

# global

**GP-ORF Series** 

SECURING THE 21ST CENTURY

Mapping India-Africa Engagement

> Edited by Ritika Passi and Ihssane Guennoun









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Securing the 21st Century: Mapping India-Africa Engagement

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PREFACE		
IN	THIS VOLUME	3
Т	HE INDIA-AFRICA STORY	
1.	Pramit Pal Chaudhuri, <i>Hindustan Times</i>	8
2.	Abdallah Saaf and Ihssane Guennoun, OCP Policy Center	15
P	ILLARS	
Gei	nder	
3.	Rim Berahab, OCP Policy Center	26
Dev	velopment Finance	
4.	Vikrom Mathur and Aparajit Pandey, ORF	38
Coı	nnectivity	
5.	Ritika Passi, ORF	48
A	REAS OF ENGAGEMENT	
Agı	riculture	
6.	Malancha Chakrabarty, ORF	64

#### Health

7.	Kabir Sheikh, Public Health Foundation of India, and Anns Issac, Independent Consultant	
8.	Franklin Cudjoe, IMANI Institute, Ghana	83
Ene	ergy	
9.	Labanya Prakash Jena and Chavi Meattle, Climate Policy Initiative	
10.	Tayeb Amegroud, OCP Policy Center	102
Tra	de and Investment	
11.	Pranav Kumar, Confederation of Indian Industry	114
12.	Miriam W. Oiro Omolo, Institute of Economic Affairs, Kenya	125
Urb	panisation and Smart Cities	
13.	Rumi Aijaz, ORF	138
14.	Pierre Goudiaby Atena. Architect and Engineer. Senegal	145

#### **PREFACE**

The Observer Research Foundation (ORF), New Delhi, and the OCP Policy Center, Rabat, present their first, joint publication on bolstering India-Africa engagement to secure a common future. This collaborative effort between the two institutions offers views and policy suggestions from both Indian and African contributors.

The goal of our collaboration is to institute a platform of debate and knowledge exchange about matters of interest to both India and African countries. This volume, titled *Securing the 21st Century: Mapping India-Africa Engagement*, charts India-Africa ties and defines the scope going forward. It presents three pillars that will sustain and support the architecture for a deepening Indian-African engagement. These are founded on the opportunities afforded by contemporary political, economic, demographic, and social trends. We also jointly examine from common developmental challenges India and African countries face, and offer solutions from both Indian and African perspectives that can help identify specific policy areas for Indian-African cooperation.

As India and Africa become the most populous regions of the world, their economies also gather momentum. Technology will have to be increasingly integrated with both business and service delivery. As the economic pulse quickens and growth rates surge, an expanding middle class with rising disposable incomes must rev up these economies to finally begin to reap the rich dividends of favourable demographics. Likewise, Indian and African societies face common challenges, such as the challenge of poverty which makes it mandatory to ensure inclusive growth. The problems pertaining to access and inequity are exacerbated by a governance deficit forced by imported political systems which many countries are yet to properly assimilate.

The common trajectory of growth with its attendant challenges that India and various African countries must negotiate makes it inevitable that they seek to deepen their relations as well as understanding of each other. In this strengthening of relations what areas of cooperation can, and should, be prioritised?

We believe that the template for a secure and equitable 21st century will be written in developing Asia and Africa over the next two decades. Both need to tackle old problems in new ways by evolving partnerships

– partnerships that can help ensure food for present and future generations; sustain ever-increasing populations in sustainable ecosystems; respond to climate change through energy transitions; and deliver last-mile health connectivity. Given both the boundless opportunities and the scale of challenges these regions face, it is inevitable that solutions and pathways will also be incubated here.

India and Africa can thus benefit from engaging in a mutual win-win partnership that can enhance their capacities and streamline benefits through collaborative endeavours, with the aim of providing better lives for their peoples. This publication is thus emblematic of what is the need of the hour – creating knowledge bridges across Indian and African institutions. Think tanks can play a crucial role in furthering Indian-African engagement through such initiatives, and help foster debate and analysis on how to resolve common problems and leverage common opportunities.

We hope that this volume, and similar future ORF-OCP Policy Center joint publications and activities, will act as springboards for policy formulation towards a deeper, proactive, and enterprising India-Africa engagement.

We hope these papers provoke more thoughts and ideas for our common future.

**Sunjoy Joshi** Director, ORF

Karim El Aynaoui Managing Director, OCP Policy Center

#### IN THIS VOLUME

This year marks 10 years of the India-Africa Forum Summit, and provides an important moment to take an in-depth look at the India-Africa relationship.

The context in which India and African countries can strengthen ties is provided by two realities: the emergence of Asia and Africa as pivotal to global growth and development in the 21st century, and the historicity and multifaceted nature of relations between the two.

The ongoing endeavour to build a robust development partnership that seeks to leverage opportunities and respond to critical challenges sets in relief the "core recognition that our peoples are our fundamental resource": that is, to achieve greater prosperity by giving voice to the aspirations of the 2.5 billion citizens of India and Africa. For this, the participation of local actors and the promulgation of organic solutions is inevitable.

The Delhi Declaration and the India-Africa Framework for Strategic Cooperation, adopted at the Third India-Africa Forum Summit in 2015, have already defined parameters for collaboration. This volume, featuring contributions from both India and Africa, deepens and takes forward the conversation on several of these themes. The aim is to offer specific and tangible policy recommendations to bolster local agency and consolidate engagement between India and Africa to secure a common future in the 21st century.

The first two chapters provide an overview of India-Africa ties.

In Framing India-Africa Relations: Narrative, Platforms, Areas, Pramit Pal Chaudhuri takes stock of the relationship. He identifies four phases of independent India's engagement with Africa, with the latest phase reflecting greater strategic rationale, and a longer-term and broader-based partnership. Chaudhuri proposes specific policy actions for New Delhi to fulfill the potential of this fourth and most comprehensive stage.

The chapter *India and Africa: A Culture of Collaboration* sees Abdallah Saaf and Ihssane Guennoun develop India-Africa ties within the cultural frames of reference that guide New Delhi's international

engagement. They discuss India's traditional perference for bilateralism since independence, as well as India's influence on multilateral platforms, and how it has distinguished itself from other emerging actors in its relationship with Africa. They conclude by suggesting ways to improve India-Africa ties, particularly at the diplomatic level.

The volume then turns towards 'pillars' – priorities that can and must undergird the India-Africa partnership going forward. This publication discusses three: gender, development finance, and connectivity.

Rim Berahab, in the chapter *Integrating Women in Labour Forces: The Cases of North Africa and India*, brings to light the female force participation rates in three North African countries and India; discusses determinants behind these weak numbers; and explores how India and Africa can promote gender equality in the labour market and improve women's access to economic opportunities in general.

The imperative of sourcing the trillions of dollars to successfully deliver on development agendas is discussed by Vikrom Mathur and Aparajit Pandey in their chapter *Financing Development in India and Africa*. They cite concerns regarding ODA, slow-moving and insufficient funds from multilateral banks, and the improbability of creating a fair global tax regime, instead bringing to focus home-grown and alternate sources of development finance.

In the chapter *Asia-Africa Growth Corridor: Developing an Alternative*, Ritika Passi finds potential for the AAGC to be a viable option for connectivity and cooperation to channel growth and development outcomes – particularly as it could fill gaps in other actors' engagement in Africa, such as China, and if certain loopholes and challenges are addressed in the planning stages itself of the AAGC roadmap.

The third section provides insights from both India and Africa on a number of areas of common interests. Each chapter targets specific aspects of cooperation that can be corrected, advanced, or strengthened.

In the area of agriculture, Malancha Chakrabarty describes why food security is a common goal for both India and Africa, and why they should collaborate to achieve this objective. The chapter *India-Africa Agriculture Cooperation: Scope, Current Initiatives, and the Way Forward* outlines existing engagement, from trade to capacity building, and makes recommendations, including drawing lessons from India's successful involvement in Ethiopia's sugar sector.

In the area of health, the Indian contribution by Kabir Sheikh and Anns Issac focuses on the emergence of "mixed" health systems in developing countries that are rapidly urbanising. Against this backdrop, they suggest an example each from India (local health governance) and Africa (non-physician leadership) that can be replicated in the other region in the chapter *Strengthening Health Systems in India and Africa: A Converging Agenda*.

Franklin Cudjoe provides the African perspective in the chapter *Building a Robust Healthcare System*. He too highlights a health workforce deficit, as well as inadequate health infrastructure and prevalence of counterfeit drugs. How African countries are dealing with these challenges can be instructive for India. Cudjoe also notably discusses the opportunity to use ICT to improve, inter alia, access to and affordability of health services.

In the area of energy, both chapters are grounded in the need to meet the urgent priority of energy access against the backdrop of energy transitions. The Indian chapter concentrates on how foreign and domestic institutional assets can help in meeting the financial requirement for clean and green energy infrastructure. Labanya Prakash Jena and Chavi Meattle, in their chapter *Driving Institutional Investments towards Clean Energy in India and Africa*, address key challenges institutional investors face and suggest solutions that can be adopted in India and Africa.

The African chapter delves into how an energy transition can help address acute energy poverty in Africa. In the chapter *The Energy Transition in Africa: A New Opportunity for Economic Development,* Tayeb Amegroud observes a contradiction between the energy potential and production of the continent versus a persisting deficit in energy consumption, and advances closer cooperation between India and Africa in developing clean energy-based policies and sharing renewable energy technologies and practices.

In the area of trade and investment, the focus is on the private sector. The chapter *India-Africa Economic Relations in the Emerging Economic Order* provides an Indian private sector perspective. Pranav Kumar discusses how emerging trade architecture – India's DFTP scheme, lines of credit, CFTA, and AAGC – can increase private sector engagement; highlights four key challenges the Indian private sector faces in Africa, and, critically, suggests New Delhi synergise action on facilitating Indian private investment with India's development cooperation agenda.

The African perspective in the chapter *The Private Sector's Role in Promoting India-Africa Trade and Investment* sees Miriam W. Oiro Omolo discuss the shortcomings of state-led development and the emergence of the private sector in the continent. She discusses the role African private businesses play in merchandise trade and investment between the two regions. Constraints to a more robust participation are pointed out throughout, and key recommendations for the African private sector given.

Lastly, in the area of urbanisation and smart cities, Rumi Aijaz highlights challenges developing countries face due to rapid urbanisation; briefly details India's own smart cities initiative that intends to address large rural-urban migration and low levels of urban development; and forwards four specific policy recommendations for India-Africa cooperation in the chapter *Managing Urbanisation: India's Experience and Prospects for India-Africa Cooperation*.

The African counterpart, offered by Pierre Goudiaby Atepa, brings to the table a practitioner's perspective. The chapter *The Smart City: Shaping Individual and Collective Life in Africa* offers multiple examples of the smart city experience in African cities. Directives for national and municipal actors to take forward are shared, as well as how the India-Africa partnership can be leveraged for Africa to successfully implement 'data cities' and 'open societies.'

The chapters reveal substantive scope and rationale to boost ties between India and Africa, particularly as knowledge partners and development solution providers. Contemporary conversation in Indian strategic circles is now seeing stress placed on prioritising the strategic component in ties with African partners. The context of such a discussion, however, is more limited, seeing as it is largely driven by narrower geopolitical considerations responding to a balance of power in the Indo-Pacific. While a critical axis of India-Africa relationship that must be buttressed in the coming years, it is nonetheless imperative to revitalise and sustain action on the staple areas of a broad-based India-Africa engagement, such as those discussed in this publication. It will be the pursuit of equitable, healthy, skilled societies with access to energy and economic opportunities that will secure long-term growth and sustainable development in the global South. Importantly, it is this which will allow India and Africa to navigate demographic, social, economic, and technological trends that will see acceleration in the coming decades.

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# THE INDIA-AFRICA STORY

#### FRAMING INDIA-AFRICA RELATIONS

#### Narrative, Platforms, Areas

PRAMIT PAL CHAUDHURI, Foreign Editor, Hindustan Times

India and Africa are entering a fourth phase in their relationship but one that has potential to much more comprehensive and long-lasting than their previous attempts at engagement. This is because both India and Africa are different today, economically more mature and more strategically minded than in the past. Yet, this will not happen on its own. Many bridges have been built between the two sides, but the volume and quality of movement between them will be determined by policy decisions being made in the present and in the near future

#### **Past**

In the 1950s, Africa was a prime target of India's diplomatic initiatives to promote the nonaligned movement. India launched its first foreign aid programmes for Africa at the time and its first prime minister, Jawaharlal Nehru, spoke of

Africa and Asia as being "sister continents." While India earned goodwill for its support for the anti-colonial movements in Africa, this period of Indian activism came to a close when most African countries declined to support India during its 1962 border war with China. Afterwards, India remained an active opponent of apartheid rule in South Africa, but otherwise let its Africa policy dwindle to rhetoric. India's own economic stagnation meant it held little attraction for Africans seeking a model of development.

India began looking at Africa again in a coherent fashion in the late 1970s because of renewed economic and diplomatic interest, holding its first India-Africa summit in 1980. The resulting Delhi Declaration laid out an ambitious framework for relations that spanned trade and investment, development assistance, and cooperation in a number of global fields, including climate

change, terrorism, and the reform of multilateral institutions.

The end of the Cold War and India's economic reforms gave a further impulse to New Delhi's interest in the continent. The Soviet Union's collapse and nonalignment's diluted relevance revealed an Indian need to find new sources of diplomatic influence. The reforms gave India the sort of economic drivers, and a newly energised private sector, that made Africa an attractive partner. The then Indian prime minister, Manmohan Singh, spoke of Africa as the "mother continent." This marked the third phase of independent India's engagement with Africa.<sup>1</sup>

#### **Present**

In the past few years, India has come to redefine its Africa policy once more, and what is developing between the two is assuming the contours of a genuine strategic partnership. In other words, the relationship has become much more holistic with Indian interests in Africa now including diplomatic and security elements that were not there before. It is also much more long term, with New Delhi looking at developing deep, diversified, and lasting relationships with an increasing number of African countries.

In the past, India spoke of leading the developed world. Today, it more modestly stresses the idea of an equal partnership. Prime Minister Narendra Modi speaks of the 21st century being owned by both Asia and Africa, notes how India and Africa have similar-sized populations and GDPs, and how both sides can learn from the innovations

and accomplishments of the other.

The first element of change in the relationship has been trade. India's trade with Africa has been a J curve in the past few years: bilateral trade jumped from about US\$ 34 billion in 2008-09 to nearly US\$ 70 billion by 2012-13, and is targeted to reach US\$ 100 billion in a few years. India is now Africa's third-largest trading partner, having overtaken Japan and the United States, and is surpassed only by China and the European Union. Africa is now a larger trade partner for India than the US. Investment has followed suit with India now ranked Africa's fifth-largest source of foreign direct investment (FDI), although that retains a larger government component than trade.<sup>2</sup>

In the past, India spoke of leading the developed world. Today, it more modestly stresses the idea of an equal partnership.

The second shift has come on the diplomatic front, with a greater African recognition of India's potential role as a partner and a global player. When New Delhi has canvassed for support for its bid for a United Nations Security Council permanent seat, its diplomats were struck by how much support they received from African governments, many of whom said they saw India as a more natural candidate for promotion in the intergovernmental organisation than, say, Germany or Japan. There have been other instances in multilateral forums, like climate change summits, where African states have been willing to rally to India's side, especially against the West (though not necessarily against

other emerging economies). The most striking evidence of how much the two sides take each other seriously was the 2014 India-Africa Forum Summit, when all the 54 African countries invited sent representatives, most of them at the highest level.<sup>3</sup>

The third shift in the new India-Africa relationship is the development of a security relationship. India has had a few military-to-military relationships with African countries, going back to the days it opposed apartheid South Africa. But in the past few years, it has signed military and security cooperation agreements with over a dozen African countries. For instance, India will provide training and funding to Sahelian governments to help them fight violent extremism. However, what has become more important is New Delhi's desire to develop a comprehensive sphere of influence in the Indian Ocean Region to compensate for a declining US presence and prepare for a growing Chinese footprint in the region. Few African states have any animus towards China, so New Delhi's ability to persuade them to make policy decisions with due consideration for Indian concerns will be solely a consequence of how much India contributes to the African countries' own wellbeing at both the civil society and governmental levels.

This leads to a fourth, albeit nascent, shift in how India approaches Africa. India can now contemplate developing multilayered relations with some strategically important African countries, much in the manner that major Western powers have done in the past and arguably China is doing today. India's capacities still remain limited and its experience in such coordinated

policy action even more so.

An emerging example can be seen in the country's expanding ties with Mozambique, a strategically important Indian Ocean littoral state. Indian companies, both private and state-owned, have invested in the country's energy resources to the point that roughly a quarter of India's total FDI to continental Africa goes to Mozambique today. But India also trains the country's military, its intelligence services, and has a large number of aid and training programmes. If India proves capable in the coming years of handling all these different strands and decisively contributing to Mozambique's development as well, similar partnerships with other medium-sized African states in which India embeds itself as a principal growth and development partner are likely.4

Finally, the latest complement to all these elements has been India's hunt for third-country partners to assist in its programmes in Africa. As previously mentioned, India has many capacity constraints when it comes to implementing its multi-stranded development partnerships across the continent. Finance is only one restriction. It also has an undersized diplomatic corps and a domestic polity that is easily distracted by internal issues. But a strategic element has come to infuse its policies. Partly this has arisen from increased concerns about Chinese influence, but ultimately this is born from a broader recognition that a rising India must be much more engaged with its larger neighbourhood.

New Delhi can and should seek partnerships with other countries whose own geopolitical interests show a large convergence. The recently announced India-Japan Asia Africa Growth Corridor, with an estimated budget of US\$ 40 billion, is the most obvious example of this sort of trilateral partnership. Similar agreements are being contemplated with France and other European countries. This would serve as an enormous force multiplier for India, and allow it to broaden its activities into non-Anglophone Africa and into areas like cross-border infrastructure, neither of which have been areas of Indian strength.<sup>5</sup>

#### **Future**

India's relationship with Africa in future will have to become much more fine-tuned to the various differences among the African states. It will require India to find ever better ways to partially de-risk the investment and commercial activities of its private sector in Africa. It will require India to develop a domestic inter-agency capability to coordinate the multiple policies needed to sustain long-standing relations. It will also have to develop institutional structures that are resilient enough to shield such policies from the twists and turns of India's domestic polity.

Below are some of the areas that need special attention to help ensure India and Africa can fulfil the potential of the fourth and most comprehensive stage of their relationship.

One, India is now the fastest growing major importer of oil and natural gas in the world. It also continues to be a major importer of coal. There are also a number of other primary commodities for which India is a major consumer, such as phosphates that are mainly imported from

Morocco. Studies show Indo-African trade is marked by a greater degree of energy intensity than even Sino-African trade.<sup>6</sup> Strengthening the supply links between India and Africa in the energy sector in both upstream and downstream should be an imperative. India's ties with large energy exporters like Angola and Nigeria will be pertinent here. What is more, energy relations are often strategic. They tend to be much easier if stronger political and strategic relations are developed in tandem. Renewable energy and niche areas like microgrids could be where India contributes to Africa's energy development.

Two, while resources and primary commodities remain a staple of the economies of most African states, the resilience of the continent's economy after the recent commodity down-cycle is a reminder that Africa has many new sources of economic growth. These include financial services, light manufacturing, education, and healthcare. Much of this plays to the competitive advantage of India's private sector and investment in these areas should be encouraged. Africa's economies are increasingly diversified and so should the profile of Indo-African economic relations.<sup>7</sup>

Economic relations built around services leave extremely long-lasting political legacies in their wake. Service trade and investment results in an intertwining of relations in such areas as standards, regulations, migration, people-to-people, and company-to-company relationships.

Three, India will have to tailor its policies to the fact that Africa is a mosaic of countries occupying very different points along the development and the governance spectrums.

The transition economies of Africa deserve the greatest share of Indian attention. They are less resource dependent, with manufacturing and services propelling their economies. India's private sector and its human resource-based development assistance would produce the best benefits for these countries. Transition economies include the major African states of east and southern Africa, like Kenya, South Africa, and Mozambique, and some of the west African countries, like Ghana.

Transition economies in Africa deserve the greatest share of Indian attention. India's private sector and its human resource-based development assistance would produce the best benefits for these countries.

The least developed countries are still largely agricultural in nature and offer limited scope for business and political relations, except in an old-fashioned resource-based trading relationship. Indian grant-in-aid projects will dominate in these countries, which may, however, benefit the most from co-development opportunities with countries like Japan or France. African countries in this category include Sierra Leone, Liberia, and the two Congos.

A final category of states would be those that are strategically important because of their geography, history, or military environment, regardless of their level of economic development. Such countries include Mozambique, the Indian Ocean island states, and Djibouti.8

#### **Policies**

Here are some policy actions India needs to carry out to bring the above-mentioned goals to fruition:

- Africa and expand the activities of a number of its governmental organisations and civil society bodies. At present, Africa is often the destination for mediocre diplomats near the end of their career when it should be a place for young diplomats to show initiative and drive. Indian governmental bodies in fields like education, science, and healthcare should be encouraged to be active in Africa, as should its chambers of commerce and non-governmental agencies, among others. A regular network of engagement between these and selective African counterparts should be encouraged.
- India has extended billions of dollars in lines of credit to African states in a sensible attempt to de-risk private sector operations in the continent. However, much of this credit remain untapped and it remains difficult to persuade Indian and African firms to seek each other out. The lines of credit programme must be matched with other de-risking instruments as well as means to broaden the engagement between companies from both sides. The commonest complaint by both Indian and African executives when asked about the opportunities presented by each

other's economies is ignorance about the market and the partners.

- Closer trilateral cooperation with other countries, as is already happening with Japan, but should also encompass European countries (like France) and the United States. Meshing different aid and infrastructure programmes is not easy, but should be given a push. Such mechanisms will be a huge force multiplier for India, given its financial constraints.
- Military training and naval cooperation have been useful to help India build a security profile that it lacked in the past. In the Indian Ocean littoral, New Delhi has been seeking access to ports and airfields. It has also made small contributions, in the form of training and money, to holding military lines against violent extremism in places like Mali, Niger, and Nigeria. This is notable because such cooperation agreements do not contribute directly to India's short-term interests but add to a sense of strategic purpose. Lastly, India is severely limited by its continuing inability to make its own arms. As it pursues an indigenous defence industry, India should in the meantime leverage its large foreign weapons purchases to secure the rights to export some of what is assembled or made on its own soil to Africa
- Bollywood and various other aspects of Indian popular cultural have a wide audience in Africa, possibly the largest outside of Asia. However, much of this has replicated the fragmented and unorganised nature of Bollywood itself. The Indian government

- needs to assist in making the entry of Indian cultural products into the African market more structured. In other words, New Delhi needs to focus on how this content makes its ways into Africa's distribution lines and marketing systems. China has made cultural inroads of its own using innovative methods like prepaid TV cards, which dispense with the need for long-term cable subscriptions. Digital apps, such as over-the-top video apps, are one way India could spread its cultural products in a more organised and potentially profitable manner.
- Africa's cutting edge is its 100-150 million middle class. These are India's natural partners in the continent. They are the most receptive to the human resources-based training and educational programmes that are at the forefront of India's development programmes in Africa. They are also at the heart of the business-to-business tieups that New Delhi is presently trying to establish. However, they are also interested in development narratives being advanced by other countries. India has a number of policy successes to keep the African middle class interested. These include a successful monetary and banking regulatory system, newfound capabilities in areas like information technology and digital services, and, most of all, a remarkable record of electoral democracy in developing world conditions. Over time, India must seek to sell an "India story" to Africa's middle class: this will be the best means to tie together the various strands of its expanding relations with the continent.9

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#### INDIA AND AFRICA

#### A Culture of Cooperation

DR ABDALLAH SAAF, Senior Fellow, OCP Policy Center
IHSSANE GUENNOUN, Program Officer, OCP Policy Center

Analysts have commonly approached India's relations with Africa through the prism of a certain willingness – shared by successive Indian leaders – to forge new "mutually beneficial partnerships." Such a political will is consistent with the choice made by a considerable number of African nations to cooperate with emerging powers that have become key actors in their national development. This mutual appeal is significantly due to comparable colonial histories, to the presence of a sizeable Indian diaspora in the African continent, and common cultural factors and values.

India's Africa policy has gone through some major changes since the end of the Cold War, mainly due to the Asian giant's aspirations to assert itself as a power to be reckoned with in a multipolar international order. In fact, research pinpoints to the various dimensions of India's current Africa policy: politics, geostrategic positioning, energy, and economics. As such, a whole set of factors explain how Africa has moved from the margins of India's foreign policy to become one of its centrepieces, with an impressive growth in transactions to boot.

This paper explains the significance of cooperation between India and Africa by examining the cultural frames of reference that guide New Delhi's international engagement broadly, and particularly with Africa. Even as India's foreign posture shows a structural inclination towards bilateralism, a closer look reveals the country's undergirding universalism of values and global positioning, particularly with regard to global

i Notably, the value of commercial transactions has jumped from US\$ 3bn in the 2000s to about US\$ 70bn today.

distributive justice, i.e., allowing for equal opportunities in the allocation of goods in a given society. Furthermore, the concrete tenor of the partnerships that India is bringing to the African table marks a stark departure from what other emerging powers have been proposing.

### A deep-seated tendency towards bilateralism

India appears today as an emerging power endowed with a dynamic economy that adheres to democratic principles. Independent since 1947, India recognises that its elites, who are infused with the idea of "the greatness of Indian civilization" and the country's "exceptional" geopolitical features, a spire to the status of a great world power, despite the country's limited financial resources and military capabilities. The reference to India's prestigious past permeates conversations among the country's elite. There is no doubt in their minds that India will be the great nation it once was. Such has been the reasoning of its leaders, regardless of their political affiliations, ever since the country's independence.

India initially adhered to the United Nations' principles of settlement of political disputes. However, the refusal of the UN to recognise its rights over Kashmir disappoints its leaders, making them prefer bilateralism in their diplomatic approach. Consequently, India has done little to promote regional integration, preferring bilateral relations. The relationship between India and ASEAN countries is an illustrative example. In effect, India concludes most agreements directly with various ASEAN countries, avoiding

multilateral engagement with ASEAN, with the exception of high-level meetings.

This is not to say that India is not present and active multilaterally. The expression used by Mukherjee and Malone<sup>4</sup> to describe the Indian approach is "global governance by oligarchy," that is, India integrates itself into small influential multilateral groups. The building of alliances between emerging countries is explained by the interest of the emerging powers to achieve "greater economic and political autonomy." However, alongside cooperation exits competition, described together as "coopetition." For instance, India is part of the "Five Interested Parties" group (Australia, Brazil, the United States, India, and the European Union) in the World Trade Organization. (WTO). This group represents key players in agriculture, with only Brazil and India representing the G20, hence ensuring a representation of developing countries. It aims to break deadlocks in discussing agriculture deals. During the climate talks in Copenhagen in 2009, India belonged to the BASIC group comprising of Brazil, South Africa, India, and China with the goal of setting up a common plan to reduce gas emissions and working towards climate aid. It is also a member of the G4 alliance, which aims to obtain permanent seats on the UN Security Council.<sup>6</sup> At the same time, India readily cooperates with the Commonwealth nations in development areas, and it is a founding member of the South Asian Association for Regional Cooperation (SAARC), which has had a free trade agreement since 2004.7 However, SAARC owes little to India's initiatives, as Bangladesh is the grouping's true promoter. Subsequently, India has expanded its interests in South Asia by establishing bilateral partnerships with its neighbours based on the "Gujral Doctrine," or the "Good Neighbour" policy, which has since been revived into the "Neighborhood First" policy and which retains a dominant bilateral thrust. Under the current Narendra Modi administration, India's efforts at multilateral platforms have seen "limited headway"; instead, it is a revival of bilateralism, notably with the United States, but also with Gulf nations, that have led to foreign policy successes.<sup>8</sup>

India-Africa ties, too, are predominantly bilateral, although recently, a multilateral thrust has been pursued through the India-Africa Forum Summits as the paper discusses below. All African countries have a diplomatic representation in India, be it embassies, consulates, high commissions, or missions, demonstrating a strong political will to collaborate on diplomatic matters. In addition, several bilateral meetings take place frequently to reinforce ties and to reaffirm the political will to engage deeper on an increasing number of fronts - diplomatic, strategic and political, but also economically, in areas such as food security and education and skilling. Similar features, but also common challenges, between India and particular countries motivates the rationale of pursuing bilateral ties. Take, for instance, India and Nigeria - both share similar features, such as large populations, various ethnic groups, a growing young population, and democratic values, and both are regional powers that face common challenges India-Africa ties are predominantly bilateral, although recently, a multilateral thrust has been pursued through the India-Africa forum summits.

such as violent extremism. They signed an MoU on defence cooperation in 2007. Economic complementarity is another key factor promoting bilateralism in India-Africa ties. For instance, India is 90% dependent on phosphate imports. It is a major importer of Senegalese, Moroccan, and Tunisian phosphoric acid.<sup>ii</sup> In fact, India has even encouraged domestic fertiliser producers to set up joint fertiliser production units in countries from which it imports the resource.<sup>9</sup>

Morocco, with which it celebrated 60 years of diplomatic ties in 2017, is a strong example of an African country with whom India can strengthen ties. In the 1970s, India imported Moroccan phosphates for its agricultural revolution, and it still continues to do so to enhance its agricultural productivity. Cooperation between India and Morocco in several areas, especially in agriculture, could be further enhanced. Since India is the second-largest producer of fruits and vegetables, it faces the need to optimise its production. India and Morocco have various researchers and experts

The Techno-Economic Approach for Africa-India Movement, TEAM 9, promotes cooperation in the fields of economics, science, agriculture, education, and pharmaceuticals between India and 8 West-African countries: Burkina Faso, Ivory Coast, Ghana, Equatorial Guinea, Guinea-Bissau, Mali, Senegal, and Chad. By this mean, the African countries receive soft loans from the Exim Bank of India. According to a 2004 TEAM 9 joint-declaration, this cooperation engages the public sector, institutions, and the private sector, and goes beyond technical support to include: "different types of expertise, intellectual and material resources, as well as economic opportunities to promote people's well-being, growth, and prosperity."

on agriculture that can take part in knowledgesharing through exchange programs. 10

### Beyond bilateralism, Indian universalism

As it pertains to India-Africa relations, even as bilateralism has held sway over India's engagement, a 'universalism' in India's approach to the world, and particularly to developing countries such as in Africa, cannot be ignored.

India's growing interest in Africa in the years following its independence is a reflection of a certain notion of "extended regionalism," a regionalism that goes beyond immediate neighbours, and where proximity is based on common ideologies, visions, and histories. For instance, Gandhi started his legal career in South Africa by defending Muslim traders in Pretoria.11 Nehru was hoping to see India as a leading power in the global South. In addition, of course, the call for South-South solidarity: with iconic figures from the aftermath of colonialism, such as Nasser in Egypt and Nyerere in Tanzania, Sukarno held the first-ever, unforgettable, and essential Afro-Asian conference in Bandung, Indonesia. Nehru was a central player in the emergence of the Non-Aligned Movement (NAM) and its anti-colonial, anti-racist, and socialist impulses.

