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Contents

1. Digital Developments

Digitalisation of African society accelerates the development of its economies. The shift to this technology impacts a broad spectrum of services and stakeholders. Emerging Payment Systems include mobile payments, digital currencies, social coupons, mobile wallets, and other payment mechanisms. The trend involves many key legal, regulatory, cultural, enforcement, security, and information technology issues. This report addresses the recent developments in this sector.

THE POWER OF DIGITAL TECHNOLOGY IN EMERGING PAYMENTS

Africa's banks, mobile operators and fintech companies invested heavily over the last decade to deliver more efficient payment and collection services. Moves in Ghana to combat the Covid-19 pandemic also led to significantly increased adoption of digital financial services and of emerging payments solutions. Such digital solutions helped businesses survive, while enabling adherence to Covid-19 protocols. The 2020 PWC Banking Survey Report finds mobile banking the most preferred medium for banking.

Rapid customization of digital financial services to meet specific needs of Ghanaians is now a feature in Ghana. This capability is a tool that helps Ghanaians leapfrog and adopt technology that suits their reality, instead of importing solutions from advanced economies that may not be relevant to circumstances in Ghana.

The PWC report reveals that while the digital technology adoption rate in Ghana in the pre-Covid era lagged that of countries such as Kenya and South Africa, adoption of digital payments in the personal, commercial and corporate segments of the population increased significantly during the Covid era. Digital payments, for instance, grew 81% in Q1 2020 alone.

A wide range of Ghanaians, ranging from informal market women to tech savvy people, adopted the emerging payments and digital financial services enabled by digital technologies.

The pandemic gave emerging payments a new relevance. Consumption of digital financial services is now likely to transform the dominant sector strategy from a push model to one based on partnerships and co-creation between consumers, financial institutions, fintechs and telcos. Subsequently, the use of physical cash will diminish. The increasing shift towards emerging payment instruments in Ghana such as account transfers, mobile money payments, QR codes, and inter-account transfers through instant pay in the personal space will displace the use of cash. Similar shifts will emerge in the corporate and commercial banking space.

Experts view the inherent risks associated with emerging payments as insignificant compared to risks associated with physical alternatives in Ghana, especially cash and cheques.[1]

EMPOWERING SMEs IN EAST AFRICA

In Kenya, Safaricom intends to launch an M-Pesa "super-app" to enable SMEs in the country to create their own business apps within the M-Pesa mobile money ecosystem. This would give them access to Safaricom's 25 million mobile money customers in Kenya. Safaricom intends to bring more partners on board to provide more capabilities to SMEs. These could include functions such as access to credit, and providing solutions in agriculture and healthcare.

It is unclear whether this app will be part of the financial services super-app that Vodacom recently (July 2020) announced in partnership with Alipay, the digital payment from China. This Vodacom-Alipay app provides access to a marketplace of goods and services as well as a digital payments ecosystem for South Africa's banked and unbanked citizens.

Safaricom also recently (June 2020) launched its Lipa Na M-Pesa business smartphone app used by over 200,000 Kenyan businesses. Growth in the use of the app has been boosted by small businesses embracing cashless payments in response to COVID-19.

Safaricom's network coverage demonstrates its important role in Kenya. The telco provides over 94% of Kenya's population with 3G coverage, over 77% with 4G coverage, while its 2G coverage reaches 96% of Kenyans.

According to Safaricom CIO George Njuguna, Africa's digital economy "will be built by people who are not just connecting people and businesses to technology, but connecting them to solutions."[2]

PROPERTY CROWDFUNDING

Crowdprop, a fintech start-up, launched South Africa's first property crowdfunding platform to make property investment more accessible to a wider market. Crowdprop's goal is to provide a foothold in real estate investment to those who previously could not afford investments in property. Their platform will increase transparency by providing potential investors with access to all information needed to enable informed decisions on their investments.

Crowdprop uses their due diligence and financial models to screen each property prior to its listing on their platform as a potential investment. They target a new pool of younger millennials and Gen-Z investors.

