

# Are Economic Relations with India Helping Africa?

## Trade, Investment and Development in the Middle-Income South

**Siddharth Dixit\***

([siddharth.dixit@duke.edu](mailto:siddharth.dixit@duke.edu))

**Indermit S. Gill**

([indermit.gill@duke.edu](mailto:indermit.gill@duke.edu))

and

**Chinmoy Kumar**

([chinmoy.kumar@duke.edu](mailto:chinmoy.kumar@duke.edu))

**Duke Center for International Development**

Sanford School of Public Policy  
Duke University, Durham NC 27708

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This is one of four recent papers by researchers at the Duke Center for International Development on development in middle-income economies in Sub-Saharan Africa (henceforth SSA, or Africa). The first two papers (Gill and Karakülah, 2018a and 2018b) explore the slowdown in economic growth and the acceleration of increases in public debt in the region. The objectives of the third (Gill and Karakülah, 2018c) and this fourth paper are to understand the changes in economic relationships between the African subcontinent and China and India, respectively, especially since the turn of the century. They emphasize the similarities and differences in their investment, trade and development assistance relations with Africa.

This paper investigates India's trade and investment relationship with SSA. The paper reviews (i) trade and investment relations between India and Africa by analyzing period-wise export and import transactions, (ii) investments by Indian private and state-owned enterprises in SSA, and (iii) loans extended by the Indian government to various African nations. It also contrasts India's trade and investment in SSA with China's economic connections with the region. Using case studies of the involvement of Indian private enterprises in three development-critical areas—healthcare, telecommunications, and renewable energy—the paper identifies measures that might be considered by policymakers in the two subcontinents to foster facets of the relationship that provide benefits both for Africa and India.

Put another way, the paper asks whether India's increasing economic imprint in Sub Saharan Africa is aiding development efforts of the countries in the continent (Gill and Karakülah, 2018, asks whether China's economic activities—trade, investment and aid—are helping or hurting Africa). Economic relations amongst developing countries can only be stable if they are based on mutual benefit. Relations between middle-income Africa, lower middle-income India and upper middle-income China are not just stable but quite bouyant, so the answer is pretty straightforward. What is also becoming clear is that the view of Africa as a low-income region trading mostly with high-income economies in Europe and North America is obsolete. Africa should now be seen as a mainly middle-income region with ever-stronger economic ties with middle-income economies in Asia and other parts of the world.

## **Africa's integration into the global economy**

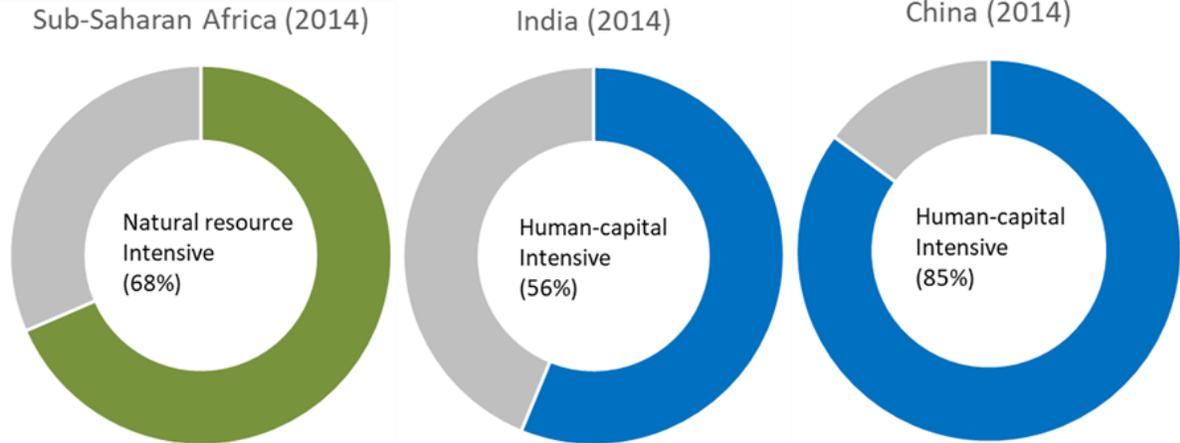
Since the Second World War, regions across the world have integrated into the global economy at different times, at varying speeds, and by relying on trade based on differing factor intensities. What they had in common was that their economies had to become more efficient. This meant producing goods and services for international markets whose production was intensive in the factors of production that they had in abundance. Among developing regions, for example, East Asian integration into world markets was led by labor-intensive exports, as should have been expected of a region had a third of the world's labor force. After the fall of communism, countries of the former Soviet Union integrated into the global economy with exports intensive in natural resources. Again, this was logical; the region has about a third of the world's known oil, gas, and mineral reserves.

Unsurprisingly, resource-rich economies in Sub Saharan Africa have used natural resources to integrate with the world economy. During the last two decades, this trend accelerated with the emergence of China and India as major economic powerhouses. Growing India and China

needed a lot of energy and minerals to sustain their growth. This provided the opportunity for natural resource rich countries to meet their burgeoning energy demand, and in turn expand and grow their own economies. In 2014, for example, about 68 percent of SSA’s exports were natural resource intensive. (Figure 1) The exports from SSA to India and China followed similar factor intensity patterns as their exports to the rest of the world.

Along the same lines, the exports of India and China are largely human-capital intensive goods and services, since human capital is increasingly abundant in these countries. This is especially the case in China where, by 2014, 85 percent of exports were human-capital intensive.

**Figure 1: Export product share, by factor intensity: Sub-Saharan Africa, India and China**



Source: Authors’ calculations based on the data from World Integrated Trade Solutions (WITS) as reported by individual countries.

Note: Factor intensity is measured with the export data classified by Standard International Trade Classification (SITC) Revision 1. The categories obtained from WITS are grouped based on the modified version of commodity classification by (Krause, 1987). Resource intensive includes products related to agriculture and forestry, food, fuel, and ores. Goods related to Machinery and Manufactures are stored as human-capital intensive. Textiles and chemicals are contained in labor and technology intensive categories, respectively.

**The growth in South-South economic relations**

Not long ago, western economies were Africa’s main trading partners. In the last fifteen years, developed economies have been gradually displaced at the top by China and India. China has been the largest partner for some years; India has recently become the second largest trading partner. India’s trade with SSA is still just a fraction of that of China, but it has shown continuous growth in the last decade.

Like China, India’s exports to SSA are more diverse in comparison to its imports. India exports consumer goods whose production is relatively human-capital intensive, whereas its imports from Africa are chiefly natural resource intensive like crude oil, stones, metals and agricultural goods. Much of India’s trade is limited to a few countries like Nigeria, Kenya, South Africa, and Tanzania—mostly the ones with which India has had ties since colonial times. The recent diplomatic initiatives by the Indian Government such as *Focus Africa* and the triennial India-

Africa Summits are expected to give fillip to trade between India and other SSA nations. The growing private investment by Indian firms across Africa will also help diversify trade geographically and across sectors, so that African exports will increasingly include goods intensive in factors other than natural resources.

India's capital inflows into SSA—both of debt and equity—are miniscule in comparison to China's. Most investments have been in the mining and infrastructure sector. Similarly, the soft loans extended by the Indian Government to SSA, through its concessionary loan scheme, are concentrated in electrification, construction, agriculture and water infrastructure. But these inflows are important. These areas sorely require long-term investments. Additionally, India's hard infrastructure investments are often coupled with investment in capacity building through trainings, and in corporate social responsibility activities. India is not a big player like China, but its focus on capacity building and skill development in SSA can be complementary to China's emphasis on big infrastructure projects in the region. SSA nations can leverage their association with both Asian economic behemoths to further their development interests. As aid from multi-lateral financial institutions (MFIs) shrinks, economies in SSA can tactically build economic relations with India, China and other large and dynamic economies to meet its finance and investment requirements.

### India's engagement with Sub-Saharan Africa

The beginning of 21<sup>st</sup> century saw the Indian Government making conscious efforts to improve economic relations with countries in Africa. In 2002, India launched the Focus Africa Program, engaging 24 African countries with the aim to increase business interactions, improve trade, disseminate information on tenders and investments by Indian mission in Africa, and extend new credit lines. (Lucey, Schoeman, & Makokera, 2015, p. 6) The available data show that since 2010, there has been rapid growth in the economic relationship between SSA and India in many areas including trade and investment.

The India-Africa Forum Summits and the recent International Solar Alliance (ISA) are platforms specifically designed to improve these relationships. The triennial India-Africa Forum Summit, first held in 2008, helped foster India-Africa ties by, *inter alia*, identifying areas of co-operation. During the first summit, India launched the Duty Free Tariff Preference Scheme for Least Developed Countries (LDCs) in Africa. This has increased exports of cotton, cocoa, copper ore, and other commodities from LDCs in Africa to India. By 2013, 21 LDCs from Africa were making use of the preference scheme to export raw materials to India. (Lucey, Schoeman, & Makokera, 2015, p. 5)

The third India-Africa Forum Summit in 2015 focused on the core priorities for working together to eradicate poverty and find adequate financing for sustainable development. These collaborative themes draw inspiration from the Africa's Agenda 2063 and its First Ten Year Implementation Plan, the Sustainable Development Goals, and the priorities of the Government of India. This summit reinforced other initiatives such as the Indian Technical Economic Co-operation (ITEC) and the Pan Africa E-network that can contribute to the development of human resources in Africa. (see Box 1) Likewise, the International Solar Alliance 2017 meeting has set up targets for 23 solar energy projects in 13 African countries. The African Development

Bank (AfDB) is partnering with ISA on this proposal. Apart from financing, it also envisages technical assistance and knowledge transfer for the development and deployment of solar projects in African countries.

### **Box 1: India-Africa co-operation in training and development**

Since 1964, under the aegis of the Indian Technical and Economic Co-operation (ITEC), India has been carrying out technical training programs in its near abroad. Prior to 1990, ITEC was an important medium for India's development assistance in Africa. After the economic liberalization in the 1990s, with growing economic strength, India started to allocate more resources for concessional loans (the Government of India calls them Lines of Credit (LoC)), grants and budgetary assistance.

ITEC continues to play an important role in India's developmental assistance. The scope of the program has expanded to include more sectors such as IT, banking, and telecommunications. Thousands of people in almost every SSA nations have received technical training through ITEC. The third India-Africa Forum Summit in 2015 allocated \$1 billion between 2015-20 for training and capacity development of 25,000 people in Africa in the fields of Agriculture; Food Processing, Packaging and Quality Control; Energy, Infrastructure and Sustainable Development; Rural Development and Poverty Eradication; ICT and e-Governance; Power and Hydrocarbons; International Business; Postal Services and Mail Management; Health; and Law Enforcement and Cyber Crimes.

In 2009, the Government of India launched the Pan African e-Network Project. India installed fiber optic networks to provide satellite connectivity, telemedicine and distance education to the 48 countries included in this scheme. Specialty hospitals and top universities from India are currently offering telemedicine and distance education services to African member countries. Health enters in many African nations have been linked to various medical education sessions and telemedicine consultations conducted at the Indian hospitals and universities. In the distance education programs, thousands of students are enrolled in several educational disciplines such as physical sciences, engineering and technology, computer science and information technology, management, business and finance and medicine.

Government data indicate that during the last few years India has spent in excess of \$1 billion on providing assistance and technical co-operation (under ITEC) to other developing nations, including those in SSA. In SSA, this assistance is focused on capacity development in the areas of agriculture, SME, IT and renewable energy, e.g., providing solar photovoltaic equipment in educational institutions in Rwanda, development of the Rural Technology Parks in South Sudan, and the expansion of the Pan-Africa e-network project. In addition, under the Indian technical co-operation for SSA, several other initiatives have been completed or are in progress. Some of them are listed in the following table.