From Pan-Asianism to NAM, India has aimed to retain elements of a great power, inherited from a rich civilisation, built on values such as democracy, secularism, federalism, and linguistic autonomy), and which carried an internationalist universalist project on the lines of neutralism, anti-colonialism, peaceful coexistence, and global disarmament. India's civilisational past and cultural development are to be stressed -India, home to the great "Indus" and "Aryan" civilisations, is believed to have continuously benefited from foreign, relatively assimilated cultures. Such a diversity explains the secularism that has largely characterised the Indian political system, given the consistent embrace of a mixture of creeds and thought models. Furthermore, the Indian notion of secularism is not about being areligious, and is far from claiming a divorce with the religious realm. Rather, Indian secularism is underpinned by a penchant for the willed coexistence of different faiths, which has shaped India's worldview.

Indo-African relations fed on shared notions of anti-colonialism and anti-racism. Universal values that India shares with other countries, especially African countries, have in fact been favoured by geographical distance, far from the type of disputes and conflicts each region experiences with immediate neighbours and other rival powers. It is understood that India's engagement with African countries partly corresponds to India's project of exercising "moral leadership." <sup>12</sup>

Nevertheless, once the Cold War ended and NAM had long lost its purpose, iii traditional themes that had been benchmarks of Indian diplomacy with Africa become fruitless. However, after an

iii At the Durban Summit in 1998, South Africa did everything to overcome the ideologies of the past ("Non-alignment to what?" asked the *International Herald Tribune* at the time).

We can look at India-Africa relations in the light of India's broader vision towards global distributive justice – to help reform international organisations and to bring to the table emerging voices in spaces addressing global commons.

interruption, in the tradition of this glorious past, Afro-Asian solidarity is back in full force. Yet, as the second Afro-Asian conference took place in Jakarta in 2005, for the 50th anniversary of the Bandung Conference, the context has changed.

Economic concerns are more pressing than ever. In 2011, the UN Conference on Trade and Development indicated that South-South trade represented 20% of world trade for that year, and 50% of trade between developing countries.<sup>13</sup> According to some observers, India is better equipped, culturally speaking, to move towards global distributive justice along with the "least advanced countries." Relations between Africa and an emerging country like India seem to increase options for Africans and provide a larger area for negotiations.<sup>14</sup>

It must be noted that other observers think that India's motivations are namely economic:15

India's growing presence in Africa is explained by protecting its economic interests and its competition with China. India has become the second largest export market for many African countries, and one of their most important donors, through its concessional credit lines. To establish new markets and create new political alliances, India bases its cooperation on fighting poverty to justify its donors' activity. <sup>16</sup>

It should be noted that at the same time, India is adopting an alliance-based approach with other regional powers, such as Brazil and South Africa, in order to encourage an inter-regional cooperation and assert the position of countries of the South on the international stage. As a growing and emerging regional power, India's mission is to defend other countries on development issues. Like other emerging countries, India adopts the cause of the developing world and its specific concerns for two reasons: it shares mutual areas of concern, and aims to place itself as a counter-power against well-established powers. 18

## India-Africa's one-on-one spirit: Solid dimensions and sustainability

India, with its strong vision, aims to reach out to several African countries through its claim of advancing distributive justice and reform of international institutions. Indeed, we can look at India-Africa relations in the light of India's broader vision towards global distribute justice –

iv As an example, and just like several African countries, India sought membership of the Organisation of Islamic Cooperation. With 161 million Muslims in 2009 (still a minority in a country of more than 1.1 billion people), India has the third largest Muslim population in the world, behind Indonesia (203 million), and Pakistan (174 million).

to help reform international organisations inclined towards western and developed countries' interests, and to bring to the table emerging voices from less developed regions in spaces addressing global commons – as well as its vision of mutual development that reinforces the former objective. India encounters a good number of African states in a variety of international forums, from the once-primary and fundamental platform of NAM to the United Nations, WTO's G33 (also known as the "Friends of Special Products"), the G77, the BASIC group and the BRICS.

The role that NAM has played, particularly in the past, is instructive. In 1986, it created the "African Fund" to provide help to front-line states and liberation movements in southern Africa and Namibia.<sup>19</sup> At the 1985 summit, India presented technical-assistance projects in agriculture for seven sub-Saharan African countries. At one point, it also aimed to increase cooperation with several West African countries in the fields of small industries, agriculture, and unconventional energy resources.<sup>20</sup> Africa's importance for the Movement and the latter's commitment towards Africa have been strongly stressed. "African countries constitute the most important group of the Non-Aligned Movement. Nowhere else humanity is facing challenges as pressing as in the African continent. The Movement must continue its work to ensure Africa's pre-eminence in the

international development agenda,"<sup>21</sup> as noted then Indian foreign minister during the 2010 NAM summit.

In the context of global distributive justice, the Indian government seems to have built its African policy by positioning India as representative of Gandhian values on the international stage, focusing on "fair cooperation" and "capacity building" through an exchange of ideas and services that goes beyond the simple trade of consumer goods.<sup>22</sup>

India's Africa policy, based on cooperation, multilateral benefit, and inspired by the Gandhian spirit of generosity – which is said to be "functional and collaborative," 23 – could provide the country with support in terms of reliable partners and voices in international institutions. This adds to India's considerable weight on the international stage, especially since its cultural and historical affinities with the African continent are important. 24

Practically, this has resulted in India having a multifaceted and diversified presence in Africa. For instance, India is a founding member of the Asian–African Legal Consultative Organisation, whose objective is to support cooperation in matters of international law. It should also be noted that India is an extra-continental partner

v The following nine countries: Côte d'Ivoire, Gabon, Gambia, Ghana, Liberia, Senegal, Sierra Leone, Togo, and Zaire.

vi Accessible to 48 LDCs, including 33 African countries (GOI DComm, 2013). The scheme provides duty-free access for 94% of all India's tariff lines, with gradual five-year commissioning. The tariff lines included provide a preferential access to 92.5% of exports coming from LDCs. The products of direct interest from Africa are cotton, coconut, bauxite, leather, fish fillets, non-industrial diamonds, clothing, sugar cane, and cashew nuts.

vii Granting loans amounting to \$5bn to Africa as well as an additional \$700mn endowment. The funds will be disbursed through bilateral and multinational commitments (NEPAD Press Release, May 24, 2011), New Partnership for Africa's Development, Johannesburg.

of the African Union. The very first India-Africa Forum Summit in 2008 adopted the Delhi Declaration and the Africa-India Framework for Cooperation. The text reviewed the major axes of an Indian-African partnership based on equality, mutual respect, shared benefits, and respect for states' sovereignty and territorial integrity.<sup>25</sup>

During the same forum, India's then Prime Minister Manmohan Singh developed a largescale diplomatic initiative by launching the duty-free tariff preference scheme for least developed countries.vi Numerous and often solid elements show how strong India's resolve - reinforced under the current administration after a lull in ties – is with regard to its relations with Africa. For instance, during the second India-Africa Forum Summit, India announced the opening of lines of credit to set up training institutions and programmes in collaboration with the African Union.vii Another well-known example is India's engagement with Africa to develop telecommunications in the continent. Through initiatives such as the Techno-Economic Approach for Africa-India Movement or the New Partnership for Africa's Development, the Indian government seems to reinforce its measures to boost trade and investment flows with Africa.viii

The Indian model of partnership and direct newtechnology transfers further buttresses India-Africa ties. In fact, India promotes technical cooperation and capacity building to help African countries make the best use of their resources. This approach seems to be an element that will allow Africa to increase its weight in international trade, by participating in higher levels of global value chains – thus fulfilling the shared objective of being heard at global forums.

Compared to the Chinese approach, which is essentially based on state action limited to trade and infrastructure, the Indian approach promotes a special culture of cooperation emanating from a civilisation and a culture that is both specific and universal, thus supporting India's objectives in the long term positively.

From Africa's point of view, cooperation with India broadens opportunities for African countries, is beneficial, and works towards global distributive justice.

#### Increasing effectiveness of India-Africa ties

While trade, commercial cooperation, and promotion of global distributive justice is reaching new heights between India and Africa, their diplomatic engagement needs to be improved.

Given the multiplicity of actors in the framework of institutionalised South-South cooperation, achieving partnerships has not been easy and Africa expects a strengthened engagement with India, an objective that has translated into several high-level visits from Africa to India in recent

viii Launched in 2009, the "Pan-African e-Network Project" aims to connect African countries via a network of satellites and optic fibres, in order to ensure the provision of remote services (medicine, education, public administration, etc.). Currently, 47 member states of the African Union have endorsed the project (TCIL, 2013). TCIL "Inauguration of Pan-African e-Network Project (Phase 2)," Telecommunications Consultants India Limited, New Delhi, 2013.

years. Yet, India has not sufficiently reciprocated high-level engagement. For example, Prime Minister Modi's visit to Mozambique took place after a gap of 34 years, to Kenya after a gap of 35 years and to South Africa after a 10-year gap. On a positive note, Modi has made state visits to two other African nations recently on his way to South Africa for the 10th BRICS summit. Moreover, several African leaders encourage India to move forward with promises made during various visits.

Additionally, despite an increasing political will to engage, some constraints still block the path for further engagement. Some projects lack sufficient funds for implementation, and financial constraints in some African countries do not allow taking agreements to the next level. Therefore, external stakeholders come into play by bringing in funds even as they attach restrictive conditions.

Importantly, there is a significant number of Africans living in India, especially students. In recent years, there have been several cases of assault against them, which has hindered trust-bulding between India and Africa. Such incidents raised the spectre of racism in India, and have been strongly condemned by African states. Indeed, 42 African countries threatened to boycott the May 2016 Africa Day Celebrations in New Delhi. Although the Indian External Affairs Minister Sushma Swaraj has reacted to a recent incident<sup>27</sup> by promising a rapid trial and punishment to the

The Indian government and civil society can put programmes in place to promote social cohesion between Africans living in India and the local communities.

perpetrator, more can be done to avoid tarnishing India's image in Africa and to prevent such violent acts from happening. The Indian government and civil society can put programmes in place to promote social cohesion between Africans living in India and the local communities.

At the same time, India and Africa should also use their diplomatic ties to increase mutual knowledge about their respective societies. In fact, there is little media coverage in India and Africa of pertinent issues related to the other country. In addition, most media coverage comes from western sources that are not always reliable. Hence, there is a critical need for India and Africa to get to know and mutually understand each other. In this perspective, diaspora communities can play a significant role in building bridges between India and Africa. They need to feel welcomed in the countries where they live, and should consider themselves as their home countries' ambassadors abroad.

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# PILLARS

# Gender

#### INTEGRATING WOMEN IN LABOUR FORCES

#### The Cases of North Africa and India

RIM BERAHAB, Economist, OCP Policy Center

Economies make better use of their productive potential when women are more active in the labour market. Given that they account for half of a country's talent pool, the long-term competitiveness of a country depends to a large extent on how well it ensures their education and economic integration.

But gender inequalities, in terms of opportunity, treatment, and outcomes, are still persistent in global labour markets. Despite moderate economic growth, gains in female education, and drops in fertility rates, as notes Kelsey Chapman, women continue to face significant challenges in accessing economic opportunities.<sup>1</sup>

Understanding the trade-off between gender equality and economic growth at various stages of a country's development is crucial for not only economists but also policymakers, given that there is evidence that public policies matter. Policies regarding childcare and protected leave from work after childbirth, for example, are likely to increase female labour force participation (LFP), which would in turn influence the economic growth.<sup>2</sup>

Africa and India acknowledge the crucial need for gender equality for progress and sustainable development. As they have deepened their economic engagement through increased trade and foreign direct investments, they have thus far paid inadequate attention to gender issues. Therefore, gender equality must be included as a key pillar of cooperation across all sectors, in order to achieve greater involvement of women in the economic sphere.

The paper is organised as follows. Section I gives an overview of the recent trends in female LFP rates by regions. It focuses on stylised facts regarding selected North African countries (Morocco, Tunisia, and Egypt) and India. Section

II documents the relationship between female LFP and economic development, known as the U-shaped relationship, and discusses LFP's potential determinants. The conclusion discusses how North Africa and India can engage to pursue corrective policies, both at the national and regional levels, in order to promote gender equality in the labour market and improve women's access to economic opportunities in general.

# Stylised facts on female labour force participation

The LFP rate is a measure of the proportion of a country's working-age population that engages actively in the labour market, either by working or by looking for work. At the global level, the LFP rate has declined since 1990 for both women and men. According to the International Labour Office, female LFP lost 2.9 percentage points globally whereas male LFP lost 4.4 percentage points between 1990 and 2016. It is important to note, however, that even though the male LFP rate witnessed a greater decrease, ii it remained above that of women both in 1990 (52.2% for female LFP versus 80.6% for male LFP) and 2016 (49.4% for female LFP versus 76.1% for

Gender inequalities, in terms of equality of opportunity, treatment, and outcomes, are still persistent in labour markets.

male LFP) as we can see in Figure 1. This means that the gap between men and women remains high and that economic exclusion is always more prevalent among women.

From Figure 2, it is clear that the Latin America and Caribbean region has witnessed the biggest increase in female LFP rates between 1990 and 2016, from 40.7% to 52.7%, followed by Sub-Saharan Africa, and Europe and Central Asia.

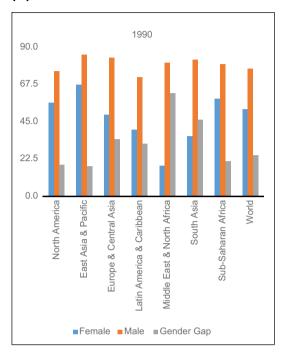
The Middle East and North Africa (MENA) region has also seen a slight improvement from 18.4% in 1990 to 21.6% in 2016. But it still accounts for the lowest rates of female LFP across the world, despite advances in demographic indicators, such as faster urbanisation, higher female literacy rates, and lower fertility rate.

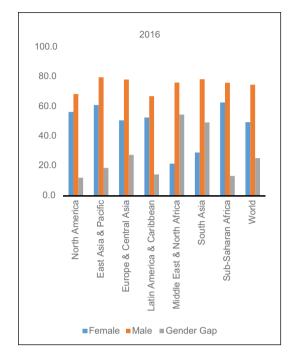
South Asia has the second-lowest rates of female

The LFP data used in this paper is extracted from the World Development Indicators database of the World Bank and derives from the ILO database, which provides recent labour data. Although it provides a wide range of information, it is widely criticised due to factors such as variety of sources used across countries and different definitions employed. Yet it remains a key statistic to understand trends in the labour market.

The declines in male LFP rates are generalised across all region of the world, according the ILO and WDI databases, and are mainly led by North America, more specifically the United States, which witnessed the greater decrease (7 percentage points between 1990 and 2016). The reasons behind this remain unclear. Some scholars have found that it is the inactive – individuals who are neither working nor looking for work – who are responsible for falling male LFP, not the unemployed. Hence, policies, like "strengthening the unemployment insurance system, and promoting education and training that encourage unemployed workers to keep searching for work," are crucial for the individual trying to reintegrate into the labour market and for society as a whole. Sandra Black and Wilson Powell, "Where Have All the (Male) Workers Gone?," EconoFact, July 10, 2017, http://econofact.org/where-have-all-the-male-workers-gone

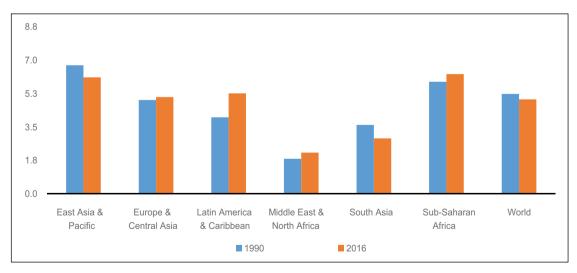
Figure 1: Female LFP vs. male LFP: Gender gap in LFP across regions in 1990 and 2016 (%)





Source: World Development Indicators

Figure 2: Female labour force participation rates across the world (Average, %)



Source: World Development Indicators

LFP in the world but, unlike the MENA region, has actually seen female LFP fall between 1990 and 2016 from 36.1% to 29.1%. The region also claims the record of having seen the biggest decrease in female employment, estimated at 7 percentage points, which can be partially explained by conservative social attitudes toward women in the workplace.<sup>3</sup>

East Asia and Pacific has also seen a decrease in female LFP rates from 67.4% to 61%, even though it remains one of the highest in the world.

Regarding North Africa specifically, female's LFP rates are quite homogenous. In 2016, they stood at 25.5% in Morocco, 25.1% in Tunisia, and 22.9% in Egypt. This is not the case for South Asia, where there is considerable diversity. For instance, in 2016, female LFP ranged from 19.1% in Afghanistan to 26.9% in India to 79.6%

in Nepal.

The gender gap in LFP – calculated as the difference between the male and female labour force participation – is still large in North Africa compared to other regions, although it has slightly narrowed from 52.5% in 1990 to 51.9% in 2016. As a comparison, this gap was estimated at 13.3% in sub-Saharan Africa and 25.8% in Latin America and the Caribbean in 2016. The same observation can be drawn for India. In 2016, the gender gap stood at 52.1%, slightly above South Asia's average. This trend in the gender gap is partially driven by the very high male LFP in those regions, which averages nearly 75.1% in North Africa and 79.7% in South Asia, versus 68% in high-income economies (see Figure 1). The low female LFP rate can also be attributed to the fact that the informal labour market, which is a widespread phenomenon in those countries,

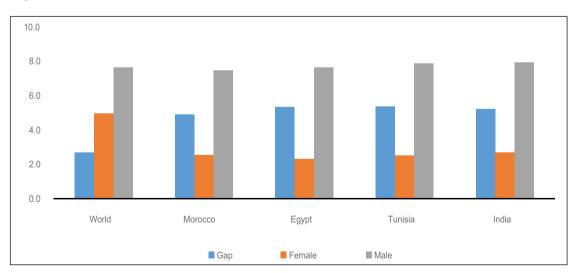


Figure 3: Labour force participation, 2016 (%)

Source: World Development Indicators

employs a large proportion of women who are not officially registered as employed.

Time-use surveys provide complementary information of how gender roles shape the division of labour both in the household and in the workplace.4 They also highlights another important issue: what is considered 'work'? Time-use data has shown that women around the world, and more specifically in North Africa and India, share one important characteristic: they devote more time to domestic care work. For instance, in India, Morocco, and Tunisia, women spend a daily average of 292 minutes on unpaid domestic work versus 110 minutes on paid word (employment), unlike men who spend a daily average of 36 minutes on unpaid domestic work versus 324 minutes on paid work (Figure 4a). This gender gap in unpaid domestic work bears heavily on women's capacity and willingness to integrate themselves in the labour market.

It must be acknowledged that time-use surveys do not take into account the informal sector, which means that the data regarding women's time-use on paid work could be underestimated. Therefore, the question is not only whether women work, but also how much they earn in comparison to men for similar work. The wage equality index can provide useful information on the latter issue. Figure 4b highlights the downward trend that this index has witnessed from 2006 to 2016 for the countries in question. Consequently, the wage gap remains wide, meaning that gender is still a significant parameter in determining salaries in these countries. In Morocco, for instance, women earn about 17% less than men at equal levels of academic competence and professional experience,<sup>5</sup> while in India, women earn about 25% less than men <sup>6</sup>

#### Potential determinants of female LFP

## Gross domestic product per capita and the U-shaped curve

The economic literature reflects the complexity of female LFP, given the diversity of potential determinants, such as education, urbanisation, fertility rates, and unemployment. One of the most documented aspects is the relationship with the level of economic development, measured by GDP per capita. This relationship, known as the U-shaped curve, illustrates the long-term evolution of the structure of a given economy through three stages of development. Initially, when agricultural production is the main driver of an economy, family production units or home-based activities dominate the economy. This enables women to reconcile work and family responsibilities and allows them to easily transition between home and agricultural work. Thus, female LFP tends to be higher among lowincome economies.

However, as development levels rise and the share of agriculture declines in favour of industrial activities, it becomes increasingly difficult for women to reconcile work and domestic responsibilities. This is exacerbated by the fact that fertility rate is still high at this stage, and women migrating to cities from villages do not initially have the necessary skills to become integrated into the labour market. Hence, female

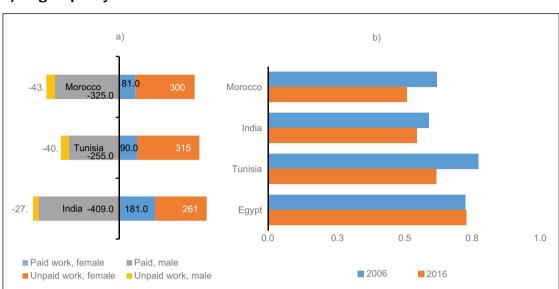


Figure 4: a) Paid and unpaid work (minutes per day) for men and women<sup>7</sup> b) Wage equality index for similar work<sup>iii</sup>

Source: United Nation time-use data, World Economic Forum (2016)

LFP tends to be lower among middle-income economies. Finally, as income levels rise further, and while fertility rates decline, the level of women's education increases, leading them to enter the labour force and seek professional childcare services, thus raising female LFP. The result is a U-shaped curve.

The panel graphs in Figure 5 display this relationship at four different periods for lower middle-income countries. Egypt, India, Morocco, and Tunisia are highlighted. The graphs reiterate the same facts discussed earlier. Firstly, there is a lack of significant increase in female employment levels in these countries between 1990 to 2016 (the dots representing the North African countries

remain more or less clustered in the same space; the dot representing India shows decreases). Secondly, female LFP in these countries lags behind those in other parts of the world (the dots remain far below the average U-shaped curve that emerges for lower middle-income countries in this same time period). The latter means that female LFP in these countries is lower than what is predicted by their development levels.

While recent studies<sup>8</sup> have shown that the U-shaped curve is not as robustly in evidence in developing countries, contrary to existing empirical studies that have demonstrated such a relationship,<sup>9</sup> it is undeniable that LFP rates of women in North Africa and India are currently

iii Wage equality gap index is measured between 0 and 1, with 1 corresponding to perfect equality.

1990 2000 100 100 90 90 80 Female LFP rate (%) 80 Female LFP rate (%) 70 70 60 60 50 50 40 40 30 30 20 20 10 10 n 2.0 3.5 4.0 4.5 2.0 5 5 3.5 4.5 Log GDP per capita, constant 2005 US\$ Log GDP per capita, constant 2005 US\$ 2010 2016 100 100 90 90 80 Female LFP rate (%) 80 8 70 70 Female LFP rate 60 60 50 50 40 40 30 30 20 20 10 0 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 5.0 2.0 2.5 3.0 4.0 4.5 5.5 Log GDP per capita, constant 2005 US\$ Log GDP per capita, constant 2005 US\$ Note •: India - •: Morocco - •: Tunisia - •: Egypt

Figure 5: U-shaped curve between female labour force participation and log GPD per capitaiv

Source: World Bank, World Development Indicators database and own calculations.

along the downward curve of the U-shaped curve and have not yet started their ascending phase. In fact, as these countries have experienced an increase in per capita income, this has not been accompanied by a sufficiently strong dynamism in sectors that could benefit women more, such as services and light manufacturing. The challenge for Morocco, Tunisia, Egypt, and India is now to raise female participation rates in their formal economies.

#### **Education**

The impact of education on female LFP is generally positive, as it contributes to increase both women's potential income and the opportunity cost of not working through the substitution effect: a situation where an increase in real wages increases the opportunity cost of not working and encourages women to enter the labour market, which has a positive effect on

iv Log GDP per capita is a logarithmic (mathematic) transformation applied to the GDP per capita variable, in line with the literature covering this relationship.

their participation rate in the labour market.<sup>11</sup> In addition, higher levels of education indicate that women are less likely to engage in the informal sector.

According to available data from UNESCO for Egypt, India, Morocco, and Tunisia, women's enrolment in tertiary education has increased during the period 2000-2015. On average, it rose to 37.8% in North Africa and 26.7% in India in 2015 from 14.0 and 7.5% respectively in 2000. In addition, the gap in school enrolment for tertiary education between men and women is shrinking in most of these countries. In other countries, such as Tunisia for instance, women's rate of enrolment in tertiary education exceeds that of men.

Nonetheless, female LFP rates have remained stagnant in these countries despite such improvements. <sup>12</sup> This result is partially explained by the predominance of non-skilled jobs, which absorbs mainly women with low levels of education, and by the fact that these economies fail to provide enough suitable jobs for the most educated women. Moreover, a rise in household income can potentially reduce female LFP through the income effect: a situation in which an increase in income, other than income from work, increases leisure time and reduces the time spent on work.

These conclusions reveal another concern – the quality of education and how well it prepares both men and women for the labour market. Consequently, special attention is necessary not only on keeping girls enrolled in schools, but also in ensuring good quality education, both at secondary and higher levels, while taking

advantage of training opportunities. Indeed, training or skilling programmes allow women to further strengthen both their knowledge and know-how, and are likely to give them access to more opportunities in terms of higher-quality employment options.

#### Urbanisation

Urbanisation can also positively influence female LFP by offering a greater variety of suitable paid jobs and better infrastructure that promotes market accessibility.<sup>13</sup> Indeed, cities improve accessibility to the workplace for women through transportation and communication networks. In addition, when the urbanisation rate increases, female LFP rates increase as well, since mass manufacturing, such as the textile, garments, and food industries, are exclusively based in large urban areas.

However, empirical studies show mixed results. In Morocco, urbanisation is found to have a negative and significant impact on female LFP.<sup>14</sup> This atypical result could be explained by two factors, namely the rural exodus and the quality of the urbanisation process. Indeed, women who migrate from rural to urban areas may withdraw from the labour market because of their lack of qualification and their low education level, or settle for informal low-income activities.<sup>15</sup> Other empirical panel studies<sup>16</sup> on the MENA region have shown that urbanisation has had negligible effect on female LFP thus far.

As for India, even though it continues to rapidly urbanise, it has struggled to make the most of the opportunity,<sup>17</sup> since female LFP has barely picked up. This is mainly due to the quality of urbanisation occurring across the country. There is a still a lack of adequate transport infrastructure or services delivery, which limits accessibility of women in certain cities and suburbs to workplaces and even poses security problems.

# **Demographics**

The number of dependent children also determines women's preferences in terms of the labour market outcomes. Thus, according to the hypothesis of role incompatibilities, 18 the higher the fertility rate, the greater the difficulty for women to reconcile domestic responsibilities with formal work, especially in urban areas.

Except Egypt, where the fertility rate is still relatively high, Morocco, Tunisia, and India have seen a significant drop in their respective rates since the 1990s, reaching the world's average rate of 2.4 births per woman in 2015. According to empirical studies, fertility rates are found to have a statistically significant negative effect on female LFP in the MENA region. <sup>19</sup> The same result is found when considering North African<sup>20,21</sup> countries separately and India. For the latter, it appears that female LFP is also negatively affected by the number of dependents in the household in rural and urban areas. <sup>22,23</sup>

### Conclusion

Egypt, Morocco, Tunisia, and India have made significant efforts in reducing gender gaps in

human development over the past few years and have displayed progress on several economic and social indicators, such as economic growth, urbanisation, and education. However, it has not yet translated into improvements in female LFP, an indicator that reveals the extent to which women are integrated into the formal economic processes of a country. This could mean that in North Africa and India, women's participation in the labour market is not conditioned by economic incentives alone: other factors matter, such as social norms, culture, and traditions, which can hinder women's LFP and encourage them to concentrate on childbearing and child-rearing activities.

Appreciating this reality, it becomes crucial to adopt policy measures promoting gender equality across multiple areas that will subsequently unleash the potential of girls and women to boost economic growth. At a country level, two main elements should be taken into consideration: reducing discriminatory gender bias in the workplace, and increasing women's bargaining power in the workplace and within the household. Other complementary measures can be taken into account, such as the adaptation of the working environment to allow better reconciliation between the time spent on paid work and other activities.<sup>24</sup>

Indeed, according to the OCED, "unpaid domestic care work is an important aspect of economic activity as well a crucial factor contributing to the well-being of individuals, families, and society in general." Yet, neglecting it means marginalising an important factor that influences the participation of women in the labour market.

Lifting social constraints and correcting social stereotypes could increase the probability of women joining the labour market, and lead to recognising the economic contribution of unpaid care work.

At a regional level, there is a great opportunity for cooperation between the North Africa countries and India in terms of addressing gender discrimination issues in the economic sphere and beyond. The two parties involved should expand their existing partnerships to include a gender component in order to advocate for women's empowerment, which will positively contribute towards eradicating poverty, and protection and promotion of human rights. Indeed, ongoing discussions regarding trade, investment, knowledge and capacity transfers have not yet

A key area of cooperation between India and North African countries is promoting female entrepreneurship by engaging in building a sound entrepreneurship ecosystem that facilitates access to capital, business support, and networks for women.

taken into consideration the gender aspect.

Given the similarities discussed in this paper between India and North African countries in terms of education, urbanisation, and LFP trends, a way to intensify their engagement on gender is through sharing experiences. Moreover, targeted training and skilling programmes that can be implemented in both regions, and exchanges between leading North African and Indian universities, would promote capacity-building measures, such as skills development,<sup>26</sup> and address the growing mismatch between skills taught and skills needed in the labour market.

Another key area of cooperation should involve promoting entrepreneurship, since both regions face similar opportunities and challenges in this area, and both are seeing a rise of women entrepreneurs. However, for entrepreneurship to be an effective enabler for women empowerment and economic particiapation, India and North Africa should engage in building a sound entrepreneurship ecosystem that facilitates access to capital, business support, and networks.

As ties between India and North African countries grow, policy proposals for cooperation need to be contextualised in a gender-inclusive vision to ensure equal opportunities for both men and women.

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# **PILLARS**

# **Development Finance**

# FINANCING DEVELOPMENT IN INDIA AND AFRICA

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In July 2015, the third Financing for Development conference was held in Addis Ababa, Ethiopia. The congregation was designed to procure financial commitments and determine the economic viability of the Sustainable Development Goals (SDGs). A long gestating global development framework, comprising 17 global goals and 169 targets, the SDGs were viewed as the next step to elevate global developmental standards, acting as the logical evolution of the previous framework – the Millennium Developmental Goals.

While admirable in scope and magnitude, estimates indicate that it will take between five to seven trillion dollars of annual funding to achieve the goals and targets set out within the SDG Framework. It was with the intention of finding ways to bridge the substantial financing gap that more than 190 sovereign nations came together in Addis Ababa. The outcome of the conference, the so-called "Addis Ababa Action"

Agenda," was hailed by the United Nations (UN) and other non-governmental parties as the pathway to realising the 17 SDGs. However, even though the document did lay out important policy measures to be undertaken to achieve the SDG goals and targets, it did not include concrete financial commitments

The carefully considered language of the treaty was not an accident. It followed, rather, a trend that has become increasingly apparent in recent years. Financial aid from developed nations to the emerging world has been steadily decreasing over the past fifty years. It will continue to shrink in all likelihood moving forward, given the nationalist and anti-globalist political movements taking place across parts of the developed world. Multilateral organisations, such as the World Bank, derive the majority of their funding from the developed nations that are in turmoil and could thus also see a decline in financial commitments.

Given these circumstances, a new approach must be taken to finance sustainable development in both Africa and India. This chapter will first discuss traditional approaches to financing development and the pitfalls associated with them. It will then propose a new pathway to financing SDGs that will benefit both India and Africa.