The Crowdprop approach:

- Independent experts analyse every property in a strict screening process to ensure that only safe and qualified investments are listed.
- The property is divided into shares to enable investors to own a portion of the property for as little as R10 000 (~US$600).
- Investors obtain shares according to their proportion of ownership and receive rental income in their Crowdprop wallet, which can be withdrawn or reinvested at any time.
- At the end of the investment term, the property is sold and investors receive their portion of the proceeds from the sale.

Crowdprop partners with ELA Asset Management, a licensed financial services provider, who will oversee and regulate all Crowdprop transactions.

Property owners and developers can also partner with Crowdprop to raise funds needed to finance development projects from their investors.[3]

AGRICULTURE DIGITAL PLATFORM

Kilimo Fresh is a B2B produce distribution platform in Tanzania that connects smallholder farmers and produce buyers to a fair and reliable market. The platform enables buyers to access better-quality and fresh produce directly from farms at affordable prices, and have it delivered directly to their locations. Kilimo provides access to a simple online ordering platform through which consumers can purchase fresh produce. The company provides farmers with stable pricing and direct access to the market for their crops, thus minimising food waste.

The developers of the platform are farmers that became frustrated while dealing with intermediaries, due to low margins, lack of market information and demand visibility, and food waste. This led them to form Kilimo Fresh in 2018 to help solve these problems for other farmers in Tanzania

Middlemen or intermediaries increase the price of products to such an extent that by the time a product reaches a consumer, it costs multiples of that paid to the farmer. In the markets, products go to waste due to the inability to store them properly.

The company currently operates in two regions in Tanzania, i.e. Dar es Salaam and Dodoma, supplying them with their daily needs of fruits, vegetables, and grains. They plan to expand to Zanzibar and Arusha, as well as other East African countries, especially Rwanda.[4]

DIGITAL RETAIL SUPPORT

DukaPos, a retail-tech startup in Kenya, recently launched a mobile point of sale (POS) solution that digitises and automates most operations for small-scale merchants. The startup offers subscription-based access to its online platform, which supports storekeepers with stock management, invoice generation, staff management, receipt generating, sales reports and mobile money integration.

Most small business owners in Kenya rely on manual bookkeeping to manage their operations, while some keep no records at all. This makes it difficult for them to trace their profitability and lack of proper records prevents them from obtaining loans from banks. However, “they were not willing to invest in bulky PC-based point of sale systems as it was too expensive for them.”

DukaPos’ platform filled this gap, and already has 15 retail customers. The company has reportedly received a lot of interest, primarily from gas retailers, hardware shops and clothing stores. Currently it operates in Nairobi, Mombasa, Kisumu, Kakamega and Machakos. It intends to grow within the larger East African region in 2021.[5]

POINTS OF INTEREST

- Safaricom and its parent, Vodacom, are on a path of continuous innovation to ensure it remains not only the dominant telecoms player in Kenya, but the dominant listing on the Nairobi Securities Exchange. It started by targeting the bottom of the pyramid market segment. The telco then developed a number of applications to serve various market segments. These include the government, which used M-Akiba to “democratise” purchasing of government bonds, and paying semi-annual interest via M-Pesa. It now targets SMEs and informal business owners.
- These developments clearly reveal the convergence among various sectors of the economy, such as telecommunications, financial services, general payment services (with M-Kopa, etc.) and entertainment. The sky is the limit, with the pace of digital development, adoption of 5G on the continent and the general availability of smartphones. The trend may reach a saturation point at some point in time, but that is not likely to be soon. Ensuring good governance will become increasingly important, especially in the financial services sector, as the volume of money handled by these digital companies is becoming huge.
- Safaricom is clearly not the only company that targets the informal sector, as DukaPos shows. An increasing number of digital startups target SMEs in Africa, over a broad spectrum of industries. Many SMEs, as well as informal businesses, are in dire need of support, not only for finance, but also for market information and support in developing routes to market. Kilimo Fresh reminds one of the likes of FarmCrowdy in Nigeria, although they have positioned themselves as a B2B application while FarmCrowdy links investors to farmers and to the market.
- Crowdprop, with a business model that eases access to property investment, is an interesting development. This sector tends to deter most small investors due to the large amounts involved. By developing the equivalent of share unit trusts based on property, smaller investors can tap the benefits of property development. It is not unlikely that these companies would soon trade on some form of regulated market, or even as products offered by securities exchanges. We will probably see a range of project development schemes in which one can invest, in the process reducing risk through diversification. Emergence of portfolios of share unit trusts and property development trusts is also likely.

