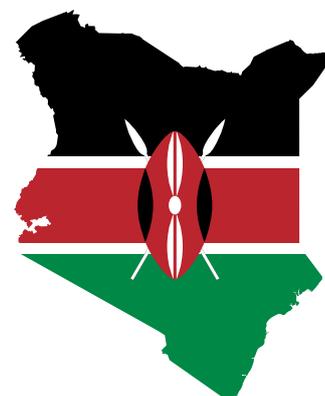
energy, water, sanitation, hygiene, and health.¹⁰⁸ USAID's Power Africa programme is helping Kenya develop its electricity generation capacity through financing, grants, technical assistance, and investment promotion. It is working to mobilise more than USD 1 billion in private investment to accelerate geothermal and wind projects. Central to the work of Power Africa/Kenya is the Grid Management Support Program, which provides technical assistance to address the key challenges of integrating intermittent renewable energy into the national grid. The Program has four components: (1) renewables integration study, (2) systems operations gap analysis, (3) training and twinning with utilities with significant wind power penetration, and (4) revising the transmission and distribution grid codes. Power Africa/Kenya is also seeking to use innovative solutions such as the USAID Development Credit Authority to connect rural Kenyans to the electricity grid, supporting small on-grid power generation projects, as well as projects that provide off-grid and mini-grid solutions for small communities. It has already awarded eight USD 100,000 grants for projects as part of the Power Africa Off-Grid Challenge.¹⁰⁹

Japan is another major international player in Kenya's industrial development and the Japanese Government is involved in a range of projects. On electricity access, JICA provides assistance for power generation improvement, focusing on geothermal power and the extension of transmission systems with neighbouring countries to realise the Power Pooling Initiative in East Africa. JICA also conducts training programmes for SME exporters. Additionally, JICA is becoming more involved with transportation infrastructures, supporting the improvement of transportation networks within the Nairobi Metropolitan Area and the development and improvement of regional infrastructure.¹¹⁰

3.5 China's Production Capacity Cooperation with Kenya

3.5.1 Brief overview of Sino-Kenyan relations

China and Kenya established diplomatic relations on 14 December 1963. The two countries signed their first trade agreement in 1978, the first Investment Protection Agreement in 2001, and established a Joint Committee on Bilateral Trade, Investment, and Economic and Technological Cooperation in March 2011. The two countries also signed an agreement on cultural cooperation in September 1980, and a protocol on cooperation in higher education in 1994, through which China provided teaching and scientific instruments for Egton University and sent two teachers to join the faculty. In 2005, China established the first Confucius Institute in Africa, at the University of Nairobi, followed by three more in Kenyatta University, Egton



108 <https://www.usaid.gov/kenya/economic-growth-and-trade>

109 USAID. Power Africa in Kenya. <https://www.usaid.gov/powerafrica/kenya-factsheet>, Accessed June 28 2018

110 <https://www.jica.go.jp/kenya/english/activities/activity01.html#a01>

University and Moi University. In December 2003, China listed Kenya as a self-financed tourist destination for Chinese citizens. In 2005, Kenyan Airlines opened a direct flight from Nairobi to Guangzhou, and in August 2015, China Southern Airlines opened direct flights from Guangzhou to Nairobi.

In recent years, bilateral trade volume has increased significantly, and China is now Kenya's largest trading partner. In 2018, the bilateral trade volume was USD 5.4 billion, recording a year-on-year increase of 3.3%. China's exports to Kenya averaged USD 5.4 billion annually between 2015 to 2018, peaking at USD 5.9 billion in 2015. The value of China's imports from Kenya is modest, averaging USD 134 million between 2015 and 2018 (CARI). China mainly exports mechanical and electrical products, textiles and garments, and imports ore and leather, black tea and other agricultural products. In terms of FDI, Kenya recorded an average inflow from China of USD 246 million in the five years to 2017, with a peak of USD 410 million in 2017. Chinese FDI stock in Kenya rose to USD 1.5 billion in 2017 (CARI). Finally, China has carried out some major development assistance projects including, but not limited to, Gatundu Hospital, Moi International Sports Centre, Ganboji-Salem Highway and a number of corn flour processing plants.

3.5.2 China's major production capacity cooperation projects in Kenya

China has become Kenya's largest source of foreign direct investment and the largest resource for project contracting companies. 400 Chinese firms are now active in Kenya operating in various sectors, such as real estate, finance and agriculture.¹¹¹ China's production capacity cooperation with Kenya focuses mainly on transportation and clean energy.

Transportation infrastructure. The Mombasa–Nairobi Standard Gauge Railway (SGR) is a landmark project of China-Africa production capacity cooperation. The railway is about 480 km long and the construction work, which began in November 2013, was completed 18 months ahead of schedule. The railway became officially operational on 31 May 2017. It cost USD 3.2 billion and was financed by preferential export buyer credit and commercial loans from the Export-Import Bank of China.¹¹²

This is the first new railway and the biggest construction project since Kenya's independence. It was built by the China Road and Bridge Corporation, which also provides operational oversight, maintenance services and personnel training. In the first half of 2018, the SGR shipped a total of 45,000 containers. To enhance production collaboration, foster local development and reinforce economic linkages with the local community, the project attaches great importance to local participation and ownership. All the cement for the

111 http://www.xinhuanet.com/english/2018-12/01/c_137642744.htm

112 <https://mp.weixin.qq.com/s/tf30tp4hfrolGJqYK68k8w>. Accessed 25 June 2018

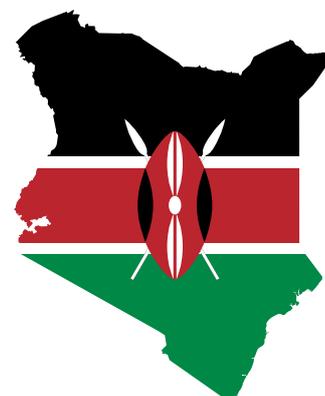


SGR was supplied by Kenyan businesses, the railway cars were made in Kenya, over 25,000 Kenyans were employed and trained, more than 300 local companies participated through subcontract cooperation, 33 crossing stations, as well as bridges and tunnels, were added to reduce the impact on wildlife, and the National Land Commission had to double its budget for compensation.¹¹³ The SGR's direct and indirect impact on GDP was significant, estimated at around 1.5%, providing opportunities for local industries to develop.¹¹⁴

Kenya is a transit country for raw materials and other goods from East Africa; Mombasa is one of the major ports of the area. The Mombasa-Nairobi SGR and the other SGR lines under construction (the Nairobi-Maraba line, being built by China Communications Construction Co., Ltd., and the East Line of Uganda Railway, being built by China Harbour Engineering Company Ltd.), together with the port and railway services, are expected to invigorate the logistics industry throughout East Africa, increasing the efficiency of transportation to the hinterland, and benefitting the economic development of the entire region.

In December 2017, the Nairobi's Inland Container Depot, constructed by China Road and Bridge Corporation, began operations. During his speech at the opening of the Depot, President Kenyatta stated that "the high speed, high capacity and efficient Standard Gauge Railway network will serve as an important link between the Port of Mombasa and the Inland Container Depot. Cargo will not only move up and down the line, to and from the port for export, it will also present opportunities for employment and wealth creation for our people across the various counties...[Kenya] expect[s] a seamless clearance, evacuation, and movement of cargo that will enhance the operations of the shippers, freight forwarders and other transport players in the sector.... From a regional perspective, the SGR freight train will reduce the cost of doing business across the East African Region. This is a critical anchor to the core priority of [Kenyan] Administration to build stable, inclusive and sustainable socio-economic development."¹¹⁵

Clean energy is the second major area of Chinese investments in Kenya. According to the Kenyan Government's forecast, by 2030 the country's total installed capacity for power generation will need to reach 15,000 MW. Geothermal power is the first choice for improving the power structure,



113 Rebekka Rumpel, 2017. Chatham House. Lessons from Kenya's New, Chinese-funded Railway. <https://www.chathamhouse.org/expert/comment/lessons-kenya-s-new-chinese-funded-railway>

114 <https://mp.weixin.qq.com/s/tf30tp4hfrolGJqYK68k8w>. Accessed 25 June 2018

115 Speech by President Uhuru Kenyatta during the launch of the new ICD, 16 December 2017. <http://www.president.go.ke/2017/12/16/speech-by-his-excellency-hon-uhuru-kenyatta-c-g-h-president-and-commander-in-chief-of-the-defence-forces-of-the-republic-of-kenya-during-the-launch-of-the-new-inland-container-depot-icd-icd-com/>. Accessed 25 June, 2018

increasing the power supply and reducing electricity prices. Moreover, it supports the Government's efforts towards ensuring access to affordable, reliable, sustainable and modern energy for all (SDG 7). Kenya's high-temperature geothermal resources are rich, of excellent quality and yet to be developed. According to World Bank estimates, the potential geothermal resources range from 4,000-7,000 MW.

Recognising Kenya's vast potential for clean energy, Chinese companies have been providing support for geothermal power production for over a decade. The China National Petroleum Greatwall Drilling Corporation has been conducting geothermal drilling in the Okari region since 2007, including the highest production geothermal well in Africa, with a depth of 3,000 m,¹¹⁶ meanwhile the Sinopec International Petroleum Service Corporation has been involved with the construction of pipelines. The Export Import Bank of China has provided support for these projects with preferential export buyer credit and concessional loans.

3.5.3 Major Chinese development cooperation projects in support of Kenya's industrialisation

The geothermal projects mentioned above are partly financed by concessional loans. Chinese concessional loans have also supported a number of power grid renovation improvement projects in the areas of Giesch and Choblu,¹¹⁷ for the reconstruction of 132 kW lines and substations, the provision of power transmission equipment and overhead transmission line materials, rural power grid renovation, the purchase of 200,000 wireless gateways and intelligent network systems, SDH equipment, microwave equipment, and base station control equipment, to help Kenya realise rural telemedicine, distance education, e-commerce and e-governance. China has also provided grants to support the construction of new roads, such as the Thika highway,¹¹⁸ road repairs, and municipal road reconstruction.