# Traditional means of financing development

### Official development assistance

Developed nations have traditionally allocated a percentage of their national budget for the express purpose of providing funds to the developing world. Originally meant to be a means for imperial powers to bolster the economic efficiency of their colonies, development assistance transformed into an important diplomatic tool that first world nations could use to exert their influence during the Cold War era

Putting aside the political strings often attached, the very efficacy of Official Development Assistance (ODA) has been questioned by economists, scholars, and academics. Recent studies have shown that there is an inverse relationship between aid inflows and economic growth.<sup>2</sup> Scholars have pointed to poor governance structures, deployment methods, and excessive bureaucracy as potential culprits. Yet it cannot be argued that development assistance has undoubtedly helped developing nations weather certain challenges. The developed world's willingness to provide global public goods has waned over the past half

century, with global budget allocations directed towards ODA dropping from 0.5% to 0.3%.<sup>3</sup>

ODA will continue to play an important role in funding development – the overall flow of funds provided to developing nations still stand at a sizeable US\$ 135 billion.<sup>4</sup> This number pales in comparison, however, to the trillions needed to achieve the SDGs.<sup>5</sup> Given the sizeable gap in funding and decreased appetite to provide global public goods among traditional Atlantic powers, additional sources are needed to help finance development.

#### Multilateral development banks

Given the persisting need for development financing, the world has looked towards alternatives outside the bilateral aid mechanism. Multilateral development organisations, such as the World Bank and the International Monetary Fund (IMF), were created with the express purpose of bridging development financing gaps that individual lending could not meet. Yet they have not always been able to meet their targets. A slow-moving bureaucracy, contingent allocation systems based on contributions, and an unwillingness to alter structures to reflect current economic power dimensions have led to a lack of funding from these institutions to nations that need it most <sup>6</sup>

Middle-income nations have attempted to address this failure through the creation of nascent multilateral financial organisations, such as the New Development Bank and the Asian Infrastructure Investment Bank. These

organisations eschew the draconian restrictions imposed by the IMF and World Bank while providing funding and expertise, using lessons learned from recent histories of being dependent on traditional aid frameworks. While these organisations do have significant financing at their disposal – the New Development Bank and the Asian Infrastructure Investment Bank each have authorised capital of US\$ 100 billion<sup>7</sup> – they also will still only serve up a fraction of the trillions required across the developing world.

### **Taxation regimes**

Another avenue for developing nations to procure funds to achieve SDG targets is to raise domestic tax revenues. Multinational corporations across the world employ transfer pricing methods to avoid paying taxes in nations that levy heavy tolls on corporations. While it is difficult to ascertain exact figures, most estimates indicate that developing nations lose between US\$ 100-200 billion a year because of corporate tax avoidance.<sup>8</sup>

The developing world has advocated changes to international tax treaties and the formation of an international organisation akin to the World Trade Organisation to curtail such losses. A number of organisations have put forward proposals designed to curb revenue shifting for tax purposes. For example, the base erosion and profit sharing programme, introduced by the Organisation for Economic Co-operation and Development (OECD), lays out a 15-step procedure suggesting policy measures that developing countries can adopt to prevent tax avoidance across a variety of sectors. The UN's Practical Manual on Transfer

Pricing provides guidance for government officials and administrators on best practices they can adopt to better understand complex transfer pricing issues. <sup>10</sup> Both the UN and the OECD have also released documents providing models for bilateral treaties to reduce incidences of corporate tax avoidance

These measures have a single overarching concern associated with them, however - they will all require a global tax agreement and an enforcing body that ensures adherence to a set of regulations and/or macroeconomic policies. The European Union has attempted, fruitlessly, to implement a cohesive tax agreement at a regional level for two decades. The implementation of any such system is incredibly complex, as it will have to consider a number of industries, sectors, and subnational mechanisms. Taxation at the national level is already an extremely intricate process, with multinational corporations employing large teams from prestigious accounting companies and white-shoe law firms to reduce taxable income. Creating a cohesive, all-encompassing, global taxation regime is simply not feasible given the complexity of the global economic system.

# A new way forward

### **South-South cooperation**

As ODA from the traditional Atlantic powers has decreased, certain nations that were once key recipients of foreign aid have dramatically scaled up their own assistance programmes. The increase in middle-income development assistance has

originated largely from two nations, China and India. From 2010 to 2012, China committed US\$ 14 billion in foreign aid, 11 while India has stated its intent to give out close to US\$ 30 billion over the coming decade.

Increased funding has come with an added benefit – the newly emerged economies have been able to better align their development assistance programmes with the SDGs in comparison to traditional donors. <sup>12</sup> Employing aid strategies that target agriculture, education, health services, and welfare facilities, <sup>13</sup> development assistance from new donors has generated significantly better results when contrasted with the archaic Bretton Woods-based approaches.

Partnerships among Indian and African nations, in particular, have grown exponentially over the past decade. In 2015, India highlighted its continued commitment to the India-Africa partnerships by making available US\$ 10 billion in concessional loans and lines of credit for African nations, while also doubling grant assistance. <sup>14</sup> Unlike developed world donors, India's assistance is predicated on the underlying principle of true partnership: in addition to concessional loans and grant assistance, India's aid programme also includes provisions for technical assistance, scholarship and training, and human resource development cooperation.

As elucidated above, bilateral assistance by itself cannot be scaled up to finance global development. The true value of assistance programmes is the possible catalytic effect they can have on larger pools of private capital. Development partnerships between India and Africa have already helped create a bridge for private capital,

with over 15% of India's overseas private sector investments currently going to Africa.<sup>15</sup> The US\$ 35 billion committed by these institutions<sup>16</sup> already triplicates the US\$ 10 billion in assistance that the Indian government has promised, and has the potential to grow even larger.

Development partnerships between India and Africa have already helped create a bridge for private capital: over 15% of India's overseas private sector investments are in Africa.

While Indian investments have not all gone towards development-oriented projects, additional stimulus provided to the economy, along with ancillary co-benefits, have undoubtedly helped increase living standards. As the volume of investment increases, private capital will start to flow towards projects linked directly to the SDGs (infrastructure, clean energy), providing direct benefits as well as co-benefits. The revenue streams generated by these projects will also stimulate the Indian economy, eventually creating a mutually beneficial partnership independent of the development assistance framework. In fact, finding methods to increase global private capital involvement could be the key for India and African countries to achieve the SDGs

## Mobilising private capital

The largest pool of capital in the world is handled by institutional investors based in the western hemisphere—pension funds, insurance companies, and sovereign wealth institutes that have assets worth US\$ 100 trillion under management. Unfortunately, this capital is being badly managed. Global pension funds are currently projected to fall short of the liabilities owed to pensioners by as much as US\$ 28 trillion,<sup>17</sup> largely due to increased life expectancies and poor investment returns. The situation is likely to worsen over the coming years, with projected investment returns for institutional investors ranging from 0.15% to 3.45%, far below historical rates of 3.6% to 8.6%, <sup>18</sup>

By directing this pool of vast private capital to development projects in India and African nations showing potential for high economic growth, institutional investors have the chance to improve returns on their portfolios, thereby reducing their potential pension liabilities. Institutional investors have generally shied away from investing in the developing world, however, allegedly due to the plethora of risks that are involved – political, economic, financial. Of the 3% of total institutional investments directed towards infrastructure, <sup>19</sup> for example, only a small fraction finds its way towards developing countries.

Furthermore, private capital can be restricted by international banking regulations, such as Basel III. Given the large capital needed for development projects, co-financing from banks is often required. However, the development projects that are most in want of finance have a long-term investment horizon in countries with low sovereign credit ratings – issues that make it prohibitively expensive to obtain debt financing

for investors as per the latest iteration of the Basel norms  $^{20}$ 

Institutional investors are also reluctant to invest in convoluted projects, such as infrastructure, due to the extensive bureaucracy and red tape involved in the public sector, perceived unreliability of developing world vendors, and the lack of faith in judiciaries in the global South. Education and health projects, in the meantime, face the same risk profile, while also facing the additional stigma of a dubious profit proposition for the private sector.

While barriers exist, there are also certain solutions available. The path to tapping into this unused pool of capital residing in traditional Atlantic powers could be through the leveraging of the India-Africa partnership.

#### **Leveraging the India-Africa partnership**

The best way to combat some of the endemic investment barriers faced by emerging and developing economies is to mitigate some of the risks present within developing economies. It is here that the India-Africa partnership can be leveraged.

Credit guarantees are one possible instrument that can be used to mitigate against financial and currency risk. The instrument partially guarantees investor equity, providing a significant credit boost to projects in developing world. Lines of credit are a significant part of India's development assistance programme: a possible way to catalyse global private capital in partner Africa countries

would be to guarantee certain sustainable development projects against Indian lines of credit. This effectively guarantees investment in projects without actively diverting useful capital away from active investment opportunities.

# The NDB could offer political risk guarantees geared towards projects in countries ignored or overlooked by traditional Atlantic institutions.

Another common tool used to assuage institutional investor fear is political risk insurance. Made available largely by the Bretton Woods Institutions, political risk guarantees have traditionally gone towards Western nations – for example, in 2010, 74% of World Bank's political guarantees were issued for projects originating in Europe or Central Asia.<sup>21</sup> In addition to a geographical bias, the World Bank has also shown sectoral favouritism – 64% of its political guarantees were classified as 'financial' in 2010, with only 12% and 9% going to 'infrastructure' and 'Agribusiness, manufacturing and services' respectively.<sup>22</sup>

The recently formed New Development Bank could address this gap. India and South Africa, two of the bank's founding members, could work together to spearhead political risk guarantees geared specifically towards projects in their countries that have been ignored or overlooked by traditional Atlantic institutions. Given that the New Development Bank's investor mandate states a clear sectoral bias towards clean energy and infrastructure investments, the political risk

guarantees it issues can also be geared towards the same sectors, correcting the market failure created by the Bretton Woods Institutions.

Another aspect of the Brazil, Russia, India, China, and South Africa (BRICS) alliance - the Contingency Reserve Arrangement (CRA) – could also be adapted to the India-Africa partnership in the context of development finance. The CRA is a capital pool that can be accessed by BRICS nations to help counter currency risk issues. This would allow nations to effectively see diluted the historically harmful restrictions that the IMF has imposed – restrictions that have at times led to the creation of predatory private monopolies, increased unemployment, and the loss of social welfare safety nets.23 Given its sizeable capital contribution of US\$ 100 billion, the CRA could be adapted for institutional investor use to hedge against currency risk. Alternatively, the CRA could also be used as a backstop for African nations in cases of large currency fluctuations – with the restriction that the funds can only be used to insure payments on contracts for development projects.

An increased focus on specialised investment banks that focus solely on a particular type of project can also direct private capital towards development-oriented projects. Developing expertise in certain sectors or project types and showing replicable returns over a sustained time period is often more attractive for institutional investors than a risk-mitigating instrument. While they are generally risk averse and reluctant to be first movers, institutional investors can be swayed by demonstrable risk-adjusted returns in a particular market.

In the context of the India-Africa partnership, there is one particular investment bank model of Indian origin that can help accelerate private capital partnerships with African countries. Successful in an area largely ignored by private capital – small-scale enterprises and rural agriculture – the National Bank for Agricultural and Rural Development (NABARD) was formed in 1982 and given a mandate to provide developmental credit in India's rural areas. In a traditionally profit-barren sector, NABARD has been a shining beacon of success, having grown its start-up capital from approximately US\$ 15 million to \$800 million over the course of its 35 years.<sup>24</sup>

While its financial success has been impressive, NABARD's true value has been its ability to act as both a policymaker and implementer. Owned almost entirely by the Government of India, NABARD has been able to utilise its access to the government to push forward innovate policies related to microcredit, infrastructure development, and large-scale rural irrigation. Per its 2015-2016 annual report, NABARD has managed to fund projects related to all 17 SDGs.<sup>25</sup>

Given the partnership approach to development assistance that has been adopted by India, it would be easy to facilitate a knowledge partnership between NABARD and any newly formed African agricultural bank. While implementing the full scope of activities carried out by NABARD would take some time, introducing something as basic as an irrigation scheme can immediately raise average household incomes by 200-300% in the implementation area.

The true benefit of a successful public-sector agriculture bank, however, could come from the potential effect that it might have in influencing private capital. The US\$ 48 billion funding available to NABARD<sup>26</sup> is dwarfed by the US\$ 295 billion of assets managed by CalPERS<sup>27</sup> – the institutional investor responsible for handling pension funds for just one of the 50 US states. Illustrating the potential for sustained profitability from an agricultural bank along the lines of NABARD could provide the impetus for the creation of similar institutions funded by private capital, much in the same way that the success of the UK Green Bank has spurred private sector interest in green investment banks.<sup>28</sup>

#### Conclusion

Disruption has been one of the hallmark of the early 21st century. Recent technological advances have affected humanity, changing the way we communicate, travel, and think. The global governance architecture has shifted and can no longer be considered to be a unipolar, superpower-dominated system. Emerging economies are transforming themselves into geo-economic powerhouses. Yet, this new era of disruption has still not been able to find a way to adequately elevate development standards to meet the most basic of human needs

If the world truly means to achieve the SDGs, the archaic and orthodox way in which development is financed must also be disrupted. Relying on bilateral and multilateral assistance from declining Atlantic powers or proposing unviable changes to global taxation methods will only

serve to increase global inequality.

By adopting the South-South model of development assistance, increasing private capital flows, and leveraging and enhancing the existing partnership between the continent and the subcontinent, both India and Africa could take definitive steps towards improving the lives of their citizens.

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# PILLARS

# **Connectivity**

# **ASIA-AFRICA GROWTH CORRIDOR**

# **Developing an Alternative**

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The Asia-Africa Growth Corridor (AAGC) could become a primary platform for on-the-ground engagement between India and Africa. The AAGC, an initiative-in-the-making, is an ideal incubator that could develop new institutional mechanisms and models to connect people, markets, institutions, knowledge, and development choices across the Indo-Pacific. As such, the endeavor could significantly add to Asian and African efforts towards inclusive growth and development.

Spearheaded by India and Japan, the AAGC first found mention in the joint statement following Shinzo Abe's state visit to New Delhi in November 2016. The initiative was formally launched in May 2017 at the African Development Bank's annual meeting, held for the first time in India. An Asia-Africa Growth Study is currently being conducted, which will map next steps, and is expected to be presented in 2018 to leaders of

Asian and African governments.<sup>1</sup> The study will guide policy and action plans in the coming decade.

Can the "growth programme" become the "chosen pathway"2 for Asia and Africa - two regions that together represent over 70% of the world's population - to realise their economic and social potential through integration? Substantial financing and development gaps persist in the global South: ample space exists for new platforms and methodologies to be implemented to add and improve collective efforts. This chapter contends that the initiative's envisioned scope and proposed approach increase the potential of the AAGC as a strong option for growth creation, particularly compared to the Chinese pattern of engagement in Africa in its aid and investment practices that finds replication in its multi-regional Belt and Road Initiative (BRI). This is not with an unrealistic view of replacing China or the BRI, but with the intention of advancing the AAGC as a model of connectivity and cooperation that can inform other actors' engagement with developing countries. However, for the AAGC to not only fulfil this potential but to be a realistic proposition to begin with, the initiative's architects must address certain questions, concerns, and challenges regarding the initiative's scope, approach, and rhetoric in the planning stages itself.

The first section provides the broad strokes of Chinese aid and investment engagement in Africa. The next section analyses the AAGC's scope and approach, differentiating them from the Chinese method and model, and raises potential challenges that must be addressed for effective implementation and real gains. Keeping these identified gaps in mind, the conclusion recommends steps towards the creation of a robust AAGC roadmap that can strengthen its appeal as a viable option for Indo-Pacific connectivity and cooperation.

# The Chinese method and model: Evidence from Africa

China is Africa's biggest trade partner; the continent's largest infrastructure financier; the largest donor among emerging economies; and the largest investor from the developing world in the region.<sup>3</sup>

China's initial state-led aid and investments through a process of "going out" in resourcerich countries has, in the intervening years of increasing Chinese growth and a changing domestic economic structure, shifted to a marked stress in infrastructure and productive sectors and increased involvement of Chinese private firms in Africa. For instance, the Chinese company SunDa began operating in Nigeria to import tiles from China, but is now involved in manufacturing in several African countries <sup>4</sup>

In terms of value, the majority of Chinese funding remains directed towards "hardware" of development – construction and transportation, telecommunications, mining and energy. This is witnessed by both AidData's compilation of 4,034 projects financed by China's official and other official flows in 138 countries between 2000-2014,<sup>5</sup> and McKinsey's report on Chinese businesses in Africa, which reveals nearly a third of Chinese firms operate in manufacturing, and a fifth in trade, construction, and real-estate. Chinese firms comprise 50% of Africa's internationally contracted construction market.<sup>6</sup>

But Chinese aid is diversifying into the social sector – health, education, and governance.<sup>7</sup> Likewise, the wide proliferation of Chinese private actors in Africa, a quarter of which operate in the service sector, indicates investment that is more market-driven than originally thought.<sup>8</sup>

A broadening engagement indicates an evolving Chinese worldview of its role as a responsible global stakeholder. Simultaneously, China's modus operandi reveals the advancement of manufacturing-led growth and development, with infrastructure as a principal driver, given its own experience. Industrialisation has been singled out by Beijing in recent China-Africa summits – in 2015, Xi Jinping extended US\$ 60 billion to the

continent, of which the largest share will go into infrastructure development and kickstarting the industrialisation process.

Effectively, China can offload excess industrial capacity abroad, and transfer manufacturing capacities in less-developed countries in tandem with its own domestic structural transformation – from a low value-added goods to higher-value products; and further down the line, from an export-led, labour- and investment-intensive economy to one led by services, domestic consumption, and technology.<sup>9</sup>

China's BRI – currently accounting for almost US\$ 1 trillion worth of loans in 71 participating countries across Europe, Asia, and Africa – adopts the same understanding in its implementation. Predominantly, infrastructure investments are

being made in physical connectivity: creating and upgrading trading and transportation links. Transportation and energy infrastructure are key sectors of investment: state-led financing, the staple of Chinese infrastructure lending, is a key feature. Thus the existence of several Chinabacked railway, port, and motorway projects across the continent under the BRI ambit, including the Nairobi-Mombassa railway line that came online last year (China funded 80% of the project.)

Chinese engagement in Africa has helped accelerate Africa's growth and reduce poverty. Growth in sub-Saharan Africa was particularly strong in the mid-2000s, linked to growth in China (likewise growth reduction in 2015 and 2016). Importantly, China has filled gaps in transportation and power projects. Chinese

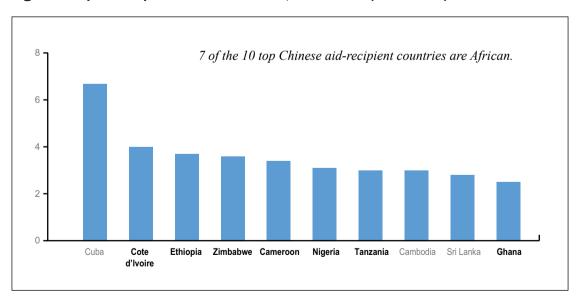


Figure 1: Top 10 recipients of Chinese ODA, 2000-2014 (US\$ billion)

Source: AidData, "Aid, China, and Growth: Evidence from a New Global Development Finance Dataset."

firms are creating jobs and helping build skills; transferring new technology and management knowledge, and minimising infrastructure gaps. 12 Economic growth due to Chinese aid (according to OECD-DAC classification) is comparable to that by traditional donors. 13 Efficiency of the Chinese method is often cited. Growth effects due to Beijing's development aid also materialise sooner, given investment in "early impact" aid flows, such as those channelled towards infrastructure.

Even as we see a correction of the narrative around Chinese aid and investment as more data and on-the-ground analysis emerges – and efforts by the Chinese government to converge with Western actors around aid and development finance<sup>14</sup> – certain gaps persist. These are markedly visible in the BRI's implementation:

**Participation:** The BRI was unilaterally announced and is being implemented bilaterally. China identifies with demand-led investment, with the difference being that it is government-demand driven. "If you don't have the most responsible government, projects may not be advantageous to development concerns." China's experience in non-democratic countries or those with poor governance records is often cited, enforcing a perception of elite-level wealth creation.

*Employment opportunities:* Chinese business are increasing job opportunities for African workers, but a deficiency in African upper-end managers is cited.<sup>16</sup> Further, a persistent narrative exists, including around the BRI, of Chinese labour being imported along with Chinese material and money in Africa.<sup>17</sup> Estimates of Chinese workers

in Africa runs as high as one million, and these are considered "disproportionately high" compared to Chinese financing and the levels of migrant labour from other countries.<sup>18</sup> To remember is that Africa will become the world's net labour source in the future.

*Impact on local businesses:* By value, only 47% of Chinese firms source material from local African firms.<sup>19</sup> The BRI will, for instance, increase demand for Chinese steel by 20% by 2020. Non-competitive bidding process led by Chinese SOEs weakens "win-win" prospects for local companies.<sup>20</sup> Furthermore, competitive Chinese construction companies are crowding out African counterparts.<sup>21</sup> McKinsey reports that Chinese firms already handle 12% of Africa's industrial production worth an annual US\$ 500 billion.<sup>22</sup>

Speed vs. quality; early-impact gains vs. longer-term benefits: White elephant projects are a commonly cited feature of Chinese infrastructure investments, including under its BRI – projects that do not see expected footfall or revenues; those that see cost overruns; those that run inefficiently due to substandard quality of work, or insufficient long-term maintenance. Moreover, infrastructure finance alone without creating sustainable domestic policies, regulation, and capacities will dry up longer-term benefits. AidData recognises the short-lived effects of Chinese aid, for instance, as well as the fact that Chinese ODA in the productive sectors is not found to affect economic growth.<sup>23</sup>

**Debt sustainability:** Concerns arise due to the type of aid or investment instrument used. Gains

from Chinese sources of official lending other than ODA-like funding are not as clear, and these form the former type forms the bulk of China's finance at almost 80%.<sup>24</sup> Lending through export credits, or non-concessional loans, as seen in Angola, foster a natural-resource-based dependency relationship and unsustainable debt conditions. These in turn can engender equity gains and political repayment for Beijing. Djibouti is the top-most country likely to face debt distress because of expanding BRI-related financing;25 the country lies in a strategic position in Western Indian Ocean. "Debt diplomacy" has led to doubts over mutual gain and concerns of undue Chinese influence. State-led investment that can follow foreign policy goals adds to this sentiment, as does the recent explicit linkage between its aid and larger objectives through an International Development Agency (to allow "aid to fully play its important role in great power diplomacy, as per Chinese Foreign Minister Wang Yi).26

**Transparency** and standards: Lack oftransparency is another governance-related issue. There are no reliable aid figures, and the Chinese Ministry of Commerce figures for investments and number of Chinese firms have been found to be much lower than in reality. Likewise, loan terms across BRI projects are not readily found. Environment standards are often found to be subpar (there is evidence of environmental violations by Chinese-owned businesses<sup>27</sup>), and as per one estimate, investments under the BRI umbrella will be one-third green, and two-thirds black.<sup>28</sup>

A recent study shows that 14% of BRI projects in 66 countries in the last five years have hit trouble due to many of the reasons cited above.<sup>29</sup>

# The AAGC: Developing an alternative

The discussion on AAGC's scope responds directly to the rationale of operationalising a proposition with specific parameters, particularly versus the ever-expanding breadth of the Chinese BRI. The conversation on the AAGC's approach make explicit the adoption of an ethos that can correct gaps and shortcomings seen and perceived in Chinese engagement.

Chinese engagement in Africa has helped accelerate Africa's growth and reduce poverty. But gaps exist in its methodology that are most markedly visible in the BRI's implementation.

### Scope

The AAGC's scope can be identified along three axes: geography, stakeholders, and areas of engagement.

### Geography

The AAGC envisages linkages and investments in the Indo-Pacific, which has emerged as a pivot in the 21st century. As the Indian prime minister stated in a defining speech earlier in 2018, "the destiny of the world will be deeply influenced by the course of developments in the Indo-Pacific."<sup>30</sup>

The AAGC's ambition is to connect Asia with Africa – connections that can respond to elements of both commonality and disparity between the two regions.

Commonality: Both regions face common opportunities and challenges. Given political and socio-economic similarities, an institutionalised platform to ameliorate shared understanding, strengthen and coordinate policy and action in priority areas, and enhance cross-adoption of local solutions will only be to the benefit of India and African countries.

Note, for instance, that nine of the 15 fastest-growing economies from now till 2050 are from South and Southeast Asia. India could become the second-largest economy. This list also includes Egypt and Nigeria, with the latter poised to become the fastest-growing large African economy.<sup>31</sup> The quality of the economic growth emerging economies are experiencing is different from how today's advanced nations rose up the global economic order. Fast-growing developing countries – such as India and the Africa's "lion economies" – are juggling both unfinished industrialisation and development agendas, and being representatives of an increasingly greater share of the global economic pie.

Demography is another major shared opportunity and challenge. As India becomes the country with the largest population and Africa add the equivalent of the entire Indian population of 1.3 billion between now to 2050,<sup>32</sup> both will have to contend with further stressed already-inefficient public delivery systems. Critically, both Asia and Africa are, and will continue to be, young

nations. Most of the expansion in the working-age population will come from Africa (over 650 million) and Asia (over 440 million) between now and 2050.<sup>33</sup> Integrating them into production and consumption patterns is an existing common challenge; at the same time, a growing entrepreneurship and a start-up culture is a shared trend to leverage towards reaping a demographic dividend.

Disparity: Focusing on the disparate growth trajectories of Asian and African economies, despite similar starting points, also presents a rationale for connecting the two regions. The GDP gap between the two regions has doubled between 1970 and today. South Korea and sub-Saharan Africa were in similar stages of development in the early 1960s, but today, South Korea is as well off as England and the US.34 This difference presents another opportunity for engagement between the two regions: "What South Korea did can be repeated in Africa, just as what Europe did was repeated in North America, and what North America did was repeated in East Asia."35 The AAGC could provide mechanisms to do just this: the development experiences of East Asian economies can be shared and dovetailed with development priorities of the countries/regions of Africa.<sup>36</sup> (And this of course applies to India and other developing Asian nations as well.)

The concept of disparity also applies in terms of financial capacities. Established and emerging Asian lenders of development finance and aid, such as Japan, India, South Korea, and UAE can, for instance, help towards Africa's annual requirement of US\$ 100 billion in the infrastructure sector.<sup>37</sup> The share of India's bilateral aid extended

to South Asia, the biggest regional target and recipient of India's development assistance, has dropped in recent years – from 87% in 2012-13 to 73% in 2018-19 – as it "aggressively" expands lending to Africa.<sup>38</sup> Likewise, South Korea has also been expanding its aid program beyond the Asia-Pacific.<sup>39</sup>

This specificity in terms of geographic scope is in contrast to China's BRI, a mega-regional initiative. Furthermore, the rationale driving BRI's transportation corridors is one strongly linked to the narrower logic of complementarity at present: China engages in Africa to meet its economic and strategic interests, while it in turn meets African countries' needs for infrastructure finance

#### **Stakeholders**

While India and Japan are the torchbearers of this initiative, the AAGC potentially connects 88 countries across Africa, South and Southeast Asia, and Oceania in the Indo-Pacific.<sup>40</sup>

The inclusion of both developed and developing countries, as well as emerging and existing

The AAGC could provide mechanisms for the experiences of East Asian economies to be shared and dovetailed with development priorities of African countries and regions.

regional powers, strengthens the logic of disparity outlined above.

However, the sheer number of actors could coordination problems. The wide geographic stretch being covered by the AAGC will necessarily disaggregate activity, but the backbone of the initiative can be the roadmap that is offered, dictated by the approach. But who will be the key regional interlocutors? Regarding Africa, the African Union and the African Development Bank are potential points of contact; the latter more directly serves the AAGC's agenda of development-led growth, but it been called out for its inefficiencies. Will the ASEAN secretariat become involved? Will there be an AAGC secretariat installed? This challenge could be compounded if the private sector is also involved as intended (discussed below).

Besides India and Japan, ASEAN is also heavily implicated, given that the work to develop the AAGC vision and forward momentum has been entrusted to three principal think-tanks – one in India (Research and Information System for Developing Countries, RIS), one in Japan (Institution of Developing Economies-Japan External Trade Organisation, IDE-JETRO), and one in Jakarta (Economic Research Institute for ASEAN and East Asia, ERIA). They developed a vision document based on consultations with other Asian and African think tanks.

Compared to the unilateral preparation and announcement of the BRI, this initiative has at the outset begun as a multilateral and multistakeholder exercise to pool together minds and experiences to connect trade, technology, and finance that advances development-led growth. But a glaring lack of appropriate African involvement has nonetheless been identified. A lack of ownership among one of half of the AAGC stakeholders will create critical gaps in AAGC's effectiveness and affect long-term functioning.

### Areas of engagement

The vision document mentions four pillars of proposed AAGC engagement (Figure 2). Highlighted within them are specific aspects and areas of engagement that the initiative will take up for current and future prosperity. To note first is that these are forward-looking even as they embrace existing priorities in developing

countries in Asia and Africa. Thus the presence of both renewable energy and telecommunications; blue economy and agriculture; education and human resource training and skilling.

Second, the selection of these specific themes and sectors lends itself to a parity of understanding of development needs that exist in the global South. Note, for instance, the convergence between the proposed AAGC agenda and the India-Africa Framework for Strategic Cooperation, but also with the African Union's Agenda 2063. Thus the addition of 'Centres to Share Development Experiences' in the first pillar, making tangible both the logics of commonality and disparity. Third, the AAGC agenda corresponds to fulfilling

Smart Assistance Track 1.5 Track 1 RIS. ERIA. IDE National/Regional Govt of India **AAGC** Africa Asia Think Tanks, AfDB, EXIM Banks Govt of Japan **Development Priorities** Sustainable Capacities RIS, ERIA, IDE Quality Infrastructure **Development and** People-to-**Enhancing Capacity** and Institutional Cooperation (Located in FIDC, RIS) and Skills Connectivity **Projects Partnership** ■ Human Resource Greenfield Projects Exchanges Training, Agriculture and vs. Large Projects among Education Agro Processing Design and Project people Vocational/Industr Development ial Training Centers Health and Joint Ventures/ **Pharmaceuticals** Knowledge Pan Africa E-Consortium, Pvt facilitation Network Sector Financing Disaster Develop Capacities Investment Management to Sustain Tourism **Opportunities** Infrastructure ■ Blue Economy Connectivity ■ Centres to Share Infrastructure. Education Renewable Energy, Manufacturing Experience Telecommunication, and educational **Power Grids** 

Figure 2: Key pillars of engagement under the AAGC

Source: AAGC Vision Document

the SDGs, thus increasing its relevancy vis-à-vis international developmental efforts to decrease inequality and promote prosperity and stability.

China's larger investment trends reveal a shift of focus from predominantly natural resources to also development of human resources. There are of course gaps that the AAGC can categorically target, such as developing management capacities.

Coming to specifics, three things merit brief mention. One, infrastructure connectivity is an entire pillar of AAGC engagement. This is a reflection of a critical unmet demand that exists across Asia (to the tune of an annual US\$1.7 trillion between now and 2030) and Africa (of the annual US\$ 100 billion needed to bridge Africa's existing infrastructure gap, less than half is currently financed<sup>41</sup>). It is also a reflection of an external stimulus in the shape of China's rapid advance in the Indo-Pacific through the BRI.