2. Developments in the Manufacturing Sector

The share of manufacturing sector contributions to GDP in most African countries remains quite low. As the manufacturing sector plays a major role in creating new employment opportunities, the sector needs to grow. Also, not enough is being done to add value. Unfortunately, African manufacturing sectors must also deal with trade challenges supported by the governments of major economies. This report deals with a number of the more recent developments in the sector.

BOOSTING MANUFACTURING SECTOR AS DRIVER OF ECONOMIC GROWTH

Subsistence farming dominates the Ethiopian economy. Its government launched economic reforms in 2019. These aim to transform the country into an industry-led middle-income nation by 2030. To realize this goal, the government framed business-enabling policies to encourage and empower the private sector, and to position manufacturing to make significant contributions towards transformation. The Federal Small and Medium Manufacturing Industry Promotion Authority (FSMMIPA) envisions that smaller manufacturing companies in the country can play a pivotal role in lifting the country out of abject poverty. The number of such companies grew from 9,000 four years ago to 20,000 in 2020.

Despite the negative impact of the Covid-19 pandemic on the manufacturing industry, the use of domestically produced items plays a vital role in encouraging innovation and scientific research. The FSMMIPA encourages such activities to promote industrialization in Ethiopia. In the 2019 fiscal year, the launch of new companies and support to existing companies created 89,000 new employment opportunities, with 140,000 jobs envisaged for the 2020 fiscal year. It was also foreseen that 62,000 small and medium-sized manufacturing companies would be established over the next decade, with the scale of production, productivity and job creation migrating to higher levels.

The manufacturing sector has long experienced severe challenges. These include access barriers to finance, lack of market linkages, mismanagement and poor leadership. Not only must these challenges be addressed, but the sector also needs stimulation through incentives such as access to loans and land provision.

Local academics suggested an industrial policy focus on export-oriented products. This would include support to enable local manufacturing companies to produce high quality value-added products to compete in global markets. This path offers the dual benefits of growing the economy and generating foreign revenues.[6]

BOOSTING THE TEXTILE INDUSTRY IN RWANDA

In 2015, the six East Africa Community (EAC) members announced high tariffs on imports of second-hand clothing to stop imports of large quantities of cheap used clothing, mostly from the USA and the UK. The rationale for this decision was that these imports limited the growth of their fledgling garment industries. Almost two thirds of the population of these countries purchased some second-hand clothes. The USA subsequently threatened to remove the EAC countries from the AGOA trade agreement.

Rwanda, as the only country to stick to its arrangement, introduced a tariff of US$4 per kilogram on imports of used clothing in 2018. The USA responded by imposing a 30% tariff on the import of Rwandan clothing. This effectively ended annual exports of about US$1.5 million of clothing from Rwanda to the USA.

The Rwandan textile industry approved of the government's decision as they saw the ban as an opportunity to ramp up their business. In the absence of cheap second-hand clothing from the USA (and others), buyers now had access only to locally produced products. Local producers also expanded their products from uniforms to ordinary clothes, such as shirts for men.

There were a number of negatives:

- Informal traders now lacked products to sell.

- Withdrawal of AGOA trade benefits for apparel makes Rwanda less attractive as a manufacturing base for international garment producers.

To help the country's clothing manufacturers, the Rwandan government removed import taxes on raw materials such as cotton. New factories also get grants and loans.