As with elsewhere in Africa, China actively supports education and vocational training. For instance, in 2010, China's AVIC International Holding Corporation signed an agreement for about USD 30 million to establish technical and vocational laboratories across Kenya. During the first phase of the project, about 15,000 Kenyans received training, and the company estimates that around 1,500 teachers and 150,000 students will be trained in the second phase, scheduled to end in 2020.¹¹⁹ In 2017, Chinese Huawei announced the launch of a regional training centre, to facilitate the transfer of technical skills to the local population.¹²⁰ Finally, available data suggests that 2,400

116 <http://news.cri.cn/gb/42071/2014/10/19/6891s4732531.htm>. Accessed 25 June 2018

117 <http://www.ztwj.cn/ArticleDetail.aspx?ID=205> . Accessed 25 June 2018

118 <http://ke.mofcom.gov.cn/article/waimao/201103/20110307423943.shtml> . Accessed 25 June 2018

119 http://www.xinhuanet.com/english/2017-10/05/c_136660329.htm

120 <https://businesstoday.co.ke/huawei-opens-training-centre-nairobi/>



Kenyan students are currently studying in China and, in 2017, 169 Kenyans received Chinese scholarships and are also now studying in Chinese cities and universities.¹²¹

3.6 The challenges for Chinese investment in Kenya

3.6.1 Public sector inefficiency and corruption

Corruption, an inefficient public sector and a slow judicial system are perceived to be the major factors restricting Kenya's economic development. Kenya ranked 144th (out of 180 countries) in the 2018 Global Corruption Perception Index. Chinese companies complain the common phenomenon of power rent-seeking in the public procurement sector, making the establishment of enterprises and market access particularly difficult. However, the Government's public sector reform has brought significant changes in the quality of services offered by government institutions. Kenya was selected by the UN Economic Commission of Africa as the first country to test a pilot project, known as Huduma Halisi (Honest Public Service), with the purpose of increasing public engagement in the anti-corruption fight.¹²²

3.6.2 Security concerns

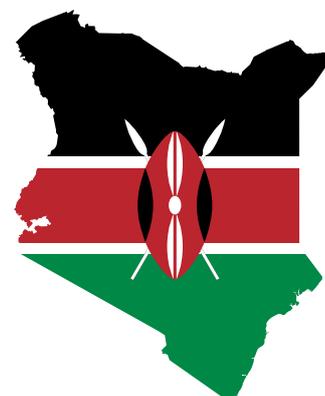
Terrorist attacks have shaken investor confidence in Kenya. As neighbouring countries, such as Somalia and Sudan, are still in a state of civil strife, the risk of terrorist attacks and related illegal arms trading is a real concern. Kenya's social stability is also threatened by high unemployment rates, regional separatist forces, tribal conflicts and frequent public security incidents.

3.6.3 Unstable Government macro-economic fundamentals

Increased financial pressure poses a risk for maintaining a stable business environment. According to World Bank data, the stock of external debt (% of GNI) has seen a positive trend since 2008, up to 35.7% in 2017. High debt obligations have raised questions about the Government's ability to meet them. Indeed, although infrastructure spending will provide support for Kenya's future production and economic growth, it has weakened the country's macro-financial situation in the short to medium term. Furthermore, decentralisation reforms have increased fiscal pressures, especially following the decentralisation of power, and problems now exist with the rationalisation of expenditures and the cross-cutting functions of the Government at all levels.

3.6.4 Stringent environmental protection standards

Kenya is home to the United Nations Environment Programme and the concept of environmental protection is deeply rooted in people's minds. The new constitution stipulates that enjoying a healthy environment is the inalienable right of every citizen. The vision of "supporting economic development with a



121 <https://www.universityworldnews.com/post.php?story=20180907083412817>

122 <http://www.chinadaily.com.cn/a/201901/25/WS5c4a6bfaa3106c65c34e67ad.html>

healthy environment and realising poverty reduction” has also been explicitly written into the *Vision 2030* plan (Government of Kenya, 2007). However, given the country’s lack of capacity, weak governance, implementation challenges and limited knowledge about best practices, Kenya’s environmental protection standards are perceived not as a comparative advantage but as an additional cost of doing business in the country, not matched by adequate returns on investments.

3.6.5 A challenging import structure

Part of the capacity cooperation strategy between China and Africa is to promote China’s exports. However, the imbalance in China-Kenya trade has raised concern. Unlike other major trading partners, such as the UK and India, China mainly exports light industrial products, some in competition with Kenya’s export industry. This is generating a certain level of misunderstanding and distrust towards China and Chinese products, exacerbated by a lack of familiarity with the Chinese market by local market players.

3.7 Points to Consider

3.7.1 Continue providing support for an expanded clean energy capacity

First, continue to encourage enterprises to invest in geothermal drilling and power station construction and operation projects with concessional loans. Compared with commercial loans, the use of concessional loans can significantly reduce the national electricity price.¹²³ This would be a strong response to the urgent demand of the Kenyan Government to use clean energy to solve its power shortages, to promote industrial development, and to improve people’s livelihoods, and is in line with China’s development assistance priorities. The Sino-Kenyan partnership on clean energy could also be used as a best practice for achieving SDG 7 in other countries, a landmark pilot for sustainable development to be presented at various global events.

Second, China could suggest and help with the design of the joint development of geothermal resources and industrial parks, taking advantage of the geographical proximity and potential linkages between geothermal development and industrial parks. Chinese support should be given throughout the project lifetime, from planning to operation and incorporate knowledge transfer initiatives.

Third, through the integration of geothermal development and steam power generation projects, China could formulate projects covering upstream exploration, downstream power generation, and equipment manufacturing technologies all in one package. To maximise the impact, joint projects between Chinese enterprises and local companies could be initiated, to enable Kenyan businesses to acquire geothermal, full-industry chain technologies to

123 Enterprise calculation from interviews in Nairobi, 9-12 December 2015.



drive down costs and upgrade technology and knowledge.

3.7.2 Provide intellectual support for SEZs

First, China could support industrial park planning. The experience and knowledge gained from the success of its own industrial parks, SEZs, and free trade zones could be transferred to the Kenyan Government through planning activities. Advice on industrial park planning and feasibility studies could be provided through the incountry visits of senior policy advisors and expert teams, the organisation of twoway exchange visits, and joint research. Meanwhile, China could also provide support for the construction of industrial park infrastructure and one-stop shops for attracting investment. Such exercises could focus on the construction of new industrial parks along the SGR, together with the five new parks planned by the Kenyan Government in Naivasha, Lamu, Kisumu, Eldoret and Nakuru.

Second, China could help Kenya design a national, overarching framework for industrial park development, including the reclassification of “old” industrial areas, the formulation of investment promotion systems, the establishment of a national investment database and information release platform, which would enable direct communication between local provinces and cities, industry associations, and enterprises in China, further opening the door for potential investment opportunities.

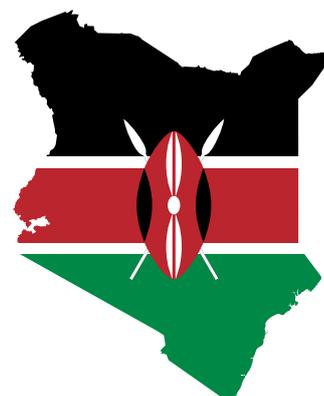
3.7.3 Human resources training for industrialisation

It has been suggested that the training of Kenyan personnel should focus on engineering technologies. China could increase the number of training opportunities and scholarships in accordance with Kenya’s actual needs and the key areas of Chinese investment. Targeting industries such as petrochemicals, construction, minerals, and ICT, would provide a sustainable talent pool for Kenya’s industrialisation efforts. In line with this, collaboration with key departments in the Ministry of Industry, Trade and Cooperatives, and Ministry of Labour should be strengthened.

In terms of training professionals, emphasis should be placed on sharing best practices and management skills, in sectors like leather, textile and food processing, where Kenya already has a comparative advantage but where its relatively low productivity level could benefit from improvement strategies. Such training could be conducted in collaboration with the National Industry Training Bureau at existing training centres.

3.7.4 Facilitate better bilateral trade structures

Given the challenging import structure discussed above, production capacity cooperation support measures could help mitigate current challenges, and help Kenya’s production capacity to increase by expanding the overseas



markets. Specifically, China could:

- Boost its aid for trade to promote Kenyan exports, through building Government capacity in areas such as customs inspections and port transportation facilities. Lengthy bureaucratic procedures and red tape should be reduced to increase the speed of customs clearance for goods and reduce the cost of trade for enterprises.
- Support exhibitions, visit tours, joint research, the formation of trade exchange committees, etc., to help Kenya's relevant authorities and business councils understand and explore the Chinese market.
- Support Kenya's development of a targeted policy for Kenya-China cooperation to strategically utilise China's vast market.



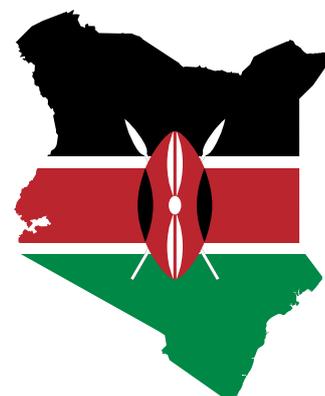
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CHAPTER 4 Zambia

4.1 Country profile

Zambia is a Southern African country and a member of the Southern African Development Community (SADC) and the Common Market for Eastern and Southern Africa (COMESA). Zambia has also signed but has yet to ratify the African Continental Free Trade Area agreement, which came into force in May 2019.

Following years of volatile growth performance, since the end of the 2000s the country has experienced consistent, positive growth. From 2000, the Zambian economy has grown at an average rate of 6% per year, higher than the sub-Saharan Africa average of 4.5%. The peak was recorded in 2010 when GDP rose by 10.2%, it then dropped to 2.9% in 2015, partly due to falling copper prices. Following a modest recovery, growth slowed again in 2019, down to 1.5% from 4.0% in 2018 (IMF). GDP will likely contract by 3.5% year-on-year in 2020 as the commodity price shock from the coronavirus pandemic depresses copper exports, while gradually resume, alongside copper price, in coming years (IMF, 2020). Beyond cyclical factors, the AfDB identified debt sustainability as a key risk to macroeconomic stability and sustainable development, with Zambia classified as being at “high risk of debt distress”. As a percentage of GDP, debt rose to 61% in 2016 from 25% in 2012. In 2018, domestic debt reached an estimated 20% of GDP and external debt 39.2% of GDP (around USD 10 billion). The World Bank estimated Zambia’s external debt stocks to GNI ratio at 65.3% in 2017, down from 75.8% the previous year, but well above the 20.5% recorded in 2010. China has come to Zambia’s assistance a few times. In 2001, China wrote-off USD 48 million of Zambia’s debt, which accounted for 30% of the maturing debts owed to China. In February 2007, China wrote-off a further USD 12.5 million of debt and, in January 2011, China’s Ministry of Commerce announced the cancellation of 50% of the Tanzania-Zambia (TAZARA) Railway¹²⁴ debt.¹²⁵

124 The TAZARA Railway, also called the Uhuru Railway or the Tanzam Railway, links the port of Dar es Salaam in east Tanzania with the town of Kapiri Mposhi in Zambia’s Central Province. The single-track railway was constructed between 1968 and 1976 with Chinese technical and financial support. It is 1,860 km long and is now operated by the Tanzania-Zambia Railway Authority. The estimated cost was around USD 400 million.

125 <http://news.21cn.com/hot/focus/a/2012/0807/04/12591127.shtml>.