Two, India's development experience has a specific role to play. India's domestic successes, such as those in facilitating trade<sup>42</sup> through the the single-window custom clearance through SWIFT and the establishment of institutions to improve custom valuation practices, can guide similar arrangements in Africa via technical assistance. The AAGC vision paper lists a number of homegrown initiatives, such as its national financial inclusion scheme and the affordable clean energy scheme. India's economic strengths, such as in the pharmaceutical industry and digital sector – the latter an area India is already promoting through the Pan African e-Network project that would be subsumed under the AAGC's mandate

 can be expanded via the AAGC and amplified by Japan's expertise and financial assets. Existing projects can be replicated and/or guide the AAGC implementation.

What India individually brings to the table is in contrast to China's strengths in infrastructure. In this context the inclusion of manufacturing under the AAGC's mandate is interesting from an Indian point of view. This is the third point of note because India and Africa face economic structural transformations that are "taking place in unchartered territory." While China offers at least a tried-and-tested model of structural transformation, India is seeking to "leapfrog to a modern service economy based on frugal innovation and new technologies." Is India hoping to re-energise its Make in India initiative? Such an agenda will need to be thought through carefully, given the limited success of the endeavour.

### **Approach**

In advancing a people-centric and developmentled growth strategy, the AAGC is offering an alternative pathway that could correct criticisms that the "China solution" faces.

Both the AAGC's proposed principles of engagement and various methodologies advanced work towards this end. They organically build on the ethos and practices of India and Japan's respective development cooperation broadly and specifically engagements with African countries.

The initiative emphasises cooperation that is participative, demand-driven process that is

"free of condition," which counteracts against hierarchical donor-recipient relationships, and, also, critically, leverages the smaller power asymmetry between India and Africa and a shared "third-world" historicity (versus China and Africa) to present a platform based on a more equal partnership, greater mutual trust, and a legacy of solidarity.

Explicit and wholesome considerations of quality - in terms of mitigation of environmental and social impact; effective mobilisation of financial resources in alignment with socio-economic needs; and impact of final product – also present an alternate pathway to the Chinese pattern of engagement, which is criticised for sidelining such considerations at the altar of speed, as discussed above. To this end, the AAGC's suggested use of geographic information systems to prepare a Geographic Simulation Model (GSM) to gauge economic effects of increased integration. As per the vision document, the GSM will be used to measure economic gains for Africa through interregional integration with India, East and Southeast Asia, etc. This is beneficial because traditional impact assessment models that often prove inadequate in providing economic justification, particularly at regional / macro levels. But given a primary focus of domestic trade facilitation and capacity creation, the GSM should be used first and foremost to gauge viability of local infrastructure connectivity projects to avoid unsustainable projects.

The AAGC will also be based on "universally recognised international norms, good governance, rule of law, openness, transparency, and equality," in the words of the former Indian foreign

In advancing a people-centric and development-led growth strategy, the AAGC is offering an alternative pathway that could correct criticisms that the "China solution" faces.

secretary.<sup>44</sup> This again make explicit the pursuit of a methodology distinct from China's course of action, which has brought to light several instances of increasing debt as well as other non-'win-win' local consequences in countries receiving Chinese loans.

In its pursuit of sustainable and innovative growth, the AAGC also proposes a mix of aid and investment. As Anita Prakash brings forward, ASEAN benefitted from ODA in the initial stages of its development, but subsequently, FDIgrowth soon outpaced ODA-led growth as the region saw growing investments in connectivity. infrastructure, and production networks, which in turn created organic conditions for ASEAN to maintain high levels of investments.<sup>45</sup> Currently, Africa is witnessing an influx of similar levels of ODA and FDI. The AAGC can see expand the Indian model of using development and commercial instruments - grants, technical assistance, trade and investment, lines of credit - which encourage development through growth. This decision to have a mix of instruments, which also leaves the door open to innovation, effectively helps shift the conversation away from aid effectiveness, a much debated-topic given evidence of mixed results, towards maximising the use of non-aid instruments, a conversation already agitating the developing world – with interest again picking up in identifying consequences of China's export credits and loans at market or near-market rates given the primacy of non-concessional funding under its BRI.

Second, the AAGC will promote a mix of public and private investment. In doing so, it will stand out in direct contrast to the BRI's state-led financing model. As the President of the US-India Business Council, Nisha Biswal, has commented, "connectivity is more than just infrastructure... it is about creating that economic activity... That is going to be done through the private sector...through people-to-people and businessto-business exchanges."46 Given an existing aim of promoting Indian private sector engagement in Africa, the AAGC could well be the platform facilitating this agenda item. Of course, the type of funding it will depend on which Asian and African countries come on board – private investment will play a limited role in lower-income countries.

Third, the AAGC will prioritise a mix of physical/institutional capacity creation and human resource development. This recognises the importance of investing in economic and social infrastructure, as well as people. Again, it is a specific counter to BRI, which has thus far emphasised transport connectivity and infrastructure in keeping with its understanding of how to stimulate growth and development. This does not apply to broader Chinese bilateral engagement given its expansion towards sectors beyond infrastructure.

Lastly, the AAGC advances multistakeholderism, which invites the incubation of various arrangements to suit sector- or project-

specific needs. Critically, the AAGC is also a manifestation of triangular cooperation. Pooling together comparative strengths that help close gaps in individual limitations and promote more effective outcomes is a welcome strategy in the face of bilateral implementation that can serve to reinforce a hierarchy of power - not to mention transparency gains. At the same time, critically, traditional major donors in Africa, such as the US, UK, Germany, and France can engage more substantively in Africa through the triangular cooperation mechanism offered by the AAGC to fulfil broader economic development goals in Africa rather than narrower, projectled objectives. This methodology effectively stands in sharp relief to the "China solution." (To chiefly recall here is the perception of BRI's make-up: Chinese companies, Chinese money, Chinese labour, Chinese standards, and Chinese technology...and in the end, concerns of "all roads lead to China.")

This growth programme anticipates stakeholders exercising developmental agency by strengthening local capacities and institutional entrepreneurship. Connectivity and cooperation through the AAGC could ideally and potentially, in the long-term, see effects for a more equitable regional governance architecture and multipolarity as existing development gaps close and capacity creation beings to pay off. But more immediately, given the parameters of play laid out above, the AAGC contributes to a "free and open" Indo-Pacific. This is critical from the perspective of managing China's rise, but equally, from the perspective of ensuring truer "win-win" connectivity and cooperation.

### Conclusion

The strength of the AAGC lies its tapping emerging and alternate sources of finance, development experiences, and technical expertise to meet the needs of two regions critical for global growth and development; and in the advancement of open, two-way, and equitable connectivity that seeks to engage in specific economic and developmental sectors via the adoption of best and responsible practices. This is particularly so against gaps and problems associated with Chinese engagement with Africa

At the same time, this does not ignore the desirability of easy access to plentiful Chinese finance, or negate the changing character of Chinese investments. Moreover, the broader value-addition of the AAGC on its own merit to help meet sizeable infrastructure and development finance gaps remains regardless of any comparison.

For the AAGC to realistically fulfil its potential, the initiative's primary architects must respond to certain challenges and gaps, many of which have been raised throughout the chapter.

The following are specific recommendations to pursue in the planning stages itself:

To ensure effective applicability and longevity
 of the initiative, immediately invite greater
 participation from African stakeholders –
 think tanks, practitioners, academics, and
 business – and incorporate their views and
 suggestions. This will render more valid the
 value-judgment of the AAGC as a "demandled" platform. Critically, a greater sense of

ownership among Africans will discourage any sentiment of being unwillingly led by India and Japan into a game of checkers against China.

- Identify interlocutors and principal institutions that will steer and oversee AAGC activities. Instead of creating a bloated secretariat, the attempt must be to advance simplified mechanisms and procedures.
- Supplement rhetoric with tangible inputs that can deliver expected outcomes. To this end, first monetary commitments by India and Japan can be announced at the earliest.
- Show "proof of concept" by initiating pilot projects in key African economies, such as Kenya, Ethiopia, and Rwanda. The pace at which the AAGC progress will be crucial in proving credible Indian and Japanese political will to engage with Africa.
- Ensure harmony between rhetoric and praxis. While the first corresponds to a narrative of the AAGC as an alternative to unchecked Chinese influence, the latter exposes potential for duplication and thus unrealized potential. Concretely: the AAGC stakeholders must resolve the question of potential Chinese participation (particularly given the open and multilateral nature of the proposed initiative) as well as identify how to compete, in terms of outcome, or integrate, in terms of process, with existing projects and mechanisms. A potential link between G20's Compact with Africa and AAGC, for instance, has been advanced.<sup>47</sup>

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# AREAS OF ENGAGEMENT

# **Agriculture**

# INDIA-AFRICA AGRICULTURAL COOPERATION

# Scope, Current Initiatives, and the Way Forward

DR MALANCHA CHAKRABARTY, Fellow, ORF	

# India and Africa face common challenges with regard to food security

In India, high rates of economic growth in the post-liberalisation era did not lead to a significant decline in undernourishment, with incidence dropping marginally from 210.1 million in 1990 to 194.6 million in 2014.1 Although India produces large quantities of cereals, particularly rice and wheat, and yield rates in India are more than double that of sub-Saharan Africa, India's yield rates (2,993 kg per hectare, ha) are also drastically lower than those of developed regions, such as North America (7,318 kg per ha), East Asia and Pacific (5,391 kg per ha), and the Euro area (5,363 kg per ha) (See Figure 1). Indian agriculture is also very vulnerable to climate change. In fact, large parts of the country suffer from droughts and long dry spells. Africa's problems with regard to food insecurity are more severe than India's. The early 2000s were marked by a growing optimism about Africa. Most of the African countries witnessed rapid growth rates, such as Angola, Ethiopia, Rwanda, and the Democratic Republic of Congo. But this latest era of high growth in African countries was hardly different from earlier such episodes. Growth was largely led by a commodity price boom; eventually, a plunge in commodities prices, particularly oil, coupled with a slowdown of the Chinese economy, led to deceleration of growth across the continent. There has been a sharp slowdown in the last few years. Gross domestic product growth in the region was a mere 1.3% in 2016.2 This cycle of growth acceleration and deceleration is a familiar story in Africa's economic history. In fact, there exists a huge literature on Africa's resource curse, which asserts that Africa's resources are an impediment to economic development because commodity booms are typically mishandled due to poor governance and hardly any structural change takes place during the boom years. The recent period of high growth was no exception: the last decade of high growth and increased foreign investment did not lead to a structural change in most African economies.

High growth also failed to improve the living conditions of ordinary Africans. Hunger and undernutrition persist. In fact, the number of undernourished persons increased from 210.2 million in 2000-02 to 232.5 million in 2014-16.3 There was a 20% rise in hungry people in East Africa due to adverse climatic and drought conditions.4 Currently, about 13.8 million people in Nigeria, Somalia, and South Sudan are severely food insecure and 100,000 persons in South Sudan are reeling under famine conditions.5 Conditions are equally worrying in southern and southeastern Ethiopia, northern and coastal Kenya, and northeastern Uganda due to the ongoing drought

in the Horn of Africa. The intensity and frequency of droughts in this region has increased over the years as a consequence of desertification, land degradation, and climate change.

Agricultural productivity is extremely low in Africa and the continent is extremely vulnerable to climatic shocks. The average farmer in sub-Saharan Africa produces only 1,433 kg of cereals per hectare – less than one-fourth of what a farmer in Europe and a fifth of what a farmer in North America produces.<sup>6</sup> Cereal yields in African countries like Botswana, Namibia, and Niger are among the lowest in the world at 299.8, 315, and 424.4 kg per hectare, respectively.<sup>7</sup> Moreover, agricultural production and food security in Africa is likely to be severely compromised by climate change and climate vulnerability. According to a report by the World Bank, significant yield decreases in major crops such as maize are

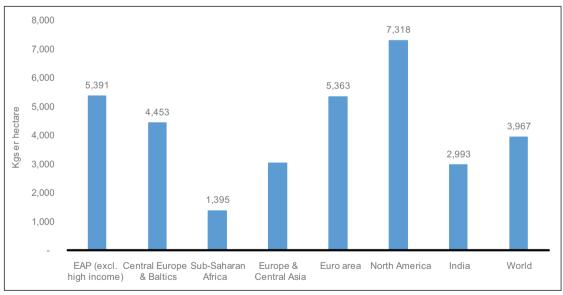


Figure 1: Cereal yields (Kgs per hectare, 2016)

Source: World Bank Database, https://data.worldbank.org/indicator/AG.YLD.CREL.KG

Food security and agricultural development continue to be key – indeed urgent – development priorities for both India and Africa. Both must focus on increasing agricultural productivity in a resource-constrained world.

expected by 2030 even under relatively modest levels of warming.<sup>8</sup> The World Bank estimates that a warming of about 1.8°C (by the 2050s) will lead to a 10% decline in per capita food production.<sup>9</sup>

In a nutshell, food security and agricultural development continue to be key – indeed urgent – development priorities for both India and Africa.

# The rationale for closer agricultural ties between India and Africa

While the previous section highlighted common challenges India and Africa face with regard to agriculture, significant differences in experience also create opportunities for cooperation. Firstly, for Africa, the main challenge lies in increasing the production of cereals, seeing as the continent is still heavily dependent on food aid and imports. According to Africa Progress Report 2014, Africa's food import bill amounts to US\$ 35 billion (excluding fish) every year. Deconomists like Sam Moyo blame Africa's food insecurity on the historical overemphasis on export crops like coffee and cocoa as opposed to food crops

for self-sufficiency. As a result, many African countries which were net food exporters in 1960s became net food importers, with some countries even becoming significantly dependent on food aid. Further, under the structural adjustment programme imposed by the International Monetary Fund in the 1980s state support to agriculture declined, which further contributed to the neglect of the farm sector.

On the other hand, India is self-sufficient in the production of most food grains barring the exception of pulses.11 Unlike most African countries, India accorded high priority to achieving self-sufficiency in food grains. The third five-year plan (1961-66) prioritised self-sufficiency in food grains and increase in agricultural production to meet the needs of industry. The green revolution brought about an unprecedented increase in agricultural yields in India due to advancements in agronomic technology. According to Fujita, the critical difference in India and Africa's development experiences was the performance of the agriculture sector during the 1980s.12 During that decade, India accomplished massive development of the agricultural sector due to the spread of the second wave of green revolution, while in Africa, agriculture stagnated. Moreover, unlike most African countries, India started systematic efforts to develop agricultural technology after India's independence in 1947. The Indian Council of Agricultural Research was established to overview the research needs of the country and set the national agenda. State-level agricultural universities were set up to provide integrated teaching and research to ensure close coordination between scientific research and applied agricultural research. The All India Coordinated Research Scheme for Commodities was established, which conducted experiments in different environments and provided cross-sectional results to scientists working on different aspects of a commodity.

It is important to note that things have changed in Africa in the last decade. Agricultural development and food security have emerged as major policy goals for African countries. In 2003, the African Union adopted the Comprehensive Africa Agriculture Development Programme (CAADP) in 2003 to address Africa's food insecurity and poverty. The overall goal of CAADP is to "help African countries reach a higher path of economic growth through agriculture-led development, which eliminates hunger, reduces poverty and food insecurity, and enables expansion of exports." The Alliance for Green Revolution was formed in 2006 with the aim of increasing agricultural production so that Africa could feed itself. The modernisation of African agriculture is one the core objectives of the Agenda 2063. Agriculture has also become the political priority in many countries in Africa. Countries such as Nigeria have adopted programmes to address food insecurity. The Ethiopian government

Similar agro-ecological conditions and small holder-based farming systems in India and Africa make a formidable case for the application of Indian agricultural technologies in Africa.

has adopted a national development strategy, Agricultural Development-Led Industrialisation, which aims to transform the Ethiopian economy through higher growth rates in agriculture.

Many current African leaders have expressed their admiration for India's development experience and are keen to draw lessons from India. For instance, in the first India-Africa summit in April 2008, the President of Tanzania and then Chairperson of the African Union Jakaya Mrisho Kikwete said, "India has the technology and the skills, which if made available to Africa, it will help implement the African Green Revolution." By sharing its experience with African nations in a developing country context, India can help African countries achieve their food security goals. Indian technology is more applicable in the African context as opposed to technologies developed in the West because there are significant differences between the developed countries of the global North and developing countries in Asia and Africa in terms of agricultural systems, market institutions, and research and regulatory systems. On the other hand, similar agro-ecological conditions and smaller farm sizes make a strong case for the application of Indian agricultural technologies in Africa. Dorin asserts that structural transformation on the lines of the development process of industrialised countries is less likely in India and Africa. 13 He asserts that Africa of the future will resemble India, where the rural population and labour force in agriculture is still massive despite several decades of accelerated growth and urbanisation of the economy. Therefore, he recommends that India and Africa should work together to develop a new 'sociotechnical regime' by developing their own regionally differentiated labour-intensive production techniques for economic, social, and environmental sustainability. India's private sector also stands to gain from closer agricultural ties with Africa because the African food and agriculture markets offer a great opportunity for Indian companies.

#### Current initiatives<sup>14</sup>

Food security and agricultural development featured as key themes in all the three India-Africa Summits that have taken place in succession in 2008, 2011, and 2015. In the second edition, India and Africa committed to cooperate for increasing agricultural output and achieving the Millennium Development Goal of halving the proportion of people who suffer from hunger and undernutrition by 2015. The two nations reaffirmed their commitment in the third summit, making a pledge to improve farming techniques through affordable technology, use of improved crop varieties, and irrigation facilities, and to promote investment in agri-business and food processing industries. <sup>16</sup>

The major areas of cooperation between India and Africa are as follows:

#### 1. Trade in agricultural products

Trade in agricultural goods between India and Africa has grown remarkably. According to Chakrabarty, agricultural goods account for about 11% of India's total exports to sub-Saharan Africa and about 7% of India's total imports from sub-

Saharan Africa.<sup>17</sup> India has emerged as a major exporter of food articles, particularly rice. On the other hand, Africa has emerged as a major source of oilseeds and pulses for India.

#### 2. Common positions at global platforms

India and Africa have often held a similar stance on agriculture and food security issues in global platforms like the World Trade Organisation. India and Africa have worked closely to guard their collective interest in agriculture and emphasised that protecting the interests of farmers, including food and livelihood concerns, should be the focus of the Doha Development Round.

# 3. Agricultural research and capacity building

India is playing an important role in addressing the research and technology gap in African agriculture. International Crop Research Institute for the Semi-Arid Tropics and International Livestock Research Institute play a leading role in India-Africa cooperation in biotechnology. India is also setting up pan-African institutions, such as India-Africa Food Processing Cluster, India-Africa Institute of Agriculture and Rural Development, India-Africa Centre for Medium-Range Weather Prediction in East Africa, and India-Africa University for Life and Earth Sciences. In addition, India has a number of bilateral collaborations with many African countries. Moreover, a number of African scientists are trained in the Department of Agriculture Research and Education and the Indian Council of Agriculture Research.

### 4. India as a source of improved seeds for Africa

With farm-saved seeds accounting for about 80% of the planted seeds, production of quality seeds is a major challenge for most African countries. Indian crop varieties of sorghum and millets have performed well in African countries like Ethiopia. The Syngenta Foundation India and the National Seed Association of India are working together to provide better seeds to African farmers under the 'India-Africa Seeds Bridge' project. Main beneficiaries are countries like Liberia, Kenya, Malawi, and Senegal. Many Indian seeds firms, such as Namdhari Seeds, J.K. Seeds, Nuziveedu Seeds, Nath Seeds, and Vibha Seeds, are experimenting with the production of hybrid seeds in crops like millets, rice, maize, and sorghum.18

## 5. India's development assistance to Africa

Addressing Africa's food insecurity has emerged as one of the major goals of India's development cooperation with African countries. India has extended credit lines worth US\$ 1,106.2 million towards agricultural development and food security in African countries.<sup>19</sup>

#### 6. Indian private sector in Africa

Investments by Indian private companies in African agriculture have grown rapidly. Indian industry associations, such as the Federation of Indian Chambers of Commerce and Industry (FICCI), are also playing an important role in bringing together sector experts and business leaders from India and Africa. FICCI has been organising India-Africa Agrifood Summits since 2007. About 80 India firms have made investments worth US\$ 2.3 billion in several African countries like Kenya, Ethiopia, Senegal, Mozambique, and Madagascar. According to Sherelle Jacobs, Indian investors plan to spend US\$ 2.5 billion in East African countries to grow products such as rice, maize, and palm oil.20 Many business enterprises, such as Jain Irrigation, Mahindra and Mahindra, Ruchi Soya, Karuturi Global, and Kirloskar Brothers, have established their presence in several African countries in agriculture and related sectors. Indian companies have also emerged as major suppliers of agricultural equipment, particularly tractors, to many African countries. The value of India's tractor exports to sub-Saharan Africa increased from a low US\$ 3.9 million in 2004 to US\$ 110.6 million in 2014 21

#### The way forward

Food security and agricultural development are major imperatives for both India and Africa. Moreover, agricultural progress is the best safety net against hunger and deprivation because it affects the lives of the majority of the population in both regions. India and Africa must focus on increasing agricultural productivity in a resource-constrained world. It is also clear that closer cooperation between India and Africa in the agriculture sector is the need of the hour. As the above section detailed, there exist a number of initiatives undertaken in recent years by the Indian government in Africa.

However, given the scale of challenges that Africa faces, these initiatives can at best be regarded as modest. Indeed, the scale of India's development assistance to African agriculture is comparatively smaller when compared to that by other emerging countries, such as China and Brazil. Given India's commitment towards African development, India must play a larger and more proactive role in addressing Africa's food insecurity. In fact, India's own progress towards self-sufficiency was helped by sources of assistance from the United States, including the US government, Ford Foundation, USAID, and the Rockefeller Foundation. India must aspire to adopt similar leadership in the African context. Given that India's budget for development assistance projects in Africa has grown dramatically in recent years, India must try to optimise resources in priority areas, such as food security, for better and tangible results as opposed to thin disposal of resources across many projects.

While there are many advantages of India's

Lessons can be drawn from India's involvement in Ethiopia's sugar sector, and assistance likewise directed towards rapidly increasing the production of other food staples like wheat and maize, in a bid to significantly contribute to reducing food insecurity in African countries.

demand-driven development assistance programme, at the moment the combined impact of such projects on Africa's food insecurity is limited. There are notable success stories, for instance. Indian lines of credit advanced towards the development of Ethiopia's sugar sector. Ethiopia, traditionally deficient, has witnessed a remarkable increase in sugar production, thereby drastically reducing its import bill. If lessons could be drawn from its involvement in Ethiopia's sugar sector, and assistance could likewise be directed towards rapidly increasing the production of other food staples like wheat and maize, then India's development programme could make a significant contribution to reducing Africa's food insecurity.

There may be other benefits associated with focusing development assistance projects in a few niche areas that address Africa's food insecurity. For instance, India can never match China's development cooperation efforts in Africa because the Chinese typically fund huge infrastructure projects and India simply lacks the resources to do the same. Therefore, concentrating its efforts on a few priority areas like food security will be more beneficial for India. In order to do this, India must create a dedicated cadre of agricultural scientists who will work with African scientists to adapt their technologies to local conditions. Here, the recommendation to create an international cadre of agricultural research services on the lines of Indian Foreign Services by Dr M.S. Swaminathan is important because Indian agricultural scientists are already playing a significant role in other developing countries in Asia and Africa.

Similarly, the role of India's private sector in

agriculture is still limited compared to the footprint of other emerging countries, such as Brazil and China. For instance, India currently accounts for only 1.46% of the annual seed exports to Africa.<sup>22</sup> Indian private sector companies, particularly seed companies, can play a much larger role in introducing modern technologies in Africa. Like the important role India's pharmaceutical companies have played in providing affordable drugs to Africa, Indian seed companies also have the potential to play an equally vital role in addressing Africa's food insecurity by providing improved seeds at affordable prices. However,

the footprint of Indian seed companies as well as other companies in the agricultural value chain is at present much smaller than the potential. Indian companies face stiff competition from Western, Chinese, and Brazilian companies in Africa. The highly fragmented African market is also posing challenges for Indian companies, which are at an early stage of internationalisation. On the Indian side, there is a need to draw up a comprehensive plan to exploit the full potential of Indian development assistance towards African agricultural and take adequate steps to promote India's private sector in Africa.

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# AREAS OF ENGAGEMENT

# Health

# STRENGTHENING HEALTH SYSTEMS IN INDIA AND AFRICA

#### **A Converging Agenda**

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Africa is a continent composed of multiple independent nation-states and India is a federated union of states. However, most of India's 29 states have the population of a medium- to large-sized country and a distinct political and administrative system. They have a measure of decision-making autonomy, particularly for the administrative subject of health. There is considerable practical potential for sharing learning and convergent action on health system strengthening between African countries and Indian states. This paper analyses some of these areas and avenues of potential.

It is helpful first to consider the basis on which parallels can be drawn across the two seemingly disparate settings. The World Bank estimates that 43% of Africans and 21.2% of Indians are living on less than US\$ 1.90 per day. Significant disparities exist within and between Africa's nation states and India's federal states. Inequality,

measured by the Gini index, is 0.35 in India,<sup>2</sup> whereas the Africa-wide Gini index is 0.56.<sup>3</sup> Clearly, widespread poverty and social inequities present the most immediate and fundamental points of comparison.

Furthermore, India and Africa share a similar set of challenges to population health – a prevailing infectious diseases burden, coupled with emerging epidemics of non-communicable diseases and injuries, contextualised by demographic transitions and creeping ecological degradation. The state of health systems is extremely variable both between and within Indian states, as well as between and within African countries. Other critical contextual factors also come into play – trends in population growth and mobility, the spread of private commerce, and the emergence of mixed public-private health systems. Urbanisation is one such crucial megatrend shaping health systems across Indian and African settings alike.

# Rapid urbanisation and the challenge of mixed health systems

High population growth, coupled with the pace of economy, pose distinct challenges for health and development, as India and many African countries struggle with a widening equity gap in terms of access to resources. Massive rural-urban disparities with regard to level of development and instabilities in the economy accelerate economic migration to cities. There are variations in patterns of urbanisation, but the significant challenges of making it sustainable and inclusive are shared across India and Africa.

# By 2050, Africa will be 56% urban, and India, 50%. The emergence of "mixed" health systems is linked to rapid urbanisation.

Africa has 17% of the world's population, and its continuing rate of population growth will contribute to more than half of the world's total population growth by 2050.<sup>4</sup> The populations of 26 countries in Africa will see their sizes double between 2017 and 2050.<sup>5</sup> India, with a current population of 1.3 billion (18% of world's population), is also experiencing rapid population growth and will be the most populated country with 1.5 billion by 2030.<sup>6</sup>

At present, 40% of the population in Africa and 32% population in India is urban, and this is projected to become 56% and 50% respectively in 2050.<sup>7</sup> Nine of the ten countries with the fastest projected urbanisation rates between 2014

and 2050 are located in Africa. India, Nigeria, and China will together account for 37% of the increase in urban population between 2014 and 2050. India currently hosts five megacities – cities with population above 10 million – and Africa three; by 2030, the numbers will have increased to seven and six respectively.<sup>8</sup> African cities with a population of five to 10 million will have increased from four in 2014 to 12 in 2030.<sup>9</sup> The population expansion, coupled with rapid migration and underpinned by economic distress, has together hastened the pace of urbanisation in India and Africa.

The emergence of "mixed" health systems is linked to rapid urbanisation. The expansion and proliferation of private health services, particularly in urban settings, is a logical extension of an urbanising society witnessing growth in commercial markets for all consumer services. However, it presents particular problems when contextualised by inattention to and stagnant expenditure for health in the public sector – what has been described as the mixed health systems "syndrome." Such mixed health systems entail "centrally planned government health services operating side-by-side with private markets for similar or complementary services,"11 reflecting a largely unplanned public-private split across financing and delivery of care.

In India, total expenditure on health is 4.7% of gross domestic product (GDP), of which 70% is private. 12 For the past half-century, the Government of India has promoted greater involvement of private sector in healthcare through direct and indirect concessions. National data indicates a shift in the share of the private

enterprises from individual-run practices to small, medium, and large-sized hospitals, <sup>13</sup> with ownership transferring largely to domestic and global private equity funds. <sup>14</sup> The sector is large, heterogeneous, and poorly served by weak regulatory and accreditation frameworks. Unplanned and unrestricted growth has resulted in a significant skew towards urban centres and specialised care.

Public sector spending on healthcare in India is abysmally low at 1.4% of the GDP, 15 contributing to, as well as complicated by, governance failures and financial commitment in many states, albeit with some notable exceptions, such as Tamil Nadu.<sup>16</sup> Financial and administrative deficits often result in a poor standard of services, contributing to their compromised credibility among communities. In spite of this existing network of competing - free or subsidised, but compromised – public sector health services, the private sector is dominant with out-of-pocket expenditures constituting the lion's share of private expenditure on health (89.2%). 17 A range of publicly subsidised health insurance schemes exist, but have had limited to no impact in reducing out-of-pocket expenditure.18

Turning towards Africa, on an average, the continent spends 5.5% of GDP towards total health expenditure. Of this, 57.4% is private. Per capita spending for health is US\$ 98.19 Around 60.2% of private expenditure is out of pocket. Mirroring India, in one-third of African countries, 80% or more of the private health expenditure is out of patients' pockets. Unlike India, however, there is a heavy dependence on external health expenditure in most African countries. The

regional average of donor funding accounts 11.2% of total health expenditure. In countries like Liberia, Mozambique, Burundi, and Rwanda, external funds accounts for more than 40% of total health expenditure; in Malawi, the figure is upward of 70%.<sup>20</sup>

India, and increasingly many African countries, are home to a dominant private health sector co-existing with a chronically under-resourced and underperforming public sector.<sup>21</sup> Mixed health systems promise choice for service users, but also show signs of compromised quality and equity.<sup>22</sup> Insufficient public investments and high out-of-pocket payments aggravate inefficiencies across health system and hinder equitable health outcomes in both the regions.

This shared context provides key opportunities for cross-learning in the realms of planned expansion of private healthcare, adequate and efficient resourcing of public sector services, and strengthening regulatory systems to improve quality and accountability. For instance, the limited success of Indian social insurance programmes in tackling out-of-pocket expenditures and impoverishment resulting from healthcare costs holds key learnings for African countries. Above all, the lesson is for countries and states to identify, plan, and implement the most effective public-private split of services and financing models, based on a robust assessment of the health equity outcomes associated with these different models.

Against this broad backdrop of urbanising societies and mixed health systems in Africa and India, it is useful to consider specific health

systems innovations that have been introduced in each setting, and the lessons that these innovations hold for the other. Two such innovations are the Indian constitutional commitment to local participatory governance, and African initiatives in non-physician leadership.

#### Local governance for health in India

Better governance through decentralisation and community-level involvement is increasingly accepted to be central to strengthening country health systems.<sup>23</sup> Local participation in health governance can increase the accountability of political processes, empower communities, enhance social capital, ensure representation of marginalised groups, and improve the equity and efficiency of social services.<sup>24</sup> In India, local participatory governance is synonymous with Panchayati Raj Institutions (PRIs) — locally elected bodies operating at village, sub-district, and district levels with financial and administrative powers over social services, including healthcare.<sup>25</sup> PRI reforms in India originated with the 73rd

Kerala, notably, showcases a scaled-up model of strong local governance that has incorporated participatory community engagement in the health system. Access to primary healthcare, drinking water, and sanitation has improved.

Constitutional Amendment Act in 1992, and since then a three-tier system of PRIs has been established at the village, sub-district, and district levels. These administrative tiers are assigned responsibilities of establishing health centres at village and sub-district level, and supervising and monitoring health services. They also have responsibilities towards sanitation, primary education, and infrastructure development.