Yet, doubts remain as to the capability of Rwanda to build a competitive clothing industry. Its producers must import cotton, water and electricity are costly, and as Rwanda is landlocked, road transport is bureaucratic and extremely expensive.

Chinese firms that opened factories in Africa to benefit from lower labour costs, now export from their Rwandan factories to Europe, and plan to build manufacturing sites in Tanzania to focus on the USA market. An unintended effect of the ban is that Rwandans now buy cheap, imported new Chinese clothes.[7]

BOOSTING THE COCOA INDUSTRY IN COTE D'IVOIRE

The president of Cote d'Ivoire, Alassane Quattara, recently launched the construction of the first of two cocoa bean processing units that will contribute to the industrialization of the economy and boost new jobs. The country aspired to bring 100% of its cocoa production home by 2025. According to the president, such projects were essential, as they would help Cote d'Ivoire achieve a growth rate of 8% in 2021. The two units will each provide a capacity of 50,000 tons. In addition, two 300,000-ton storage warehouses will be built on each site, where products can be stored for a period of two years. A training centre will enable cocoa traders to participate in human capital development.

The Chinese government supported project financing. Approximately 40% of the production by these factories is intended for the Chinese market.

The project will help make the coffee-cocoa sector more efficient, able to meet internal demand, and promote innovation and technology development.[8]

GROWING THE MOTOR VEHICLE SECTOR IN EAST AFRICA

Proton Holdings, Malaysia's national automaker, entered the Kenyan market with the first batch of its flagship product, the Proton Saga automobile. Proton recently shipped 30 units of Completely Knocked Down (CKD) kits to Kenya, for assembly in Kenya by Simba Corporation.

Kenyan ambassador to Malaysia Francis Muhoro saw Proton's entry into Kenya as more than entry into a market of 51 million people, envisioning the move as a gateway to a potential African market of up to 1.3 billion. He mentioned "Kenya's potential as an East African automotive hub underpinned by a sizeable middle class, progressive business environment, regional market access and history of automotive assembly, while looking forward to more trade between the two nations."

The Proton Saga is viewed as a "national symbol" of Malaysia. It is Proton's longest running and best-selling nameplate, with Saga being an acronym for Safety, Achievement, Greatness and Ability.[9]

In Ethiopia, CEO and Managing Director of Marathon Motor Engineering Melkamu Assefa recently noted that Premier Abiy Ahmed initiated measures to create a conducive business climate for the automotive industry. This policy enhanced the capacity of domestic car assembly firms and supported the country's import substitution strategy. The measures take into account the sector's crucial role in advancing Ethiopia's current economic growth.

Measures conducive to growing the sector include:

- Government cut the 35% excise tax levied on new cars to 5%. This makes new cars more affordable to Ethiopia's growing middle class. This will offset the huge foreign exchange deficit incurred to import petroleum and spare parts.

- Government's environment-friendly economic approach and measures to discourage imports of used cars, which consume more petroleum and are also prone to frequent maintenance and spare part expenses.

Support for local assemblers and manufacturers also resulted in an increase in the size of the skilled labour force graduating from Technical and Vocational Education and Training centres and joining the sector.

Marathon Motor recently started local assembly of cost efficient electric cars with zero carbon dioxide emissions. These would benefit the national economy by reducing its huge expenses for petroleum and diesel. Marathon intends to produce affordable electric vehicles for the middle-income segment.