**Table 1: Examples of India's training and capacity building initiatives in SSA**

Countries	Program	Amount (US\$) (Approx.)
Ethiopia, Burundi, Rwanda, Mozambique, Burkina Faso, Zimbabwe, Gambia and Liberia	Setting up of ten Vocational Training Centers for African youths in order to provide a skilled workforce for their economy.	\$5 million
Burkina Faso, Kenya, Tanzania and Democratic Republic of Congo	Establishment of eight India-Africa Regional Soil Water and Tissue Testing Laboratories to effectively disseminate information on innovation in farming practices to farmers in Africa.	\$2.5 million
Togo, Rwanda, Republic of Congo and South Sudan	Establishment of eight India-Africa Agriculture Seed Production cum Demonstration Centers, food and nutritional security, poverty reduction, livelihood opportunities and export promotion.	\$8 million
Senegal, Tanzania, Burkina Faso, Liberia and South Sudan	Agreement between India's Ministry of External Affairs (MEA), and "The Barefoot College" have been signed to train rural women in Africa and convert them into Solar Engineers.	\$2 million
Rep. of Congo, Zimbabwe, Rwanda, Gambia and Nigeria	Setting up of five Food Testing Laboratories.	\$7.5 million
Uganda, Cameroon, Ghana, Mali and Angola	Food Processing Incubation Centres for assisting African entrepreneurs to develop, test and commercialize new food products, establish innovative food processing businesses and transfer of food process technologies.	\$1.2 million
Mauritania	India-Africa Food Processing Cluster in Africa for helping the African countries in harnessing full benefits of the growth in agriculture in a sustainable manner.	\$18 million
Senegal, Namibia, Rwanda, Zambia and Gabon	Setting up of five Entrepreneurship Development Centres to enhance the capacity of entrepreneurs of African countries, enhance sectoral development and contribute towards economic development.	\$3.7 million
Malawi	Setting up of India-Africa Institute of Agriculture and Rural Development (IAIARD).	\$14 million
Uganda	Setting up of the India-Africa Institute of Foreign Trade (IAIFT).	\$9 million
Burundi	Setting up of India-Africa Educational Planning and Administration (IAIEPA) in Burundi by National University of Educational Planning and Administration (NUEPA).	\$18 million
Ethiopia	Setting up of India-Africa Textile Cluster.	\$50 million
Mauritius	Setting up of India-Africa Centre for Medium Range Weather Forecasting.	\$28 million
Fifteen nations	Solar electrify 7,500 rural households in villages of African countries.	\$4 million
Nigeria and Ghana	For improving the postal infrastructure	\$0.4 million
Ghana	Research project on tomato production and processing.	Not available
Malawi	Education/Science and technology equipment and other items for Education Sector for Malawi.	\$1.5 million
Namibia	Supply of IT related equipment for health sector.	\$5million

Source: Authors' calculations based on the data from (Ministry of External Affairs, Government of India, 2016-17)

## Trade between India and Sub-Saharan Africa

The trade relationship between India and Sub-Saharan Africa has grown during the last two decades. While China remains the clear leader in bilateral trade with SSA, India has quietly become the second largest trading partner of the region.

### Evolution of Africa's Trade with Asia

Since the turn of this century, Africa's trade with other parts of the world has been growing rapidly (trade within the subcontinent is another story). This was also a time when China and other emerging economies were growing rapidly and their demand for various natural resources swelled. Being natural resource intensive, many African nations helped in meeting these needs, and also presented themselves as a market for emerging economies. This phase saw the emergence of China as the top trade partner of SSA.

During the last decade, China has expanded both trade volume and investments in many SSA countries. India too has increased its exposure to the region through various projects and policies like the Indian Foreign Trade Policy 2002-07 "Focus Africa" program that was launched to increase bilateral trade with Africa. The impact? In less than a decade, India has moved swiftly to become one of the top trading partners of SSA.

In 2005, SSA was mainly trading with developed nations like the USA, Germany, France, United Kingdom, etc., with the exception of China. (Table 2) India was a minor trading partner of the region back then. By 2016, it had become the second most important partner after China, both in exports as well as imports. In 2005, India ranked 11th on the list of countries to which SSA exported, whereas China was already in top five. Since then the most dramatic rise was witnessed by India, which leaped from the 11th place in 2005 to the second spot in 2016. An almost similar tale unfolds if one considers the imports by SSA from different nations. Although most of the top slots are still occupied by the developed economies, India and China have become more important. Again, India moved from 7th place in 2005 to 2nd in 2016. (Table 2)

**Table 2: Top trading partners of SSA**

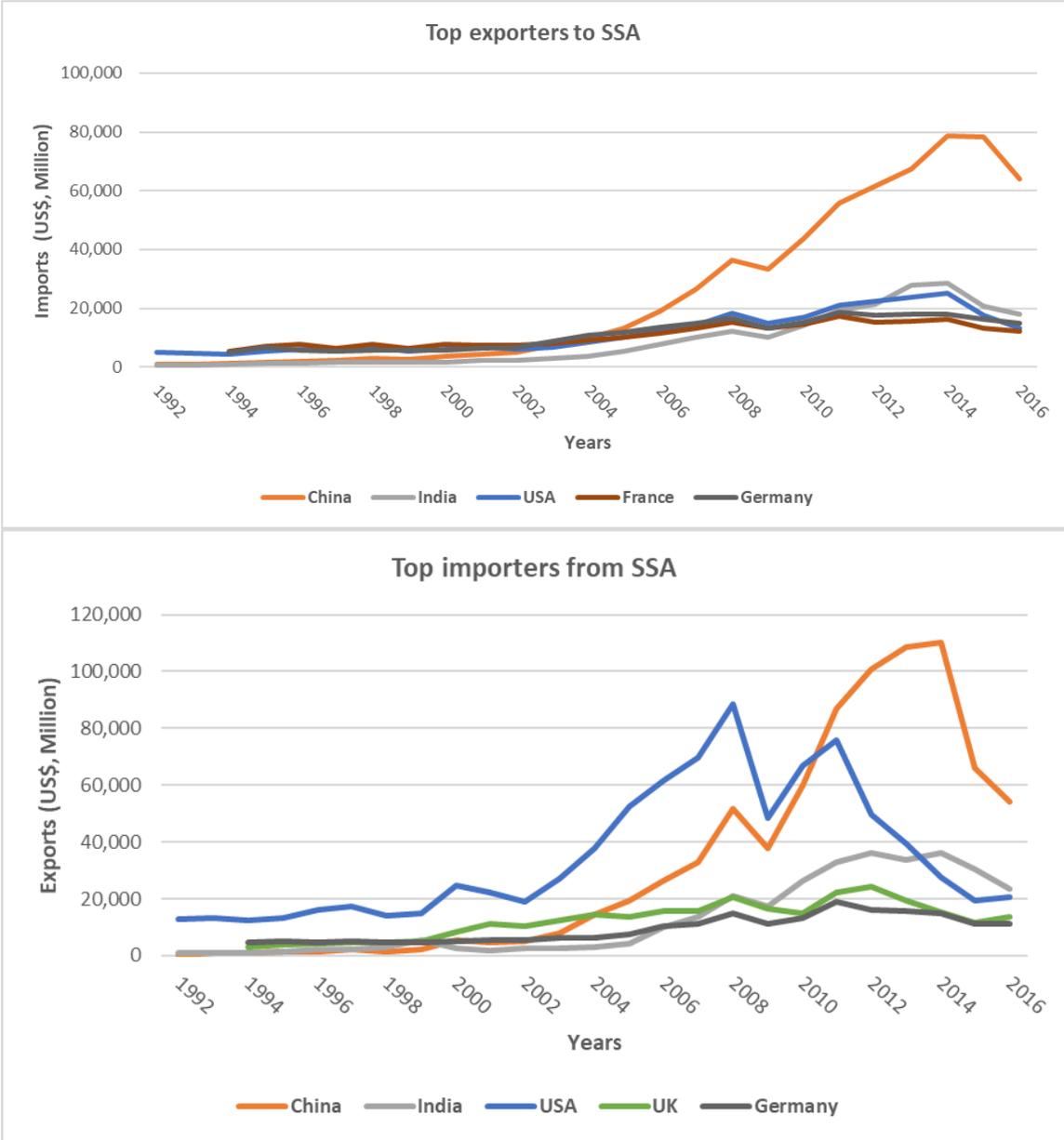
Top countries from which SSA Imports			Top countries to which SSA Exports		
Countries	Rank (Y2016)	Rank (Y2005)	Countries	Rank (Y2016)	Rank (Y2005)
China	1	1	China	1	2
India	2	7	India	2	11
Germany	3	2	United States	3	1
United States	4	3	United Kingdom	5	3
France	5	4	Germany	6	7

*Source: Authors' calculations based on data from World Integrated Trade Solutions (WITS) as reported by individual countries.*

In absolute terms, the exports from India to SSA rose from almost nothing in early 2000s to \$28.4 billion in 2014, whereas imports from SSA grew from \$2 billion in 2001 to \$36 billion in 2014. (Figure 2) However, after 2014, the crash in the commodity prices led to a decline in the trade volume between the two regions. But, in 2016, India was still the second largest trading partner of SSA. We observe that even though India is far behind in the actual trade value when

compared to China, it has quickly sprinted ahead of other big players from advanced economies like US, Germany, France, etc. to become one of the top actors in trade with SSA.

**Figure 2: Sub Saharan Africa trade with major trading partners**



Source: Authors' calculations based on data from World Integrated Trade Solutions (WITS).

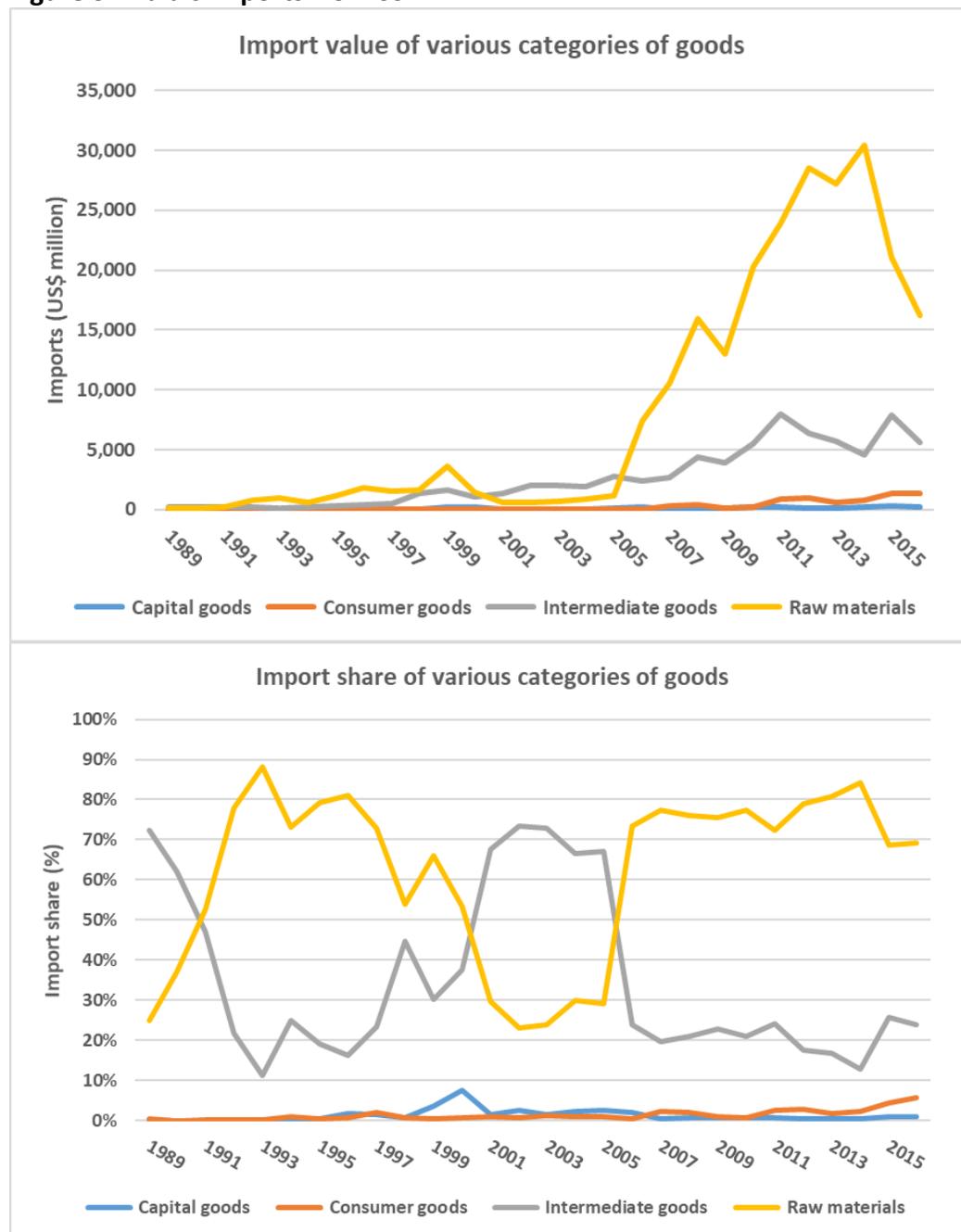
**Composition of trade**

As mentioned in the previous section, India's imports from SSA have been growing since the early 2000s, dipping only in 2014 due to the collapse in commodity prices. The value of imports shot up from \$2.8 billion in 2004 to \$10 billion in 2006 and continued to rise till 2014. (Figure 3) In the last two decades, imports from SSA to India have fluctuated between raw materials and intermediate goods. However, since 2005, when India started growing at a faster rate, the composition of imports from Africa has changed. During the early 2000s, stones and gems had

the largest share in the imports from SSA. But, as the Indian economy grew, and the energy demands increased, it started importing more crude oil from the SSA nations. Suddenly, crude oil became the top import. Metals and agro-based products are the other imports.