Subsequently, various national policies have emphasised the implementation of programmes and welfare schemes through PRIs. The National Rural Health Mission (now the National Health Mission), launched in 2005 and aimed at providing equitable, affordable, and quality healthcare to rural and vulnerable populations, paid much attention to community involvement through local governance involving PRIs. Although outcomes of decentralisation are mixed in different parts of the country, important lessons can be learned from the experience of particular states. Kerala, notably, showcases a scaled-up model of strong local governance that has incorporated participatory community engagement in the health system through PRIs. Kerala's PRIs are deeply involved in public healthcare provision, particularly since the state's Ninth Five-Year Plan (1997-2002), which allocated 35-40% of the state's funds to programmes developed by panchayats.26 This commitment has improved people's participation in healthcare planning, and contributed to improvements in access to primary healthcare, drinking water, and sanitation.<sup>27</sup>

Local governance reforms play a significant role in improving health service responsiveness, community empowerment, and political and administrative accountability, and can improve access to care for the poor and vulnerable. Such reforms are particularly resonant in highly unequal societies with large proportions of poor people, since they help empower and give voice to segments of the population that are usually not heard and are often most in need. In India, particularly in Kerala, constitutional and legal provisions were a critical pre-requisite for their success. Due to the real and perceived significance for the exchequer, governments around the world tend to equivocate on the question of legal protection of the right to health. While they are not a replacement for health rights legislation, legal reforms institutionalising local participatory governance provide an actionable and potentially less contentious pathway to more equitable access to responsive health services.

There are some instances of successful local health governance initiatives throughout Africa, yet there is much that African countries – and indeed the rest of India – can learn from Kerala's experience of sustaining local governance for health at scale.

# African initiatives in non-physician leadership

Experiences from Africa suggest that empowering and transferring more responsibilities to non-physician health workers – including nurses and mid-level workers – holds considerable potential in expanding access to healthcare and addressing chronic shortages of physicians where they are needed most.

Globally, nursing reforms in the 21st century have emphasised greater professionalisation and provision of requisite skills for quality care, and managerial as well as leadership roles. South Africa is a case in point. The South African health system is primarily nurse-based and nursedriven, 28 and since independence, there have been numerous initiatives to address the challenges to primary healthcare based on strengthening the nursing sector. In 2013, South Africa launched a five-year Strategic Plan for Nursing Education, Training and Practice aimed at regulating nursing qualifications, including accreditation of nursing colleges and curricula, standardisation of degree and diploma courses,<sup>29</sup> and the engagement of the Department of Higher Education and Training in nurse education.30

Mid-level workers known in different countries as either non-physician clinicians (NPC), clinical officers, health officers, physician assistants, medical licentiates, nurse practitioners, or nurse clinicians, have also been deployed in diverse African contexts. Studies suggest that training and employing clinical associates is a cost-effective strategy to meet shortages in health workforces. Furthermore, there are several examples of the effectiveness of NPCs in healthcare delivery in resource-constrained contexts, given that NPCs tend to remain longer in rural and underserved areas.31 Malawi's experience suggests that paramedical clinical officers can safely perform surgery when adequate training and supervision are provided.<sup>32</sup> The presence of mid-level health practitioners in the Mozambican health system has been reported to lead to significant reduction in referrals and cost of care.33

Experiences from Africa suggest that empowering and transferring more responsibilities to non-physician health workers – including nurses and mid-level workers – can expand access to healthcare.

NPCs are the backbone of healthcare delivery in several African countries. By 2010, NPCs were recognised in 47 of the 54 African countries.<sup>34</sup> Expanded training has equipped them to carry out a significant number of diagnostic and therapeutic tasks otherwise restricted to physicians. NPCs manage regular clinic visits, Caesarian sections, hernias, closed fracture care, and amputations in several settings.<sup>35</sup>

Conversely in India, we see a different picture with nurses and mid-level providers. While nurses play a vital role in healthcare delivery and form the largest segment of professional health workers, the nursing sector is beleaguered. Nurses are seldom considered equal partners in a physician-centric health system. This is reflective of unequal gender and professional power relations in society and the health sector at large. Nurses as a group have not been fully able to collectivise and bargain with the stakeholders for equal rights.<sup>36</sup> In India, health is administered at the national and state levels by medical and administrative cadres, and there is little scope for nurses to be involved in health policy, planning, and decision-making.<sup>37</sup> Poor work environments, income disparities, undefined career pathways, and widespread subordination to doctors in the hierarchy of professions are further problems that challenge the availability, distribution, and retention of nurses in the domestic healthcare system.<sup>38</sup>

The Indian Union government and some state governments, at different junctures since independence, have introduced ambitious plans for skilling nurses, including alternate providers, and introducing new healthcare cadres to address the shortage of skilled health professionals in India. However, the lack of a legal and policy framework for integrating new professionals into healthcare services often hinders the effectiveness of such initiatives. This has been exacerbated in many instances by the active opposition of the medical fraternity to such initiatives.

As recently as 2013, the Medical Council of India approved a three-and-a-half-year Bachelor's degree in Rural Medicine and Surgery. Similar programmes have been introduced in individual states, such as in Assam (three-year diploma in medicine and rural healthcare, 2005) and Chhattisgarh (rural medical assistants, 2002), and have been positively evaluated, but remain opposed by the Indian Medical Association and other professional bodies.<sup>39</sup> Moreover, though the National Health Mission emphasises involvement of the practitioners of traditional, complementary, and alternative systems of medicine in delivering healthcare, their roles are not well defined. This has had implications for effective sharing of responsibilities, and often leads to conflicts with the allopathic physicians on staff.<sup>40</sup> Evaluations of the Nurse Practitioner programme, launched

in 2016, revealed that the states could not ensure effective utilisation of nurses' upgraded skills, and they largely continued to work de facto as staff nurses in the hierarchical professional setting of the healthcare facility.<sup>41</sup>

There is no single explanation for why initiatives for non-physician leadership in India are unable to proliferate and sustain as in Africa, but the dominance of the medical profession in all spheres of activity in the health sector is a major factor. For Indian health sector reformers, there are clearly diverse lessons to be learnt from African experiences of democratising the internal governance of health services and the health professions.

#### **Converging agendas**

Africa and India have a history of political solidarity and cooperation at the highest level. Such strong political relationships need to be supported on a foundation of institutional collaboration in areas of shared interest and concern. Given the similarities and exigent nature of the challenges faced by the health systems in both areas, it is natural that there should be focused attention on shared learning and action to strengthen these health systems.

African and Indian mixed health systems are

beset with problems of compromised quality, lack of accountability, and unequal access. Work on health systems needs to therefore focus on improving these parameters, which requires action and reform on multiple fronts. Improving state regulatory capacity is a fundamental step for countries seeking to manage the public-private mix in health to better respond to the needs of its citizens. A critical element of such state capacity is the ability to manage the imbalance of power between different interest groups and stakeholders in the health sector. The issue of medical professional dominance in health sector policymaking and implementation is pervasive and has significant impact on how health systems perform. However, it is poorly recognised and needs to be tackled through initiatives to build non-physician leadership. Finally, health systems need to be made ultimately accountable to citizens by providing a platform for their voices, such as through institutionalised local participatory governance at scale.

The past decade has seen unprecedented momentum for universal health coverage around the world. Extronger collaboration across Indian and African institutions – including ministries and departments of health, research universities and think tanks, and civil society groups – with a view to tackling the complexities and realpolitik of health systems – can help move this worthy agenda from rhetoric to reality.

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#### **BUILDING A ROBUST HEALTHCARE SYSTEM**

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The healthcare system in Africa remains a challenge despite the abundance of natural resources, human capital, and years of foreign assistance. Progress has been seen in access and quality healthcare delivery since the early 2000s: infant mortality rates have fallen from 79.5 in 2005 to 56.35 in 2015.1 The number of years a child born in Africa is expected to live has also increased from 52.7 in 2005 to 59 in 2015 (although still behind the global average of 71.7).2 However, it is an undeniable fact that healthcare systems across Africa are not fully developed and are encumbered with numerous challenges that have been overly documented and spoken about. The recent Ebola epidemic revealed how unprepared and underdeveloped Africa's health systems are in dealing with health emergencies. The weakness is largely attributed to insufficient funding of the health sector in Africa, with many countries failing to meet the 2001 Abuja Declaration<sup>3</sup> target of minimum

15% of government expenditure to be spent on health, as well as unequal access to healthcare. The population growth trajectory and the rise of non-communicable diseases across the continent indicate the need for greater financial resources to finance future health burdens.

Judging from afar, India's healthcare system may appear to be better developed than those in African countries, especially given that India is the hub and the largest producer of generic medicines. The nation's continuous effort in advancing healthcare innovations has also gained global recognition.<sup>4</sup> However, despite the extensive use of technology to address health challenges, India is also confronted with a host of daunting challenges and an enormous disease burden, predominantly from non-communicable disease.<sup>5</sup> Government spending on healthcare for the past 20 years has been low and estimated at an average of 4% of total expenditure, which is

effectively equivalent to 1% of its GDP.6

While African governments need to urgently design and implement sustainable means of meeting healthcare needs of their citizens, there is also the possibility of collaborating with India to adopt and learn from its affordable healthcare interventions. This chapter explores three key healthcare challenges Africa faces – shortage of health workers, inadequate infrastructure, and counterfeit drugs - and draws brief similarities with the Indian context. To note in particular is the role the private sector can play – with the right incentives and conducive environment, private players can be attracted to invest in healthcare. The chapter ends with a discussion of how technology can be leveraged to strengthen health systems in Africa by learning from and duplicating existing examples and success stories, such as those in India

## Addressing the health workforce deficit

Skilled human resource is a significant pillar of any functional health system. In Africa, many countries face a very short supply of human resources for health, also known as health workforce (HWF), both in terms of quantity and quality. The World Health Organization (WHO) estimated that in 2015, Africa had an average of 1.30 health workers per 1,000 population, far below the 4.5 required under the Sustainable Development Goals (SDGs). The WHO estimates that the global needs-based shortage of healthcare workers required to achieve the SDGs will be over 14.5 million by 2030. Recent figures estimate the

global needs-based shortage of healthcare workers to be around 17.4 million, with Africa accounting for the second-largest shortage at 4.2 million, behind Southeast Asia's shortfall of almost 7 million. However, by 2030, Africa is projected to experience the most severe HWF shortage in the world, estimated to reach 6.1 million by 2030. In addition, as notes WHO, "an imbalance in skills distribution along geographic, gender, and sector dimensions poses a serious challenge for the delivery of essential healthcare services in rural areas" and further compromises on the effective delivery of public healthcare.

Key factors driving the HWF shortage include investment shortfalls in pre-service training, leading to fewer training opportunities; international migration ('brain drain'); and an ageing HWF, since employees are either retiring or leaving for better-paid jobs without being replaced.<sup>10</sup> According to the WHO, there were only 168 medical schools in sub-Saharan Africa. with 11 countries without a medical school at all and 24 countries with only one. 11 Nonetheless, the increasing participation of the private sector in healthcare education to some extent has led to a significant increase in the number of educational institutions that train other groups of health professionals.12

Two success stories stand out. Malawi, one of the 57 HWF-crisis countries, has made significant strides to address this challenge. As noted in a paper reviewing progress African countries have made to address the shortage in HWF numbers, from 2004 to 2009, the Malawi "government and international partners collaborated on an emergency HR response to lift the country out

of an [HWF] crisis. The programme deployed a strategy to improve the incentives for recruitment and retention of Malawian healthcare staff. expand domestic training capacity by over 50% overall, and utilize international volunteer doctors and nurse tutors to fill critical posts while more Malawians were being trained."13 A fiveyear investment of US\$ 95.6 million was made, of which 36% went into taxed salary top-up for 11 professional cadres.<sup>14</sup> The health workforce was visibly strengthened. For instance, the total number of physicians in the country increased from 43 in 2004 to 265 in 2009 - an increase of 516%. Nurses, whose numbers have continually dwindled in the past due to out-migration, also recorded a 39% increase. Given improvements in capacity building and staff retension, because of financial and other incentives, the health worker to population density rose from 0.87 per thousand population in 2004 to 1.44 per thousand by 2009 - an increase of 83%. Intriguingly, the increase outstripped population growth of 10%, thereby resulting in a net gain.15

Similarly, in 2005, Ethiopia launched an innovative Health Extension Programme, which accelerated the training of health workers in five universities and 20 hospitals. 5,431 health officers were trained and the health workforce doubled in less than three years. As an attempt to address the scarcity of professionals in emergency surgery, a three-year Masters programme was launched in five universities in 2007-2008 with a total of 252 professionals enrolled. The programme created a platform to train students in basic emergency obstetric care, and comprehensive emergency obstetric and newborn care. Also, efforts to retain qualified professionals propelled the

government to maintain a scorecard, which helped lay a foundation for identifying and rewarding exceptional performance. Other financial and non-financial incentives were included in the overall strategy to retain qualified health professionals.<sup>17</sup>

To improve the quality of healthcare and the shortage of healthcare workers in Africa, it is imperative for Africa's health sector to have an HWF investment plan; National Health Workforce Accounts that will help standardise health workforce information and track HWF policy performance in a country, as well as HWF observatories and registries; and regulatory mechanisms in place to promote workforce safety as well as private sector oversight.

Turning towards India, despite the country hosting 579 medical colleges and training hospitals, 18 the highest in any country in the world, India has a relatively low doctor-to-population ratio, which was 0.73 doctors per 1,000 in 2014.<sup>19</sup> This is below the WHO target of one doctor per 1,000 people. This statistic worsens when disaggregating the doctor-to-population ratio by urban-rural areas. The urban-rural ratio of health workers is 1.45, 59.2% of all health workers in India work in urban areas where 27.8% of the population resides, compared to 40.8% of all health workers who are in rural areas, where 72.2% of the population resides.<sup>20</sup> Recognising the need to change this, the Government of India is adopting various solutions, such as establishing a three-year course, the Bachelor of Rural Healthcare, to encourage more posts to be taken up in rural areas.<sup>21</sup> However, more needs to be done to increase the total number of doctors in the country.

#### **Building health infrastructure**

One of the many challenges health systems in Africa and other developing countries face is inefficient and ill-managed health infrastructure. Health infrastructure includes medical and non-medical building structures, medical equipment, furniture, communications, and ambulatory systems.<sup>22</sup> In sub-Saharan Africa, the average number of hospital beds per 1,000 people was 1.212 in 1990, well below the world average of 3.645 at the same time.<sup>23</sup> In India, the number of hospital beds per 1,000 people stood at 0.7 in 2011, which is also below the WHO guideline of 3.5 beds per 1,000 people.<sup>24</sup>

Some low- and middle-income countries in Africa have managed to the break the trend and provide increased access to healthcare to their citizenry. Figure 1 shows the varying healthcare situations of a selection of countries on the continent. One country striving to provide healthcare in

partnership with the private sector, to address challenges they face, is Gambia.

The Gambia, one of the smallest countries in West Africa, is a low-income country with a significant percentage of the population, almost 50% in 2010, living under the poverty line. The Gambian government has made strides to introduce improvements in their healthcare sector. Since the Abuja Declaration, Gambia has increased general government expenditure on health from 8% in 2001 to 15% in 2014,25 reaching the agreed-upon target. This increase in health expenditure is clearly evident in the improved access to health infrastructure: in 2013, the country had 28.3 health centres and health posts per 100,000 population,<sup>26</sup> putting Gambia in the top 10% of the world for the number of health posts per 100,000 population.

However, recognising the shortcomings of primarily funding the health system with just

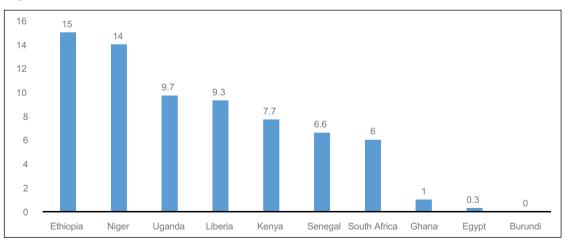


Figure 1: Health posts per 100,000 (2013)

Source: Global Health Observatory, WHO

government expenditure, Gambia has enlisted other avenues to provide for healthcare delivery. Approximately 66% of the funding of Gambia's health sector comes from local and international partners.<sup>27</sup> These partners, such as China, Cuba, Egypt, and Nigeria, offer support in a variety of ways, including in the establishment of the country's first and sole medical school. Strong collaboration with external partners not only aids in expanding sources of funds that can be channelled into healthcare, but also extends to the implementation of health policies. Take, for instance, Gambia's e-Health Policy Strategy, which seeks to, among other objectives, provide health information to all stakeholders via ICT and healthcare through telemedicine, and to computerise birth and death records.<sup>28</sup> To this end, the WHO Health Academy has proved useful. The project helps countries use ICT in schools to improve knowledge about health and disease. In Gambia, over 35,000 students participated,<sup>29</sup> and the country was given an e-Health award by the African Development Bank in 2013 as recognition for its efforts under the category 'Health Education for the Public.'30 Partnerships in the healthcare system are also of use for creating health infrastructure at the grassroots level, where primary health structures in communities, such as Village Development Committees, are the main mechanism of healthcare delivery.

In the midst of dwindling donor funds to support the health sector, African leaders should engage the private sector to deal with the infrastructure deficit. Already, the private sector, in the form of NGOs, for instance, is helping build and run health facilities in both urban and remote areas, as well as train health professionals. The Indian government, likewise, has leveraged partnerships with NGOs and the private sector to provide health infrastructure throughout the country. For instance, it has outsourced emergency transportation. One company, Ziqitza Health Care, operates fully-equipped ambulances in 17 of the 29 states in India.<sup>31</sup> The country's National Rural Health Mission, encouraged by the government's openness to public-private partnerships, adopted the initiative of an NGO, the Emergency Medical Research Institute (EMRI), and funded a nationwide initiative to support rural ambulance services.<sup>32</sup>

# Going to war against counterfeit drugs

The production and sale of Substandard and Falsified (SF) Medical Products, also known as counterfeit drugs, is a challenge to almost all countries in the world, regardless of a country's income level. These drugs come in various forms: generic or branded products with wrong ingredients, without active ingredients, expired drugs, drugs mixed with an illegal/unaccepted ingredient, or completely fake drug.33 The widespread use of the internet and globalisation have made this market more prevalent than ever. It is estimated that anywhere from 1% to 30% of all drugs in circulation are counterfeit, and global sales are between US\$ 163 billion to US\$ 217 billion per year, making it the most lucrative illegally copied goods market.34

This challenge is particularly heightened in Africa, where weak tracking and regulatory measures cause counterfeit drugs to go unnoticed and generate havoc. In sub-Saharan Africa, where poverty and illiteracy are rife, the existence of illegal drugs poses a significant danger for most inhabitants, especially those living in rural areas where the immediate source of healthcare is a drug shop. It has been estimated that more than 120,000 people in Africa die annually from having ingested fake anti-malarial drugs.<sup>35</sup> As an attempt to curb this menace, some countries and companies are taking steps to stem the damage that counterfeit drugs are causing.

Furthermore, other parts of the world also struggle to curb the illicit drugs market. It is estimated that 75% of the global supply of counterfeit drugs originates from India.<sup>36</sup> A study by an industry body in India, ASSOCHAM, found that about 25% of the drugs in India are fake, counterfeit, or substandard. The study highlighted that the growth of the market for counterfeit drugs in India is due to weaknesses at every level of the supply chain – from weaknesses in the drug distribution system to a lack of regulations and poor storage of drugs by chemists to a lack of awareness among consumers and poor law enforcement.<sup>37</sup>

In Nigeria, local media and national events are used to publicly educate citizens on counterfeit drugs. The government has also directly targeted production sources. Nigeria's National Agency for Food and Drug Administration and Control (NAFDAC) has recommended that India and China re-certify drugs before exporting them to Nigeria, and inspects drugs at ports of entry to the country. Furthermore, all domestically produced drugs are required to have a NAFDAC registration number, which certifies the trustworthiness of the product. These measures

have led to a falling incidence of fake drugs – to the tune of 90% from 2001 to 2006 – with more than US\$ 100 million worth of drugs destroyed in the same period. NAFDAC is also lobbying the government to institute legislation for the life imprisonment of those who produce counterfeit drugs, and the forfeiture of their assets to victims, which would bring punitive measures in line with other countries, such as China.<sup>38</sup>

Also facilitating the regulation of the drug market are tech companies, such as mPedigree and Sproxil. Sproxil, which has over 70 pharmaceutical companies - including GlaxoSmithKline and Novartis - enrolled in their services, gives pharmaceutical companies scratch-panel stickers to be applied to packaged drugs. When customers scratch these stickers, they receive a code which can be texted to Sproxil for verification of the authenticity of the product.<sup>39</sup> Similarly, mPedigree uses technology to register medicines from participating manufacturers in their database and verify their authenticity. mPedigree's services, which began in Ghana in 2007, have now been extended to other countries such as Nigeria, Kenya, and India, working with both manufacturers and governments to ensure safe medicines in the market.40

Measures similar to these have also been proposed in India by the Central Drugs Standard Control Organization of the Ministry of Health and Family Welfare as a means of regulating the domestic supply of drugs. Currently, although a system of barcoding is used to track exported drugs, no system exists to regulate domestically-produced drugs. The Ministry has recently proposed an e-platform for drug manufacturers

to register their products, and give information about the drugs to distributors and wholesalers. Distributors, too, would need to register and provide stock details.<sup>41</sup>

While steps are being taken to halt the market for counterfeit drugs in Africa and India, certain practices still need to be changed. It is not enough for governments to seize and burn suspected drugs as has been the routine practice. It is high time residents are educated on ways to recognise/ detect counterfeit drugs and the steps to follow in the event that a person comes across such products. There must also be strong measures in place to prevent the products from entering the market rather than waiting to chase them off the drug shelves. There is an especially urgent need for collaboration between Africa and India to address the issue of circulation of products at the source. Strict port and border rules in Africa, as well as strict domestic rules on the sale of drugs in India, should be enforced to reduce the incidence of counterfeit drugs.

It is not enough for governments to seize and burn counterfeit drugs, as is the routine practice. Critically, Africa and India must put in places measures to prevent faulty products from entering the market rather than waiting to chase them off the drug shelves.

# Using technology to address challenges to Africa's healthcare systems

Technology and innovation have shaped and contributed immensely to global health, from diagnosis to treatment to research. It has been deployed in many forms and utilised extensively to deal with most healthcare challenges, with the greatest impact being felt in the areas of accessibility, affordability, research and innovation, and portability. Countries such as India, Brazil, and China, as well as some European countries, have been seeing such success for some time now. In India, for example, the healthcare information technology market is expected to be worth US\$ 1.45 billion in 2018, compared to its value of US\$ 381.3 million just four years ago. 42 This industry includes contextspecific technology use, such as the utilisation of location-based devices in ambulances to combat the detrimental effect of heavy traffic in the country. Telemedicine is another illustration. Doctors in hospitals can connect to ambulance staff to guide the treatment of emergency patients. Such real-time (synchronous) and asynchronous (store-and-forward) telemedicine has been present in India since 2000. Notably, more than 75 nodal centres have been established throughout the country to support the research and development of telemedicine, with the additional establishment of regional nodal centres using satellite communication to connect districtlevel hospitals to other speciality tertiary care hospitals.<sup>43</sup> In comparison, the applicability and adoption of technology in healthcare delivery in Africa is still in preliminary stages and unequally distributed. While countries such as South Africa, Rwanda, and Kenya are showing progress, others are still lagging behind. In fact, according to the 2011 Global Observatory for eHealth survey, sub-Saharan nations were least likely to have established, institutionalised eHealth programmes.

Though healthcare indicators such as infant mortality rate and access to drugs have improved across the continent, there is a largely as-of-yet untapped opportunity to use information and communication technology (ICT) to solve health-related challenges African countries face, such as insufficient skilled labour, financing, inadequate infrastructure, lack of information on diseases, and how they can be prevented. ICT has the capacity to improve healthcare and health information, and aid countries to achieve the third SDG. And, despite the low usage of technology on the continent, some success stories deserve to be highlighted.

For instance, how technology companies are helping clean up the drug market from counterfeit products, an example that has been explored above. Another case in point is how African countries are tapping into the trend of increasing mobile internet use to provide cheaper healthcare services. In Kenya, with the help of a locally

Merely transporting technological solutions and innovations from the outside into the continent to help solve health challenges will only yield results in the short term.

developed mobile application, residents are able to determine whether a particular health practitioner is genuine or not.<sup>44</sup> The same application also provides information about the nearest healthcare facility. Other countries, such as Ghana, Rwanda, and South Africa, are also leveraging mobile phone use to improve maternal care and reduce infant and maternal mortality through the dissemination of important information to both expectant mothers and healthcare workers, as well as the contact numbers for local healthcare experts in case of emergencies.<sup>45</sup> In Ghana and Kenya, simple mobile applications are used to inquire whether a drug is fake or not.

Tanzaniain2013draftedaNationaleHealthstrategy with a mission to "support the transformation of the Tanzanian healthcare system by leveraging ICT to improve the health and social welfare of all citizens." Technology-driven innovations began to gain ground in the health sector. For instance, the electronic Logistics Management Information System was launched in 2014 to link "health facilities with the central medical store to collect and distribute logistics data in real time." Knowing what types of medicines are more often used and required helps supply chain managers sustain the uninterrupted supply of the pertinent drugs. This system has been replicated in other countries, such as Rwanda.

Though technology can play a crucial role in access to and delivery of healthcare services, merely transporting technological solutions and innovations from the outside into the continent to help solve health challenges will only yield results in the short term; it is also crucial for governments to draft their own eHealth pathways to ensure

inclusiveness and appropriate use of technology. The pathways can make use of existing and past experiences from other countries and should be aligned with the individual countries' health policies.

India's contribution to affordable healthcare and its continuous effort in healthcare innovation and research has earned it the title "pharmacy of the world." There is a great opportunity for Africa to collaborate with India in adopting and implementing many innovations. Such collaborations include capacity building and training, and the import of relevant technologies to complement local efforts. Building on existing technology may help identify gaps and also generate tailor-made innovations to suit a specific African demography.

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# AREAS OF ENGAGEMENT

# **Energy**

## DRIVING INSTITUTIONAL INVESTMENTS TOWARDS CLEAN ENERGY IN INDIA AND AFRICA<sup>†</sup>

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# Access to clean energy, a common goal

India and Africa are inextricably connected by their shared colonial pasts and geographic, political, and socio-cultural commonalities. These similarities in their two ecosystems have allowed for natural synergies in identifying common socio-economic and developmental challenges, exploring opportunities, and developing solutions. These interlinkages have been manifest in trade partnerships, technology, and knowledge transfers, as well as various development initiatives.

Time has come again for India and Africa to join forces and address another unifying challenge. They alone house around 830 million people

(240 million and 590 million, respectively<sup>1</sup>) without electricity access out of the 1.1 billion globally. India has shown impressive growth in electrification by providing electricity to 30 million people per annum between 2010 and 2016 and reaching 100% village electrification in early 2018. This momentum needs to be continued to reach universal household electrification by 2030 or earlier. Similarly, while Africa has undertaken several initiatives in the last decade, such as increasing generation, investing in grid and delivery systems, and mini-grids, it is falling short in its objective of attaining universal energy access by 2030, with 58% of its population currently unelectrified.

Interestingly, several sub-Saharan and Middle Eastern countries have reached out to India to

i This essay is based on Climate Policy Initiative's report "Getting to India's Renewable Energy Targets: A Business Case for Institutional Investment," March 2018.

learn from its rural electrification experiences, including financing, technology, and ground-level implementation. Similar exchanges related to energy access have occurred in the past between India and Africa. For instance, the US-India Clean Energy Finance Initiative has been built on the success of the United States-Africa Clean Energy Finance Initiative to mobilise finance for Indian-distributed clean energy projects.

To address a common and formidable challenge of energy access, India and Africa need closer engagement to exchange, introduce, and adopt best policy practices – specifically workable technology and financing solutions.

According to Energy Access Outlook,<sup>2</sup> universal electricity access by 2030 will require an annual investment of US\$ 52 billion per year in Africa, with the majority directed towards renewable energy. Similarly, India needs an additional capital of around US\$ 450 billion between 2017 and 2040 to achieve its renewable energy requirement, estimated at 480 gigawatts, according to Bloomberg New Energy Finance.<sup>3</sup>

These investment requirements are more than double the amount currently mobilised under various planned policies. The magnitude of investment will therefore need resources beyond traditional sources of financing, such as government, banks, and development finance institutions. Institutional investors around the world – sovereign wealth funds, pension funds, insurance companies, private family funds – manage over US\$ 100 trillion of assets and are well positioned to bridge this financing gap in the energy sector. In India, domestic institutional

investors hold assets under management (AUM) worth US\$ 564.1 billion,<sup>4</sup> while in Africa, domestic institutional investors hold an AUM of US\$ 535 billion.<sup>5</sup> In both regions, institutional investors' exposure to the infrastructure sector, including the renewable energy sector, is low. To reiterate, the sheer magnitude of assets under management controlled by both domestic and foreign institutional investors makes them an important source of financing for renewable energy sector.

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Investing in renewables aligns well with the needs of institutional investors. Renewable energy is characterised by long investment horizons and reasonably predictable returns; institutional investors seek low-risk and long-duration assets. As our work has identified, the renewable energy sub-sector in India is more attractive than other infrastructure sub-sectors, in particular fossil fuel power generation. Coal plants exhibit greater cash flow variability (i.e., 40%) as compared to wind (i.e., 20%) and solar (i.e., 10%).

Further, fossil fuel-based power companies across the globe are currently witnessing a shrinking gap between their returns on capital employed and the cost of capital, which has eroded their attractiveness. Also, on a risk-adjusted basis, India offers higher returns (3.5%) compared to other markets like the United States (2.4%) and China (1%).

There is an increasing awareness of 'physical risks' to investors' portfolios arising out of climate change due to unabated fossil fuel-related investments. In fact, various studies indicate that climate risk will adversely affect several sectors where such investors are significantly present. For example, the power sector, which has historically been dominated by fossil fuel, typically constitutes a large portion of institutional investors' portfolio. Due to increased environmental scrutiny and long-term climate risks,6 power producers face the risk of stranded assets - assets unlikely generate expected economic returns - as well as deteriorating financial performance, eroding company profitability due to decreasing capital returns and increasing capital costs. The resulting shift in expected returns from carbon-intensive industries to green ones warrants a rebalancing of institutional investors' portfolios and calls for a shift in their asset allocation in favour of the

A shift in expected returns from carbon-intensive industries to green ones warrants a rebalancing of institutional investors' portfolios and calls for a shift in their asset allocation in favour of the renewable energy sector.

renewable energy sector.

Furthermore, these investors hold large amounts of capital in individual securities (debt or equity), which will be difficult for them to divest quickly from an underperforming carbon-intensive sector in the long run. Therefore, institutional investors should gradually rebalance their portfolios in favour of green investments, including in the renewable energy sector.