As with other African countries, Zambia's rapid economic growth has not translated into an equally fast-growing per capita income or significant poverty reduction. Between 2000 and 2018, Zambia's GDP per capita growth averaged 3.1%, slower than its economic growth.¹²⁶ Most of its 17 million people still live in poverty; despite being lower than the 60% recorded in the mid-2000s, Zambia's poverty incidence was still at 54.4% in 2015. Over the same period, the rural poverty rate decreased only slightly, from 78% to 76.6% (Zambia, 2017). Statistics also show that Zambia's GINI index increased from 55.6% in 2010 to 57.1% in 2015, pointing to widening inequality in the country (World Bank). Categorised as a lower middle-income country since 2010, Zambia has remained one of the world's least developed countries since 1991. Zambia is expected to graduate in 2025 (UNCTAD, 2016).

In terms of economic structure, between 2000 and 2018 the contribution of the agricultural sector to Zambia's total GDP declined from about 16.2% to only 2.6% (World Bank). However, the agricultural sector employs around 84% of the working population and is characterised by low levels of productivity, investment and technology (Zambia, 2017). During the same period, industry's share of the total GDP increased from 23.2% to 36.3%, with the share of manufacturing declining slightly from 9.5% in 2000 to 8.5% in 2018 (World Bank).

Zambia boasts some of the world's largest copper reserves and, together with the Democratic Republic of the Congo, is one of the largest copper producers in Africa, ranked 7th globally (2019 United States Geological Survey). Mining accounts for 12% of GDP with the Zambian economy largely dependent on primary commodity exports; exports of raw copper and refined copper accounted for 47% and 27% of the total respectively in 2017. Meanwhile, manufacturing exports accounted for only 12%. China is Zambia's biggest export destination, followed by Switzerland, India and South Africa (UNCTAD).

Zambia's dependence on copper exports makes it vulnerable to international commodity price fluctuations. According to UNCTAD's concentration index, the Zambian economy scored 0.67 in 2017, up from 0.5 on average between 2000 and 2005, indicating that the country's exports have become less diversified.¹²⁷ The 2016 Zambia Human Development Report notes that one major impediment to Zambia's industrialisation is the so-called "Dutch disease" (UNDP, 2016b).

¹²⁶ In the same period, population grew 2.8% per year on average (World Bank).

¹²⁷ As a comparison, in 2017, the concentration of exports index average for lower middle-income countries was 0.08, while for sub-Saharan Africa countries the average was 0.27.



4.2 Actors and priorities of Zambia for industrialisation

4.2.1 Major actors and policy strategies

In Zambia, the Ministry of National Development Planning is responsible for coordinating the activities of the various stakeholders involved in the national development plan, coordinating public investments, and conducting the monitoring and evaluation of national development programmes. The Ministry of Commerce, Trade and Industry is the principal government body responsible for developing policies related to industrialisation and investment promotion. Under the latter, the Zambia Development Agency was established in 2006 as a semi-autonomous institution to facilitate the promotion of trade, investment and enterprise development. Alongside these two major ministries, the Ministry of Finance provides economic and financial management. Other ministries, such as the Ministry of Agriculture, Ministry of Energy and Ministry of Mines and Minerals Development, are also involved and contribute to industrial development in their own domains. Finally, the Industrial Development Corporation is a Government-owned investment company. Established in 2014, it is one of the key implementing agencies promoting Zambia's industrial capacity development and job creation, focusing on agriculture, tourism, infrastructure and manufacturing. A number of business associations are also involved in Zambia's industrialisation programme. For instance, the Zambia Chamber of Commerce and Industry is the overarching business association, promoting production activities and providing services to businesses. Other major associations include the Zambia Association of Manufacturers and the Economics Association of Zambia.

Since the early 2000s, the Zambia Government has initiated a series of important development strategies that provide guidance for industrial development; the major ones include: *Vision 2030*; the Commercial, Trade and Industrial Policy (2008); the Strategy Paper on Industrialisation and Job Creation (2013); and the Zambia Development Agency Strategy (2016-2020). In 2018, the Zambian Government presented the National Industrial Policy and its implementation plan, formulated with UNDP support. The aim of the Policy is to accelerate the industrialisation agenda from its current level to 20% of GDP by 2028, through the growth of the manufacturing sector.¹²⁸ Finally, the National Productivity Policy should be finalised in 2019. Its objective is to enhance competitiveness, improve living standards and accelerate economic growth (KPMG, 2019).

4.2.2 Industrialisation priorities

Economic diversification

Zambia has abundant mineral resources, in addition to copper, and resources in agricultural and energy; most have yet to be tapped. To encourage

128 <http://www.daily-mail.co.zm/implement-industrial-policy/>



diversification, the main regulatory framework, *Vision 2030*, was developed in 2006. The aspiration is to develop a “diversified, balanced and strong industrial sector, a modern agricultural sector and an efficient and productive services sector” (Zambia, 2006). *Vision 2030* is operationalised through the implementation of NDPs. The 7th NDP (2017-2021) reiterates the country’s need to diversify and become more resilient to external shocks, “creating a diversified and resilient economy for sustained growth and socio-economic transformation driven, among others, by agriculture”. It focuses on Zambia’s comparative advantages - its abundance of renewable and natural resources, and its competitive position in tourism, greenhouse farming, forestry and fisheries. It seeks to achieve five key development outcomes: 1) economic diversification and job creation; 2) poverty and vulnerability reduction; 3) inequality reduction; 4) human development enhancement; and 5) a conducive governance environment for a diversified and inclusive economy.

It is suggested that Zambia’s economic diversification should be viewed on two levels.¹²⁹ The first is diversification within each sector. For instance, within the mining sector, the country wishes to develop other minerals besides copper, such as industrial minerals and gemstones. In the agricultural sector, the potential exists to diversify crops and develop fishery and livestock resources. In the energy sector, there is a demand for developing alternative energy sources such as solar energy and coal, in addition to the hydropower which currently accounts for 93% of Zambia’s energy supply (2017 estimate from the CIA World Factbook). The second level of economic diversification is to move the entire economy away from copper mining.

Economic diversification beyond copper mining

The Zambian Government has already identified many priority sectors for development that go beyond mining, such as agriculture, tourism, manufacturing, energy and infrastructure development (Zambia, 2013; 2016; 2017).

Zambia’s agricultural sector is still the primary source for job creation and poverty reduction. The country has abundant natural resources to support agricultural activities, such as land, water and fertile soils. Building on this, the Government wishes to establish linkages downstream to develop the agroprocessing sector. This, in turn, could be a catalyst for the development of engineering industries for the manufacture of agricultural equipment, and chemical industries for fertiliser production and other required chemicals. To this end, the Government embarked on a farm block model of development, creating farm blocks of up to 1,500 km² for large-scale agribusiness investment, to diversify agricultural products and attract private capital. The

129 Interview with Zambian Government officials and development partner representatives, 17-21 July 2017 in Lusaka, Zambia.



idea is to have large agricultural areas where basic infrastructure in power and water supply will be prioritised and supplied by the Government,¹³⁰ where economies of scale can be better exploited (Zambia, 2005), agroprocessing facilities created, and out-grower schemes for smallholders designed to support their inclusion in the value chain.

A part of the 2006 Zambia Development Agency Act, the Zambian Government is pursuing the Multi-Facility Economic Zones (MFEZs) initiative, as an important part of the strategy to promote industrialisation¹³¹ and to increase the share of manufacturing in the economy (UNDP, 2016b). Currently, four MFEZ areas and two industrial parks have been established. Chambishi MFEZ mainly focuses on the mining industry, while Lusaka East, Lusaka South and Lumwana seek to promote the development of the manufacturing sector. The two industrial parks are the Sub-Sahara Gemstone Exchange Industrial Park and the Roma Industrial Park, which focuses on residential housing, commercial, retail and light industrial developments. The Government has, however, reported a slow uptake, particularly in the former.¹³² Overall, investments in the MFEZs amount to over USD 1.6 billion, with the Chambishi Zone accounting for USD 1.5 billion in infrastructure and investments (Zambia Development Agency).

Private sector development and value addition

Private sector development and value addition are major cross-sectoral tools for boosting industrialisation. The Zambian Government recognises their importance, especially in the agricultural, mining and tourism sectors (Zambia, 2008a; 2016; 2017), however two main obstacles block their development: the informal economy and foreign investment crowding out domestic players. Zambia has a large informal economy, primarily in agriculture (Zambia, 2013). The Micro, Small and Medium Enterprise (MSME) Development Policy, issued in 2008, noted that most of Zambia's enterprises were MSMEs and 90% of them were informal. As such, they have limited access to markets, technology, machinery and financing solutions. Policies to promote the formal sector have been ineffective so far. The lack of linkages along value chains, the private sector's lack of capacity to contribute to value addition and to upgrade, exacerbated by the informal economy's constraints, are often quoted as persistent challenges for Zambia, and add to the Government's budget deficit while also hampering the provision of public goods services.¹³³

Second, agriculture, mining and tourism are dominated by foreign

¹³⁰ Ibid.

¹³¹ Interview with Zambian Government officials, 17-21 July 2017 in Lusaka, Zambia.

¹³² <http://zm.one.un.org/commerce/economic-zones/>

¹³³ Interview with Zambian Government officials and development partner representatives, 17-21 July 2017 in Lusaka, Zambia.



investments which crowd out local MSMEs, given their larger-scale operations. To tackle this challenge, the Zambian Government is encouraging joint ventures between local businesses and foreign investors so that local elements can be integrated into global value chains and be enhanced by knowledge and technology transfer. The local private sector should then be able to gradually build up its production capacities. For example, Zambia now allows small-scale miners to cooperate with foreign mining companies to promote the transfer of relevant skills and technology.¹³⁴

4.3 Needs and gaps in Zambia's industrialisation¹³⁵

4.3.1 *Lack of skills and technology*

The issue of limited skills and technology is evident at two levels. At the policy-making level capacity needs to be strengthened for planning, implementation and monitoring. At the operational level, there is a shortage of technical skills and know-how.

Chinese investors find it difficult to recruit locally for positions requiring higher skills and technological knowledge. Especially at the initial investment stage, many Chinese companies prefer to bring skilled Chinese workers to Zambia. Meanwhile, compared with other African countries, the minimum wage standards required by the Zambian Government translate into relatively higher labour costs for investors.

Overall, the mismatch between demand and supply in the labour market, coupled with the lack of mechanisation, best practice knowledge and technology, results in low production, particularly in those sectors characterised by small-scale local production, such as agriculture and mining.

4.3.2 *Limited financial access*

The lack of financing and access to credit remains a challenge in Zambia. The borrowing rate for SMEs from local commercial banks can be as high as 30%,¹³⁶ which makes it extremely difficult for SMEs to access much-needed finance. Furthermore, loans to SMEs are regarded as high risk by local banks as well as by international financial institutions, which further increases the financial difficulties of SMEs.

4.3.3 *Limited infrastructure*

Zambia's lack of infrastructure is a key challenge. As a landlocked country, imports and exports depend heavily on the railway or highway connections between Dar es Salaam in Tanzania or Durban in South Africa, leading to higher product costs. The Government, stakeholders, development partners

¹³⁴ Ibid.