In 2005, the value of total imports from SSA to India was \$4.1 billion, of which about 47 percent—about \$1.9 billion—comprised of stones and glass. These primarily came from South Africa in the form of raw cut diamonds and other precious gems. Nearly, 40 percent of remaining imports is metals, chemicals and agriculture raw materials.

**Figure 3: India’s imports from SSA**

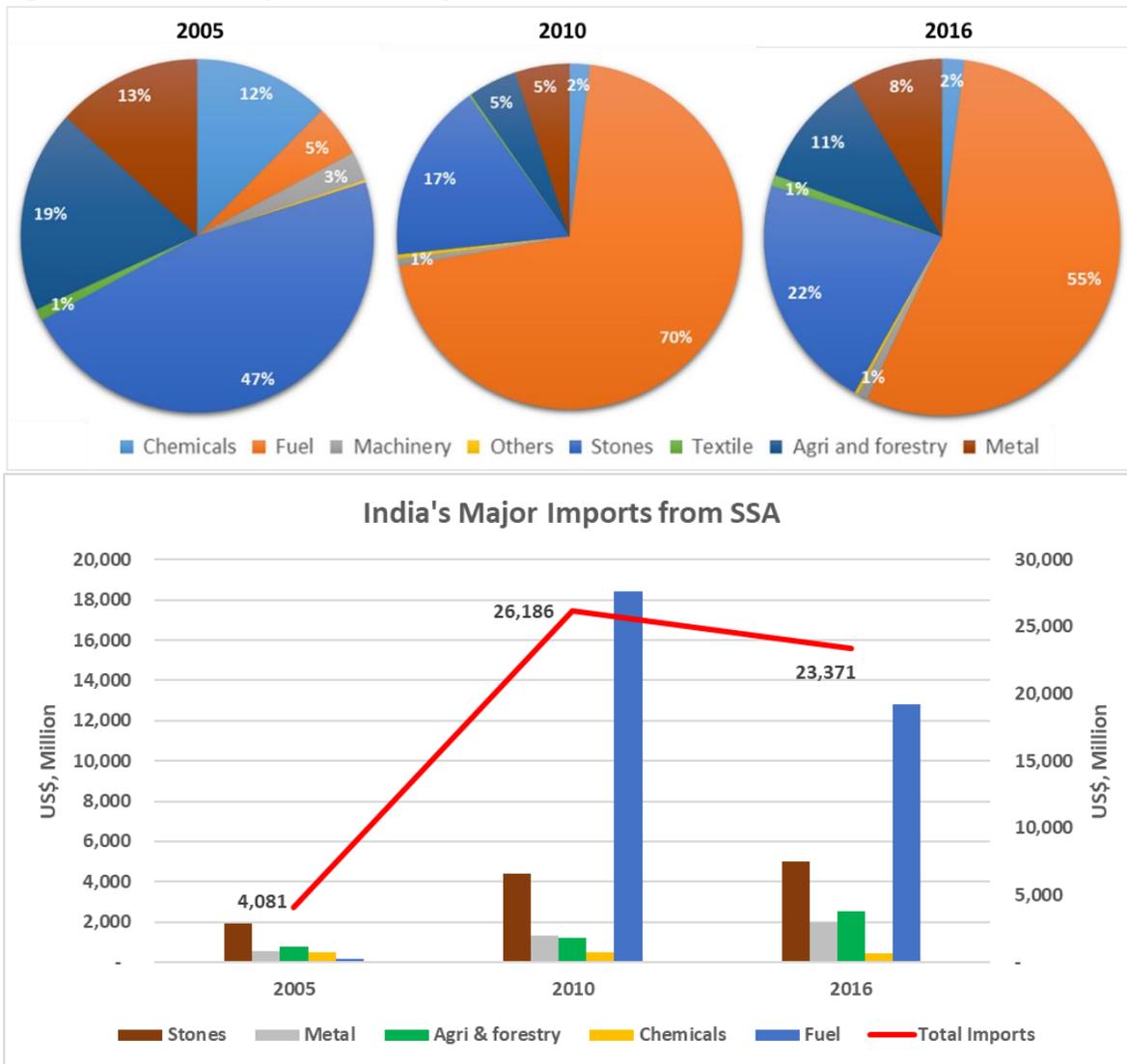


Source: Authors' calculations based on data from World Integrated Trade Solutions (WITS).

The continuous outreach from India to oil-abundant nations like Angola and Nigeria has altered imports; in 2010, they increased to \$26.2 billion. Now, almost 70 percent of imports by India from SSA, amounting to \$18.4 billion, consist of crude oil. (Figure 4) Nigeria became the largest exporter to India from SSA; Angola, which was not even in top twenty a few years ago, became the third largest exporter to India. South Africa, with its export of stones and metals, was pushed to the second spot.

By 2016, India’s import story from SSA was unchanged relative to 2010, with fuel and stones being the major goods bought by India from SSA. Together they constituted 77 percent of total imports, equaling \$17.9 billion. The remaining imports are dominated by other raw materials like metals and agricultural products (about 17 percent). In 2016 approximately \$16.3 billion of the total imports (\$23.3 billion) from SSA to India were raw materials. (Figures 3 and 4)

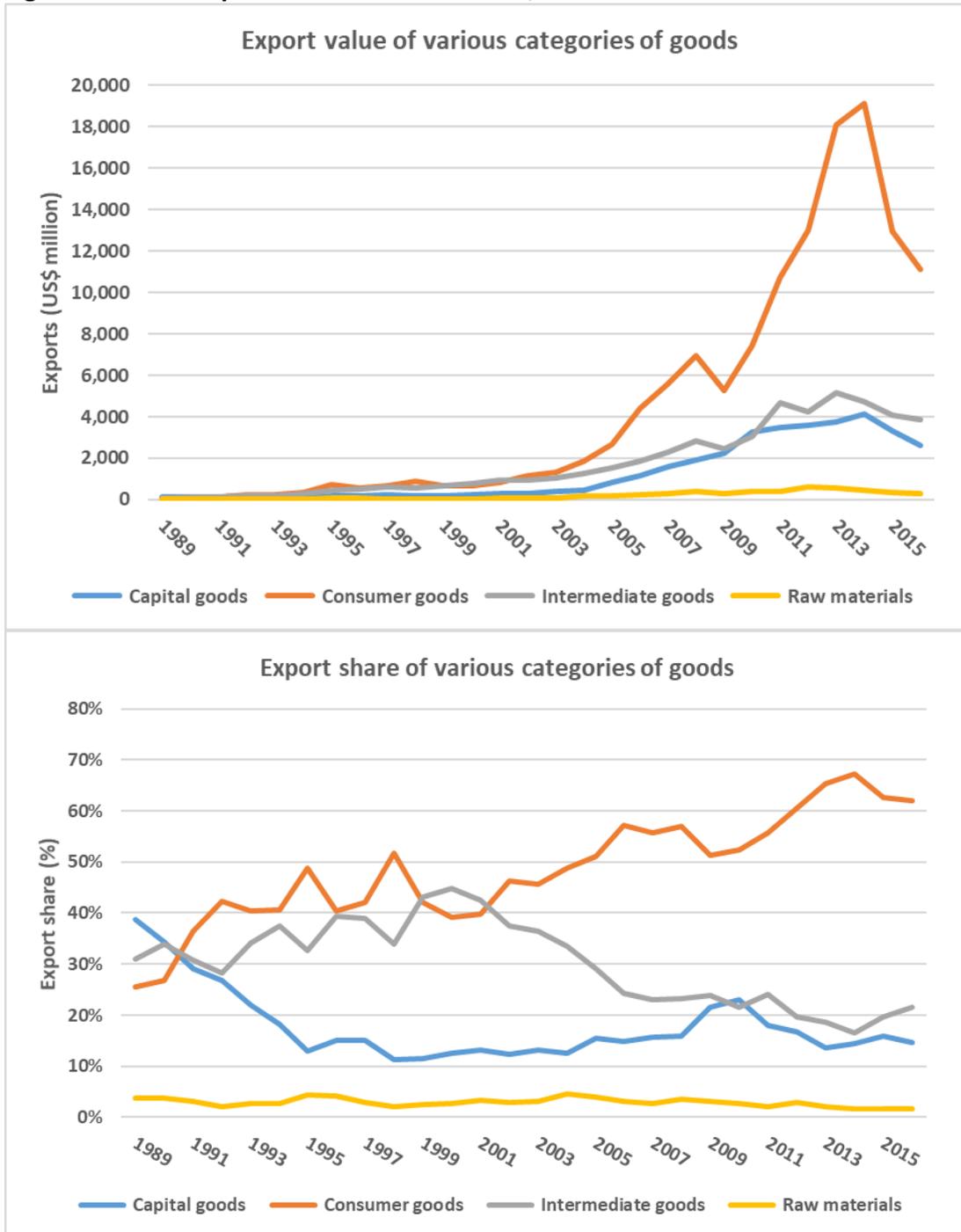
**Figure 4: India’s composition of imports from SSA in 2005, 2010, and 2016**



Source: Authors’ calculations based on data from World Integrated Trade Solutions (WITS).

India's exports to Africa are more diverse. Since 2000, consumer goods—electronics, ICT, telecommunication, refined petroleum, etc.—have become more important. In 2016, consumer goods were 60% of exports to SSA (Figure 5). The total value of exports of all categories of goods rose, before dropping in 2014 due to fall in the commodity prices. This tells us both about India's comparative advantage and the aspirations of the growing African population.

**Figure 5: India's export to Sub-Saharan Africa, 1989-2017**

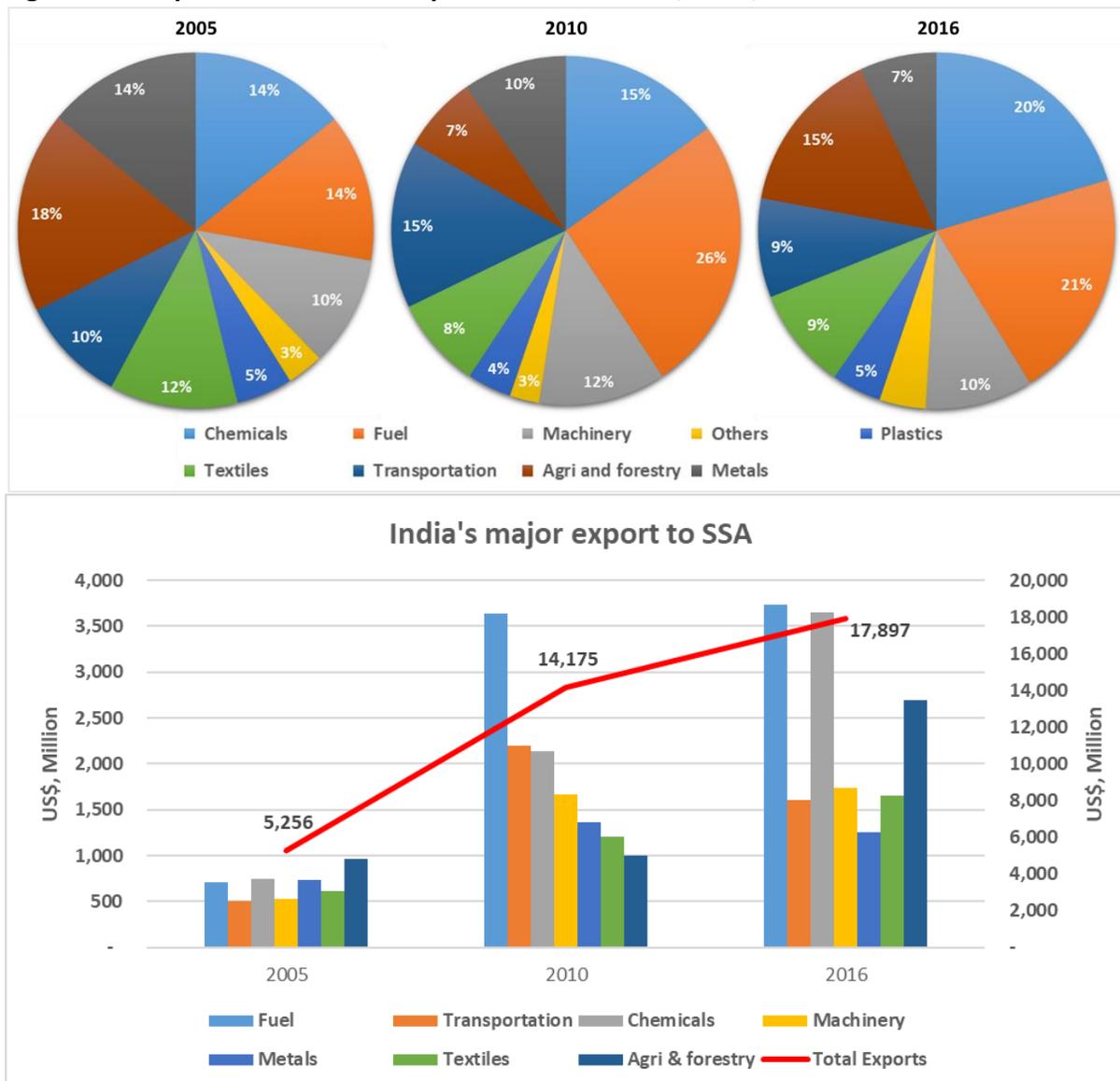


Source: Authors' calculations based on World Integrated Trade Solutions (WITS).