#### Barriers to clean energy investments and proposed solutions: key learnings from India

Despite this apparent match, institutional investors are not directing access at expected levels in the renewable energy sector. For example, global pension funds invested only 1% in infrastructure projects in 2010,7 and even less in renewables. Further, less than 1% of global bonds are labelled green, and less than 1% of institutional investors' holdings across the world are green.8 This scenario is same, if not worse, in India. Institutional investment in the renewable energy sector was less than 1% in 2016.9

Key challenges faced by both domestic and foreign institutional investors in India include: off-taker risk, currency risk, lack of adequate liquid vehicles, low credit ratings of renewable securities, high perceived risk, and investment size. These challenges are often common to India and Africa, as well as to other developing economies. Here, we attempt to provide some potential solutions to these barriers. While we are cognizant of the fact that a one-size-fits-all

approach will not work across countries, these solutions can be adapted, if not directly replicated, in respective country contexts.

*Off-taker risk:* The off-taker risk arises due to unwillingness and inability to pay by the primary off-takers, i.e., the distribution companies (DISCOMS). A primary reason for this in India is the poor financial situation of the DISCOMs due to inefficient economic and operational practices. Africa is also marred with poor creditworthiness of state-owned utilities on account of irrational and politically motivated tariff pricing and operational inefficiencies of developers.<sup>10</sup>

To reduce this risk and further its "24x7 Power for All" agenda, the Government of India introduced a long-term solution through Ujwal DISCOM Assurance Yojana (UDAY). UDAY allowed state governments to take over three-fourths of the debt of their respective discoms and subsequently issue UDAY bonds to raise money. Another promising option has been the tripartite agreements between the central government, state governments, and the Reserve Bank of India. Such an agreement ensures payments from central government to the beneficiary of the agreement in case of state DISCOM delays, while withholding funds from the corresponding state governments.

Another solution to reduce this risk is a payment security mechanism (PSM), which covers the risk of payment default in a power purchase agreement. These have been deployed in India under its national solar power mission, for instance the multi-tier PSM set up in the state of Madhya Pradesh for solar project developers participating

in the Rewa Ultra Mega Solar Park. However, it is still early days for these standalone PSMs, and they need to be designed appropriately and transparently to ensure they provide appropriate risk mitigation. Africa can introduce PSMs to mitigate off-taker risk. Bilateral and multilateral funding for PSMs would create greater impact rather than direct lending or investing, given the multiplier impact of the mechanism to leverage finance.

Currency risk: Foreign investors are particularly exposed to currency devaluations in developing countries, as financing is mainly in US dollars, euro, or yen, while project revenues are often in local currencies. African currencies have reported higher volatility than the Indian rupee, as they are closely tied to commodity and oil prices.

This risk is typically addressed through currency swaps. However, not only are these market-based swaps expensive (e.g., approx. 4-8% in India and higher in Arica) they also may not be available for longer durations (e.g., beyond five years), while the renewable energy sector seeks longer-term foreign financing. The Currency Exchange Fund (TCX), founded in 2007 by a group of development finance institutions, specialised microfinance investment vehicles, and donors, offers long-term currency hedging solutions at a reasonable price.

The India Innovation Lab for Green Finance, a public-private initiative set up in India in 2015, proposes other promising solutions, such as risk buffers to manage currency volatility and tail risk guarantees to protect against extreme

market movers.<sup>12</sup> These solutions show promise in reducing the cost of currency hedging by up to 50%, while providing a financial leverage<sup>ii</sup> of up to 10 times. Similar solutions, through appropriate public-private partnerships, need to be adapted and implemented in African countries with high currency volatilities to comfort investors.

A specific solution in the form of a partial credit guarantee (PCG) exists, which absorbs all or part of default risk irrespective of its cause. The Asian Development Bank and the African Development Bank are among multilateral institutions that offer PCGs, but this is not yet commonplace especially for renewable projects. For instance, only two renewable energy issuances have been backed by PCG in India so far, both in 2016. A lack of clarity in the transaction structure as well as high transaction cost and low net benefit (around 0.5%) have been identified as reasons for their low up-take.

To ensure wider adoption of PCGs in India and Africa, the following initiatives may prove helpful. First, targeted awareness programmes may provide greater clarity on the transaction structure of PCG-backed bonds. Second, initial subsidisation of guarantees and transaction fees may encourage issuers to actively pursue PCG-backed bonds instead of other avenues. Once a sizeable PCG in the renewable energy sector market is created, and proof of concept is in place, the cost of guarantee (through diversification benefits) and transaction fee (because of size and learning benefits) can be reduced.<sup>13</sup>

Lack of financial securities: Lack of investable financial securities is one the key reasons for low domestic institutional investments in the renewable energy sector. In India, this is mainly because project developers borrow to raise finance given underdeveloped bond markets in developing economies. In Africa, institutional investors are ready to invest in infrastructure assets but there are no suitable financial instruments available that match their requirements.<sup>14</sup>

Institutional investors typically look for listed (and liquid) vehicles to make the majority of their investments. In India, policymakers have been aware of the need for such vehicles, and they have been gradually created, both for debt (green bonds; Infrastructure Debt Funds, IDFs) as well as equity (Infrastructure Investment Trust<sup>iii</sup>). Therefore, the concern appears to not be so much the presence of these vehicles, but getting them to work for institutional investment in renewable energy. In this context, common issues include availability of (mostly de-risked) operational projects as the sector matures over time as well as the credit quality of vehicles.

IDFs appear to be a suitable vehicle for institutional investors to participate in the renewable energy sector in India. IDFs are vehicles that refinance existing debt of infrastructure companies, which allows banks to lend for fresh infrastructure projects, as per the Reserve Bank of India. IDFs currently in place, while not specialised for renewable energy sector, hold about 30% of assets in this sector. IDFs may also be suitable

ii The ability of a public financial commitment to mobilise some larger multiple of private capital (as defined by World Bank).

iii This financial instrument allows yield-seeking and low-risk institutional investors to invest in mostly illiquid operational assets.

for African countries, as they can help domestic institutional investors in managing risk by diversifying their portfolios in various countries in Africa. IDFs can also institute and conduct due diligence, which institutional investors usually do not have the bandwidth to do themselves.

Another promising solution is to incentivise both banks and non-banking financial companies (NBFCs), for instance the Indian Renewable Energy Development Agency, to securitise their renewable energy project loan portfolios. The government can cover costs related to securitisation of renewable energy loan pools, and subsidise partial guarantee fees on bonds issued through securitisation structures. These incentives will encourage NBFCs and banks to securitise their loans that are exposed to the renewable energy sector. Further, the banking sector can reduce risk weightage on renewable energy loans, which would reduce regulatory capital requirements of banks and NBFCs. This will result in improving returns and free up their regulated capital to further lend to the renewable energy sector.

Small size of investments: Institutional investors globally are targeting deals minimum US\$ 100 million<sup>15</sup> in size to justify time-consuming due diligence and transaction costs. Securitisation can address this barrier to a great extent and enable renewable energy sector securities to transition into investable securities for domestic pension and insurance funds. The existing small loan pool of renewable energy assets with banks can be bundled, securitised, and sold as assetbacked securities. In addition, diversification benefits of pooled funds, diversified by states

and by developers, can improve the ratings of securities.

High perceived risk: Investors are also sceptical about investing in the renewable energy sector due to the lack of a performance record and limited understanding of risks at various investment stages.

Investors are also sceptical about investing in the renewable energy sector due to the lack of a performance record and limited understanding of risks at various investment stages.

A possible solution could be for institutional investors to build a renewable energy-specialised direct investment team, which can conduct due diligence of renewable energy projects. Building a direct investment team in big emerging markets is likely to be a good value proposition for large foreign institutional investors. Similarly, for domestic institutional investors, such direct investment teams will allow for careful evaluation of direct exposure to illiquid infrastructure assets.

A second solution is to conduct training programmes for foreign investors to enhance their capacities and skill-sets to assess risk-return expectations of renewable energy projects in emerging and frontier markets.

Alternatively, a not-for-profit, fee-based intermediary could be brought in to source and

structure deals, and conduct due diligence on behalf of investors seeking direct investment in the renewable energy sector. Such an intermediary would also be able to address the aforementioned investment size needs of varied investor types – small, medium, and large. It would allow matching of long-term investors of capital (demand side) with on-board project developers, independent power producers, companies, and projects (supply side).

Renegotiation risk: A new risk that has emerged for the renewable energy sector, both in India and in particular South Africa, is the renegotiation of contracts. (This risk also exists in other African economies with low or ineffective law enforcement by its institutions.) It is due to an unprecedented decrease in solar tariffs because of declining technology and finance costs. For instance, in recent months, several state-owned power distribution utilities are rescinding and revisiting their previously agreed power purchase agreements (PPAs) contracted at higher tariffs. Although these agreements are legally binding, this sends wrong signals to companies and investors

Possible solutions include the development of a strong PPA (eliminating all loopholes), making them contractually enforceable in the court of law; speedier resolution of lawsuits related to PPAs in courts; and making renegotiation a harder course of action. In case of non-honouring of commitment from either party, a well-calibrated quick resolution mechanism should be institutionalised. In fact, the government should generally maintain stability and certainty around its various incentives and polices, and provide clear signals and risk mitigation strategies to address any regulatory and policy risks.

#### Conclusion

With appropriate regulatory and policy changes, and innovative financing mechanisms, the renewable energy sector can prove to meet institutional investors' needs more fully. India and African nations can and need to leverage this golden opportunity to not only achieve universal energy access, one of the Sustainable Development Goals, but also their climate change commitments under the Paris Agreement.

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#### THE ENERGY TRANSITION IN AFRICA

#### A New Opportunity for Economic Development

TAYEB AMEGROUD, Senior Fellow, OCP Policy Center

Africa is on the move. Several of its economies are now among the most dynamic in the world. Africa is endowed with abundant natural resources and its demography is young and increasingly educated, building an emerging middle class. However, several development constraints are also present. This sustained economic growth and changing lifestyles require reliable access to vast amounts of modern energy.

Energy is at the heart of the problems in Africa. In sub-Saharan Africa, only 30% of the population has access to electricity. Of the 54 countries in the continent, more than half have their electrification rate below 20%. Africa consumes less energy compared to its demographic weight: the continent accounts for only 3% of the global demand for primary energy, when its population accounts for about 15% of the world's population. Similar discrepancies in terms of energy access also exist on the continent. These inconsistencies

are primarily regional: 80% of the energy used by the whole continent, excluding traditional biomass, is consumed in North Africa and South Africa, which together only account for 30% of the African population.<sup>3</sup> The energy fracture also exists within the majority of African countries, separating the electrified affluent cities from rural areas. Finally, if the continent is rich in fossil fuel resources, they are unevenly distributed. Some countries (such as Algeria, Libya, Nigeria, Angola, Congo, Gabon, and Equatorial Guinea) thus benefit from an oil rent, which is not often used wisely nor necessarily reflected in their development levels.<sup>4</sup>

While African countries are steadily working to move out of the energy poverty that still affects a significant number of the continent's population, Africa is also facing the challenge and the consequences of climate change.<sup>5</sup> Growing desertification, adverse impact on water resources,

extreme weather events, and food insecurity pose additional threats to the economies and livelihoods of many African countries.

This chapter provides an overview of the current energy context in Africa, presents some of the main challenges faced by its energy-poor countries, and discusses the way forward to close the energy divide while pursuing a successful green energy transition.

# Current energy context: significant natural resources but acute energy poverty

Traditional biomass is the most widely used form of energy in Africa, representing almost half of total primary energy in 2014.<sup>6</sup> Rural areas in Africa rely heavily on biomass (including firewood and agricultural by-products) for cooking and heating

purposes. Fossil fuels account for half of total primary energy, oil being the second-largest source after traditional biomass, followed by gas and coal. Modern renewables and nuclear energy account for 2%. While the energy mix varies from one country to another, there is a stark contrast between the energy mix in sub-Saharan Africa and in North Africa. In the latter region, the total primary energy demand is dominated by oil and gas, while traditional biomass only accounts for a share of 2%.

In 2014, primary energy demand in Africa reached 772 million tonnes of oil equivalent (mtoe). While energy demand in Africa increased by more than half since 2000, it still accounts for only 4% of global annual demand. The share of sub-Saharan countries consumption is 77% of the total energy consumption in the continent.<sup>9</sup> The continent's largest energy consumer countries are South Africa and Nigeria, respectively at 147

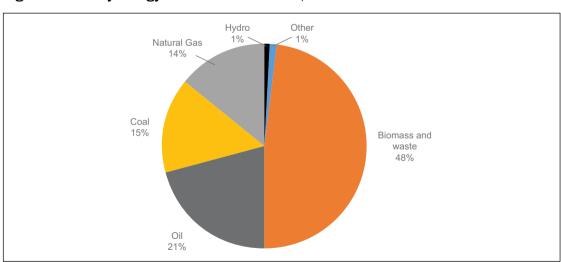


Figure 1: Primary energy demand mix in Africa, 2014

Source: IEA, 2015 World Energy Outlook

mtoe and 134.7 mtoe, followed at a distant third, by Egypt (74 mtoe) and then Algeria (51 mtoe) and Ethiopia (48.3 mtoe).<sup>10</sup>

The continent's average energy consumption per capita, at 654 kilograms of oil equivalent (kgoe), is only one-third of the world average. Energy demand per capita exceeds the world average only in three African countries: Equatorial Guinea and Libya, since they are important oil-producing countries with low population numbers, and the most industrialised country in the continent, South Africa.<sup>11</sup>

The energy intensity, measured as primary energy demand divided by economic output, provides an indicator of the overall energy efficiency of an economy. <sup>12</sup> The lower the figure, the more energy efficient an economy. Though it decreased from 0.43 tonnes of oil (toe)/thousand 2010 USD GDP in 2000 to 0.35 in 2014, it remains substantially higher than the world average – 0.19 toe/thousand 2010 USD. <sup>13</sup> North African countries, which tend to be more reliant on modern "clean" fuels, show lower values than in sub-Saharan Africa.

Growth in energy demand in most of Africa has exceeded demand in the rest of the world, but has still lagged behind economic expansion. This is a direct reflection of the significant role of lesser energy-intensive sectors, such as services, in fuelling recent economic growth.<sup>14</sup>

### Fossil fuels: an export-oriented resource

Africa plays an increasingly important role in the international hydrocarbon markets. More than half of the recent oil discoveries have been in Africa, which accounts today for about 10% of the world's oil reserves. African oil production also accounts for about 10% of world production. Despite overall energy poverty and a limited access to electricity for a large share of populations across Africa, more than half of the oil produced is exported, mainly to markets in Europe and North America.

The consumption of petroleum products in Africa remains low – less than 100 mtoe per year in sub-Saharan Africa – and oil remains the most used fossil fuel in Africa. This consumption is concentrated in North Africa, South Africa, and Nigeria (together accounting for about 76% of total oil consumption in Africa). Oil is mainly used in the transportation sector, as anywhere else in the world, but also for electricity generation in West, Central, and East Africa.<sup>16</sup>

African oil reserves correspond to about 40 years of production, and most of these reserves are located in North Africa and West Africa. Recent discoveries over the last 10 years in different parts of the continent suggest a renewed interest from international oil investors in oil and natural gas exploration and production in Africa.

Natural gas resources are abundant mainly in North, West, and Central Africa. The continent is home to 7.5% of the world's reserves and accounts for 6.3% of gas production.<sup>17</sup> While in North Africa gas is used for various applications, residential and industrial uses, and power generation, its use in West and Central Africa is limited to a small contribution to electricity generation and is mainly exported in the form of

liquefied natural gas (LNG). Gas exports from Africa, by pipeline or in the form of LNG, are mainly to Europe and North America. Recent discoveries of significant gas deposits off the coasts of Mozambique, Tanzania, and Egypt are ushering in a new balance of power in Africa's energy markets, as the centre of gravity of hydrocarbon-rich regions in Africa shifts towards the east of the continent. This shift consequently emphasises the strategic role of the Indian Ocean as a hub of global energy trade.

As the centre of gravity of hydrocarbon-rich regions in Africa shifts towards the east coast, it emphasises the strategic role of the Indian Ocean as a hub of global energy trade.

In fact, the recent sizeable gas discoveries in Mozambique and Tanzania, oil deposits in South Sudan and Uganda, and the promising prospects of more fossil fuel resources to be found in the deep Indian Ocean (Madagascar, Seychelles and Tanzania) offer an opportunity to bolster economic and trade relations within the Indian Ocean economic zone. China and India's ongoing economic ascent provides a great opportunity for growth and integration of the African continent into the global economy. While Chinese companies are already heavily involved in some large natural gas and oil production projects in Ethiopia, South Sudan, and Mozambique, the presence of Indian companies in Africa, though relatively significant, is far less visible. But seeing as the energy security factor, geographical proximity, and historical ties to East Africa will continue to fuel interest and Indian investment flows into Africa, India and pertinent African countries can engage in joint projects to explore and produce offshore oil and gas.

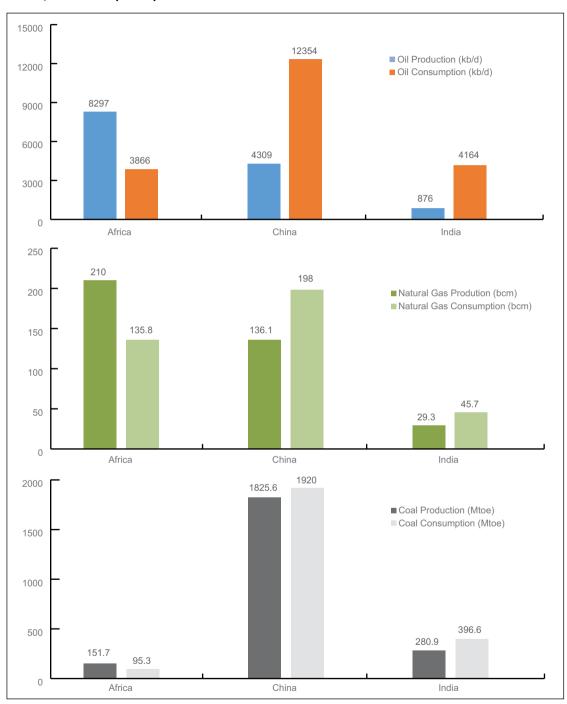
African coal reserves are mainly found in South Africa and Zimbabwe. With an annual output of about 250 million tonnes, South Africa is the main producer of the continent. 18 Close to two-thirds of its coal production is consumed locally, mainly in power generation. Being the only North African country with no natural oil resources, Morocco is the second-largest coal consumer in Africa, followed by Zimbabwe, which also directs most of its domestic coal production to power generation.

The following charts offer a perfect illustration for the imbalance in production and consumption of fossil fuels in Africa when compared with China and India, two major developing countries with comparable population numbers. They highlight the challenge faced by a number of rich, oil producing countries in Africa. Given the lack of basic needs in terms of infrastructure and human resources, exporting minerals and energy resources is often considered a more valuable option for the economy as opposed to using them at home.

### Electricity: a continent lagging far behind

At 45%, the African continent stands as the least electrified in the world. While all North African countries have achieved close to universal access

Figure 2: Comparison of production and consumption of major fossil fuels in Africa, China, and India (2014)



Source: IEA, 2015 World Energy Outlook

to electricity, access rate is only 35% in sub-Saharan Africa. As a result, nearly 634 million people still live without electricity.

In 2014, electricity demand in Africa reached 604 terawatt hours, an increase of 68% between 2000 and 2014. The North Africa region and the country of South Africa account for almost 75% of total electricity consumption in the continent.

Africa's electricity generation capacity is approximately 185 gigawatt hours (GW), of which about 60% is located in the same two places – North African region and South Africa. African electricity generation is dominated by fossil energy. Gas and coal are the first two major power sources. The significant contribution of coal in African power generation is predominantly due to important size of the South African coal-fired power facilities (38 GW in 2014). Though not used to its full potential, hydropower accounts for

15% of installed capacity. Nuclear and renewables only provide 4% of generation capacity.

With the exception of Morocco, where coal is the primary source of electricity, power generation in North and West Africa is dominated by natural gas and oil. Hydropower accounts for most of the electricity generated in Central and East Africa.

Africa is developing and expanding its regional power interconnections to enable energy-rich countries to export electricity to those in need. There are significant advantages to international interconnections, particularly for small countries and countries with low population densities. In West Africa, the West African Power Pool, which brings together 14 members of the Economic Community of West African States, was instrumental in pushing forward for an extended regional transmission grid spanning from Mauritania to Nigeria.

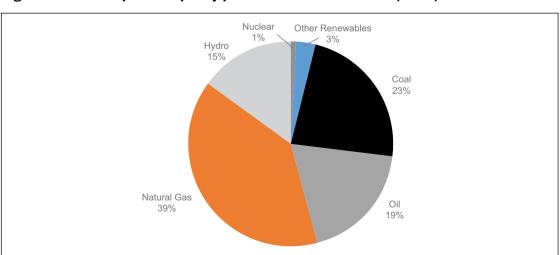


Figure 3: Installed power capacity per source of fuel in Africa (2014)

Source: IEA, 2015 World Energy Outlook

The North African power grid is interconnected to the European grid through the Morocco-Spain power interconnection. Although there are high hopes that the energy-rich continent will one day supply Europe with reliable and cheap electricity, Africa is not yet a net exporter as illustrated by the case of Morocco, which imports close to 15% of its electricity needs from Spain.

### Renewables: a largely untapped potential

Africa's renewable energy potential is already beginning to be translated into achievements. Egypt, Ethiopia, Morocco, and South Africa are leading the way by sponsoring large renewable programs.20 power generation Electricity generation from renewable energies (solar, hydro, wind, etc.) is being developed: hydroelectricity, with the Renaissance dams in Ethiopia or "Inga III" in the DR Congo; wind in South Africa, Morocco, and Egypt; and solar mainly in Morocco and South Africa, South Africa, Egypt, Kenya, and Morocco have taken major steps to develop large utility-scale wind and solar projects with a total capacity of more than 10 GW.

In its latest renewable capacity statistics report, the International Renewable Energy Agency estimated the total installed capacity of renewable power generation in Africa to be over 34 GW as of 2014. At more than 80%, hydropower represents a significant share of this capacity. But wind and solar accounted for only 7% and 4% respectively.

But even as it is usually appreciated that Africa has more than half of the world's renewable energy potential, this potential remains largely untapped at present. Hydroelectric power provides about one-fifth of the current installed capacity, but reports indicate that less than 10% of the hydropower potential is used.<sup>21</sup> Similarly, Ethiopia, Kenya, and Tanzania combined hold about 15 GW of economically viable geothermal, while the high quality wind resources in the north and the eastern regions are still largely untapped.<sup>22</sup>

According to the African Development Bank, many African countries have established renewable energy targets, and introduced regulatory instruments and incentives to foster investments in clean energy generation. Policies based on direct financial support mechanisms, akin to those implemented in some European countries, have generally not been adopted since they are considered to be costly.<sup>23</sup> The prevailing instrument used in countries with significant renewable energy deployment is tendering.

### Drivers and opportunities for green energy in Africa

Despite fifteen years of economic growth, Africa's energy systems remain very clearly inadequate. Energy demand is increasing as cities, populations, and economies grow – population growth will be stronger in Africa than in the rest of the world. There will be more than 2.5 billion Africans in 2050, compared with only about one billion in 2010.<sup>24</sup> Urbanisation, too, will continue: the rate of urbanisation is expected to rise to 56% in 2050 from 40% in 2012.<sup>25</sup>

But limited access to electricity, energy shortages, and dependence on traditional biomass as a fuel continue to undermine efforts to reduce poverty. Sub-Saharan Africa is not on track to achieve universal access to energy by 2030, the seventh Sustainable Development Goal.<sup>26</sup> Indeed, even as the continent continues to become electrified, and even as electrification of North Africa is almost complete, almost 400 million people in sub-Saharan Africa will still be without access to electricity in 2040.<sup>27</sup>

These challenges are further exacerbated by the impact of climate change. Africa is expected to suffer the most from consequences of climate disruption, and therefore must urgently build energy infrastructures and craft energy access

policies that advance resilience and help improve capacities to adapt to shifting climate conditions.

Poor governance is at the root of many of the underlying obstacles – critically energy poverty – that impede economic development in Africa. The energy sector and power utilities are no exception. Up to now, political and institutional reforms have hardly paid off. While few countries have tried to completely privatise their systems, the majority of African countries have a hybrid energy market, with a state supplier buying from independent producers and operating its own power stations. As a result of slow reforms and costly and ill-conceived fossil fuels subsidies, electricity tariffs in sub-Saharan Africa are amongst the highest in the world, averaging US \$0.14 per kilowatt-hour

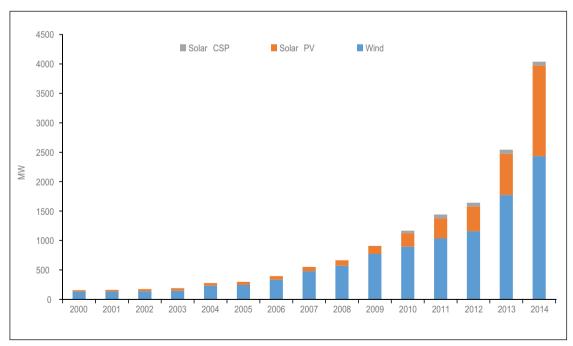


Figure 4: Cumulative modern renewables installed capacity (MW)

Source: IRENA online database

(kWh) against an average of US \$0.18 per kWh in production costs.<sup>28</sup>

In addition to these difficulties, the high upfront costs to deploy an extended and reliable energy supply infrastructure is further compounding the challenges faced by most of the small developing economies in Africa.

Poor governance is at the root of many of the underlying obstacles – critically energy poverty – that impede economic development in Africa.

Africa's energy deficits are in stark contrast to the potential of the continent, which has abundant fossil fuel reserves and more abundant renewable energy resources, as noted above.

Renewable energy in particular has a critical role to play. In addition to reducing carbon emissions, renewables can be deployed much faster than fossil fuel-based power plants and are also offer the most cost-effective off-grid solutions.

The cost of energy transition, i.e., providing universal access to its population, in Africa will be much lower than in developed countries, where the cost of transforming existing infrastructures and the risk of spiralling stranded legacy assets are deemed to be extremely high. In addition, since Africa is still mainly rural, the combination of off-grid renewable solutions and mini-grids can prove to be the most cost-effective in bringing

customised energy supply solutions to diverse economies and territories with low population densities.

The development of mini-grids in India, fuelled by renewable energy, has been successful and is playing an important role in helping close the energy divide in the country. This experience, and similar other innovations, could apply to some regions in sub-Saharan Africa. So could models of extending other public services, such as telecommunications and banking, that can play a key role in bridging the energy gap – for instance, through digital financial services that extend micro-credit for local energy projects.

Specifically, a closer partnership between India and Africa in areas such as universal access to electricity, alternative and renewable energies, and efficient use of energy, could help African countries in developing locally suitable clean energy-based policies to reduce energy poverty. One avenue for a mutually beneficial partnership involves joint development and implementation of renewable energy projects, including solar, wind, and hydropower, along with capacity building. Other areas ripe for immediate cooperation include solar irrigation and using agricultural wastes to produce biogas.

The International Solar Alliance, India's brainchild initiative offers a concrete platform where India, as a major player and the host country of this international government organisation, can work together with African countries to address convergent renewable energy priorities.

Regional partners, too, will need to play a role:

developing the full potential of a green energy supply economy in Africa requires strong regional energy cooperation. Cross-border trade of all forms of energy is generally considered to increase the affordability and reliability of energy supply. Fostering interconnections between North and sub-Saharan Africa, on one hand, and between South and Central/East Africa, on the other hand, is of paramount need to unlock Africa's large hydropower and wind energy.

Africa projects a contrasting and disparate energy landscape, with large discrepancies between countries in terms of energy access, resource endowments, sector organisation, and patterns of consumption. Yet, debate on Africa's energy development revolves around well-known questions and solutions:

 The limited access to modern forms of energy is a critical impediment to economic and social development in sub-Saharan Africa. New energy technologies, renewables, smart grids, and energy-efficient solutions, combined with sound and appropriate policies, can play a big role in reducing the energy gap.

- Minimising the impact of climate change, in addition to the imperative of safeguarding the environment and biodiversity in Africa, requires a rapid transition from traditional biomass to clean energies and efficient technologies.
- Countries like Morocco, South Africa, Democratic Republic of Congo, and Ethiopia are planning to significantly increase the share of renewable energy in their electrical systems. Interconnections and cross-border energy trade can play a major role in delivering the full potential of renewable resources at low costs.
- Africa is endowed with important oil and natural gas resources. Till date, revenues from these resources have not materialised into perceptible socio-economic benefits for the population. A holistic and long-term approach to energy supply and security is required, where a share of revenues from fossil fuels is used to finance the clean energy transition. Natural gas can be used as a transition fuel and an alternative to traditional biomass and coal.

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# AREAS OF ENGAGEMENT

# **Trade and Investment**

# INDIA-AFRICA ECONOMIC RELATIONS IN THE EMERGING ECONOMIC ORDER

### A Perspective from the Indian Private Sector

PRANAV KUMAR, Head, International Trade Policy, Confederation of Indian Industry

The African continent is one of the fastest growing regions of the world and the Indian industry has actively participated in its growth story. The Indian industry has always prioritised its goal towards building infrastructure, creating capacities, and ensuring job creation through investment in manufacturing. Over the last one decade, there has been growing investment by Indian companies in Africa in a range of sectors. These include telecommunication, hydrocarbon exploration, agriculture, light manufacturing, information technology (IT) and IT- enabled services, and automobiles. This has resulted in significant increase in both trade and investment.

Trade between India and Africa has grown and deepened at a rapid pace. In absolute terms, two-way trade between India and Africa has grown five-fold between 2005-06 and 2015-16 – although it is nowhere near projected potential.

With a series of initiatives and a big push from both sides, bilateral trade is expected to exceed US\$ 100 billion by 2018.<sup>1</sup>

Similarly, on the investment front, Indian companies have become the largest source of foreign direct investment (FDI) into Africa amongst emerging economies. In the year 2015 alone, India accounted for a 5% market share of all inward FDI projects into Africa. With 37 projects, India was the sixth-largest investor in the continent in terms of project number, followed by China with 32, in the same year.<sup>2</sup>

The reasons for this surge in trade and investment are manifold. Following the launch of India-Africa Forum Summit in April 2008, the political relationships between India and African nations got a major fillip, which created a more enabling environment for bilateral trade and investment to flourish. In addition, over the last decade,

India has undertaken major policy initiatives, such as announcing the Duty-Free Tariff Preference (DFTP)<sup>3</sup> scheme for Least Developed Countries (LDCs) in 2008 and creating the Development Administration Partnership in 2012 to effectively handle India's development partnership programme, including making more funds available under the Lines of Credit (LoC) scheme.

One must acknowledge that India's interests in Africa have not been purely self-serving like some other investors. Capacity building and development cooperation have always been integral components of India's engagement with Africa. There has been technology transfer and job creation, along with investment in manufacturing sector. This has also been aided by various policy moves across various government departments. One of the hallmarks of India's engagement with Africa has been its sensitivity to African countries' needs. For instance, following the launch of DFTP scheme in 2008, some of the beneficiary countries from Africa raised the issue on exclusion of their tariff lines of export interest. India quickly responded by substantially improving the coverage of tariff lines under zero duty in April 2014, as well as simplifying some of the existing provisions to ease the availing of benefits 4

There are, however, consistent problems that the Indian industry faces across many African nations. Gaps exist in terms of infrastructure, regulation, financing, availability of skilled professionals, and standards. The question becomes: how can the Indian industry leverage existing institutional arrangements to overcome these hurdles? In the

# How can the Indian industry leverage existing institutional arrangements to overcome hurdles and gaps it faces in African countries?

current scenario, the major challenge for both India and Africa is to create value chains to achieve more trade in value-added products. This will not just benefit Africa, but will also help the Indian industry diversify its presence across the continent.