According to Assefa, paving the way for small and medium enterprises to produce car spare parts and equipping them with up-to-date knowledge and technological competence are key to reducing the pressing foreign exchange expense the country incurs to import those items from global market.[10]

POINTS OF INTEREST

- The manufacturing sector in Africa needs to step up with initiatives to increase its contribution to GDP and to increase the levels of employment on the continent. Part of these initiatives must include projects to increase the level of value addition. Too many commodities are exported without any value addition. This causes African economies to lose the opportunity to create more jobs, to lose the opportunity for import substitution and to lose the opportunity to generate export revenues.
- The growing vehicle manufacturing sector in Africa brings opportunities for the transfer of technology to African companies. This complements the benefits of value addition. African Digest referred in previous editions to the growing number of African countries that are either manufacturing cars or assembling them locally. It is interesting to see the extent to which Africa has started to embrace electric or hybrid cars. Foreign auto manufacturers are still the dominant players, with brands such as Toyota, VW, Hyundai, Ford, and Nissan, etc. growing their footprint on the continent. The growing population and the rising consumer class make the continent an attractive growth target.
- The cocoa sector in West Africa is a favourite target of researchers. More than 90% of the value created in the chocolate industry currently goes to players outside of Africa, with a disproportionately small degree of total value returned to African cocoa growers. This situation must be addressed as soon as possible. Far too much value is added outside of Africa, with farmers and local manufacturers losing out on the opportunity. Some commentators declare that as these farmers are better off than growers of other products, they cannot complain. This is a ludicrous position to hold.
- African smallholder farmers can create more value before exports. Government policy should mandate this. The days are also long gone that chocolate cannot be made in Africa as many companies have developed chocolate products with a higher melting point. The aspiration to transform 100% of its cocoa production on site by 2025 is very lofty. If this includes the manufacturing of chocolate, serious brand building must be done as soon as possible, unless partnerships with global chocolate brands are formed very soon.
- The African textile industry is vulnerable to cheap imports from abroad. Losing out on textile exports to the USA is therefore a major challenge for the Rwandan textile industry. When the USA removed Rwandan textile products from the AGOA benefits, Rwanda’s response was that it plans to target markets in other African countries and the EU. The potential success of this strategy is uncertain at best. Other African countries that are developing their own textile industries are unlikely to import textile products from Rwanda. The fact that Rwanda imports its cotton resources places pressure on the industry’s cost base, making it even more difficult to obtain lucrative export markets on the continent. In the EU, Rwanda will compete with cheap products from Asia. This challenge speaks for itself.

- Manufacturing in Africa has growth potential. This will allow the continent to exploit its relatively cheap labour pool and continue to develop its own industry. Larger scale manufacturing is currently FDI-dominated, with fewer local companies developing capacity. African economies must develop a more sustainable domestic manufacturing sector.

3. Political and Regional Developments

Regionalism is widely hailed as a solution to many of the challenges faced by Africa, specifically in the field of trade. The Intra-African share of trade is very low, compared with other regions such as Europe and Asia. Yet recent developments in Africa may jeopardise the regional integration of the continent. Fortunately, we also see developments that go beyond rhetoric to actual implementation. This report addresses a number of the more recent developments in this field.

AVIATION WARS IN EAST AFRICA

Kenya and Tanzania have banned each other's airlines for several months. According to analysts, while the incidents could have started due to a Covid-19-inspired decision, it is now a "full-fledged aviation war between the two East African countries." This situation developed as follows:

- At the end of July 2020, Tanzanian citizens were excluded from the list of nationals exempted from quarantine when they entered Kenya. In response, Tanzania banned Kenya Airways from entering its airspace.
- At the end of August 2020, Kenya again excluded Tanzania, when they kept Tanzanian nationals on the list of countries with high-risk Covid-19 cases. This meant that travellers from Tanzania had to undergo a compulsory 14-day quarantine upon arrival in Kenya.
- Tanzania subsequently extended its airspace ban to three more Kenyan carriers: AirKenya Express, Fly540 and Safarilink. Kenya Airways remained banned from flying to Tanzanian destinations.

Statements by the Director General of the Tanzania Civil Aviation Authority (TCAA), Hamza Johari, indicated clearly that the decision to restrict more Kenyan airlines from accessing Tanzania was based on the ongoing dispute between Kenya and Tanzania.