India's exports to SSA have always been varied. Even in the category of consumer goods, India's exports include many different items. For example, in 2005, chemicals, refined fuels, textiles, machinery, transportation and metals, all had similar share in India's total exports of \$5.3 billion to SSA. (Figure 6)

In 2010, the export of refined fuel and transportation increased to 26% and 15% of total exports respectively, while agriculture and forestry, metal, and textiles fell to 7%, 10%, and 8% respectively. The value of refined fuel and transportation exports amounted respectively to \$3.6 billion, and \$2.2 billion. Although in 2010, the export shares of agriculture and forestry, textiles, and metals decreased, their export values increased to \$1 billion, \$1.2 billion, and \$1.4 billion from \$965 million, \$612 million, and \$740 million in 2005 respectively (Figure 6).

**Figure 6: Composition of India's exports to SSA in 2005, 2010, and 2016**



Source: Authors' calculations based on data from World Integrated Trade Solutions (WITS).

By 2016, the total exports had increased to \$17.9 billion from \$14.2 billion in 2010. However, compared to 2014, when the goods shipped to SSA equaled to \$28.4 billion, this was a decrease of \$10.5 billion in exports. The largest increases, in 2016, were for chemicals and agriculture and forestry. Chemicals exports increased to \$3.7 billion, capturing almost a fifth of the total exports to SSA. The share of agriculture and forestry also jumped to 15 percent, which was an increase of \$1.7 billion, an 8 percentage-point increment from 2010 levels. Only transportation and metals experienced a decrease in their export value, dropping to \$1.6 billion and \$1.3 billion, respectively. (Figure 6)

### Distribution of trade: India's major trading partners in SSA

In 2017-18, South Africa, Nigeria, Angola, Ghana and Botswana were the top five countries from which India imported. Around 73 percent of the total India's imports from SSA originated from these countries. Mozambique, Zambia, Senegal and Tanzania are other countries that saw their import shares increase. These countries, many not even in the top ten before 2004, experienced growth in the value of exports to India from 2010 to 2018. (Table 3)

**Table 3: Top 10 countries for India's imports in 2004-05, 2010-11 and 2017-18 (US\$, Million)**

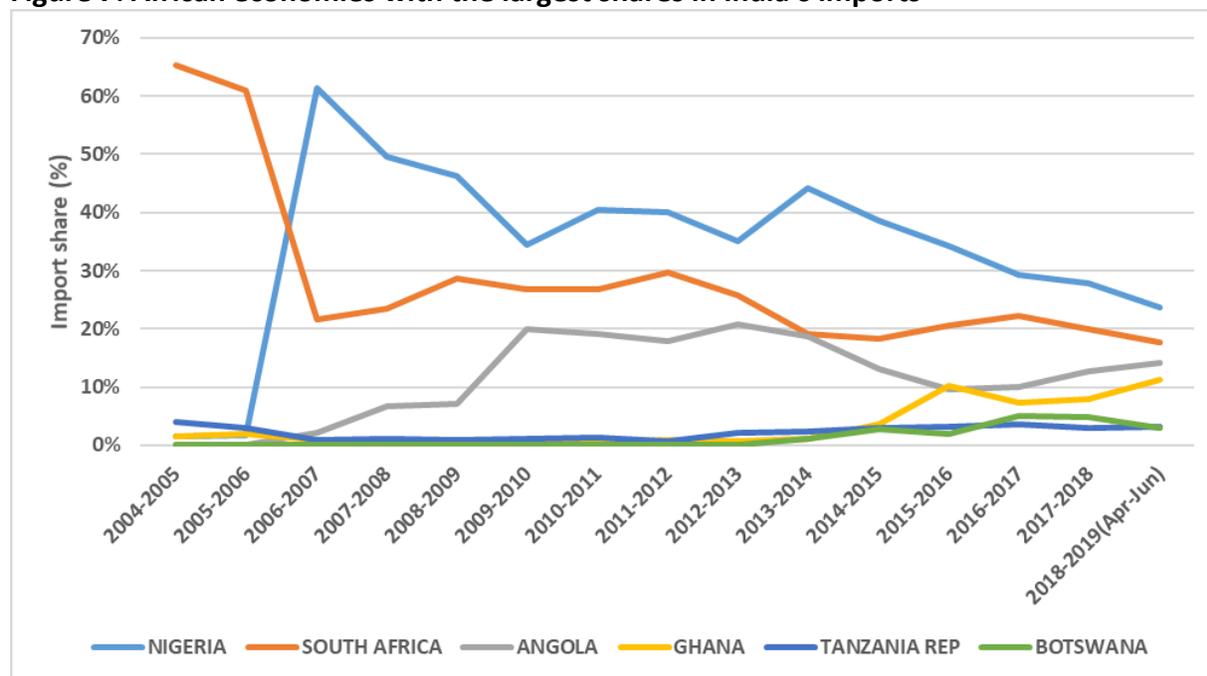
Rank		2004-2005		2010-2011		2017-2018
1	<b>SOUTH AFRICA</b>	2,198	<b>NIGERIA</b>	10,788	<b>NIGERIA</b>	9,501
2	<b>SENEGAL</b>	181	<b>SOUTH AFRICA</b>	7,141	<b>SOUTH AFRICA</b>	6,835
3	<b>COTE D'IVOIRE</b>	160	<b>ANGOLA</b>	5,112	<b>ANGOLA</b>	4,324
4	<b>TANZANIA REP</b>	132	<b>SUDAN</b>	614	<b>GHANA</b>	2,710
5	<b>BENIN</b>	80	<b>CONGO P REP</b>	543	<b>BOTSWANA</b>	1,638
6	<b>GUINEA BISSAU</b>	71	<b>TANZANIA REP</b>	327	<b>ZAMBIA</b>	1,095
7	<b>GHANA</b>	51	<b>GABON</b>	308	<b>TANZANIA REP</b>	1,030
8	<b>NIGERIA</b>	48	<b>COTE D'IVOIRE</b>	251	<b>MOZAMBIQUE</b>	932
9	<b>KENYA</b>	47	<b>SENEGAL</b>	206	<b>EQUATL GUINEA</b>	756
10	<b>TOGO</b>	46	<b>GHANA</b>	160	<b>BURKINA FASO</b>	633

Source: Authors' calculations based on data from Reserve Bank of India.

Before 2006, South Africa had the largest share in India's imports from SSA. In 2004-05, Nigeria's share in India's imports from SSA was just 1 percent (\$48 million), whereas South Africa captured 65 percent (\$2 billion) of imports. (Figure 7 and Table 3) But Nigeria saw a quantum jump in crude oil exports to India, pushing its merchandise from \$72 million in 2005-06 to \$7 billion in 2006-07; an increment of 59 percentage points in Nigeria's share of India's imports from SSA. Despite a drop in imports from Nigeria in last few years, it remains the top

African exporter to India. A similarly impressive growth in the exports of crude oil is from Angola. Its share in India's imports from SSA jumped from almost nothing in 2004-05 to 7 percent in 2007-08. Since then, imports from Angola have hovered between 10 and 20 percent. South Africa, Nigeria and Angola—all middle income economies—have accounted for major part of India's imports from SSA over the last decade; from 2009 to 2014 more than 80 percent of India's imports from SSA originated from these three countries. Their main exports to India are crude oil, gems and stones, and metals.

**Figure 7: African economies with the largest shares in India's imports**

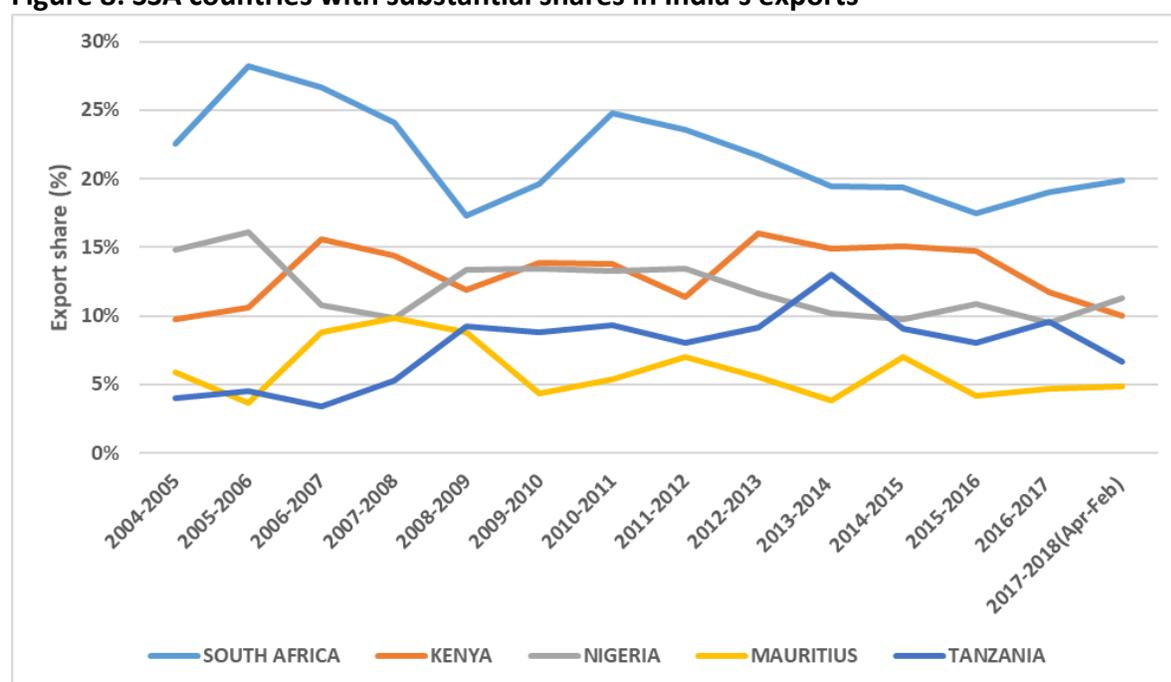


Source: Authors' calculations based on data from Reserve Bank of India.

In 2016-17, 55 percent of the total exports from India to Africa were to South Africa, Kenya, Tanzania, Nigeria, and Mauritius. (Figure 8) These are the countries to which majority of India's exports went over the last decade. Nearly a third of remaining exports ended up in Mozambique, Sudan, Ethiopia, Ghana, Benin, Senegal, Uganda, Togo and Cote d'Ivoire. Four major partners—South Africa, Kenya, Mauritius and Tanzania—have strong cultural ties with India through a sizeable presence of Indian diaspora since they were British colonies. Textiles, electronics, ICT products, telecommunications, chemical, and refined petroleum are the major exports from India to these economies. India has tried to diversify its African exports, but these economies still remain India's chief export destinations.

Over the last decade, the value of exports from India has increased to almost every country in SSA. (Table 4) Mozambique, Ghana, Sudan and Ethiopia are other African economies to which India exports. But their share is generally less than 5 percent of the total export value to SSA.

**Figure 8: SSA countries with substantial shares in India's exports**



Source: Authors' calculations based on data from Reserve Bank of India.