¹³⁵ Ibid.

¹³⁶ Interview with Zambian Government officials and development partner representatives, 17-21 July 2017 in Lusaka, Zambia.



and Chinese investors all highlight the need for more infrastructure to improve total-factor productivity (TFP).

An estimated 40% of the core road network remains in maintainable condition while 60% requires critical rehabilitation (Muya, et al., 2017). For the MFEZs, the poor irrigation, power grids and road infrastructure have been major impediments to their development. For example, the road connecting Sinoma Industrial Park to the main road is in poor condition and requires more investment from the company itself. Meanwhile, Lusaka East MFEZ has had to invest heavily in infrastructure upgrade, raising questions about its own financial sustainability.¹³⁷ The electricity infrastructure system is in “immediate and urgent need for major rehabilitation and expansion” (Muya, et al., 2017). Access to electricity was as low as 47% in 2012, and only 5.8% in rural areas. Zambia also trails its peers in terms of ITC infrastructures, with only 17.3 per 100 inhabitants able to access the Internet (AfDB).

Finally, the managerial and operational capacity for the maintenance and upgrading of existing infrastructures is limited. Even the landmark TAZARA railway experienced major hurdles from the outset - financial problems, capacity issues, limited operational knowledge, controversy, and the overall failure of the local government to ensure maintenance – all testing the viability of the project.

4.3.4 *Underdeveloped enabling environment*

Research and innovation are a cross-cutting area that Zambia is seeking to strengthen. There is demand for thorough research and well-developed information systems to provide background evidence for policymaking and demand for more capacity building focusing on innovation.

In the agricultural sector, the link between research and extension is weak: new technology and knowledge should be made more easily accessible for extension workers¹³⁸. The lack of skills and technology, financing, and infrastructure has led to high production costs, making local firms less competitive compared to their counterparts from other countries (Zambia, 2008a). It was indicated that, on average, Zambian goods cost 23% more than those from other parts of Africa.¹³⁹

According to some, the Zambian Government’s policies for protecting workers against poor working conditions¹⁴⁰ impose strict labour regulations, such as minimum wage and pension contributions, which is detrimental to business,

137 Interview with representatives from Chinese enterprises operating in Zambia, 17-21 July 2017 in Lusaka, Zambia.

138 An extension worker helps farmers increase the productivity of their farms and improve their living standards.

139 Interview with development partner representatives, 17-21 July 2017 in Lusaka, Zambia.

140 For a more detailed summary: <https://blogs.worldbank.org/jobs/labor-regulation-zambia-finding-right-balance>



further negatively affecting production costs and competitiveness.¹⁴¹

It was also suggested that most companies prefer not to source locally, due to the lack of quality and consistency of local supplies.¹⁴² To protect local MSMEs and foster economic linkages, in 2017 the Zambian Government announced the Local Content Initiative that requires the use of at least 35% of local inputs and labour for industrial processes (KPMG, 2019).

Finally, weak governance, corruption and lack of coordination among different government institutions are often listed as additional obstacles to the country's development.

4.4 Development Cooperation by Major Development Partners in support of Zambia's Industrialisation

Available data shows that Zambia has significantly reduced its dependency on external aid over the past two decades. Its net official development assistance to gross national income ratio dropped from almost 30% during 1992-1994 to around 5% during 2012-2014 and down to 4.1% in 2017 (UNCTAD, 2016). *Vision 2030* aims to free Zambia from donor dependence, although development partners still provide important support for the development agenda (Zambia, 2006; 2016). OECD statistics report net ODA at just above USD 1 billion in 2017, following two years of smaller official disbursement assistance. In 2017, the largest development partner in terms of gross disbursements was the United States, with USD 432 million. The Global Fund, IDA, the European Union and the United Kingdom followed with much lower amounts at just around USD 100 million each. 62% of 2016 and 2017 ODA was directed to health and population, with less than 20% for production, infrastructure and services.

The work of the UN system is divided into 11 results groups in line with the UN Sustainable Development Partnership Framework (UNSDPF).¹⁴³ The UN Agencies mainly provide policy and technical support and UNDP is the lead Agency in Zambia, supporting local content, local value chain development, access to markets, MSMEs and resource sector growth. For instance, with financial support from the EU and coordination by the African, Caribbean and Pacific Group of States (ACP), UNDP has been implementing a

141 Interview with development partner representatives, 17-21 July 2017 in Lusaka, Zambia

142 Interview with representatives of development partners and Chinese enterprises operating in Zambia, 17-21 July 2017 in Lusaka, Zambia.

143 The UN Strategic Partnership Framework includes inclusive social development; environmentally sustainable and inclusive economic development (programmatic); and governance and participation (policy). The inclusive social development pillar has six results groups (health; HIV/sexually productive health; social protection; food security; nutrition; water and sanitation). Environmentally sustainable and inclusive economic development has two results groups (environment and inclusive economic development). Governance and accountability have three results groups (data and accountability; participation; and human rights).



“Development Minerals” project that builds the capacity of small-scale private sector companies operating in low-value minerals and materials, including construction materials, dimension stones, industrial minerals and low-grade metals.¹⁴⁴

The World Bank focuses mainly on infrastructure development, which makes up 60% of the Bank’s portfolio. Agriculture and private sector development account for 10% and 8%, respectively. There are 14 World Bank projects currently under implementation in Zambia, totalling USD 1.2 billion.

The AfDB programmes cover six major sectors, with transport accounting for the largest share (47%), followed by agriculture (14%) and energy (14%).

The European Union supports energy (50.4% of disbursements), agriculture (22%) and governance projects. Its agricultural projects focus on improving productivity, food security, and smallholder and government capacities (EU, 2016).

USAID and UN agencies such as the International Fund for Agricultural Development (IFAD), target the agricultural sector. USAID projects aim to increase agricultural productivity, expand markets and trade, and strengthen the resilience of vulnerable households, focusing on smallholders and value chains. IFAD has 16 ongoing projects, totalling USD 263 million, that promote smallholder productivity and agribusiness through the provision of loans.

Private sector development is primarily supported by Finland, through the financing of a private sector development plan focused on start-ups and youth (Finland, 2016). Finland has also expressed its interest in working with Zambia to establish the country’s fourth MFEZ, which will focus on iron ore value addition.¹⁴⁵

4.5 China’s Production Capacity Cooperation with Zambia

4.5.1 Brief overview of Sino-Zambian relations

China and Zambia have enjoyed a long history of mutual exchanges and maintained stable bilateral relations over the past five decades. On 29 October 1964, Zambia became the first Southern African country to establish diplomatic relations with China. Since then, the friendly and cooperative relationship has continued to grow, signalled by frequent high-level visits. In March 2015, Zambian President Edgar Lungu visited China and during his meeting with Chinese President Xi Jinping, the latter called on the two countries to increase experience sharing on national governance and

144 ACP-EU project document, 2014. Available from: <http://www.zm.undp.org/content/zambia/en/home/library/poverty/project-document---acp-eu-development-minerals-programme.html>

145 Interview with development partners, 17-21 July 2017 in Lusaka, Zambia.



deepen cooperation in areas including infrastructure construction, mining, agriculture, processing and manufacturing, investment and trade. In 2018, the two Presidents met again ahead of the FOCAC meeting, once more stressing the long-standing relationship and calling for further collaboration.

Development cooperation has long been an important part of China's overall cooperation with Zambia, which started soon after diplomatic relations were established. In terms of development cooperation modalities, complete projects have been the main form of China's development cooperation in the country. China has supported Zambia on numerous construction projects, including factories, government buildings, gymnasiums, hospitals and schools. China has also provided goods and materials for the improvement of agriculture, manufacturing, energy and health care. As for technical cooperation, China has sent agricultural and health experts to provide in-country technical guidance to local people. In addition, it has run a variety of seminars and training programmes for government officials and technical personnel and provided scholarships for Zambian students.

In recent years, business cooperation between the two countries has expanded rapidly, with China increasing its investment in various sectors. The Chinese Embassy in Zambia estimates that, as of 2015, over 500 enterprises had benefited from Chinese investment, in mining, agriculture, manufacturing and infrastructure development; a cumulative investment of over USD 3 billion, resulting in 50,000 jobs.¹⁴⁶ In 2017, new investment capital from China amounted to USD 305.8 million, and the accumulative investment stock totalled USD 3 billion. Zambia is the third largest destination for China's foreign direct investment in Africa, after South Africa and the Democratic Republic of the Congo (CARI).

In terms of trade, in 2018 Zambia was the 11th largest trading partner of China, but the 6th largest import source country among African countries. The total trade volume between the two countries was USD 5 billion in 2018, significantly higher than the previous five-year average of USD 3.3 billion. Exports to China rose to USD 4.1 billion in 2018 while imports were USD 970 million (CARI).

4.5.2 *China's major production capacity cooperation projects in Zambia*

Established in 2007, the Zambia-China Economic and Trade Cooperation Zone (ZCCZ) is the first Chinese Overseas Economic Cooperation Zone in Africa. It comprises two separate zones, the Chambishi Multi-Facility Economic Zone (MFEZ) and the Lusaka East MFEZ. The ZCCZ is developed and managed by the state-owned company, China Nonferrous Metal Mining Group (CNMC), through its Zambian subsidiary, ZCCZ Development Limited.

146 <https://newafricanmagazine.com/10213/>



CNMC is one of China's largest non-ferrous metal mining and processing companies with overseas operations in Asia, Africa and Latin America. Chambishi MFEZ is adjacent to the Copperbelt-Lusaka highway and has a single-track, narrow-gauge railway connecting the CNMC's copper investment in Chambishi to the TAZARA Railway. The aim of the Zone is to promote the whole mining value chain, with operations focusing on copper mining and smelting, mining equipment and services, construction vehicles and materials, chemicals, logistics and banking. To date, 41 enterprises have invested in the Zone.¹⁴⁷

The Lusaka East MFEZ, which covers 5.7 km² of land, was established in June 2010 as an extension of the ZCCZ. Until 2017, only 0.3 km² had been developed,¹⁴⁸ however, in 2018, the Chinese Government announced a USD 30 million grant to upgrade the electricity supply, increasing Chinese involvement in the MFEZ and supporting China-Zambia industrial capacity cooperation and the country's industrialisation process. The Zone is located 25 km north-east of Lusaka's city centre, and is adjacent to the Lusaka International Airport. It aims to attract investment in the processing and manufacturing industries, logistics and real estate. Today it hosts 10 companies operating in the fields of agriculture, agroprocessing, construction and materials, pharmacy and shoemaking. Compared with the Chambishi MFEZ, the number of resident companies remains small and far from CNMC expectations.¹⁴⁹ One of the Zone's big enterprises is Zambia Jihai Agriculture Company Limited, which is backed by investment from the Chinese Overseas Jilin Agricultural Investment and Development Group. It produces and processes more than ten tons of mushrooms per week for the domestic, South African and Tanzanian markets and plans to expand exports to the Middle East and Europe.