The Indian government's new pivot to Africa through the Asia Africa Growth Corridor (AAGC) emphasises the creation of win-win situations. The AAGC is the direct result of a shared vision of the prime ministers of Japan and India. The Indian industry has had a widely positive response to the announcement; indeed, collaboration with Japan is not a new phenomenon. Further collaboration with Japan as well as other Asian partners for common growth goals, taking Africa along, has all the signs of being an intense, cooperative, and collaborative exercise.

### Growing complementarities between Africa and India

There are no two opinions that India and Africa's strong trade and investment relations thrive on huge complementarities that exist between the economies of the two regions. These complementarities have further increased in the post-global economic crisis period. Before

2007-08, both India and Africa were largely dependent upon Western nations for both markets and investments. However, post-economic crisis, with the slowdown in Western economies adversely impacting on demand and income growth, the flow of both aid and investment from the developed world to African nations faced downward pressure.

During the same period, India, along with other large developing economies, emerged as a strong economic power on the global economic landscape. This change in global economic scenario, with the economic pole shifting eastward towards Asia and other emerging economies, resulted in both India and Africa looking towards each other for mutual trade and investment opportunities. This has had a positive impact on both bilateral trade and investment flows.

# Increasingly scaling up their active presence across the continent.

According to UNCTAD's World Investment Report 2017,<sup>5</sup> while multinational enterprises from developed economies remain the major investors in Africa, investors from developing economies are increasingly scaling up their active presence across the continent. In 2015, half of the top 10 investors in Africa were from developing economies, reflecting recent trends of rising FDI flows from the global South. A case in point: China's FDI stock in the region increased almost threefold between 2010 and 2015, and at US\$ 17 billion, India was the seventh-largest investor in Africa by FDI stock between 2010 and 2015.

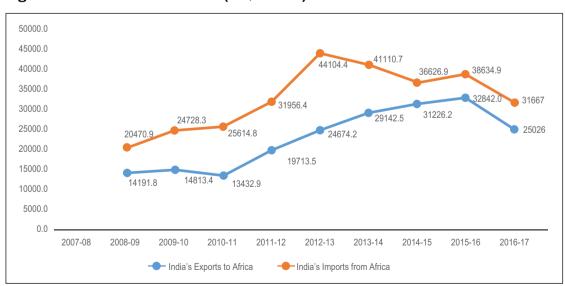


Figure 1: India's trade with Africa (US\$ million)

Source: Department of Commerce, Government of India

### India-Africa bilateral trade and investment trends

As per Export-Import Data Bank of the Indian Ministry of Commerce & Industry, the total trade between India and Africa increased from US\$ 34.5 billion in 2008-09 to US\$ 56.6 billion in 2016-17. It currently stands at US\$ 62.5 billion in 2017-18. India's exports to Africa increased from US\$ 14 billion in 2007-08 to US\$ 25 billion in 2016-17 (Figure 1), registering an impressive compound annual growth rate of 5.6%. Indian exports to Africa were at a peak in 2014-15 at US\$ 32 billion.6

Indian imports from Africa, on the other hand, increased from US\$ 20 billion in 2007-08 to US\$ 31.6 billion in 2016-17, accounting for 7.5% of

total Indian imports. Indian imports from Africa grew at a compound annual growth rate of around 4%, reaching a high in 2012-13 at US\$ 44 billion

As regards investment, Africa's attractiveness has risen in the recent past on the back of strong growth, improved business environment and investment regulation, high rates of return on investment, and a rising consumer market. Emerging economies have also been attracted to Africa by the continent's natural resource endowments and growing market size.

Indian companies have become one of the largest sources of FDI into Africa (among emerging economies). As evident from the table below, capital investments from India to Africa have

Table 1: Indian FDI trends into Africa, by sector (2003-2014)

	No of projects	Jobs Created		Capital investment		
Sector		Total	Average	Total	Average	
				(US\$ m)	(US\$ m)	
Financial Services	54	1,149	21	607.10	11.20	
Software & IT services	40	4,494	112	583.70	14.60	
Communications	35	4,178	119	4,128.30	118.00	
Automotive OEM	28	18,766	670	1,954.10	69.80	
Coal, Oil and Natural Gas	25	4,957	198	23,241.90	929.70	
Business Services	20	3,348	167	170.70	8.50	
Healthcare	19	1,431	75	270.00	14.20	
Chemicals	14	6,328	452	7,219.10	515.60	
Metals	14	9,989	713	6,406.70	457.60	
Industrial Machinery, Equipment & Tools	12	1,393	116	153.30	12.80	
Other sectors	102	39,667	388	9,799.40	96.10	
Total	363	95,700	263	54,534.30	150.20	

Source: Calculation based on fDi Intelligence, from the Financial Times Ltd., 2015

steadily risen to US\$ 54.5 billion between 2003 and 2014 with 363 projects. The total number of projects increased substantially during the global economic crisis period, with 51 projects in 2010 and 64 projects in 2011.<sup>7</sup>

Some of the largest Indian investments being made are by ONGC Mittal Energy (two projects; US\$ 5.9 billion), Jindal Steel and Power (six projects; US\$ 4.4 billion), Essar Group (one project; US\$ 4 billion), Indian Oil (four projects;

Out of a total of 35 destination countries for Indian investments, the top five account for the majority of projects.

US\$ 3.5 billion), and Bharti Airtel (20 projects; US\$ 2.4 billion).

As per the Knowledge Partnership Programme,

...investments in the extractive sectors, including coal, oil, and natural gas, and metals account for over 55% of India's capital investment in Africa. Besides these sectors, where both Indian SOEs and private companies are engaged, sectors such as financial services (with 54 projects) and Automotive Original Equipment Manufacturers (OEMs, with nearly 19,000 jobs created) are primarily the domain of private Indian investments.<sup>8</sup>

Out of a total of 35 destination countries for Indian investments, the top five account for the majority

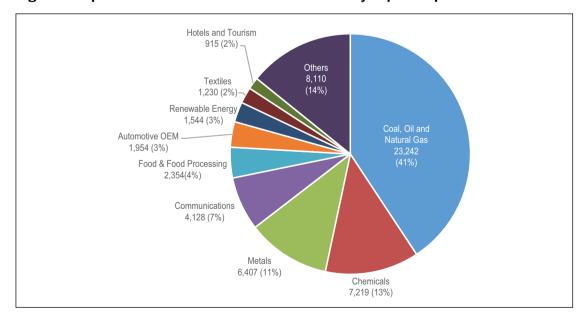


Figure 2: Top sectors of Indian investments in Africa by capital expenditure

Source: Calculation based on FDI Intelligence, from the Financial Times Ltd., 2015

of projects. South Africa is the top destination country, accounting for almost one-fifth of investment projects. Ethiopia has received the highest number of total jobs and has the largest project size, with 755 jobs per project. Nigeria has both the highest total and highest average investment at US\$ 12.41 billion overall and US\$ 354.60 million per project.

Indian companies have strategically entered the African markets in certain sunrise sectors such as ICT and software services, with a long-term view of their commercial presence. As has been noted. "[t]he African ICT sector is expected to triple by 2025, growing in value to US\$ 80-95 billion, and Indian companies' engineering capabilities, experience with frugal innovation, and ability to train employees at scale make them uniquely well-positioned to prosper in this booming African industry." Moreover, the vast potential of renewable or alternative energy sources in African countries has also started to guide Indian investments. A total of seven projects with a capital expenditure of US\$ 1.5 billion is estimated to be currently invested in the African energy sector.

### Leveraging the new trade architecture

While two-way trade and investment ties have deepened, they have yet to reach anywhere near their true potential. Indeed, in 2014, at the World Economic Forum-India Summit in Delhi, African leaders and Indian industrialists unveiled a joint vision of realizing US \$500 billion in trade between Africa and India by 2020<sup>10</sup> – although according to a recent PHD Chamber of Commerce

and Industry report, India-Africa trade will likely touch US\$ 117 billion by 2020-21.<sup>11</sup> With a changing architecture of global trade agreements, as focus shifts towards creating value chains and investment-led trade, it is high time for the Indian private sector to utilise all available institutional mechanisms to further expand its trade and economic relations with African nations.<sup>12</sup>

### Better utilisation of India's DFTP scheme<sup>13</sup>

First and foremost, the Indian private sector must effectively utilise India's DFTP scheme. The genesis of DFTP goes back to first India-Africa Forum Summit. DFTP is a unilateral duty-free market access scheme, which India has provided to all LDCs. It is open to all 47 LDC members as classified by the UN,<sup>14</sup> including 33 LDCs in Africa. But since its implementation in August 2008, it has been found that only a few African LDCs have managed to increase their exports to India, notably Tanzania. This is an indication that either they are facing other barriers in the Indian market, or they do not have enough exportable surplus.

However, contrary to similar schemes provided by other developing countries, such as China and Brazil, the DFTP programme offers much deeper market access into India. After an amendment in April 2014, the scheme coverage has increased beyond 98% of India's total tariff lines. This latest amendment means that barring 211 products, India now provides 100% duty-free market access to LDCs in Indian market on all remaining products.

What is more, the Indian industry can source intermediate products from beneficiary countries at zero duty. They can invest in African LDCs to manufacture locally to export back to India through the DFTP route. This is happening in the case of the textile sector. By investing in African LDCs, the Indian industry can also access third country markets, like the European Union and USA. Both EU and USA have their respective initiatives to encourage imports from LDCs and/or African nations (such as EU's Everything but Arms Proposal and US's African Growth and Opportunity Act).

Effectively, relocating part of the production process in Africa to build robust India-Africa value chains will help the Indian industry kill the duty disadvantage it faces in its traditional export markets of EU and USA across a range of labour-intensive products. Already, some of the leading Indian textile companies, including Raymond and Arvind Limited, have invested in garment manufacturing in Ethiopia.

### **Effective utilisation of lines of credit**

A second important instrument for the Indian private industry that it needs to better leverage are the concessional Lines of Credit (LOCs), advanced by the Indian government and administered by the Export-Import (Exim) Bank of India. Concessional LOCs enable Indian exporters to enter new geographies or expand their businesses in existing export markets without any payment risk from overseas importers. Undoubtedly, the concessional LOCs have enabled Indian companies to enter the African market as well

as expand their footprints across the continent. This is evident from the fact that LOCs to African countries constitute more than 60% of all LOCs provided by the EXIM Bank of India. During the third India-Africa summit, India announced an additional concessional credit grant to Africa worth US\$ 10 billion over the next five years.

However, there is still a significant gap between LOC commitments and actual disbursements, which needs to be corrected. As on March 2015, utilisation in the case of some big projects is not up to the mark. For instance, almost the entire amount of credit - to the tune of US\$ 300 million – for the Ethiopia-Djibouti rail line project is yet to be utilised. Similarly, out of the total sanctioned credit of US\$ 149.72 million to rehabilitate a road between Tica, Buzi, and Nova Sofala in Mozambique, US\$ 145.79 million is yet to be disbursed. There are close to US\$ 1 billion worth of LOC projects in the pipeline, where offers have been made by the Exim Bank to the recipient governments/their designated agencies but the offer has not yet been accepted and/or the LOC agreements are yet to be signed.<sup>16</sup>

#### **CFTA** negotiations

Another important development for the Indian private sector is the African Continental Free Trade Area (CFTA). At the 2015 African Union Summit, negotiations began to establish the continent-wide free trade area (FTA). The scope of the CFTA is ambitious and includes trade in goods and services, movement of natural persons, competition policy, and dispute settlement rules and procedures. The CFTA agreements, that

currently focus on establishing a continent-wide FTA, and protocol on trade in goods and services, are expected to be signed in March 2018. A subsequent phase is expected to roll out protocols on investment, competition policy, and intellectual property rights.<sup>17</sup>

The CFTA, once concluded and operationalised, will offer important opportunities for Indian firms and investors. It will provide a larger, unified, simplified, and more robust African market to tap. Africa should not simply be seen as a destination for short-term returns, but rather as a partner for strong medium- and long-term relationships: actively supporting Africa's ongoing integration efforts should therefore be a superior objective for India. Indian support for the CFTA will help build confidence between the two, and could even be the basis for successfully negotiating reciprocity in terms of market access as well as offering greater investment opportunities because of regional market integration.

### Major Concerns of Indian Private Sector

The Indian industry, which has been steadily deepening its economic ties with African countries, eagerly looks forward to the implementation of the third summit's Action Plan, which includes the "Delhi Declaration 2015" and "India Africa Framework for Strategic Cooperation." The framework calls for contribution by India to set up value addition and processing facilities in Africa.

In Africa, key persisting challenges that the Indian

industry faces pertain to the development of regional markets in Africa; reduction in currently prohibitive transport and logistics costs, which restrict movement of goods and people; and access to trade finance. More systemic issues of lack of market information, skilled workers, poor infrastructure, and governance hurdles/concerns affect long-term sustainability of India and Africa engaging on trade and investment.

Four concerns and gaps are worth detailing.

Firstly, there persists a knowledge asymmetry due to a lack of proper information dissemination. This creates unnecessary hindrances to trade and investment between India and Africa. It stems from incomplete understanding that the two have about each other's markets.

Secondly, there is the matter of harmonising standards and easing regulations so as to reduce transaction costs of doing business in Africa. Greater levels of government involvement on both sides is also necessary to reduce risks.

Third and fourth, infrastructure development and regional market integration are two major triggers that can facilitate FDI into Africa. Although the continent is flooded with FTAs, markets are still not adequately integrated because of a lack of trade-facilitating infrastructure and thus-far poor implementation record of these trade agreements. Since most countries are landlocked, they require huge resources and technical expertise to build the necessary border infrastructure.

As explores a WTO paper, at present, more than 80% of Africa's exports are destined for markets

abroad. This proves that the large number of FTAs operational across Africa have "done little to promote intra-regional trade, or indeed to enhance the global trade performance of African countries." This raises important questions regarding the effectiveness of these FTAs. It could also mean that "integrating very small and poor economies still results in a relatively small regional market, which will still constrain economies of scale."<sup>18</sup>

The CFTA, discussed above, is expected to ameliorate the situation. Other efforts to promote regional integration and improve infrastructure, either under the ambit of the African Union or individually on the part of African countries, must be undertaken and can be supported by India.

## Development cooperation to facilitate private investment

India's approach to Africa has been commended for its unconventionality. So far, the country has never been accused of exploiting African markets to meet its own ends. India has had a more empathetic approach. While private businesses have been consistently exploring Africa as a preferred destination for their investments, the Government of India over the past few years has been trying to enhance and streamline its development assistance by covering more countries and making the assistance much more demand-driven.

There is also a realisation that conversation on development cooperation needs to be brought outside the realm of state-to-state affairs. To enhance participation of non-state actors, particularly the civil society and think tanks, the Forum for Indian Development Cooperation has been set up. This effort needs to be further consolidated with greater active involvement of the private sector, so that any development cooperation results in comprehensive and long-lasting impact.

While governments and businesses naturally do not have identical priorities, the absence of a coordinated approach between the two communities has meant missed opportunities to create synergies that would further advance developmental objectives, diplomatic goals, and help promote development-friendly two-way trade and commerce. There is considerable scope for better cooperation aimed at ensuring that development assistance catalyses and maximises private sector investment in aid-recipient countries, such as African LDCs. Doing so will require a better understanding of India's model of South-South development cooperation. It will also require building bridges between the government and business communities to ensure that both Indian government and industry become important partners of African nations in their endeavour to embark on a path of self-sustained growth.

Effectively, there needs to be better synergy between the Indian government's priorities with regards to the development partnerships it wants to foster with various African countries, and the Indian private sector's approach. There is a genuine desire from the private sector to be more engaged in India's development cooperation initiatives. A more strategic vision of development assistance would entail taking on board the private

There is a genuine desire from the private sector to be more engaged in India's development cooperation initiatives. Greater synergy is needed between the Indian government's efforts and the Indian private sector's experience and approach in Africa.

sector as engagement mechanisms are developed. The private sector's experience of doing business in Africa, as well their long-term aspirations in the continent, can be productively leveraged. Consultations held with companies reveal that a sustainable and meaningful engagement between the private sector and the Indian government will be beneficial for both India and partner countries in Africa.

### The new initiative of AAGC

The Asia Africa Growth Corridor (AAGC) is a joint programme launched by the prime ministers of Japan and India in the hopes of promoting development cooperation with Africa. The AAGC could also help in better integrating value chains along identified routes. While currently only India and Japan are involved, the AAGC is open to participation from other Asian nations too.

Indian companies entering the African market vary in size, and are both private and public sector enterprises. Private businesses depend more on the availability of domestic facilities, like physical infrastructure, skilled labour, and simple and transparent regulations. The aim of the AAGC is to facilitate trade between Asia and Africa, thereby targeting some of these issues. Critically, the four identified pillars of the programme, according to the AAGC vision document, are "enhancing capacity and skills, quality infrastructure and institutional connectivity, development and cooperation projects, and people-to-people partnership," which will help address the key barriers of skills shortages, infrastructure gaps, and regional market connectivity identified above.

Being a project that has support from both the Japanese and Indian governments at the highest possible level, the initiative will have the effect of alleviating political risk, which has also been identified by the Indian industry members as an issue they face when investing in Africa. With the AAGC, risk would be spread and therefore shared, thus reducing the burden of loss on any one entity. The initiative also fits the bill of development for "mutual benefit," an approach that the Indian state adopts in all its development cooperation projects.

Furthermore, the AAGC fits firmly into India's model of economic diplomacy. The vision document identifies possible focus sectors, such as agriculture and agro-processing, health, pharmaceuticals, and disaster management. Focusing upon these sectors would not only help in achieving sustainable development, but also enable people to access basic necessities, like food and affordable healthcare. This is not just

in line with the national interests of the countries involved, but also their larger multilateral commitments.

The political will driving the AAGC is one of its key advantages, as it would have positive implications for investor confidence. This is one of the reasons that the AAGC could be, potentially, one of the greatest enablers of not just Africa-India bilateral trade and investment but help in establishing stronger economic linkages between the two major continents of Africa and Asia.

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# THE PRIVATE SECTOR'S ROLE IN PROMOTING INDIA-AFRICA TRADE AND INVESTMENT

### **The African Perspective**

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### **Evolution of the private sector in Africa**

The origin of the private sector in most African countries can largely be attributed to the failures of African government in state-led economic development. Most African governments, in the quest for achieving industrialisation, pursued state-led economic development, which largely focused on import-substitution strategies. There were state-owned enterprises (SOEs) in strategic sectors, and protectionist policies were put in place to promote the development of nascent African industries in order to foster domestic production. Most African governments also established agricultural marketing boards that set prices for agricultural commodities. With large public administrations, the private sector was largely marginalised during this time.

In Ghana, for example, after its independence in

1957, the government intervened heavily in the economy. The public sector played a major role in both production and distribution, and by 1967, then Prime Minister Kwame Nkrumah officially introduced socialist state-led planning.1 Mali, too, undertook a socialist experiment, which involved a state-led economy that was closed to the outside world and, most notably, withdrawal from the Franc zone in 1962.2 In Kenya,3 the post-independence government adopted importsubstitution industrialisation strategies, which sought to protect the small industries. There were foreign exchange restrictions, import controls, and state-operated agricultural marketing boards

State-led economic growth was not sustainable in most African countries, and this approach had adverse outcomes that saw the gradual development of the private sector. A review of most African countries shows a common thread State-led economic growth was not sustainable in most African countries, and this approach had adverse outcomes that saw the gradual development of the private sector.

of outcomes. Key among them: stagnation in agricultural production, since price controls led to divesting of resources to the industrial sector; the lack of competition in industry, given prevalence of SOEs, resulting in a lack of innovation and technological advancement; and lastly, noncompetitive exports resulting in large fiscal and trade deficits. The African Development Bank notes that from 1960 to 1980, the average GDP growth rate for African countries was only 4.5%, and the average GDP per capita growth rate was merely 1.7%.4

In Uganda, the macroeconomic imbalances that saw further deterioration of the economy due to a closed economic model resulted in more open policies geared towards stabilisation of the economy, interest rate reforms, maintenance of low fiscal deficits, trade liberalisation, public sector management, and revitalisation of the private sector.<sup>5</sup> In Cote d'Ivoire, Berg et al. note that with economic problems, such as declining public savings and high public debt, low returns of public investment programmes, distortions in price incentives for agricultural commodities, excessive industry protection, and low export incentives, the government embarked on

policy reforms financed by the World Bank and International Monetary Fund that included trade liberalisation, private sector development, and small and medium enterprise development.<sup>6</sup>

### A snapshot of India-Africa relations

Africa's engagement with India dates back to precolonial times. The earliest trade links between Africa and India date back to the 10th century, when enterprising Indian merchants began looking for markets to trade their commodities. Their initial contacts were with Egypt and African lands along the Red Sea, and both Africans and Indians who had initial contact became part of the Indian Ocean "circuit of trade." Ajay Kumar Dubey<sup>7</sup> provides a historical narrative of how Indians from the Gulf of Kutch used the northeast and southeast monsoon winds to sail to Africa to trade. There was a large presence of Indian traders along the east coast of Africa; however, the presence of Africans in India during this time was largely due to slave trade.

Another connection has been the struggle for liberation. Africa and India have faced common historic struggles against imperialism, colonialism. decolonisation. and western exploitation. Due to similar historical experiences, they were involved in the Bandung Afro-Asian conference in 1955, which was instrumental in the formation of the Non-Aligned Movement, whose aim is to support independence from power blocks and reflect the voice of the developing or third world. Political deologies of non-violence and peaceful resistance, advocated by Mahatma Gandhi, guided this layer of relations between India and Africa at one point.

Respective economic liberalisation eras in most African countries and India resulted in more pragmatic relations that have since begun to mature into economic diplomacy. India commenced its economic liberalisation reforms in 1991 and stressed economic cooperation with Africa in the areas of trade, technology, and education. Currently, energy security is another important aspect of India's foreign policy in relation to the developing world. At one level India's foreign policy objectives remain "the creation and consolidation of strong economic bonds among countries of the South and the use of India's relative economic strength for development of these countries on mutually beneficial basis."8 From Africa's perspective, Agenda 20639 – The Africa We Want, put forward by the African Union (AU), is a strategic framework that commits to seeking mutually beneficial relations with other regions of the world in a manner that complements Africa's overall transformation and integration efforts.

These integration efforts include, for instance, the key initiatives such as the 1991 Abuja Treaty that established the African Economic Community, and further provided a framework for continental integration; the New Partnership for Africa's Development that seeks to accelerate economic cooperation and integration among African countries; and the more recently signed Continental Free Trade Area (CFTA). It is through such initiatives that Africa has been seeking to interact with other countries in the world.

# The engagement of the African private sector in India-Africa trade and investment

Profiling Africa's private sector remains a major challenge due to inadequate data. First, data on production from the formal private sector can only be derived indirectly from the private consumption and investment component of national accounts. Second, data on the informal private sector is mostly extrapolated. Third, data on small and medium enterprises is in most cases estimated from surveys. The African Development Bank notes that the informal sector accounts for 40% of Africa's economy, and posits two theories towards the existence of the informal sector. One, there is the "opportunity entrepreneur" who has the ideas, technical skills, and market access to innovate and operate in the formal sector but due to cost of doing formal business, opts to operate in the informal sector. The second is the existence of the "necessity entrepreneur," who is a businessperson lacking the necessary education, technical skills, and market access to operate formally.10

The formal sector in Africa is largely dominated by micro, small, and medium enterprises that make up two-thirds of the businesses, but their contribution to total production remains marginal. Overall, Africa's private sector contributed 80% to total production, two-thirds of total investment, created 90% employment for Africa's workingage population and contributed three-fourths of total credit to the economy over the period 1996-2008.<sup>11</sup>

Trade and investment flows from commercial activities, largely driven by the private sector,

form a key component of India-Africa economic diplomacy. This is reflected by the exchange of goods, services, and capital between the two markets, and tends to feature prominently in India-Africa summits.

#### **Cooperation initiatives**

Cooperation initiatives have largely been driven by India. A key case in point is the India-Africa Summit Forum (IAFS) that was launched in 2008 with the objective of establishing deeper India-Africa ties. Another initiative focused specifically on fostering trade and investment relationships between African countries and India is the 'Focus Africa' programme. Launched in 2002, it has the objective of tapping existing trade potential between India and the sub-Saharan African region to spur growth between the two partners. The launch of the India-Africa Business Council in March 2012 also strives to enhance trade and investment cooperation, notably in the following sectors: agriculture, manufacturing, pharmaceuticals, textiles, mining, petroleum and natural gas, information technology, gems and jewelry, financial services (including microfinance), energy, and infrastructure (roads and railways).12 It provides African countries with an opportunity to emulate India's public-private partnership experiences through knowledge sharing and information and technology transfer.

The Indian private sector also advances itself in African countries. For instance, it organises business-to-business engagements between India and Africa, which include business forums, shows, trade fairs, conclaves, and national pavilions.

The informal sector accounts for 40% of Africa's economy, and the formal private sector is largely dominated by MSMEs.

There is also an international initiative of note: the Supporting Indian Trade and Investment in Africa (SITA) initiative being implemented by the International Trade Centre. This project began in March 2014 and is expected to end in March 2020. The overall objective of SITA is to increase the value of business transactions between India and select East African countries (Ethiopia, Kenya, Rwanda, Uganda, and Tanzania) by creating productive capacities and enhancing incomes.<sup>13</sup> This project seeks to enable these East African countries to deal with some of their private sector challenges related to low levels of technology, since the focus is on leveraging India's experiences in sharing knowledge and technology to improve competitivity in value chains in sectors such as leather and apparel.<sup>14</sup> However, what is not clear is whether the South-South cooperation embedded in this project will enhance African countries' participation in global value chains.

On the African side, there has been minimal coordination of African businesses at the continental level that would facilitate implementation of similar activities that are carried out by their India private sector counterparts. In Africa, most top performing private sector organisations remain at the national level and face the main challenge of initiating a

public-private dialogue with the government. The inability to organise at national level therefore affects the ability to participate in regional dialogues for cooperation between Africa and India. If anything, most of the private sector players that have attempted to participate under the auspices of the AU have been perceived as pro-government, with ties to government officials and agencies, which could compromise market practices.

Several constraints that affect effective cooperation with the African private sector have been identified,15 which include: limited human. technical, and financial capacities; institutional and structural deficiencies in the consultative mechanism employed by the government; internal challenges faced by company stakeholders; and 'political' difficulties around questions of the representativeness and mandate of the business organisation. Regional dialogues in Africa largely rely on the strength of national structures; furthermore, business platforms at the regional level still remain at the infancy stage, for example the East African Community Business Council. The same study identifying the constraints notes that the AU is in the process of establishing a business council that will handle continental and regional matters, but given weak national private sector dialogue structures, it remains difficult to establish a regional private sector dialogue forum that can actively link up and participate in the IAFS.

However, the creation of the Continent Free Trade Agreement provides an organised cooperation framework at the national level that holds promise for the Indian private sector, which will be able to trade and invest in a potentially larger and unified market, with simplified trade and investment rules that facilitate deeper development cooperation.

#### India-Africa trade relations

India exports more manufactured products to Africa as compared to African exports to India, which are generally natural, resource-based, primary products with low proportions of value addition. Africa's manufacturing sector, as analysed by Bhorat et al.,16 is a production structure with low levels of economic complexities and economic development, limiting production capabilities. Most Asian countries, such as India, have relatively higher levels of economic complexities, characterised by higher levels of productive knowledge. It is this knowledge that provides the Indian private sector with greater capacities to produce manufactured products as compared to its African counterparts. South Africa is the only African country with economic complexities like other middle-income countries that gives it the capability to produces more manufactured products.

Below is a brief summary of exports and imports between India and African countries.

### **Exports**

Africa's exports to India for the period 2006 to 2015 are presented in Figure 1. On average, Africa's exports to India have been rising at a rate of 14%. There was, however, a dip in the

a) Africa's Exports to India (billion USD) b) Africa's Exports to India Indicators (%) 40.0 8.0 35.0 7.0 30.0 6.0 25.0 5.0 20.0 4.0 15.0 10.0 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 ·Africa Exports to India/Africa Export to World - Africa Export to India/India Import from World

Figure 1: Africa's exports to India

Source: Author's calculations from Trade map database. https://www.trademap.org

volume of exports to India from 2008 to 2009, during the global financial crisis, which led to reduced demand in several markets, including in India. Africa's exports to India as a proportion of Africa's global exports averaged 5% (Figure 1b). After 2013, the proportion of Africa's exports to India as a proportion of Africa's total exports increased steeply, which can be largely explained by India decreasing its imports from the world, but increasing its imports from Africa. Africa's exports to India as a proportion of India's imports from the world have averaged 6.6%, the trend as shown in Figure 1b has been mixed, with decreases in 2009 and 2013 recording the lowest percentages. But by 2015, there were more exports being sourced by India from Africa as compared to the rest of the world.

The top five exports that Africa exports to India are: mineral fuels and oils, natural/precious stones and metals, edible fruits and nuts, inorganic chemicals, and ores/slags/ash. In 2015, the total

value of these products was US\$ 23.3 billion, constituting approximately 89% of total exports from Africa to India. The main countries in Africa that supply India with mineral fuels and oils are Nigeria, South Africa, Angola, Equatorial Guinea, and Egypt. In the same year, Nigeria and South Africa's export to India were worth US\$ 16.5 billion, which accounted for approximately 15% of all the exports from Africa to India. The average growth trend for exports for the period 2006 to 2015 has been approximately 11%, which is expected to increase even further following the India-Africa summit held in 2015, where the Modi government signaled its readiness to engage with Africa particularly in terms of trade across the Indian Ocean between the two.

### **Imports**

Africa's imports from India for the period 2006 to 2015 are presented in Figure 2. Africa's imports

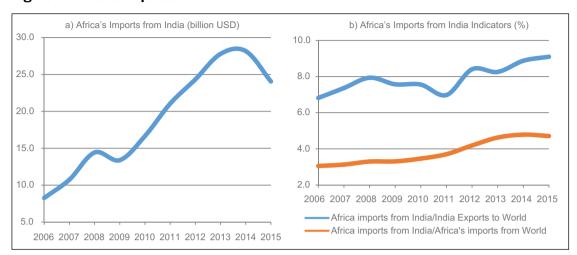


Figure 2: Africa's imports from India

Source: Author's calculations from Trade map database. https://www.trademap.org

rose at an average rate of approximately 14% during this period. Just like exports, there was a decline in African imports from India during the period 2008 to 2009, coinciding with the global financial crisis. Africa's imports from India as a proportion of Africa's total imports averaged 3.8% (Figure 2b) and have been gradually rising. Africa's imports from India as a proportion of India's exports to the world averaged 8%. The trend line for this indicator has been mixed, with periods such as 2008 to 2011 when there was a decline. However, there was a steep rise from 2011 to 2012, and after 2013, there has been a gradual increase. This means that India is exporting more to Africa, but Africa has other major importing partners, hence the difference in the two indicators.

The top five products that Africa imports from India are: mineral fuels and oils, pharmaceutical products, vehicles, machinery and mechanical appliances, and cereals. These products constitute 50% of the value of products imported from India. Pharmaceutical products rank as the second most imported product from India. This product constitutes 12% of all imports from India. Pharmaceutical products are key inputs in the health sector for most African countries, especially in the fight against malaria, HIV/AIDs, and other diseases. India is known to produce medicines that are affordable to most developing countries under the trade related intellectual property (TRIPS) agreement framework of the World Trade Organization.