**Table 4: Top 10 countries for India's exports in 2004-05, 2010-11 and 2016-17 (US\$, Million)**

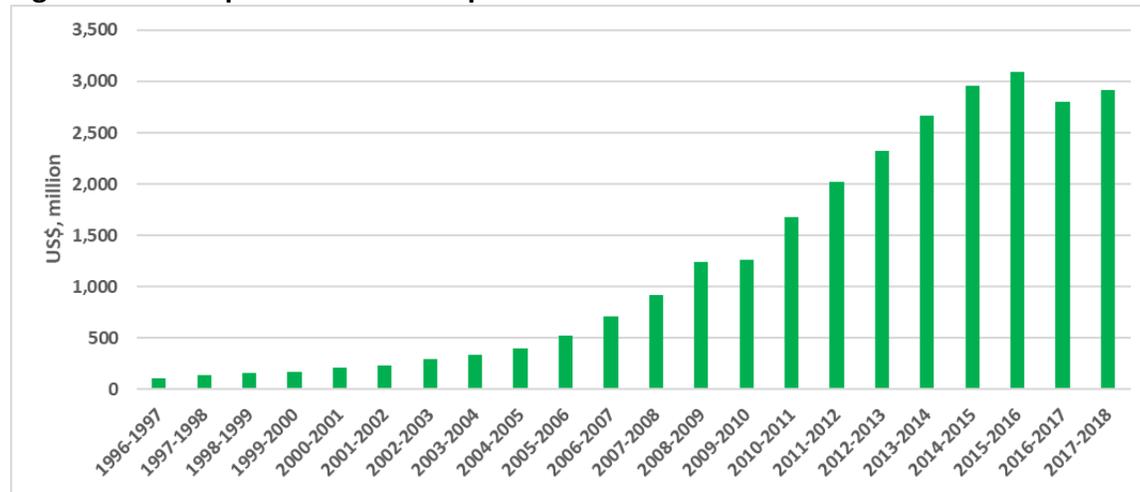
Rank		2004-2005		2010-2011		2016-2017
1	<b>SOUTH AFRICA</b>	984	<b>SOUTH AFRICA</b>	3,912	<b>SOUTH AFRICA</b>	3,546
2	<b>NIGERIA</b>	645	<b>KENYA</b>	2,182	<b>KENYA</b>	2,194
3	<b>KENYA</b>	427	<b>NIGERIA</b>	2,099	<b>TANZANIA REP</b>	1,784
4	<b>SUDAN</b>	317	<b>TANZANIA REP</b>	1,475	<b>NIGERIA</b>	1,764
5	<b>TOGO</b>	263	<b>MAURITIUS</b>	854	<b>MOZAMBIQUE</b>	1,010
6	<b>MAURITIUS</b>	258	<b>ANGOLA</b>	675	<b>MAURITIUS</b>	881
7	<b>GHANA</b>	183	<b>MOZAMBIQUE</b>	605	<b>ETHIOPIA</b>	774
8	<b>TANZANIA REP</b>	174	<b>GHANA</b>	580	<b>SUDAN</b>	749
9	<b>COTE D'IVOIRE</b>	101	<b>SUDAN</b>	488	<b>GHANA</b>	681
10	<b>CONGO P REP</b>	93	<b>UGANDA</b>	293	<b>SENEGAL</b>	634

Source: Authors' calculations based on data from Reserve Bank of India.

**Box 2: Indian pharmaceutical exports to Africa- Serum Institute of India and Cipla Ltd.**

Pharmaceutical and medicine exports by Indian pharmaceutical firms to Africa have been one of the fastest growing exports from India to Africa since early 2000s. Pharma exports have risen from \$104 million in 1996-97 to \$3 billion in 2015-16. (Figure 9)

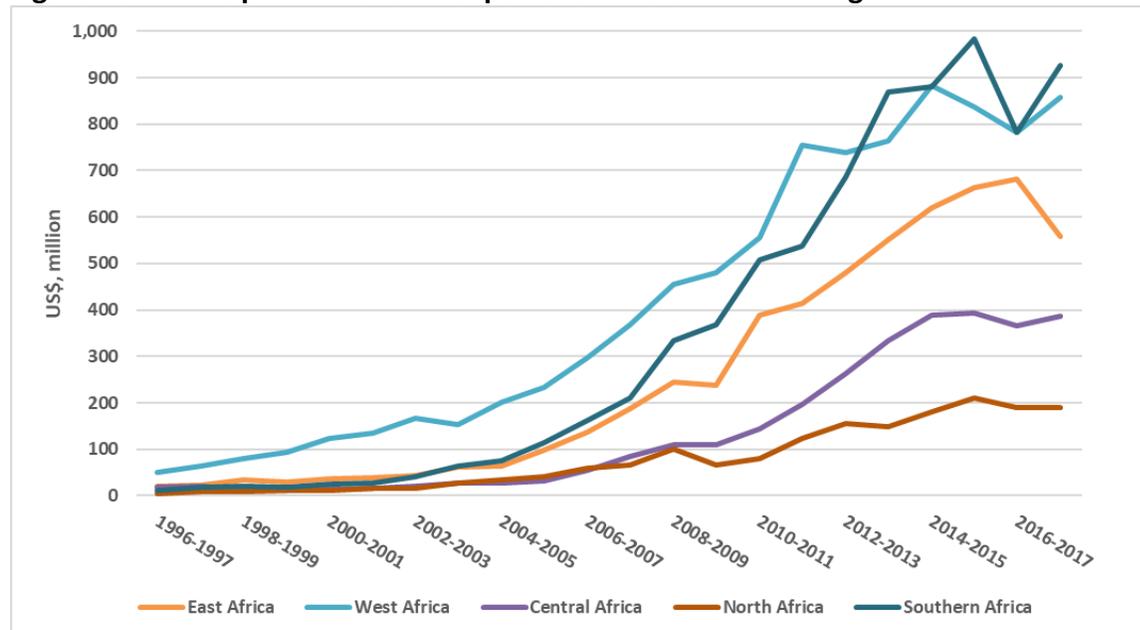
**Figure 9: India's pharmaceutical exports to Africa**



Source: Ministry of Commerce and Industry, Government of India.

The exports have grown in almost every sub-region of Africa since the turn of this century. In 2016-17, at around \$900 million each, the western and southern regions had the majority of Indian pharmaceutical exports, whereas North Africa had the least at about \$200 million—less than a quarter of the imports by southern and western regions respectively. (Figure 10)

**Figure 10: India's pharmaceutical exports to different African regions**



Source: Ministry of Commerce and Industry, Government of India.

Indian companies are playing an important role in making affordable medicines and vaccines available, badly needed for the treatment of deadly diseases specific to the region. Two such examples are the Serum Institute of India (SII) and Cipla Ltd.

### ***Serum Institute of India***

Meningococcal A Meningitis, which was threatening the lives of hundreds of millions of people across 26 countries in Africa's 'Meningitis belt' stretching from Senegal and Gambia in the west to Ethiopia in the east, was eliminated with the help of a tailor-made vaccine 'MenAfriVac' developed by Serum Institute of India. In February 2016, global vaccine experts and officials from all 26 African "meningitis belt" countries convened a meeting in Addis Ababa, Ethiopia to celebrate one of Africa's biggest public health achievements: the elimination of meningococcal A meningitis. It was the outcome of the Meningitis Vaccine Project, an alliance between PATH, an international, non-profit global health organization, the WHO, the Bill and Melinda Gates Foundation and the Serum Institute of India that played a vital role in this project. (World Health Organization, Regional Office of Africa, 2016)

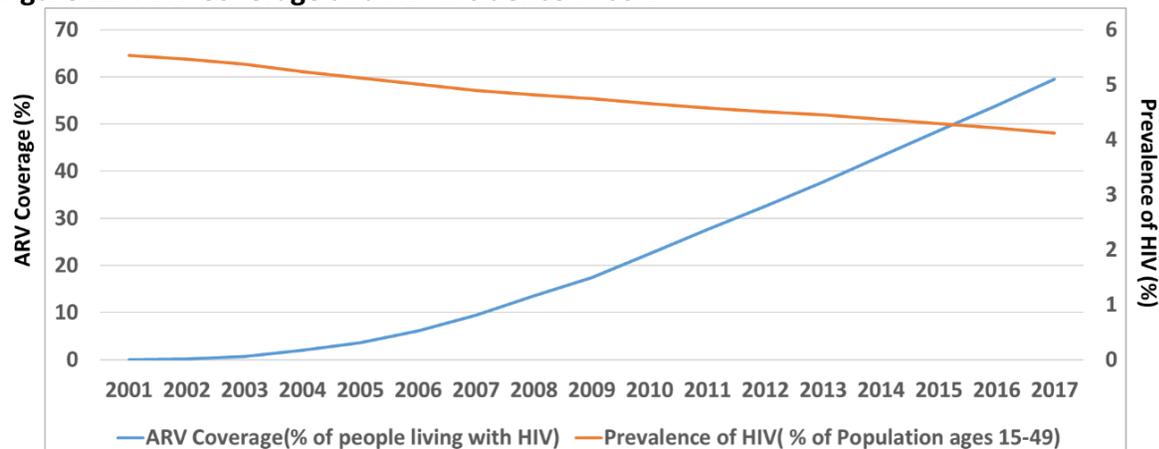
Priced at just \$0.40 per dose, MenAfriVac became available for use in Africa in 2010. Within six years since its introduction, MenAfriVac had an immediate and dramatic impact in breaking the cycle of meningitis epidemics. The savings for the African nations in terms of their health expenditure has also been quite significant. From public health perspective this can be rated as one of the top success stories of the recent times.

### ***Cipla Limited***

In early 2001, when only one in thousand people living with HIV in Africa had access to lifesaving ARV medicines, an Indian generic drug company Cipla Limited offered to sell the triple combination of ARV treatment at \$350 per person per year. This was a time when the ARV drugs were sold by big pharma companies in the developed country markets for \$10,000 to \$15,000 per person per year and were unaffordable for patients in poor developing countries. (Ellen 't Hoen, 2011) Cipla's offer exposed the big pharma companies who were making extra-normal profits by keeping supply low.

Patent laws in India have provided the platform for fierce competition among generic drug manufacturers, and helped Cipla offer ARV drugs at reduced prices. Indian pharmaceutical companies also utilized the flexibility provided under the World Trade Organization's (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) to mass-produce lifesaving drugs like ARV. (Ellen 't Hoen, 2011) This completely changed the landscape of HIV treatment across the developing world and helped millions access cheap and quality ARV medicines. According to MSF, Indian companies supply around 80 percent of ARV drugs used in Africa. Figure 11 shows that after 2001 ARV coverage in Sub-Saharan Africa has increased from nothing to almost 60 percent of the affected population. This has been made possible by the Indian generic pharmaceutical companies like Cipla Ltd. who have played crucial role in making the lifesaving ARV treatment available to the patients in low- and middle-income countries.

**Figure 11: ARV Coverage and HIV Incidence in SSA**



Source: (The World Bank, 2018)

## Indian Investments and Financial Flows in Sub-Saharan Africa

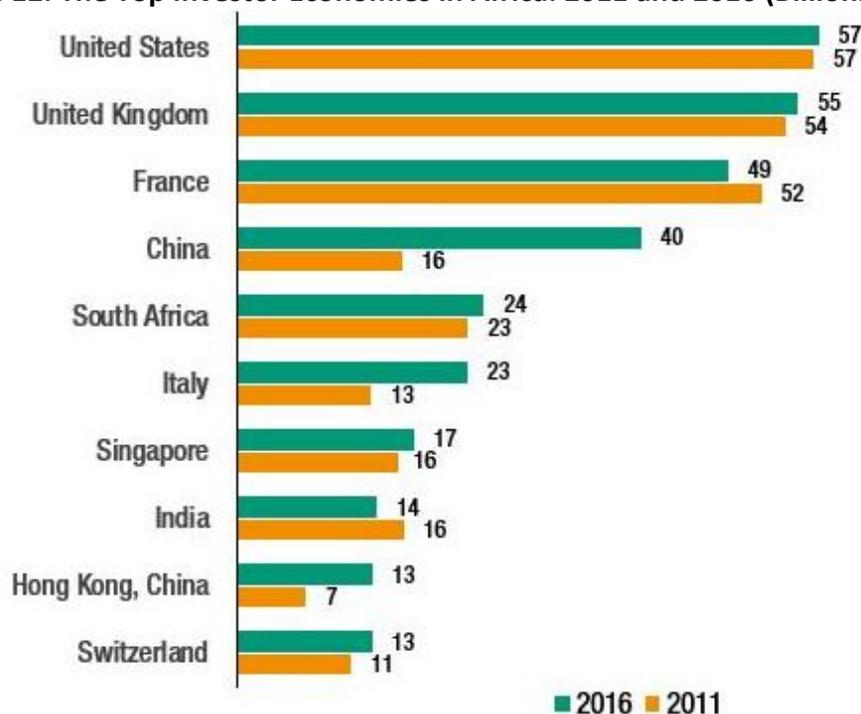
According to the latest United Nations Conference on Trade World Investment Report (UNCTAD 2018), FDI flows to Africa fell by 21 percent in 2017 to \$42 billion, mainly due to weak oil prices and the global commodity market slump. FDI flows to Central Africa decreased by 22 percent to \$5.7 billion. In West Africa, they fell by 11 percent to \$11.3 billion, because of Nigeria's depressed economy. East Africa also saw a decline of 3 percent, getting just \$7.6 billion; Ethiopia absorbed nearly half of the flows into East Africa at \$3.6 billion, a little lower as compared to the previous year. In Southern Africa, FDI declined by 66 percent to \$3.8 billion mainly due to a huge drop to South Africa.