The ZCCZ has been an important source for local employment, with the two MFEZs combined creating an estimated 8,000 jobs.¹⁵⁰ In accordance with the Zambian Government's regulation that for every working visa a foreign company must create eight local jobs, the Jihai Agriculture Company employs more than 200 local workers and around 30 Chinese.¹⁵¹

The Sinoma Building Materials Industrial Park (Sinoma Industrial Park) is another large Chinese investment project in the production capacity field. Financed by investment from the Sinoma International Engineering

147 http://www.xinhuanet.com/english/2019-03/23/c_137918141.htm

148 Interview with representatives of Chinese enterprises operating in Zambia, 17-21 July 2017 in Lusaka, Zambia.

149 Ibid.

150 http://www.xinhuanet.com/english/2019-03/23/c_137918141.htm

151 Interview with representatives from Chinese enterprises operating in Zambia 17-21 July 2017 in Lusaka, Zambia.



Company Limited and the local ABC Company, which holds 15% of the shares, construction on the Sinoma Industrial Park began in October 2015. The total planned investment is USD 500 million and is divided into two phases. The first phase included the opening of a cement plant in June 2018, shortly before the official opening ceremony of the CNBM-Zambia Industrial Park, on 26 July 2018. The overall planning for the two-phases of the Park is divided into three parts. The first is the basic material park, which focuses on cement production, aggregate, commercial concrete, sintered brick, cement products, calcium silicate board and other products. The second is the building material science and technology park; predominantly for the production of other high-tech building material and for attracting foreign investment. The third is the building materials trade park; a marketplace for Zambia's in-demand building materials, such as glass, steel and gypsum board. During the construction period, Sinoma Industrial Park employed around 1,200 staff, half of them local. Once the Park is fully completed, it will employ more than 400 local workers, while the number of Chinese staff will be reduced to around 60 from the current 170, mainly in management and technical support roles.¹⁵² The company also plans to send selected local technical staff to Sinoma's Zimbabwe branch for training, and to reach entirely local employment after 2-3 years of operation.¹⁵³ In early 2017, as part of its social responsibility commitments, the Sinoma Industrial Park constructed a clinic and a large, fully-equipped school for the local community.

Marcopolo Tiles Limited is a more recent Chinese investment, established to meet the local and regional market demand for building materials. The company started production in September 2017, with an initial investment of USD 35 million.¹⁵⁴ It has set up a modern kiln with a production capacity of 10,000 sheets of 60cm² porcelain tiles per eight-hour shift and a laboratory for top quality ceramic, porcelain and marble production. As the equipment being used is more technologically-advanced in art and design than its predecessors, the management is offering operational training to Zambians workers and engineers. Meanwhile, the company has already set up sales points in the Democratic Republic of Congo, Malawi, Botswana, Mozambique, Namibia, Tanzania, Zimbabwe, Angola and South Africa. These activities are highly appreciated by the Zambian Government, as they support economic diversification, job creation and government revenue.

4.5.3 Major Chinese development cooperation projects in support of Zambia's industrialisation

During the 1970s to 1980s, China directly financed the construction of a number of factories in Zambia, such as the Majani Garment Factory, the Gray Textile and Dyeing Factory and the Chingola Corn Flour Mill; this

¹⁵² http://www.chinafrica.cn/Homepage/201901/t20190111_800153979.html

¹⁵³ Interview with representatives from Chinese enterprises operating in Zambia 17-21 July 2017 in Lusaka, Zambia..

¹⁵⁴ <https://www.daily-mail.co.zm/tiles-manufacturing-plant-set-to-open/>.



support gradually ended following Africa's privatisation wave in the 1980s. However, economic infrastructure construction remains a major part of China's development cooperation and provides the basis for industrialisation. China supported the construction of the TAZARA Railway, the Lusaka-Kaoma and Solwezi-Mansa roads, the dam for the Kariba hydropower station, and the Chambishi bridge. China also helped upgrade the Mbala-Nakonde and Mansa-Luwingu roads and the expansion of the Lusaka International Airport.¹⁵⁵ Among these, the TAZARA Railway is a landmark project, which also represents one of China's largest foreign aid projects since the founding of the People's Republic of China in 1949. It is the main transportation mode for landlocked Zambia to export its copper. Over the past four decades, the railroad's existence has helped boost agricultural production and urbanisation along its route. Besides infrastructure construction projects, China has also provided goods and materials to support Zambia's industrialisation, including tracks, cargo and equipment for quarrying.

China's technical cooperation and support started in 1975, with the establishment of the TAZARA training school, following completion of the railway project. A team of Chinese experts provides ongoing in-country training and technical guidance for local workers on the operation and maintenance of the railway. Each session of the training programme usually lasts two to three years with the 15th session now underway. In addition, the Chinese Government has invited many Zambian officials and technicians to China to participate in training programmes covering a wide range of areas.¹⁵⁶ In recent years, China has provided around 400 training opportunities and 100 scholarships to Zambia on an annual basis.¹⁵⁷

Agriculture is the other main focus for technical cooperation. The China-Zambia Agricultural Technology Demonstration Center (ATDC) was established in 2009.¹⁵⁸ The ATDC is operated and managed by Jilin Agriculture University of China, in partnership with the University of Zambia, and coordinates educational programmes, scientific research and technical training. The ATDC has organised breeding and high-yielding cultivation technique demonstrations for Zambia's major crop varieties, such as maize and wheat. These techniques have been approved by the Zambian National Accreditation Programme, and have led to important progress in scientific research and in support of the country's agricultural production.¹⁵⁹ As ATDCs are designed in a way that leads to self-sustainable development, China's

155 <http://zm.mofcom.gov.cn/article/jmxw/201705/20170502580436.shtml>.

156 Interview with Zambian Embassy officials, 12 July 2017 in Beijing, China.

157 Interview with officials from the Zambian Government and the Chinese Embassy in Zambia, 17-21 July 2017 in Lusaka, Zambia.

158 The ATDC has a 1,484 m² training building, a 755 m² farm shed, and a 528 m² warehouse.

159 China's Ministry of Commerce website: <http://www.mofcom.gov.cn/article/summary/n/201605/20160501313796.shtml>



aid funding only supports the construction phase and the first three years of technical cooperation, after which the ATDCs must be transferred to the local government and self-sustained through market-based operations. The China-Zambia ATDC is therefore required to maintain its training and technical demonstration activities, however ensuring the financial sustainability for this is challenging. It is now mainly funded by Jilin Agriculture University and through farming revenue. The Center is also exploring cooperation opportunities with the Gates Foundation for a breeding programme for local chicken species.¹⁶⁰ Early in 2019, China announced its plan to fund the construction of three milling plants, one of which would be a demonstration plant attached to the ATDC and would train an estimated 200 local technicians each year.¹⁶¹

4.6 The challenges for Chinese investment in Zambia

Chinese investors and other stakeholders list the weak infrastructure and lack of a skilled labour force as the main obstacles to doing business in Zambia. However, other challenges also exist.

4.6.1 *Complicated coordination among different government institutions*

The Zambia Development Agency is responsible for regulating the development of investment and economic zones. Its mandate is to align and streamline the regulations and procedures of different government agencies and ministries. Despite its full commitment, implementation has been challenging. According to the Agency, a “one-stop shop” was established to enable investors to register businesses more quickly, but according to Chinese enterprises this service is not yet operational.¹⁶² It generally takes a long time for investors to understand the investment regulatory requirements of different ministries and to obtain the correct licences. While, the 2019 World Bank Doing Business Report ranks Zambia 87th, 6th in sub-Saharan Africa, the country ranks particularly poorly in terms of registering property (150th) and enforcing contracts (130th).

4.6.2 *The communication gap between Chinese and Zambian partners*

Among the African countries, Zambia has one of the longest relationships with China. Despite this, many Chinese investors are unfamiliar with the local culture and/or do not speak English fluently, which makes it hard for them to integrate into the Zambian community, affecting the long-term development of their investment.¹⁶³ Misunderstanding and miscommunication have

160 Interview with representatives of Chinese enterprises operating in Zambia, 17-21 July 2017 in Lusaka, Zambia.

161 http://www.xinhuanet.com/english/2019-04/18/c_137988314.htm

162 Interview with representatives of Chinese enterprises operating in Zambia, 17-21 July 2017 in Lusaka, Zambia.

163 Interview with representatives of Chinese enterprises operating in Zambia, 17-21 July 2017 in Lusaka, Zambia.



sometimes led to conflicts with local staff. However, according to a number of Chinese managers, this situation is improving. The recruitment of Chinese management staff with international expertise and capable of handle the language gaps and cultural differences has been an important factor behind this improvement.¹⁶⁴

4.7 Points to Consider

4.7.1 Continue providing support for infrastructure construction

Zambia's weak infrastructure is one of the main obstacles to the country's industrial development. It is recommended that the Chinese Government continues to use aid or mixed finance to support Zambia's infrastructure development, including transportation, energy and agriculture-related infrastructure. Direct support for road connections between industrial parks and main roads should be considered a priority. Since a large number of infrastructure project activities are financed through loans from China, the economic sustainability of these projects and the Zambian Government's repayment capacities should be carefully considered. Finally, enhancing transparency around lending conditions would help smooth the relationship with the locals and address questions and mistrust issues related to Chinese financing.

4.7.2 Strengthen capacity building and training at both the policy and technical levels

China has accumulated extensive industrialisation and technology experience in a variety of sectors, which could be shared with Zambia through the expansion of capacity building and training programmes. Indeed, Zambian officials are keen to learn from China how best to develop industrialisation strategies and how to implement them at the operational level. By itself and in collaboration with international institutions, China could support the design of national plans and industrial policies, both itself and in collaboration with international institutions. Technical support could be provided through in-country training programmes on policy formulation or through hosting study-tours for Zambian officials. The provision of further training on practical skills and technologies in agriculture, mechanics, mining, and renewable energy is also important for Zambia's industrial development. China could therefore consider increasing the number of scholarships allocated to Zambian students to enhance its talent pool. Moreover, China could encourage the Zambian Government to expand current capacity building and training opportunities to include more provincial level officials and technical staff and to include more women.

4.7.3 Build up research and innovation capacity

A number of Zambian government departments have identified research and

¹⁶⁴ Ibid.



innovation as a vital but weak component of Zambia's industrial development and have suggested capacity building for Zambian research institutes. China could therefore consider supporting joint research programmes between Chinese and Zambian universities, think-tanks and labs. The secondment of Zambian researchers or scientists to counterpart Chinese organisations could also be a good way to improve research and technological capacities in identified fields.