#### India-Africa investment relations

Conventionally, it has been understood that other countries invest in Africa; however, Africa also invests in other countries, for example, India. What is clear from the facts presented below is the dominance of Mauritius as both a source of African FDI into India and a destination for Indian FDI. A common explanation is the phenomenon known as the 'Mauritius route,' whereby holding companies use Mauritius as a channel to route investments into India because of the highly favourable terms of the double taxation avoidance agreement (DTAA) signed between India and Mauritius. Mauritius has a minimal tax regime, and because of the DTAA, investors from Mauritius are exempt from taxation in India. The DTAA has become counterproductive, since it serves as a conduit for other nationals to channel their investments to India through Mauritius.

There is therefore no data available to gauge how much Africa invests in India. Nonetheless, with an amendment made to the DTAA in June 2018, which will come in to force April 219, capital gains from listed companies will attract tax at the full domestic rate of 15% and 40% for unlisted companies. This amendment would tackle treaty abuse, round tripping of funds attributed to the India-Mauritius treaty and revenue loss<sup>17</sup> – and will subsequently allow a better picture to emerge of India-Africa investment flows and stocks, against which to engage the African private sector.

Figure 3: Africa's investments in India, total FDI stock from 2002 to 2012

Country	FDI Stock (in US\$ million)
Mauritius	64,169.0
Morocco	136.8
South Africa	111.7
Kenya	20.0
Seychelles	17.9
Liberia	14.6
Nigeria	9.9
Tunisia	4.3
Ghana	3.1
Tanzania	1.4
Egypt	1.1
Other Africa	3.5
Total Africa	64,493.3
arce: DIPP, Ministry of Commerce and Industries, G	overnment of India

Source: India-Africa: South-South Trade and Investment for Development, CII-WTO, 2013, https://www.wto.org/english/tratop\_e/devel\_e/a4t\_e/global\_review13prog\_e/india\_africa\_report.pdf.

### FDI outflows from Africa into India

Africa's FDI stock in India is presented in Figure 3. In North Africa, only Morocco largely claims investments in India, but the amounts are negligible as compared to Mauritius: out of a total of Africa's outward FDI to India worth US\$ 64,493 million, Morocco's proportion was 0.2% while Mauritius investment was 99.5% of the total. Between April 2000 and December 2015, the Reserve Bank of India found that Mauritius accounted for almost 34% of total FDI (valued at US\$ 278 million), thus making it the top source of FDI to India. However, it is not clear in which sectors of the Indian economy these stocks exist.

Interestingly, India is becoming a hotbed for cross-border mergers and acquisitions. The number of deals reached, outbound from sub-Saharan Africa (excluding South Africa), increased from two to seven during the second half of 2015.19 This increase was largely driven by relaxed FDI norms in several sectors in India (e.g., including multi-brand retail, telecom) and faster approvals for businesses being put in place by the new government. Most investments from Africa to India are private-sector led. For example, around 29 South African companies have invested in India, accounting for US\$ 790 million in the banking, financial services, and insurance sectors.<sup>20</sup> South African Breweries (SAB) and Sanlam are examples of two South African business that have invested in India.

Figure 4: India's investment flows to select African countries

	1996 to 2002	03	2003- 04	2004- 05	2005- 06	2006- 07	2007- 08	09	Total Stock
Mauritius	618	133	176	149	333	1163	1506	2087	6165
Sudan	-	750	162	52	63	118	8	38	1191
Egypt	9	0	-	3	0	0	790	19	821
Nigeria	7	4	2	8	4	12	27	237	301
Liberia	0	-	-	-	155	-	18	16	189
Kenya	13	1	2	0	0	0	133	0	149
Libya	30	-	-	-	25	75	0	13	143
South Africa	22	0	1	3	10	23	46	12	118

Source: India-Africa: South-South Trade and Investment for Development, CII-WTO, 2013, https://www.wto.org/english/tratop\_e/devel e/a4t e/global review13prog e/india africa report.pdf.

### FDI inflows to Africa from India

Figure 4 shows the FDI inflows to Africa from India. From 2008 to 2012, investments into African recipients of Indian FDI were valued at US\$ 41,923 million, of which FDI to Mauritius was 99.7 % of the total.<sup>21</sup> Several Indian private companies work in Africa: Ashok Leyland, Bajaj Auto, Tech Mahindra, Airtel, and Mittal Energy are a few examples. They are active in a range of sectors, such as automobiles, oil and gas, steel, solar, and manufacturing. A few institutional mechanisms exist – the India-Morocco Chamber of Commerce and Industry was launched to strengthen investment and trade ties between the two countries through improved information flows and by facilitating investment between the two countries; India and South Africa also signed a DTAA in 1998 to encourage investments - but these need to be expanded.

### Opportunities and lessons for the African Private Sector

There are several opportunities for Africa countries and India to improve on trade and investment trends. However, like India, African governments at national and regional level must synergise their respective and collective economic diplomacies to ensure a targeted policy of Africa's economic interaction with India. The first challenge to address is that Africa is not a homogeneous country, but a continent made up of 54 countries that have different economic cooperation/diplomacy policies, and not all the 54 countries have such policies. It is important that, Africa, under the auspices of the AU,

develop a common economic diplomacy policy that caters to each country's interests. This can be achieved by adjusting established policies to suit individual country contexts. At the regional level, a common economic diplomacy policy that prioritises Africa's strategic interests can be put in place.

The following are specific recommendations that can promote the role African private sector plays in India-Africa trade and investment:

- Set up channels of engagement between African governments and their respective private sectors. This will allow businesses to become equal part of the conversation; ensure that economic diplomacy policies are fully implemented in a manner that benefits businesses; and allow the businesses to more effectively engage with Indian business associations.
- The IAFS has largely been driven by India's development cooperation agenda. African counterparts need to be more proactive and encourage more African businesses to get involved in the public-private dialogue at the continental level. This can be done under the auspices of the AU.
- India's trade with Africa is less than 10% of its total trade with the world. Clearly opportunities exist to increase trade from Africa to India. However, Africa must also strive to produce quality, value-added products that can be exported to India, which has a big consumption market. The SITA project, described above, can play a

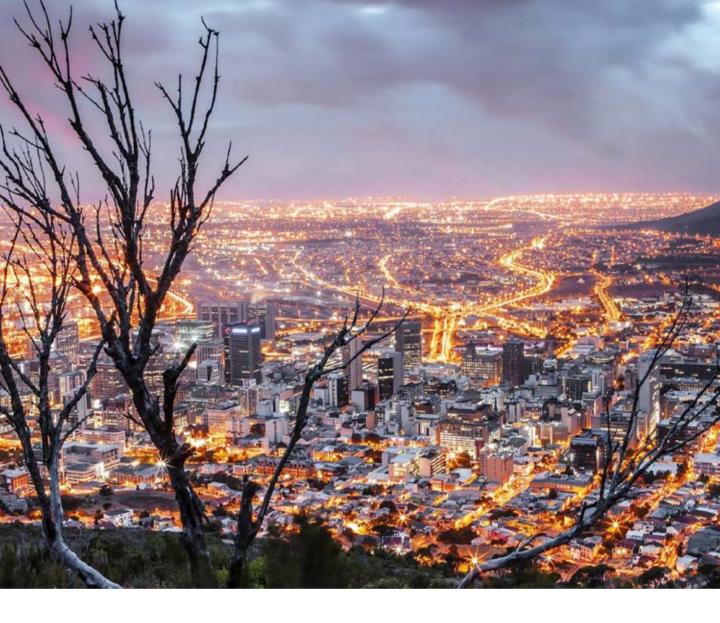
key role in the promotion of value-addition. However, for this to happen effectively, there must be a deliberate effort by African countries to invest in their manufacturing sectors.

- There should be in-depth analysis of bottlenecks that African countries face in trade and investment. Of particular interest is the capacity of African governments to negotiate investment contracts that are beneficial to them and the opportunity for maximising
- technology and skills transfers to African people. There should be active private sector participation in such investment negotiations to mitigate the risks associated with these investment contracts.
- African private entrepreneurs or private sector players should take advantage of the conducive investment climate being put in place by India, to invest in sectors such as financial services, information technology, and healthcare.

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# **AREAS OF ENGAGEMENT**

# **Urbanisation and Smart Cities**

### MANAGING URBANISATION

### India's Experience and Prospects for India-Africa Cooperation

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RUMI AIJAZ, Senior Fellow, ORF	

### The urbanisation challenge

Urbanisation, or a change in spatial characteristics from rural to urban, is a key feature of the 21st century. We have seen such a change in the countries of Northern and Latin America, Caribbean, Europe, and Oceania, where most of the population lives in urban areas (above 70%).

Asia and Africa too have been experiencing a demographic shift from rural to urban areas. UN forecasts reveal fast-paced growth of urban populations in India and Nigeria in the next four decades. Distinguishing features in this part of the world include very large absolute urban populations and low levels of urban development.

Global population trends and projections of increasing urban populations go hand-in-hand with declining rural populations.<sup>2</sup> In many countries,

rural areas are less developed, unattractive, and government efforts aimed at increasing living standards are not producing desirable results. Most people prefer to relocate to urban areas because of socio-economic benefits, such as job opportunities.

Indeed, a clustering of population and economic activities, along with availability of infrastructure and services in urban areas has been beneficial for communities and countries. This arrangement has shown favourable results in the form of poverty reduction, greater access to basic human needs, knowledge enhancement, and fulfilment of aspirations. For these reasons, more countries are showing interest in promoting urbanisation. Governments realise that the intensity of the rural to urban demographic shift will grow in the coming years, and it will be necessary to promote and plan for this growth to reap larger benefits. India, for example, is seeking to equip cities with

basic infrastructure and enhance urban livelihood opportunities.<sup>3</sup>

The implications of a growing focus on urbanisation include not only insufficient attention to rural development, but also numerous problems because of unchecked urban growth. These are visible across countries, irrespective of the levels of development, and include increasing carbon dioxide emissions, immigration concerns, and increasing threat of cyber attacks and terrorism.

There is a tremendous pressure of an increasing urban population on land, other natural resources, the job market, infrastructure, and services.

Governments in less developed and over-populated countries are facing additional pressures as they struggle to manage rapid urban growth. There is a tremendous pressure of an increasing urban population on land, other natural resources, the job market, infrastructure, and services. Due to a governance deficit, chaotic conditions prevail in various urban sectors (such as employment, housing, mobility, environment, water, and sanitation), and a large number of people lead an inferior quality of life. For example, the most common problems visible in Indian cities are rising income inequalities, corruption, violation of building byelaws, proliferation of slums, traffic congestion, environmental hazards and pollution, and crime. With respect to African countries, scholars observe in particular the threats posed by

rapid urbanisation to the continent's ecosystem and biodiversity.<sup>4</sup> Gaborone (Botswana) and Windhoek (Namibia) are already experiencing severe recurrent water shortages. Deforestation around cities and transport routes is also quite visible

Developed countries have generally taken care of the basic needs of urban citizens, and are currently making efforts to provide a superior quality of life. This goal is being achieved through improved urban/regional governance and financial practices, and advanced technologies. Furthermore, developed nations are documenting success stories, and engaging with less developed nations to jointly overcome the many challenges of urbanisation.

In addition to international cooperation on managing urbanisation, national efforts aimed at managing urban growth are also underway in less developed nations. In this regard, a lot of preparatory work has been done on paper (policies, legislations, development programmes, projects), but proper implementation on the ground is lacking. Furthermore, numerous deficiencies exist in the preparatory work itself, and the decision-making, planning, and implementation processes are often influenced by numerous factors. This issue is noted in India where the more powerful socioeconomic groups often influence delivery decisions in favour of the spaces they live in, which leads to imbalances in distribution of basic services.<sup>5</sup> It must also be stressed that little is being done at the local level to deal with urbanisation and its pressures. Delays and neglect are resulting in the deterioration of social and economic conditions.

It needs to be understood how these obstacles can be overcome

#### **Growing popularity of smart cities**

Governments are searching for sustainable solutions to manage the problems arising from urbanisation and to ensure better living conditions. One idea put forward, which is gaining popularity and acceptability, is that of 'smart cities.'

Proponents of the smart cities concept argue that any future or existing city must function in a 'smart' manner. This argument makes sense in view of the prevailing negative consequences of urbanisation. They stress that use of advanced methods and technologies (artificial intelligence, internet of things, cloud computing, big data, geographical information system) in urban planning, development, governance, management can help improve delivery of urban services, and lead to an improved quality of life.6 One definition that helps in understanding the concept is the following: "smart cities start with smart systems, working for the benefit of both residents and the environment. Electric grids, gas and water distribution systems, public and private transportation systems, hospitals, homes - these form the backbone of a city's efficiency, liveability, and sustainability. It is the improvement and integration of these critical city systems... that become the cornerstones to making a smart city a reality."7

Numerous innovative practices and technologies to improve the state of affairs in urban areas have already been introduced and tried from time to time. Besides technology, the smart cities framework similarly incorporates previously applied ideas, such as partnering with civil society and the private sector.

#### **India's Smart Cities Mission**

In the post-independence period, numerous urban reform programmes have been implemented in India from time to time. A recent initiative is the launch of a Smart Cities Mission in 2015. The mission aims at driving economic growth and improving quality of life in 100 existing cities. It has two main strategic components: (i) area-based development and, (ii) pan-city development. The former involves retrofitting, redevelopment, and greenfield development, while the latter provides for application of smart solutions to existing citywide infrastructure, such as intelligent traffic management systems and waste water recycling.

About 100 million people, or 26%, of India's urban population live in the selected cities. Under the mission, the national government offers financial and technical support, while state/city governments are encouraged to take decisions, plan, and drive the initiative.<sup>8</sup>

Currently, work is underway on preparing smart city plans (of each city) and detailed project reports. In this work, Indian and foreign consulting firms and citizens also are involved.

City governments have begun to implement smart projects, for instance:

■ Mobile app 311: This app was launched earlier

this year to promote public engagement with civic services in New Delhi. Citizens can access useful information, such as locations of various public services (petrol pumps, police stations, metro rail stations, hospitals) in the city, and can contact emergency services directly. The app also allows citizens to pay taxes and file complaints.

- Sensor-based street lighting system: Smart LED light poles are being installed alongside city roads in New Delhi. The poles run on solar power, and are equipped with cameras, sensors, Wi-Fi technology.
- Public amenities centre: A built structure occupying a very small area and situated on major junctions of New Delhi offers basic services: healthcare, ATM, drinking water, toilets, sanitary pad vending.
- Control centre: A command and control centre has been established in 10 cities for monitoring and timely responding to adverse conditions on real-time basis, such as traffic jams, water pipeline leakages.

A two-year assessment of India's Smart Cities Mission shows that the impact of various projects is beginning to be felt in Indian cities The

A two-year assessment of India's smart cities mission shows that the impact of various projects is beginning to be felt in Indian cities.

transformation is observed in the form of reduced crime rate and reduced instances of littering in Rajkot; increased ridership in city buses due to free Wi-Fi in Ahmedabad; increased property tax collections in Bhopal; entry of technology companies; and increased employment.<sup>9</sup> There is, however, concern over slow progress in development work and low utilisation of allocated funds. Further, critics observe that the mission strategy does not adequately provide for addressing equity concerns, given that more affluent sections of the society will benefit more from the Mission.<sup>10</sup>

Given India's urban governance challenges and neglect over the years, the urban transformation that people are eagerly waiting for could take several years. Moreover, if there are deficiencies in the preparatory work, (i.e., faulty plans, projects, administrative mechanisms), or the concerned civic agencies do not execute the work in the proper manner, the situation will remain unchanged, or worsen with passing time. Such trends are visible in Bhubaneswar, Odisha state's capital city selected under the Smart Cities Mission. A three-year appraisal of the work initiated under the Mission reveals a poor score for Bhubaneswar. In particular, the sanitary situation in the state is critically dire, which is an indication of the "apathetic face of the administration "11

#### **Need for international cooperation**

India's efforts towards managing its urbanisation growth will benefit from working with advanced nations, as well as with nations experiencing similar urban challenges, and those who are incorporating smart cities into their urbanisation strategies.

India has recently entered into agreements with different technologically advanced regions/ countries, including the European Union (for smart and sustainable urbanisation), France and Germany (for sustainable urban development), Singapore (for urban planning), and is in the process of engaging with other advanced nations. India is also receiving technical assistance from Germany, Japan, and USA under its Smart Cities Mission for developing smart projects. At the city level, the Delhi government has taken steps in the past to enter into sister-city agreements with Chicago (2001), Fukuoka (2007), London (2002), Moscow (2002), St. Petersburg (2002), and Ulaanbaatar (2002). In June 2018, the city corporation of Panaji has signed a twinning<sup>12</sup> agreement with Victoria, the capital of Seychelles, which will allow the two cities to adopt and implement the best available systems in civic management.

It is necessary to collaborate with technologically advanced countries because technology transfers could help enormously in improving activities such as solid waste processing, traffic management, wastewater recycling, and tax payment. At the same time, the need to engage with less advanced countries is equally important because of similar social, cultural, and economic contexts, which allow for a shared understanding of challenges — a dynamic missing in developed-developing country cooperation — and can therefore promote better pooling of resources, local knowledge, and experiences, as well as localised, sustainable

solutions.

Africa, the second-fastest urbanising region in the world after Asia, displays conditions that are in many ways similar to those in India. Recent empirical studies describe the challenges African cities face. For example, in Bamako, the capital and largest city of Mali, 2 million inhabitants do not have access to housing, services, and jobs. Housing inadequacies have resulted in the growth of crowded informal settlements and unregulated construction with little infrastructure. 13 Nigeria, Maputo, and Mozambique too exhibit a poor quality of life.14 In addition to traditional improvement efforts, various smart city initiatives have been launched in Ethiopia, Ghana, Nigeria, and Rwanda.15 In the city of Kigali (Rwanda's capital), the local government is working for increasing and simplifying access to public services, for which it has created an online

Given similarities in the challenges being faced and the solutions being adopted in African and Indian cities, useful and specific areas of engagement can be identified for Africa and India to work together to manage urbanisation.

portal. Further, the national government has involved the private sector for deploying smart city technologies to improve public safety, waste management, health care, and so on.

Given many similarities in the problems and challenges being faced, as well as the solutions being adopted in African and Indian cities, useful and specific areas of engagement can be identified for Africa and India work together to manage urbanisation. These are discussed below

#### Potential areas of cooperation

- Strengthen urban local government capabilities: Generally. governing institutions in cities do not discharge their duties properly, nor are these able to mobilise adequate funds for urban development and management. It needs to be understood why these problems persist, and how they can be overcome. Opportunities should be created (such as entering into sister-city agreements) for bringing functionaries together to exchange views on problems faced in executing tasks. Skill-building programmes should be organised to improve their work performance and motivation levels. Required administrative reforms should be undertaken to address their grievances.
- Exchange information on smart projects and implementation experiences: Both Africa and India are developing smart plans and solutions/technologies to solve urban problems pertaining to land use,

- employment, safety, civic amenities delivery, mobility, parking and air quality, housing, health and education, water and sanitation, in-migration, and so on. It will be useful to exchange information on the methodologies adopted by city governments for addressing common problems, and how to improve the impact of such initiatives.
- Promote collaborative research: Institutions specialising in urban studies should identify key themes of common interest, engage in evidence-based research, and propose policy ideas for improving conditions in urban areas. The institutions should also study the experiences of any ongoing/previous sister-city/twinning initiatives. Conferences, seminars, and workshops should be organised to share study findings and policy proposals. Necessary funds should be made available for supporting field visits, collaborative studies, and conferences.
- Create an online platform: A web-based platform should be created that provides information about bilateral cooperation in this field, focus areas of work, studies, events, success stories, urban data, etc. The platform should offer scope for inviting contributions from interested civil society organisations, civic bodies, startups, businesses, and citizens.

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### THE SMART CITY

## Shaping Individual and Collective Life in Africa

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Africa is the fastest-growing region of the world. The World Bank estimates its urbanisation rate at 40%, twice the global average. This process is fuelled by a population boom (averaging 2.7% a year) and gradual abandonment of the hinterland. However, urbanisation is very unevenly distributed. There are fundamental differences between coastal cities, such as Dakar, Abidjan or Lagos, and those of the Sahel, such as Bamako, Ouagadougou or N'Djamena. In the Maghreb, over 50% of the population lives in cities. Sub-Saharan Africa averages 35% to 40%, topped by Gabon and Congo-Brazzaville with over 50%, for good reason: oil. Among the countries with very low urbanisation rates are Rwanda and Burundi, two countries neighbouring the Great Lakes, where the rate of urbanisation barely exceeds 5%, but where population density is high – 450 people per square kilometre on average.

Because financial resources are limited, the response to these challenges will remain cyclical. The purpose is to stop, or at least to slow, the rural exodus and to reorganise cities in a way that makes them pleasant for those who live in them.

# Will technology bring new, practical, and financially sustainable solutions to these new social paradigms?

The 20th century was the century of technological innovation, with the digital revolution adopted across the planet at the dawn of the new millennium. From the early days of the desktop computer to the laptop, available to the general public, free operating systems have appeared to meet large-scale interconnectivity needs. Data storage capacity has gone from megabytes to gigabytes and now terabytes, reflecting the

 $i \qquad \text{Perspective Monde, http://perspective.usherbrooke.ca/bilan/tend/RWA/fr/EN.POP.DNST.html.} \\$ 

increasingly prodigious quantities of data that are being stored.

In the face of major challenges brought about by urbanisation, information and communication technologies (ICT) can be a useful avenue to explore for the purposes of urban management. The combination of 'city' and 'technology' has produced the term "smart city," a phrase which will arguably become the equivalent of "open sesame," the magic word in the legend of Ali Baba and the Forty Thieves that opens the mouth of the cave where hidden treasures lie.

Though the term is recent, and has several meanings, the concept itself is quite an old one in the history of town planning and humankind. Men have always dreamed of a city of the future, a dream that can be found in Holy Scriptures.

It is delightful that collective ownership has been taken of this concept as a common heritage of humankind, which any country, community, group, or entity can draw upon.

It means that, for the first time, Africa is not behind other continents. Moreover, the instrument of technology in Africa can be spread and implemented by Africans themselves. African politicians, who are always a step behind in anticipating the future for the wellbeing of their populations, have for once realised the significance of the digital future and are already working towards it.

Dwelling on a definition of "smart city" adds little to the debate, because everyone has different views on the term. There are as many definitions as there are designated goals in the particular context of each urban environment. What is more interesting to discuss is how, every day, the smart city will shape individual and collective life in Africa, how it will foster the creativity of smart minds, how it will influence schools, jobs, finance, health, time management, access to knowledge, gender equality, and the dreams of the youth.

For the past four decades, our vision for this continent that we hold dear has hinged on the following question: how to transform Africa for its well-being? In the context of smart cities, it is about discovering how new ICTs, applied to the city or *polis*, to use ancient Greek and Roman parlance, will enable the governing and the governed to fully and positively play their respective roles, taking into account the preservation of the environment, a heritage which it is our grave responsibility to pass on to future generations.

Critically, envisioning the smart city should not be an exercise in copy-pasting what is being done elsewhere in the world, or even elsewhere in Africa. A smart city in a Sahel country will operate differently from a smart city on the Atlantic coast. A smart city should therefore match the identity of the place in which it is being developed.

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Synergies should emerge on several levels: nationally, at the level of local authorities, and in international partnerships.

At the national level, priorities and standards should be defined, keeping in mind the dual reality of cities that are already digital in nature, and cities that can and need to be made more digital.

For basic services as crucial as water and energy, measuring water quality and adjusting its distribution in the city's various districts would meet a real need. With regard to energy, a smart mechanism could ensure power distribution on the basis of real needs, which would reduce rolling blackouts as well as electricity bills.

Another example is found in the case of Dakar. The Senegalese capital hosts 85% of the country's industries, many vehicles plying on the roads are over 20 years old, and its household waste collection system is inefficient with a landfill that is less than an hour away from the capital. Over three million people live in Dakar and its outskirts, so we can only imagine the result in terms of air quality. The Senegalese authorities, cognisant of the problem of pollution in Dakar, found a smart solution: pollution-monitoring devices were introduced in 2010, and an air quality management centre established.

Furthermore, developing conventions could spare us many troubles in the streets of Dakar. For instance, smart grids can be introduced and configured to standards that no one can violate. These smart grids would use sensors that would transmit information in real time on the city's

neon signs. An alarm could set off for instance when a wall is being built, or a foundation dug out.

On the other hand, the Rwandan capital of Kigali can be considered a highly smart city, where all administrative documents have been ditigised and internet access is free in public areas. Town plans are available online, and from the comfort of one's apartment, one can obtain birth records, criminal records, title deeds or a building permit.

Effectively, in spite of inequalities, African countries have grasped the importance of taking the plunge. In Benin, the Benin Smart City project endeavours to become a strategic hub in the African ecosystem with 12 hectares of space, an investment of US\$ 120 million, and the potential creation of 50,000 jobs. Kenya positions itself as a point of entry into Africa with Konza City, where the global leaders of the digital economy – Google, Samsung, Microsoft – are already present. In Nigeria, the Yaba district in Lagos resembles a tropical Silicon Valley. Some of its start-ups have become staples of African e-commerce, such as Jumia or Jobberman, and have since flourished.

Means of payment have always impeded the development of e-commerce, an essential component of the smart city. Because few people own back accounts, and because electronic means of payments such as bank cards are almost inexistent, the rise of e-commerce in Africa has been delayed. But the situation is turning around. Some banking institutions offer payment cards that do not require a bank account to facilitate online purchases. To best embrace the realities in their country, Rwandan authorities are considering

abolishing cash transactions, which would make Rwanda the world's first cashless economy.

The decision to become a smart city obviously requires large amounts of resources that only governments have the means to mobilise. In 2014, the Senegalese authorities launched the enormous construction project of Diamniadio, about 30 kilometres away from Dakar. This is one of the major projects of Plan Sénégal Émergent (Emerging Senegal Plan), aimed at decongesting the Dakar area by building 40,000 homes, industrial areas, an administrative district, schools, a second campus for the University of Dakar, clinics, and places of worship. It will also include some smart city features with its 26hectare digital technology area, smart mobility with public and private transport, and smart environmental management that takes into account the management of waste, air quality, green spaces, public leisure areas, etc.

A smart city is also and especially about managing very large quantities of data, stored in state-controlled servers. In fact, this has led some experts to argue that the term "data city" would be a better reflection of reality. Governments should thus be willing to make this data available to the public, or at least to companies that collect this data for public use. Whereas handling public data can foster transparency and a better management of the *res publica*, the same is not necessarily true of private data, such as medical records and other sensitive individual data. However, it is always possible to set up safety nets in order not to jeopardise the entire system.

The data city is part of the "open society" concept.

There is no smart city without an open society, and there is no open society without open data. All contribute to a democratic society. It is crucial that governments understand these ramifications, so as not to produce white elephants instead of smart cities

At the municipality level, within the limit of the powers devolved to municipal executives, districts could be made "smart" by first making them clean, and then providing citizens with infrastructure that makes the districts "smart" in the digital sense of the word. For instance, any citizen should be able to look up the operating and investment budget of their county or municipality, and check that the voted-on expenditures for the fiscal year have been put to good use. A platform will allow them to voice their opinion on various items, such as the officials' bonuses and salaries. Such clarity would encourage tax compliance, as public service users would know precisely where their tax money goes. The potential information technologies that can be introduced as part of smart cities have immense ramifications for participatory democracy and popular education. Citizens can become active and interactive players so that technological renewal and upgradation does not appear to them to be electronic gadgets for the rich. It is also important that beyond citizen participation, smart cities initiate a virtuous cycle of reducing social inequality, creating lasting jobs, and improving the living environment.

The open society, if understood by citizens to be a way to improve social well-being, would contribute to a better comprehension of the tools of digital government, or e-government. Digitalisation has already proven its worth in a number of areas: paying various government services online, paying taxes, downloading administrative forms and documents, etc.

As they ensure the well-being of their citizens, smart cities should not become islands of prosperity in an environment where the economic crisis impoverishes the countryside and intensifies the phenomenon of slums. Available experiences should be regarded as pilot phases for countrywide inclusion, which should be implemented sooner rather than later

Effectively, whole regions should be part of economic models, seeing the creation of digital hubs in the hinterland through various incentives. Such an approach would contribute to the fight against the exclusion of communities. The author has contributed to the development of the *Cybercases* project, introduced by former Senegalese president Abdoulaye Wade, which had the purpose of providing grassroots communities with digital infrastructure so that they would not be left behind. Connectivity here was meant to give another definition of rurality, so that it would no longer be synonymous with physical, intellectual, and economic isolation.

As for international partnerships, Africa has been engaging with international partners, particularly India, for decades. Public Private Partnerships, or PPPs, are the key. Nowadays, no government has a monopoly on deploying and managing the *res publica*, or even on designing it. What used to be referred to as "public interest," of which the government was the sole depositary, is now an outdated concept. New information technologies support this thesis. Many public achievements are

Nowadays, no government has a monopoly on deploying and managing the *res publica*, or even on designing it.

the work of public companies. For governments, such partnerships are a godsend.

A partnership with India in the area of new technologies can only be a welcome development. Investments, public and private, must be encouraged. India has long been present on the continent, and it has heightened its visibility in Africa since the first India-Africa Summit in 2008 in New Delhi. Importantly, India has its own Smart Cites Mission, which aims to reorganise national urban development. It involves a first wave of 100 smart cities, including 20 from the pilot programme launched in 2015.

India has raised significant funds from its international partners for this massive digital cities programme, in particular from France and the USA. Africa will benefit from India's expertise in developing economic models that attract international investors, both public and private, as smart cities must be financially profitable in order to last. Another point of engagement can be joint ventures set up in Africa for the manufacture of electronic components, where Indian firms' well-established know-how will be of great use.

Platforms for a strong India-Africa digital partnership already exist. For instance, India and the African Union have been successfully implementing the Pan-African e-Network initiative, which involves laying out a fibre-optic and satellite network that promotes distance learning and knowledge transfer from Indian universities and hospitals to Africa. It helps fund ICT training in several African countries where computer science courses in major universities are full. This particular initiative highlights another component of smart cities: it is crucial that African countries produce high-level computer scientists

and developers, skills that are already in demand in digital markets, as well as talent that will be in demand as technology further progresses. International collaborations, such as the one with India, can prove to be significant in this regard. It will only be with mindset, technology, networks and the human resources that the "digital republic" will be a success.

This year marks 10 years of the India-Africa Forum Summit, and provides an important moment to take an in-depth look at the India-Africa relationship. Taking forward from the Delhi Declaration and the India-Africa Framework for Strategic Cooperation, Observer Research Foundation, New Delhi, and OCP Policy Center, Rabat, are bringing out a joint publication on bolstering India-Africa engagement to secure a common future in the 21st century.

This publication takes into account the longstanding and multifaceted nature of India-Africa ties, and the endeavour to pursue a development partnership that seeks to urgently respond to critical challenges that require organic solutions. Given both the boundless opportunities and the scale of challenges these regions face, it is inevitable that solutions and pathways will also be incubated here. As such, this publication is a knowledge bridge between Indian and African institutions, particularly as we have attempted to bring together views and policy suggestion from both Indian and African contributors.