Multinational enterprises (MNEs) from developed economies (such as the United States, United Kingdom and France) hold the largest FDI stock in Africa. At the same time, developing-economy investors from China and South Africa, followed by Singapore, India and Hong Kong (China), are among the top 10 investors in Africa. (Figure 12)

### Indian investments

Several Indian private and state-owned enterprises have increased their presence in SSA, building on a growing trade partnership since the early 2000s. Though the mineral-rich SSA countries attract investments in extractive industries, Indian enterprises have seen greater value in other areas like telecommunications, construction, information technology, finance and banking, healthcare, and food processing.

**Figure 12: The Top Investor Economies in Africa. 2011 and 2016 (Billions of Dollars)**



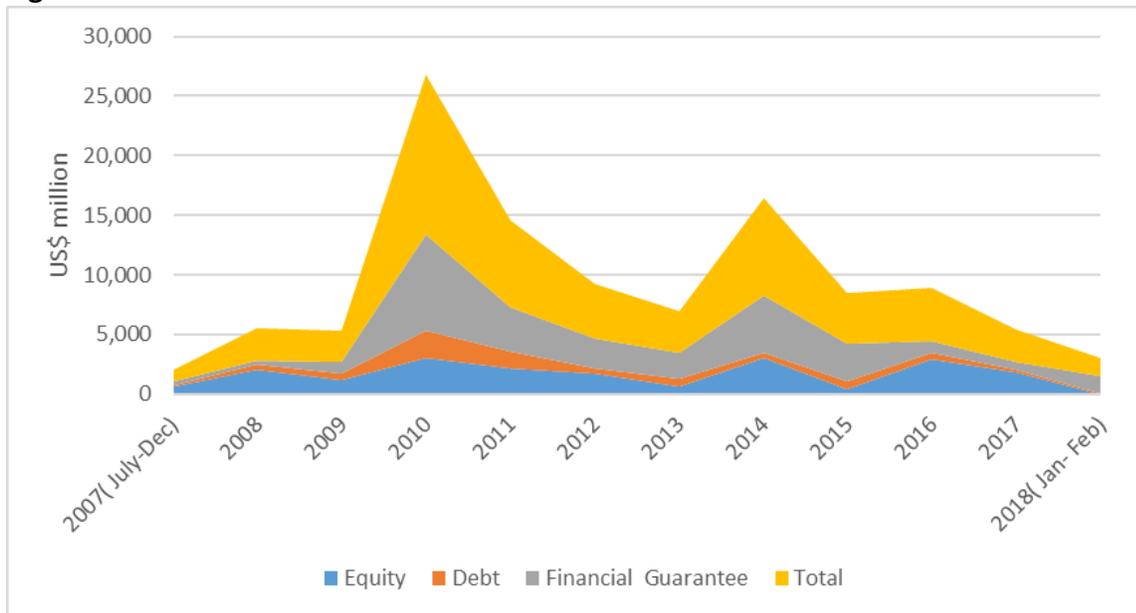
Source: UNCTAD, World Investment Report 2018.

Note: Numbers presented in this figure are based on FDI stock data of partner countries.

As can be seen from UNCTAD data, many developing and emerging market economies now are active in Africa. (Figure 12) This indicates increasing competitiveness of the firms in middle-income countries. While trade transactions since the early 2000s have complemented the increase in investments made by Indian firms in SSA, there have been other reasons as well for the growth of Indian investments. The liberalization of the overseas investment regime in India was an important factor. The late 1990s and early 2000s saw robust economic growth in the Indian economy, creating additional energy requirements. This pushed Indian policy makers to explore new avenues, and Indian companies have expanded into mineral rich nations.

Economic growth, a growing population and a general optimism in Africa has improved its attractiveness as an investment destination prompting many Indian companies to enter the market through various joint ventures and mergers. In 1996, for example, the state-owned company, Oil and Natural Gas Commission (ONGC) set up an overseas arm, Oil and Natural Gas Corporation-Videsh Limited (OVL), for this purpose. Since then, OVL and large private Indian companies have increased their investment in several African economies. In addition to oil and gas, Indian firms have also made investments in other extractive sectors. Vedanta has invested in mining copper, iron ore and zinc in Liberia, Namibia, South Africa and Zambia. Jindal Steel and Power has invested in East and Southern Africa in coal mining and power projects. Several companies in other sectors like construction, IT, telecom, auto, finance and banking, etc. have also invested in the region; this includes large companies like Tata, L&T, HCL, Wipro, ICICI Bank have expanded their footprint in the region.

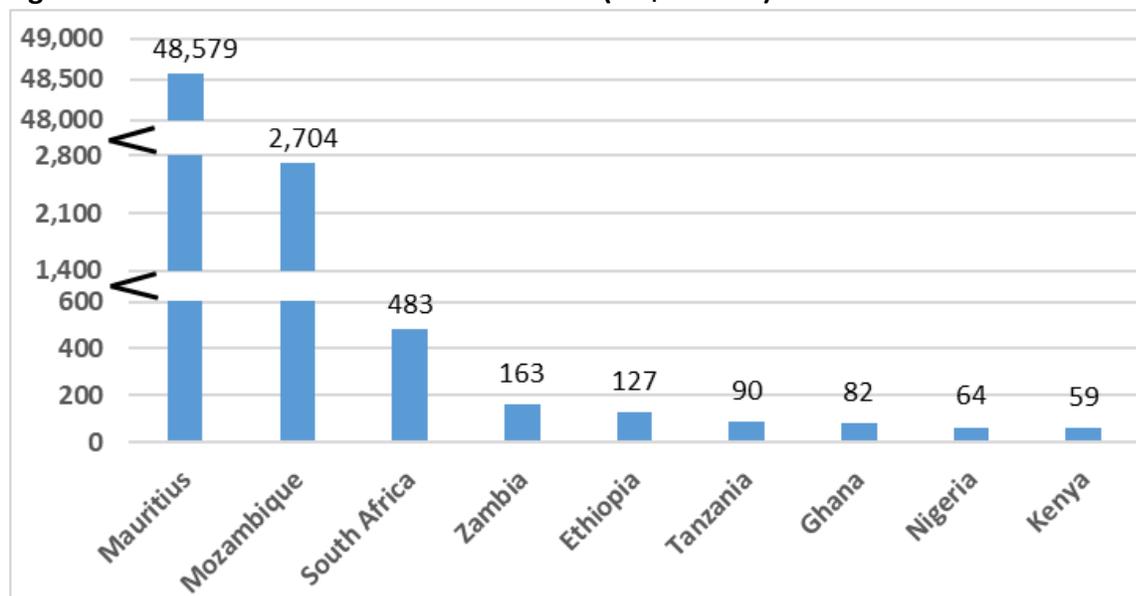
**Figure 13: Indian investments in SSA**



Source: Authors' calculations based on the data from Reserve Bank of India

But compared with China, the size of Indian investments is small. Besides, India's investments in SSA have fallen since peaking in 2010. (Figure 13) Nevertheless, even after the financial crisis in 2008-09 when India's outward investments declined, they continued to grow in Africa for few years. (The World Bank, 2014). The total amount of investment made by Indian firms in SSA from 2008 to early 2018 is about \$56 billion, but bulk has been to just one nation: Mauritius. (Figure 14 and Box 3) The second biggest investee nation in SSA is the Mozambique due to OVL investments. South Africa is the next largest recipient of the Indian investments. (Figure 14)

**Figure 14: India's investments in SSA nations (US\$ million)**



Source: Authors' calculations based on the data from Reserve Bank of India.

If we ignore Mauritius, though, the investments of Indian firms in Africa are negligible. Box 3 shows that Mauritius is a special case because of a tax treaty with India, though with some useful lessons for Indian investors interested in Africa.

### **Box 3: Not just round-tripping—India's investments in Mauritius**

The bulk of Indian investment flows to Africa has been to just one nation: Mauritius. This island nation, due to creative policymaking, has been able to attract huge investments from others as well. Because of preferential tax structures, a superior credit rating, lax exchange controls, and political stability, Mauritius has emerged as the preferred jurisdiction for businesses with African interests.

In India's case it is believed that a large proportion of the Indian investment to Mauritius is 'round-tripped' back to India due to its tax haven status facilitated by the double taxation avoidance agreement (DTAA) with India. Therefore, investments made in Mauritius do not reveal the true return to Indian investments in Africa. The DTAA has been used extensively by Indian investors to channel their investments through so-called 'tax-haven' nations, facilitating round-tripping of investments, and making it possible for investors to avoid taxes altogether.

In March 2016, the Indian Government renegotiated this arrangement to avoid this loss of tax revenues. The changes will come into force by 2019. (Ministry of Finance, Government of India, 2016)

Nevertheless, some Indian companies such as Infosys and Hinduja have entered into joint ventures with Mauritian partners and have made investments in the ICT sector. The state owned Mahanagar Telephone Nigam Ltd., (MTNL) has a subsidiary Mahanagar Telephone Mauritius Ltd., (MTML) which offers fixed phone services, mobile phone and wireless internet services.

Indian companies have also invested in Mauritius' health sector. Apollo Hospitals Group, Fortis Healthcare Ltd., and Dr Agarwal's Eye Hospital all have built and operate hospitals in Mauritius. Various Indian hotel groups, including Oberoi, Sagar, and Taj have high-end hotels and resorts in Mauritius. Patel Engineering, a construction firm was awarded the contract for the development of a new township (Neotown) at Les Salines, located just outside Port Louis. The project, estimated at over \$ 1 billion, is the largest single foreign investment in Mauritius.

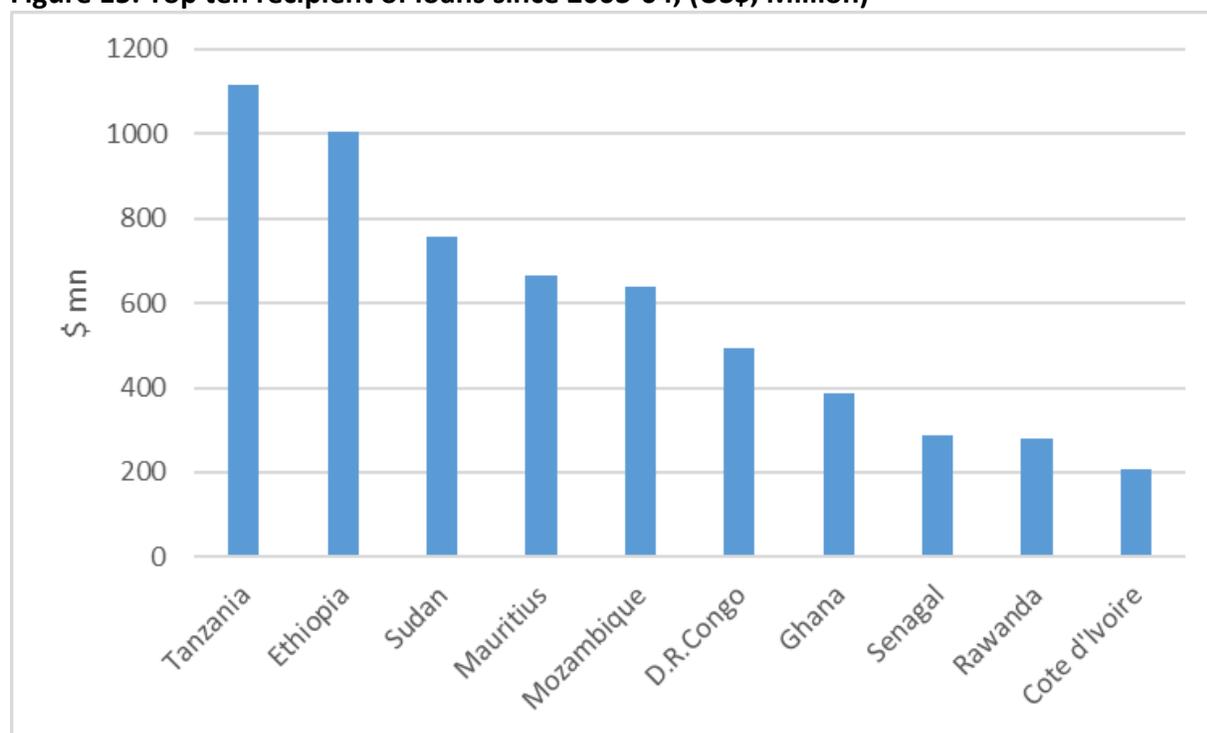
Binani Cement Ltd is planning to build a clinker grinding plant. The proposed plant is expected to have an annual production capacity of one million tons of cement. Indian Oil Ltd, a state-owned entity, has built a 24,000-metric ton-fuel storage terminal as well as a testing laboratory. It also operates a number of retail distribution outlets in Mauritius. (U.S Department of State, n.d.)