4.7.4 Innovate financial instruments for private sector development

China has introduced quite diversified financial tools to support China-Africa joint ventures, including the China-Africa Development Fund, special loans for African SMEs and the China-Africa Production Capacity Cooperation Fund. Since most of the Zambian Government's departments and enterprises have little knowledge of these various instruments, it would be helpful if information on these funds was more widely disseminated. Meanwhile, China's development cooperation could complement these funds by supporting project feasibility studies, training local entrepreneurs, and providing technical assistance for joint ventures. This would help soften the debt burden and reduce the risk to the funds themselves.

4.7.5 Strengthen government-to-government communication

To lessen the challenges faced by Chinese investors, the Chinese Government and its Lusaka Embassy could assume a consulting and negotiating role, encouraging the Zambian Government to provide more incentives and policy continuity for Chinese FDI, especially for land use, foreign investment approval and market access.

4.7.6 Enhance information-and experience-sharing collaboration with major development partners engaged in industrial development in Zambia.

A range of bilateral and multilateral development partners are actively providing support to Zambia's industrial development. It is found that China and many other development partners are engaged in the same sectors, such as agriculture, energy, mining, and infrastructure development. It would be mutually beneficial for China and other development partners to enhance information- and experience-sharing on their activities in Zambia so that they could complement one another's effort and identify cooperation opportunities. Multilateral support to introduce best management practices and business standards could also offer ground of cooperation and further support Zambia on its path to sustainable development.

Furthermore, international organizations and China could work together on trilateral cooperation with major development partners. Given China's expertise and comparative advantage in agriculture, construction and manufacturing, there are opportunities for China to work with different



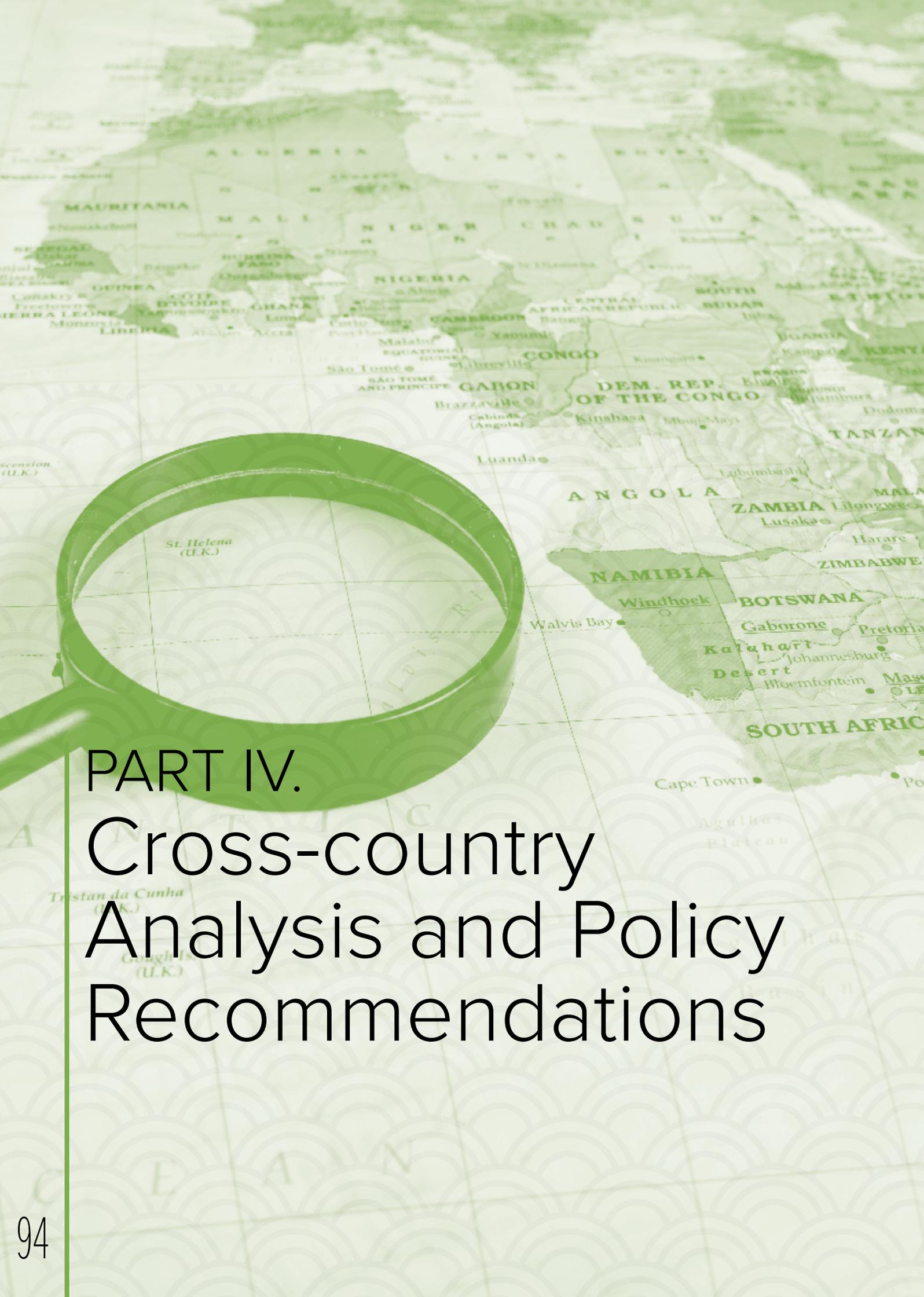
development partners actively engaged in these sectors and provide both financial and technical support too. China and UNDP have already engaged in a trilateral cooperation project in Zambia on renewable energy which has yielded positive results. Building on this trilateral partnership, China and UNDP could scale-up the project and jointly identify other areas for cooperation that aligns with Zambia's industrialization priorities, such as the development of other minerals. China and the US also has a development cooperation partnership and they have jointly implemented a trilateral cooperation project on food security in Timor-Leste. As the US has a strong focus in agriculture in Zambia, China could consider working together with the US to promote agricultural productivity and value addition in Zambia.



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PART IV.

Cross-country Analysis and Policy Recommendations



CHAPTER 1

Cross country analysis

A cross-country analysis of the four country case studies reveals the commonalities and differences in the following areas:

- the industrialisation priorities of the four countries
- donor and Chinese support for their industrialisation
- China’s current production capacity cooperation
- gaps and challenges from the perspective of the African and Chinese investor

Angola, Ethiopia, Kenya and Zambia are at different stages in their development process, thus each country has different requirements, policy focus, and strategies, designed and implemented by their respective governments.

Resource-rich countries like Angola and Zambia are at a relatively early stage of the industrialisation process. Economic diversification is minimal, and their economies are heavily dependent on the export of commodities and the import of the most basic goods. For them, economic diversification is vital if they are to break their dependence on natural resources and avoid the negative consequences of volatile global market commodity prices and the corresponding shocks to their economies. At the other end of the spectrum, Ethiopia and Kenya enjoy more diversified and relatively more developed economies, having a nascent middle class, an abundant labour force, and a relatively better hard and soft infrastructure which supports their labour-intensive manufacturing sectors.

TABLE 1 Comparison statistics

	Angola	Ethiopia	Kenya	Zambia
UN Country Classification	LDC	LDC	Developing	LDC
World Bank Country Classification	Lower middle-income	Low income	Lower middle-income	Lower middle-income
Agriculture, forestry, and fishing, value added, % of GDP	10.0%	31.1%	34.2%	2.6%
Manufacturing, value added, % of GDP	6.6%	5.8%	7.7%	8.5%
Competitive Industrial Performance Index (UNIDO)	130/150	143/150	103/150	119/150
Product concentration index of exports (UNCTAD)	0.933	0.288	0.232	0.681
World Economic Forum, Global Competitiveness Report	137/140	122/140	93/140	118/140
2019 World Bank Doing Business Report	173/190	159/190	61/190	87/190
Global Corruption Perception Index	165/180	114/180	144/180	105/180
Secondary school enrolment, % gross	50.5%	35.1%	57.8%	N/A
Net ODA received (% of GNI)	0.2%	5.1%	3.2%	4.1%
FDI, stock, USD billion	12.1	18.5	11.9	20.0
FDI from China, stock, billion	2.3	2.0	1.5	3.0
Public debt (% of GDP)	91.0%	57.4%	55.5%	60.0%
External debt stocks (% of GNI)	31.6%	33.2%	35.7%	65.3%

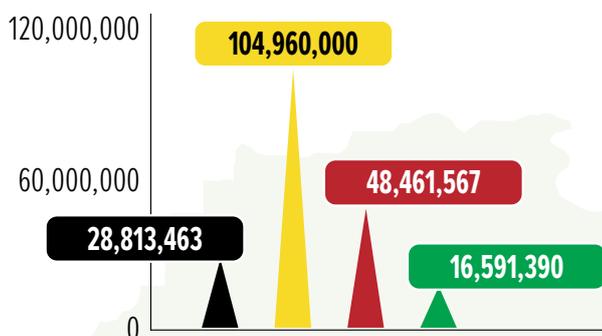
Source: World Bank, IMF, UNCTAD, UNIDO, WEF, AfDB. Latest data available as of 29 July 2019.

PART IV

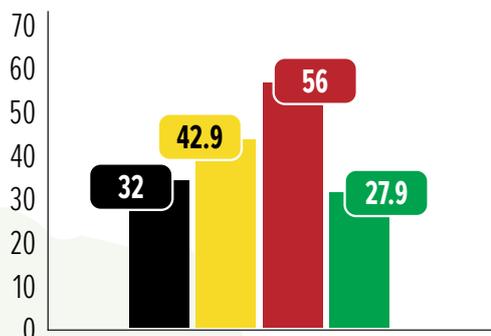
CROSS-COUNTRY ANALYSIS AND POLICY RECOMMENDATIONS

FIGURE 5 Comparison graphs

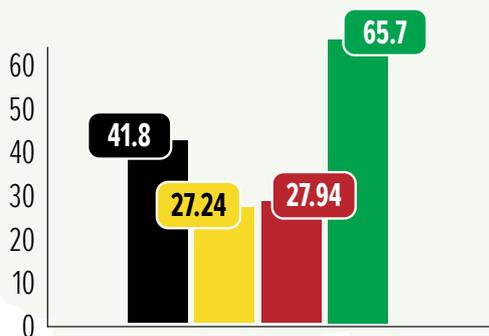
POPULATION



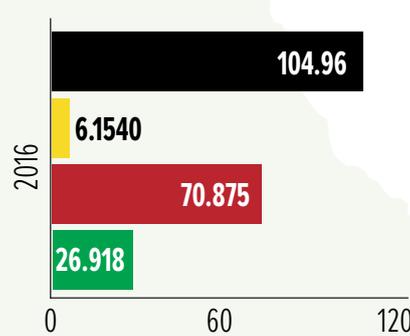
ACCESS TO ELECTRICITY (% OF POPULATION)