Kenyan authorities were reportedly concerned about the validity of Tanzania's coronavirus statistics despite the declaration by President John Magufuli that Tanzania was virus-free. Tanzania's pandemic status had remained unchanged for almost two months at the time when Kenya kept Tanzania on the list of high risk countries at the end of August 2020. In addition, Tanzania is one of the few African countries that did not experience a coronavirus lockdown.

Tanzania is unhappy with Kenya's treatment of their air travellers, as air passengers from other countries with very high Covid-19 infection rates were allowed to enter Kenya without quarantine.[11]

UGANDA IN CONFLICT WITH ITS NEIGHBOURS

Uganda recently welshed on a government agreement to abolish a 12% duty on Kenyan-manufactured fruit juices and remove a 12% verification fee on pharmaceutical exports from Kenya.

Uganda stated it needed the revenue to meet its annual budget. The Uganda Revenue Authority wanted to raise a total of US$5.43 billion in domestic taxes to help finance its US$12.23 billion budget for the 2020/2021 fiscal year. Kenyan authorities said the tax made Kenyan-made goods more expensive in Uganda. Kenya also stated that Uganda's action was in breach of the EAC Customs Union protocol.

This incident strained trade ties between Kenya and Uganda. While Uganda still remains the leading destination within Africa at 28.6% of Kenyan exports to Africa, growth in the value of Kenyan exports to Uganda (2.4%) slowed down in 2019 compared with the growth to other EAC member states (Tanzania – 13%; Rwanda – 29.9%).

An agreement between Kenya and Uganda in December 2019 contained several key commitments:

- Uganda had committed to abolish the contentious taxes by 30 June 2020.

- Kenya had committed to lift the ban on exports of poultry products to Uganda that was imposed on 14 February 2019 and to increase market access for Ugandan sugar to 90,000 tons from 30,000 tons.
- Kenya also lifted a long-standing ban on export of beef and beef products to Uganda.
- Kenya could impose a 16% VAT to control the influx of Ugandan milk into the Kenyan market and protect local dairy farmers.

Uganda said it intended to resolve the issue in June 2021 and turned down a Kenyan request to exempt its juices and pharmaceuticals from duty while awaiting resolution of the matter.[12]

Uganda and Tanzania are involved in a dispute over road user fees for trucks headed to the port of Dar es Salaam. Uganda reportedly threatened to retaliate against charges imposed on its transporters (US$500) that are higher than those applicable to trucks from Rwanda (US$152). It has subsequently filed a complaint with the EAC Council of Ministers, accusing Tanzania of breaching the Common Market Protocol by imposing different road user charges to partner states in the same trading bloc.

The revenues earned by the fee are used to repair and maintain Tanzania's road infrastructure, which keeps the landlocked neighbours connected to Indian Ocean ports. According to Uganda, the fee is unfairly high, creates an uneven playing field, and goes against the efforts of promoting EAC as a single investment destination.

Uganda initially stated it preferred dialogue, as retaliation against Tanzania would jeopardise trade worth more than US$171 million between the two countries and destabilise the region's integration process. Despite its stated position, at a meeting in the second week of September, Uganda stated it was going to apply similar charges to what Tanzania is charging Ugandan trucks entering Tanzania, as it did not see the value in any other bilateral meeting.

Tanzania stated it was in the process of reviewing and harmonising the toll charges across the region. Tanzania also informed the meeting of a complaint that was yet to be resolved, reporting that Uganda did not recognise calibration certificates from its Weights and Measures Authority.[13]

SOURING RELATIONS IN WEST AFRICA

According to Nigerian analysts, recent actions against Nigerian businesses in Ghana run the danger of damaging the positive relationship between the two countries. Ghana recently closed down some Nigerian businesses in the country. Nigerian businessmen are reportedly required to register their businesses with an investment of US$1 million at the Ghana Investment Promotion Council (GIPC). Those who failed to register had their goods seized and businesses shut down.