## Concessional loans

India has been supporting infrastructure development and exports of equipment, goods and services in various developing countries by granting concessional loans. Apart from having a five-year moratorium on repayments and a long tenor, these loans also have an element of grant. This is being done under the Indian Development and Economic Assistance Scheme (IDEAS) formulated in 2003-04 with the objective of sharing India's development experience through (a) capacity building and skills transfer, (b) trade and (c) infrastructure development by extending concessional loans routed mainly through Export Import Bank of India (Exim Bank).

These loans are being granted to affiliate nations for large-scale and complex projects. Most of the SSA nations are partner countries and have been recipient of these funds. These loans are different from the loans extended by the World Bank and the IMF; they are always demand driven and project-specific. Based on feasibility studies, the host nation requests the Indian Government to fund the project. The Government of India then examines the proposal and conveys its approval (and other terms and conditions) to the Exim Bank, which then enters into an agreement with the borrower nation. India's exposure to SSA region under this scheme was more than \$9.2 billion from 2003 till 2017. The top three beneficiaries are Tanzania, Ethiopia and Sudan; other major recipients are listed in Figure 15.

**Figure 15: Top ten recipient of loans since 2003-04, (US\$, Million)**



Source: Authors' calculations based on data from EXIM Bank of India.

#### **Box 4: Development beyond telecommunications—the case of Bharti Airtel**

Sub-Saharan Africa accounts for nearly a tenth of the global mobile subscriber base, and is expected to grow faster than every other region over the next five years. The mobile industry is playing an important role in the social and economic development of the region. Mobile connectivity has become a main platform for innovation and the driving force for greater inclusion, while the mobile ecosystem, including mobile network operators and device vendors, contribute significantly to the economic growth and jobs. Across the region, mobile phones are enabling life-enhancing services that directly impact the UN Sustainable Development Goals (SDGs), complementing the efforts of governments and their development partners.

Telecommunications are also one of the largest sectors for Indian companies in Africa. Bharti Airtel, a telecommunications company, is an example of India's extensive presence in the region. Bharti Airtel Limited is a leading global telecommunications company with operations in countries across Asia and Africa. Headquartered in New Delhi, the company ranks amongst the top three mobile service providers globally in terms of subscribers.

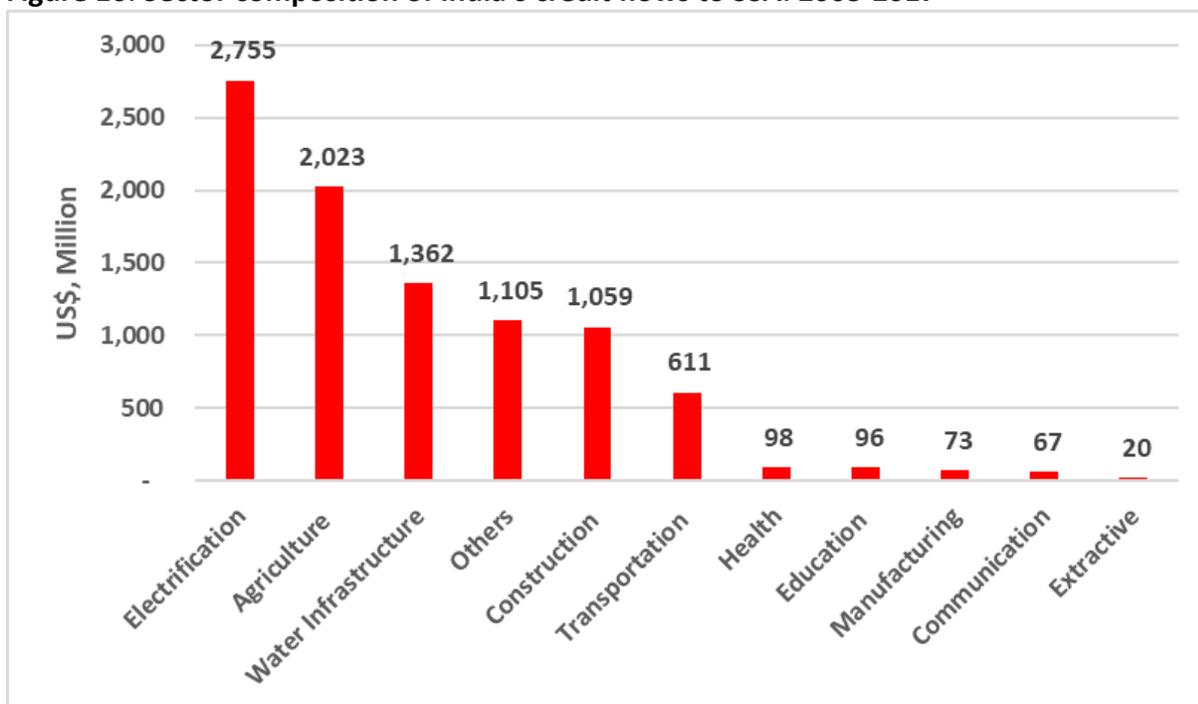
Airtel began operations in Africa in 2010 after it took over operations from Kuwait's Zain Telecom in a \$10.7 billion acquisition deal. The company has been the market leader in 15 African countries since it entered the market in 2010. With over 76 million subscribers as of March 2015, and a workforce of about 5,000 people, Airtel is now the second-biggest telecom operator in the entire African continent.

Driven by a vision of providing affordable and innovative mobile services to everyone while making profits for its shareholders, Airtel now operates in Burkina Faso, Chad, Democratic Republic of the Congo, Republic of the Congo, Gabon, Ghana, Kenya, Madagascar, Malawi, Niger, Nigeria, Rwanda, Seychelles, Sierra Leone, Tanzania, Uganda and Zambia. The company is also contributing to development through several activities in the area of education, health, youth training and empowerment. Its flagship program in Africa, "Adopt-a-School", currently reaches 27,000 children in 56 schools. It has been organizing health camps and has donated medical equipment in many parts of the region. (Airtel)

The sector distribution of concessional loans is provided in Figure 16. Electricity and agro-food processing are the two largest segments, followed by water infrastructure and construction activities. An important point to note here is that while the credit amount is in excess of \$9 billion, the disbursement under the scheme has been much less at about \$4 billion. This could be an area of concern for both lender and borrowing nations.

The household electrification rate in sub-Saharan Africa is the lowest in the world at around 42 percent in 2016. According to a February 2015 McKinsey report, SSA's power sector is underdeveloped, measured in terms of energy access, installed capacity or overall consumption. Residential and industrial sectors both suffer electricity shortages so countries struggle to sustain GDP growth. Furthermore, as in other parts of the world, the power sector in the region is dependent on coal, oil and gas, and the dependence on fossil fuels is an area of concern due to greenhouse gas emissions and global climate change implications.

**Figure 16: Sector composition of India's credit flows to SSA: 2003-2017**



*Source: Authors' calculations based on data from EXIM Bank of India.*

India's investment in clean energy and power generation from renewable sources has grown significantly in the last few years. India has committed to reduce its carbon emissions significantly and has put renewed focus on renewable energy. The Indian Government has also published new IDEAS guidelines in 2015 and has committed an amount of \$10 billion in loans to Africa between 2015 and 2020, earmarking 15-20 percent of this for solar related projects in Africa. India's Exim Bank has already facilitated various overseas projects in the energy sector that are being executed by Indian companies through Government of India supported concessional loans. Participants at the International Solar Alliance (ISA) meeting held in New Delhi in early 2017 decided to extend loans for 23 solar energy projects in 13 African countries, including Benin, Burkina Faso, Chad, Mali, Niger, Togo, Guinea, Democratic Republic Congo, Ghana, Nigeria, Seychelles, Tanzania and Rwanda.

India's aid for development in Africa is shifting towards investments in renewable energy and sustainable development and away from traditional areas of co-operation such as IT, science and technology, agriculture, and pharmaceuticals. The partnership of African Development Bank (AfDB) with ISA is expected to enhance solar energy in Africa. ISA will also provide technical assistance and knowledge for the development and deployment of solar projects.

### **Box 5: Bringing sunshine to Africa: Su-Kam Power Systems**

Su-Kam Power Systems Ltd. has rapidly become India's largest power solutions company with presence in 90 countries worldwide. The company manufactures more than 200 products including various solar products, UPS, batteries and customized solar solutions. In 2012, the company was selected by the Government of Gabon to install solar street lighting in villages that have never had access to electricity. By installing 2,000 streetlights, the Indian firm helped to improve the lives in remote villages in the districts of Kango, Mouila and Bitam located far from Libreville, the capital of Gabon. (Su-Kam Power Systems, 2018)

Su-Kam Power Systems in 2012 also helped Rwanda to set up stand-alone off-grid systems in 35 schools using solar panels. This environment-friendly project was supported by grants from the Indian Government.

Recently, under the Exim Bank's concessionary loans scheme of the Government of India and Ethiopia it installed a project of Maximum Power Point Tracking (MPPT) based solar chargers for 250 sites of telecom. Due to the successful implementation of this project, it was expanded to cover more sites and the company is in the process of delivering the solar-based solution for 2200 more telecom sites in Ethiopia.

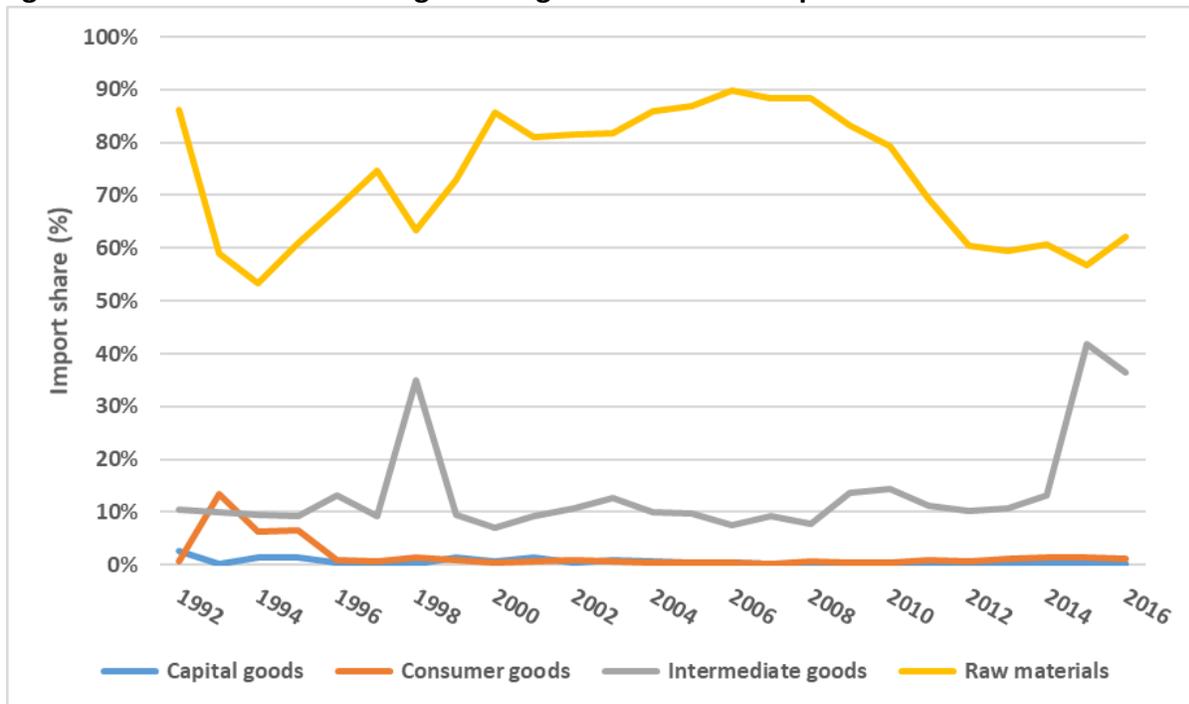
### **How India compares with China**

A discussion on India's trade and investments in SSA is not complete without a reference to China, Africa's largest trading partner and arguably India's foremost economic rival. In the last 20 years, the two Asian giants have increased their engagements with SSA through trade and investments. As shown in Table 2, these countries are now the two leading trading partners of SSA. But in terms of the size of trade, China is far ahead of India. In 2016, the value of India's trade with SSA was \$41 billion, while China traded goods worth \$118 billion with the region. As with China, trade between India and SSA has seen impressive growth in the last 10-15 years.