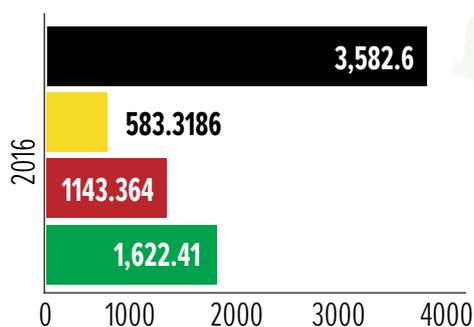
MERCHANDISE TRADE (% OF GDP)



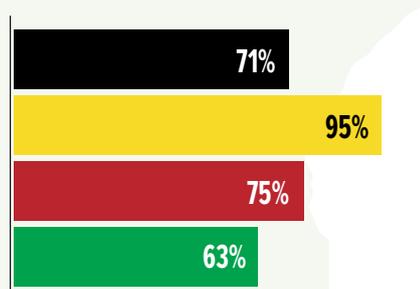
GDP (BILLION US\$)



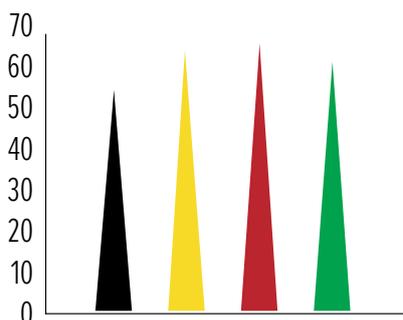
GDP PER CAPITA



ADULT LITERACY RATE (% AGES 15 AND OLDER)



LIFE EXPECTANCY





1.1 Industrialisation priorities of the African countries

All four countries focus on industrialisation as the main driver for sustainable and inclusive growth, job creation, poverty reduction, and the improvement of their financial position and external imbalances through boosting exports and reducing imports. Industrialisation is also key to achieving several of the SDGs, as stated in each country's overarching and long-term policy strategy.

Agriculture and agroprocessing

This sector remains the main source of jobs in each country, and naturally is a vital part of their industrialisation plans. However, the four countries show a different degree of sophistication, contributing to growth and productivity.

- Kenya, with a relatively more advanced agribusiness, focuses on agroprocessing industry as one of its industrialisation priorities, together with fishing.
- In Ethiopia, agriculture also accounts for a large share of GDP, and its exports are almost entirely agricultural commodities. The modernisation of the sector, especially through technology improvement, is therefore a natural option for fighting poverty, ensuring food security and making the sector a larger earner of foreign exchange. Investment in upgrading and value adding is necessary for Ethiopia to become a successful participant in the agroprocessing global value chains.
- In Angola and Zambia, low productivity is a critical issue, together with the need to diversify agricultural products. Both Governments are focusing on improving food security and employment opportunities in order to move away from a dependency on food imports.

Manufacturing

Labour-intensive industries, like textile, leather, and building materials, are key targets. This is particularly the case in Ethiopia and Kenya, which are building on their comparative advantages of having larger populations and already established industrial capacities. With time, however, regional competition may arise.

To incentivise manufacturing and investment, all four countries have built industrial parks or zones. Ethiopia has established the most industrial areas, and the development of the manufacturing industry has contributed significantly to the country's economic growth over the past few years. Kenya categorises industry cluster development as one of its primary strategic models of industrialisation and introduced preferential policies to support this cluster development. The industrial parks in Angola are comparatively new and are developing at a slower pace due to the lack of necessary infrastructure. Zambia, a pioneer in the field, has shown a slower rate of development.

1.2 Donor and Chinese aid

Except for Angola, Ethiopia, Kenya and Zambia all receive large amounts of aid from traditional donors and from China, in a few sectors, such as infrastructure, agriculture and capacity building, in line with the priorities of the partner countries.

The emphasis of traditional donors and international organisations differs from that of China. Traditional donors focus more on strengthening governance and the institutional and enabling environment, while China focuses more on technology transfer or “hardware” infrastructure building. For example, in the agricultural sector, the US mainly supports activities which enhance the Ethiopian agricultural value chains and build both Government and private sector capacity, while the UK focuses on Ethiopian agroprocessing improvements and on enabling access to finance for businesses. China, on the other hand, mainly provides agricultural technical training through its agricultural demonstration centres in Angola, Ethiopia and Zambia.

The financing instruments used to support projects on energy capacity development differ between donors. While China tends to use direct investments, IDA guarantees and ODA are often used by other donors and international organisations. In addition, China focuses much more on building transportation infrastructure, in contrast to many of the traditional bilateral donors.

The development of SMEs or the private sector is an area in which many traditional donors and international organisations are heavily involved, providing financing, technical support and capacity building, building value chains and market access, etc. China has few foreign aid initiatives in this field. Some Chinese financial institutions, such as the China Development Bank and CADFund, provide loans or equity support for the African SMEs, but these are regarded as commercial cooperation rather than development cooperation; the support focusing mainly on the provision of finance and being less comprehensive than the support provided by traditional donors.

1.3 China’s production capacity cooperation with the four African countries

China’s investment in Africa has fluctuated over the years for various reasons but generally shows an increasing trend. The four countries analysed are all among China’s top ten African investment destinations. The two main areas for Chinese investment are manufacturing production and SEZ development, and infrastructure building.

Manufacturing and SEZs

Chinese enterprises have invested in areas such as textiles, leather processing, building materials production, metal smelting and processing,



taking advantage of abundant local resources, low labour costs and high market demand. Some are large investments, by either Chinese state-owned or private enterprises, such as the aluminium alloy plant in Angola, the Huajian Group's Ethiopian plant, and the Sinoma Building Materials Industrial Park, but most investments are from smaller private enterprises, as noted by McKinsey (2017). This multitude of private investments make the Chinese presence in Africa a more market-driven phenomenon than is commonly understood.

SEZs are an important part of China's production capacity cooperation, replicating a model that has been successful in boosting growth and development at home. The zones are backed by Chinese companies and attract Chinese investment. SEZs focus on the sectors in which countries have a comparative advantage.

Infrastructure

Infrastructure is the sector in which Chinese investments in Africa are most evident. The Addis Ababa-Djibouti Railway in Ethiopia and the Mombasa–Nairobi SGR in Kenya are two recent megaprojects backed by the Export-Import Bank of China, which introduced the modernised standard-gauge railway into Africa. The construction of both these lines is aimed at improving the logistics capacity for exports and encouraging industrial development and trade but, equally importantly, will connect the people of the East African countries.

1.4 Common gaps and challenges

All four countries have formulated clear industrialisation plans, with the support and assistance of international institutions and donor countries. However, challenges still need to be overcome as each country proceeds towards industrialisation. The most common gaps are as follows:

- insufficient infrastructure, especially in transportation and power supply, which also deters investments in industrial parks;
- lack of skills and capacity: shortage of engineering skills for infrastructure building and industrial production, and weak policymaking; implementation capacity is specifically mentioned as an issue in Zambia;
- limited access to finance, with extremely high interest rates for commercial loans, far beyond the reach of SMEs, and insufficient domestic savings;
- external imbalances, generated by poor terms of trade and large external debt, particularly in Ethiopia and Zambia, challenging government revenue and export sector performance;
- uncompetitive business environment, particularly related to security, governance, economic and financial infrastructure in general.

These are common challenges faced by many African countries. It is interesting to note that Zambia also highlights research and innovation as one of their major gaps, showing the country's eagerness to improve its research-based, decision-making system and to use innovation to increase its capacity.

When the gaps identified by the four countries were compared with the main challenges identified by Chinese investors, weak infrastructure and lack of skilled labour force were identified as common concerns and as direct and immediate challenges for industrialisation. In addition, Chinese investors also mentioned:

- potential terrorist attacks and security issues in Ethiopia and Kenya;
- government inefficiency in facilitating businesses in Ethiopia, Kenya and Zambia;
- currency fluctuation in Angola, Kenya and Ethiopia;
- strict environmental protection rules in Kenya; and
- communication difficulties between Chinese investors and local people in Zambia.



CHAPTER 2

Policy Recommendations

At the Beijing FOCAC Summit in September 2018, President Xi Jinping announced eight cooperation actions with Africa, the first of which is to promote the industrial development of African countries. Production capacity cooperation will continue to be a priority in China-Africa cooperation. As such, how to make the right use of development cooperation to facilitate Africa's sustainable industrialisation should be further considered and clarified. Based on the cross-country analysis, the gaps and challenges mentioned above, and the recommendations made in each country case study, the following recommendations are proposed for Chinese policymakers to consider:

1 Clarify the role of development cooperation in supporting China-Africa production capacity cooperation.

China-Africa production capacity cooperation is mainly market-based cooperation, financially supported by the Chinese Government. However, the industrialisation of a country is always a long process and is affected by various factors; it cannot be achieved by relying solely on foreign assistance. In China-Africa production capacity cooperation, development cooperation can function as a helpful and important facilitator, especially in areas where private investors are reluctant to become involved and bear the potential risks. Chinese state- and private-owned enterprises could bridge some of these gaps thanks to their privileged financial position with institutions like China Export Import Bank.

Development cooperation should be used increasingly for building an enabling environment, for production capacity cooperation and for mobilising more private funds or private sector participation in the process. This should be a core principle of China's development cooperation in supporting China-Africa production capacity cooperation.

It is also of paramount importance that production capacity cooperation and development cooperation are firmly anchored on evidenced-based analysis and an understanding of the mutual benefits, needs and priorities of the recipient country. China's cooperation should be aligned with the three sustainability conditions: economic, social and environmental, to foster the attainment of the SDGs in the recipient country and maximising the long-term gains of the investment for all stakeholders involved. Finally, increased transparency would also address some of the challenges Chinese investments and assistance face, fostering the sustainability and mutual benefits of the long-term relationship between China and African partner countries.

2 Enhance capacity building for African countries, at both the macro- and micro-level.

To address the skills and capacity gaps in African countries, China could further strengthen its human resource development cooperation, including through experience sharing, vocational training and technical cooperation. This practice is suggested for all four countries. At the macro-policy level, China has considerable experience in formulating industrialisation strategies, economic incentive policies and implementation systems, which could be shared with African countries. At the micro-technology level, China has substantive knowledge of the valuable technologies and skills required for transitioning into a global manufacturing power. These could all be shared with African countries, as good benchmarks for pursuing industrialisation. More specifically, since many African countries are trying to develop their industrial parks, China could provide more assistance in support of these efforts, in line with partner countries' priorities and sustainable development. This could be achieved through bilateral peer-to-peer training programmes providing information on China's experience in developing its industrial parks. This would include field visits by Chinese experts to assist in the comprehensive design of operational-side improvements for the industrial parks. China could also further increase its support for vocational training to address the market need for skilled workers and to provide more job opportunities for local people. Collaboration with international institutions would also help ensure the more efficient use of available resources when working in overlapping fields and sectors.

3 Infrastructure and agriculture should continue to be support priorities for the industrialisation of African countries.

Both infrastructure and agriculture were identified by the four case study countries as priority areas for the industrialisation process; this is also the case with many African countries. The two sectors are also among China's aid priorities and support for these areas should therefore be enhanced.