China's imports from SSA look similar to India's. (Figure 17) For both, more than half of imports from SSA comprise of raw materials—mainly crude oil. The recent reduction in oil imports by China was replaced by raw materials like gems and metals, which are also the other chief commodities imported by India.

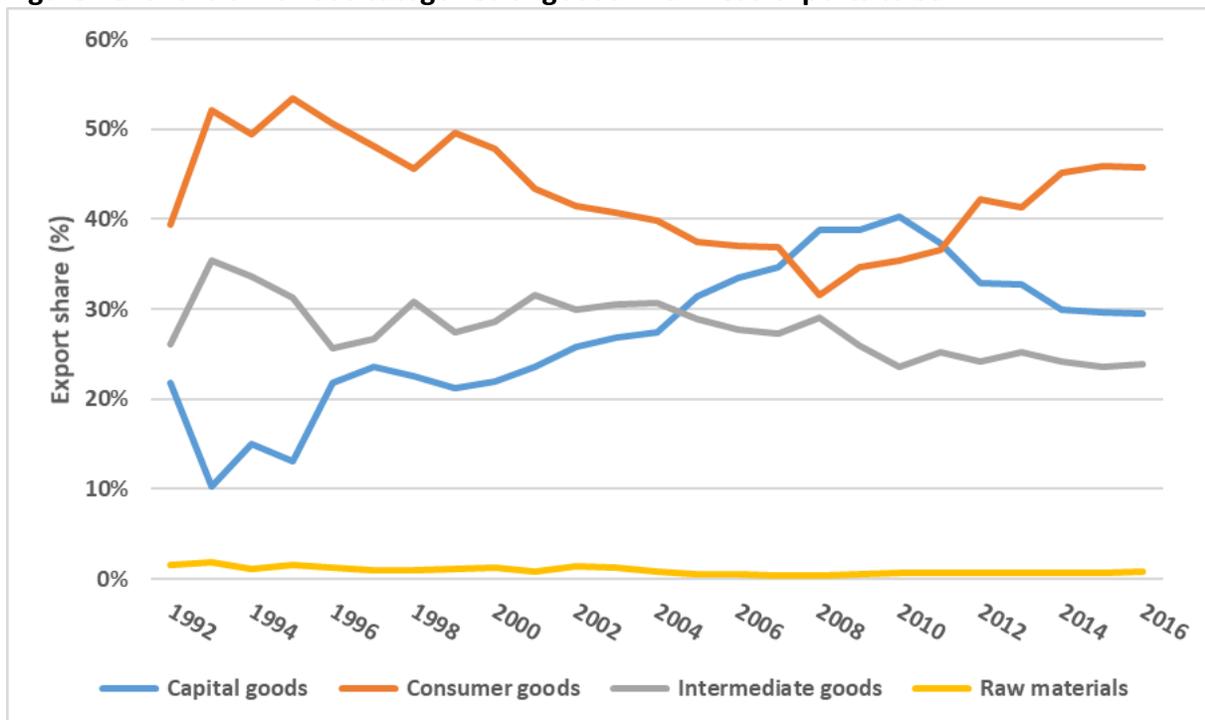
Before 2006, consumer goods had the largest share in exports from China to SSA. Between 2007 and 2011 capital goods displaced consumer goods to become the leading Chinese exports to Africa. It is interesting to note here that this happened when the exports of capital goods to SSA from USA were on the decline. After 2011, consumer goods again became the largest category of exports from China; by 2016, consumer, capital and intermediate goods captured 46, 30, and 24 percent, respectively, of Chinese exports to the region. (Figure 18) On the other hand, since 2000, consumer goods exports from India to SSA increased in comparison to capital and intermediate goods. In 2016, consumer goods exports from India to SSA were 62 percent of the total; Intermediate and capital goods were a 21 and 15 percent, respectively.

**Figure 17: Share of various categories of goods in Chinese imports from SSA**



Source: Authors' calculations based on data from World Integrated Trade Solution (WITS).

**Figure 18: Share of various categories of goods in Chinese exports to SSA**

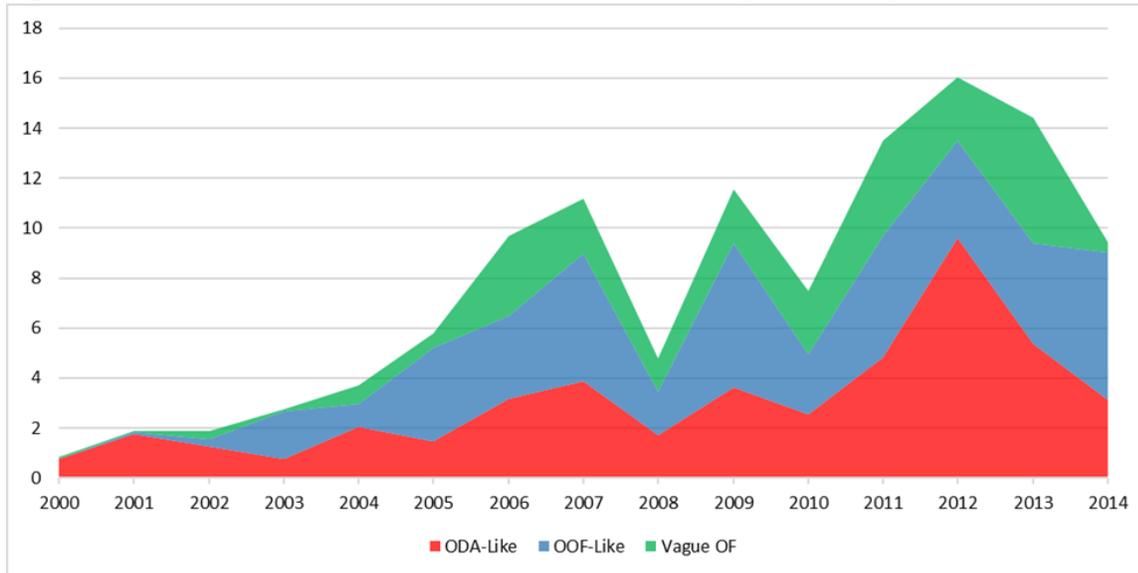


Source: Authors' calculations based on data from World Integrated Trade Solutions (WITS).

## Investment and Finance

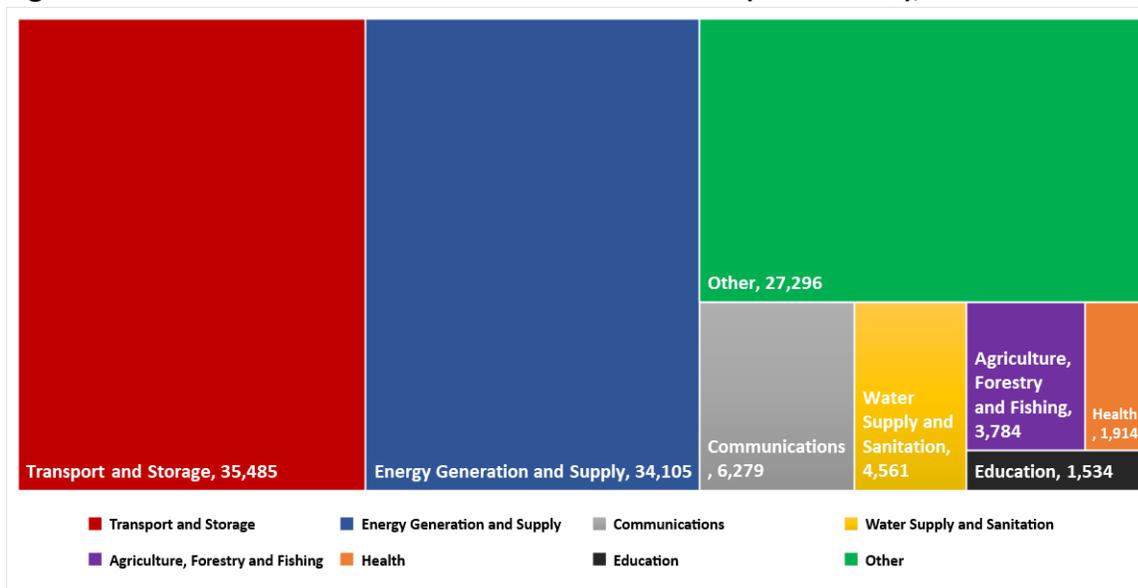
China total official finance to SSA was \$115 billion between 2000-2015. (Figure 19) This is many times the official finance of \$9.2 billion from India from 2003 to 2017. India is a small player as an investor and finance provider when compared to China. But, unlike Chinese investment that is concentrated in SSA's top ten economies, India's finance is more dispersed. Its sector distribution is also different. Agriculture, water infrastructure and electrification were the top three areas financed through Indian loans between 2003 and 2017, whereas Chinese finance is focused more on transportation, energy generation, and communications. (Figure 20)

**Figure 19: China's financial flows to Sub-Saharan Africa (billion US\$); 2000-2014**



Source: (Gill & Karakulah, *Is China Helping Africa?*, 2018c)

**Figure 20: Sector distribution of Chinese official finance (million US\$); total 2000-2014**



Source: (Gill & Karakulah, *Is China Helping Africa?*, 2018c).

## Concluding Remarks

This paper examines the trends in trade and investment relation between India and Sub-Saharan Africa over the last two decades. It analyses the evolution, composition and distribution of trade between the two regions through various vantage points. It also investigates India's finance and investment portfolio in SSA. The paper further compares India and China's engagement in Africa to better understand the similarities and differences in the economic relations of these two emerging economies with middle-income Africa.

Based on this preliminary assessment, the main policy implications are:

- *SSA countries should work systematically to attract Indian private investment:* At a time when SSA needs to attract more FDI, investment by Indian firms in SSA has been coming down. (Figure 13) These investments could help countries in SSA achieve economic growth, improve productivity, and diversify production. FDI needs to be promoted rather than high cost debt that can quickly become unsustainable in times of economic slowdown. This is also important as aid and soft loans from multilateral organizations are dwindling. Governments in Africa should work with the Indian Government to create the conditions in which Indian companies would increase investments. There are many examples of successful Indian private investments in SSA outside of extractives, which can inform the policies and programs to attract foreign investors. (Boxes 3, 4 and 5)
- *SSA economies could better utilize Indian government's concessional loan scheme:* During the last decade, many SSA countries suffered from excessive debt. Recently, debt has been growing rapidly once again. Africa's policy makers in SSA nations need to be prudent in accumulating debt, especially those contracted through markets in foreign currency. It is in this context that the concessional loans extended by the Government of India can prove to be a cost effective source of loans. The Indian Government has committed \$10 billion for Africa and it makes sense for African countries to avail of such financing that is in soft loans and grants. (African Development Bank Group, 2017) Africa's policymakers need to actively scout for similar financing opportunities in other middle-income countries.
- *India should diversify trade relations in SSA:* India and SSA have significantly increased the volume of trade during the last decade. India's imports have expanded to countries in western Africa, like Nigeria, and Angola. But most exports from India still end up in countries with colonial ties and large Indian diaspora, such as South Africa, Tanzania and Kenya (Nigeria is the exception). In the last ten years, SSA has mostly enjoyed a favorable trade balance with India, though the bulk of exports is crude oil and stones from Nigeria, Angola and South Africa. Between 2001 and 2006, intermediate goods overtook raw materials as major imports by India, but that has changed again. With increased engagement through initiatives like triennial India-Africa Forum Summit, the government's concessional loans, and ISA, there is an opportunity for African economies to increase trade with India. By assessing concessional loans and forming joint ventures with Indian companies in industries other than extractives, SSA countries can grow their industrial base.

While China will remain Africa's main trade and investment partner for the foreseeable future, India's involvement with Africa is growing steadily and has considerable potential for faster increases. The two regions share developmental trajectories and challenges, and are linked with shared linguistic, ethnic and religious roots. India also shares membership of the Commonwealth with 18 countries in Africa, and links that go back to colonial times. With its companies typically inclined towards offering low-cost products and services, India is well-positioned to expand its engagement as trade partner and investor in Africa. Governments in Africa and the Indian government should more purposefully allot time and resources to grow economic relations between the two regions—they have the potential to benefit the people of these ancient lands, and perhaps even transform their economies.

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