Most of China's support for African infrastructure development is in the form of commercial loans, while concessional loans, forming part of China's foreign assistance, account for only a small proportion. China could increase the share of concessional loans and combine these with commercial loans, thus increasing the concessional level of loans. China should also encourage Chinese enterprises to participate in project operations through the Build-Operate-Transfer model (BOT). This modality would help partnering governments addressing some of the concerns on debt sustainability.

Building on the practices of traditional donors and international organisations, China could increase its "software" support for infrastructure, through the joint development of infrastructure development plans, feasibility studies, relevant capacity building and training (both before and after construction), to facilitate



the sustainable development and management of the infrastructure project along all its lifecycle.

In the agricultural sector, China has helped to build around 30 agriculture training demonstration centres across Africa, which focus on improving productivity, technology demonstration and expansion. Jiang et al., (2016) found that ATDCs have proven successful in agrotechnology transfer and are welcomed by local communities. However, to have an even greater impact, it is suggested that ATDC programmes be extended to include other stakeholders, such as local officers involved in the sector, to magnify possibly forward linkages beyond farming. It has also been noted that the lack of tools and inputs by local farmers can hinder the actual implementation of such knowledge transfers, thus policy design and bilateral interaction need to be improved to become more effective.

China could also expand its technical assistance for agroprocessing, together with the provision of agricultural machinery. This would support the development of business linkages and help African countries to enter global value chains, thus strengthening their industrial sectors, supporting their industrialisation, and their government targets for sustainable and inclusive growth. China could also extend its assistance to include improvements to the agricultural science research capacity of African countries, which is vitally important for their self-development in agriculture.

4 Improve support to African sub-regional organisations to facilitate their role in stimulating regional industrialisation.

Sub-regional organisations have an increasingly more important role to play in promoting the economic development and integration of African countries. The African Continental Free Trade Area Agreement should remove tariffs from 90% of goods, allowing free access to commodities, goods, and services across the continent. The United Nations Economic Commission for Africa estimates that the Agreement will boost intra-African trade by 52% by 2022. Competition among countries may emerge in sectors where many have a comparative advantage, like textiles or building materials, which could jeopardise government industrial strategies and the accomplishment of their targets. China's support for African sub-regional organisations has been limited so far. China could strengthen its cooperation with sub-regional organisations, providing enough financial and technical assistance to strengthen the capacity of these organisations, enabling them to promote regional industrialisation, building on the strength of each of the country economies involved and promoting inclusive development within the country and cross the region.

5 Experience sharing and cooperation between China and traditional donors and international organisations could be enhanced.

The cross-country analysis indicated that traditional donors, international organisations and China are often engaged in similar sectors, though the focus may be different. It would be mutually beneficial for China and other development partners to increase both information exchange and experience sharing to complement one another's efforts and identify cooperation opportunities. Given China's expertise and comparative advantage in agriculture, construction and manufacturing, opportunities exist for China to work with those development partners engaged in these sectors and to provide both financial and technical support. China and UNDP have already engaged on a trilateral cooperation project in Zambia on renewable energy. Building on this trilateral partnership, China and UNDP could scale-up the project and jointly identify other areas for cooperation, which are aligned with the industrialisation priorities of Zambia and other African countries. Meanwhile, the China South-South Cooperation Aid Fund (SSCAF) administered by the China International Development Cooperation Agency (CIDCA), which encourages international organisations to cooperate with Chinese partners, is now operational. This could be another way for development partners and China to work together to support the industrialisation of a number of African countries.



TABLE 2 Cross comparison between the four case countries

	Angola	Ethiopia	Kenya	Zambia
Industrialisation priorities	Export diversification and promotion of non-oil sectors (agriculture, fisheries, mining, manufacturing) Reduce imported products (food, textiles, building materials and agricultural products)	Modernise the agricultural sector Export-oriented manufacturing industry (textile and garment, leather and agroprocessing)	Industry cluster development Agroprocessing, fisheries, textiles and apparel, leather, construction materials and services Developing enabling factors	Economic diversification besides copper Development of agriculture and energy resources Private sector development and value addition
Needs/gaps	Infrastructure Production capacity Foreign investments Enabling environment	Infrastructure Competitiveness Shortage of finance/ external imbalances	Infrastructure Production capacity/skilled labour force Negative trade balance	Infrastructure Skills and technology Shortage of finance/ external imbalances Research and innovation
Donors	World Bank: education, health, smallholder agriculture, water and basic infrastructure AfDB: agriculture, fisheries, water and sanitation, science and technology, energy and environment UN: agriculture and agro-industrial food production, development of productive capacities	US: agriculture, technical cooperation and infrastructure UK: agroprocessing and solar energy; Japan: infrastructure construction, agricultural research and training and energy capacity development	World Bank: energy capacity development and private sector development UNDP: policy and capacity building for investment strategies US: promotion of trade and credit; support for power generation capacity Japan: electricity access, training programmes for SME exporters	World Bank: infrastructure AfDB: transport, agriculture, energy UNDP: local content, local value chain development, access to markets, growth of MSMEs and the resource sector US: agriculture EU: energy, agriculture and governance

PART IV

CROSS-COUNTRY ANALYSIS AND POLICY RECOMMENDATIONS

	Angola	Ethiopia	Kenya	Zambia
China's project	Aluminium alloy plant	SEZs	Mombasa–Nairobi Standard Gauge Railway (SGR)	TAZARA Railway
	Chinatowns	Ethiopia-Djibouti Railway	Clean energy (geothermal)	Zambia-China Economic and Trade Cooperation Zone (ZCCZ)
	China-Angola Agricultural Technology Demonstration Center (ATDC)	Huajian Shoemaking Factory	Education and vocational training (AVIC International Holding Corporation)	Sinoma Building Materials Industrial Park
	Vocational training (CITIC Bainian Vocational School)	Gotera Interchange Road		Marcopolo Tiles Limited investment
		China-Angola Agricultural Technology Demonstration Center (ATDC)		China-Angola Agricultural Technology Demonstration Center (ATDC)
		Vocational training (Ethiopia-China Polytechnic College)		Technical training (TAZARA training school)
Challenges for Chinese investors	Infrastructure	Geopolitical risk	Public sector inefficiency; corruption; security concerns	Infrastructure
	Finance	Business environment	Public finance imbalance	Skilled labour
	Skilled labour	Currency and public finances imbalances	Environmental protection standards	Lack of coordination among different government institutions
		Skilled labour	Import structure	Communication gap between Chinese and Zambian partners
Recommendations	Support human resource development, via vocational training, transfer of knowledge and best management practices, both at the policy and industry level			
	Support sustainable infrastructure building, along the whole process, from feasibility plans to management and operations. Strengthen concessional loans and increase transparency over lending conditions			
	Promote cooperation with local institutions	Design comprehensive support for the industrial zones	Facilitate better bilateral trade structures	Build up research and innovation capacity;
	Share China's industrialisation development experience			Develop innovative financial instruments for private sector development;
			Strengthen government-to-government communication	



ANNEX 1

Field visit interviews

Angola (4-8 March, 2018)

China International Trust and Investment Corporation (CITIC), Angola
 United Nations Development Programme, Angola Office
 Federation of Women Entrepreneurs (FMEA), Angola
 World Bank, Angola office
 Angola Industrial Association
 Industrial Development Institute of the Angolan Ministry of Industry
 General Hospital of Luanda
 Special Economic Zone ZEE
 Africa Development Bank, Angola office
 EU-Angola Ministry of Commerce Project
 Secretary for Diplomatic Affairs and International Cooperation of the President of the Republic of Angola
 Chinese Economic and Commercial Counsellor's Office, Angola

Zambia (17-21 July, 2017)

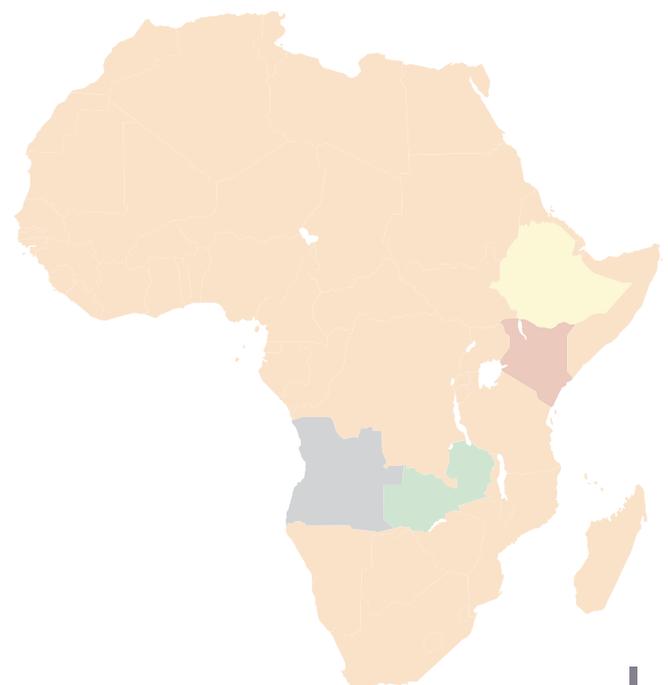
Zambia Chamber of Commerce and Industry
 Group meeting with main donor offices in Zambia, including World Bank, AfDB, EU and USAID
 Zambia Development Agency
 Ministry of Finance, Zambia
 China-Zambia economic cooperation zone
 Sinoma Building Materials Industrial Park
 China-Zambia Agricultural Technology Demonstration Center
 Group meeting with Zambia ministries, including Ministry of Development and Planning, Ministry of Commerce, Trade and Industry, Ministry of Mines and Mining Development, Ministry of Energy and Ministry of Agriculture
 Cabinet Office Private Sector Office and Business Regulation Authority, Zambia
 Group meeting with representatives of all UN Agencies operational in Zambia, including ILO, FAO, WFP, UNDP, UNHCR, IFAD, UNAIDS
 Common Market for Eastern and Southern Africa
 Embassy of Finland, Zambia
 Chinese Economic and Commercial Counsellor's Office, Zambia

Ethiopia (15-19 December, 2015)

World Bank, Ethiopia Office
 Ethiopian Investment Commission
 Industrial Parks Development Corporation
 Sino-Ethiopia Development Cooperation Office of the Ministry of Finance and Economic Cooperation of Ethiopia
 China Civil Engineering Construction Corporation Ethiopia
 CGCOC Group
 Oriental Industrial Park
 Chinese Embassy in Ethiopia

Kenya (9-12 December, 2015)

Ministry of Industrialisation and Enterprise Development
 Kenya Investment Authority
 China National Petroleum Corporation project site
 Commercial Councillor's Office of Chinese Embassy
 China House (a Chinese NGO in Kenya)
 Representatives from Chinese enterprises, including China Road and Bridge Corporation, China Wuyi Co, Ltd. etc





Kingdom of the Netherlands



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