A number of previous incidents in recent times include the following:

- In July 2018, more than 400 Nigerian businesses were shut down when their owners could not raise the US$1million investment capital requirement.
- In December 2019, the Ghana Union of Traders (GUTA) allegedly shut down about 1,000 Nigerian shops.
- According to the Nigerian Minister of Information and Culture, Lai Mohammed, 300 Nigerian-owned shops were locked for four months in Kumasi in 2018, over 600 others locked in 2019 and over 250 locked in 2020.
- According to the leader of the Nigerian traders in Ghana, Chief Chukwuemeka Nnaji, Ghanaian authorities have been subjecting Nigerian traders to hardship since 2007 despite them being registered and tax compliant.

Ghanaian authorities responded that all foreigners who engaged in retail trade restricted exclusively to Ghanaians were targeted and not just Nigerians.

Other issues are further souring the relations between the two countries:

- An official building on the premises of the Nigerian High Commission in Accra was recently pulled down in the guise that the Nigerian High Commission failed to purchase the land and lease title certificates after acquiring the property in 2000. Security agents failed to halt the demolition and the Ghanaian government eventually apologized.
- The closure of Nigerian borders in August 2019 to stop smuggling and protect local industries reportedly hurt the businesses of neighbouring countries such as Ghana, where many were rendered nearly bankrupt.

These incidents are against the ECOWAS protocol, which presupposes that ECOWAS citizens are meant to live anywhere in West Africa without molestation. Many Ghanaians reportedly live and do business in Nigeria without harassment.

The Nigerian government threatened reprisals and moves to take the dispute with Ghana to the Community Court of Justice of ECOWAS.[14]

MOROCCO AND KENYA COLLABORATE

On 28 August 2020, the Moroccan Minister of Foreign Affairs, Nasser Bourita, and his Kenyan counterpart, Raychelle Omamo, explored opportunities for bilateral cooperation between the two countries. Morocco and Kenya are both members of several intergovernmental, regional, and international organizations. The two countries generally maintain positive relations, especially in the field of trade and air transport. They are linked with several agreements aimed at increasing bilateral trade and direct flights between the two states. Over the past two decades, bilateral trade between Morocco and Kenya increased from US$170,000 in 1998 to nearly US$21 million in 2019.

Despite these positive economic relations between the two countries, some tense periods emerged in the diplomatic field. One of these was triggered when Kenya opened an embassy of the self-proclaimed Sahrawi Arab Democratic Republic (SADR) in Nairobi in February 2014. The SADR falls within Western Sahara, which is a region that Morocco proclaims is part of its territory. For obvious reasons the government of Morocco was not pleased with the Kenya action. This situation was resolved a few months later when the Speaker of the Kenyan Senate, Ekwee David Ethuro, visited Morocco to show that Kenya did not challenge Morocco's territorial integrity. During this visit, discussions covered several issues, including higher education scholarships for Kenyan students in medical and engineering fields.[15]

POINTS OF INTEREST

- Given the devastating effect of the Covid-19 pandemic on Africa's economies in general and the aviation industry specifically, this was not the best timing for an aviation battle. Kenya and Tanzania should rather have focused on restructuring their aviation industries instead of on a senseless tit-for-tat struggle that neither can win. They are members of a regional economic community (the EAC), and as such should have collaborated to deal with the pandemic. As EAC members, one would expect a much higher communication level between them. Unfortunately, it appears that the constantly recurring trade tiffs between the two countries are now spilling over into the aviation sector.
- The trade tiffs between Uganda and Kenya and between Uganda and Tanzania are further examples of the challenges facing any attempt to develop a continental economic community. These three countries are members of the EAC, which has been referred to as the more efficient regional economic community on the continent. It is definitely the smallest one. If this community finds it difficult to develop and sustain trade relations, the much larger AfCFTA faces a steep road ahead. Governments in Africa must work to develop a mindset in which they are able to subordinate national interest to regional interest. They must realise that they will benefit when the region as a whole prospers. It might take longer, but the eventual rewards will be far greater.
- The conflict between Nigeria and Ghana is another example of two member countries of a regional economic community (ECOWAS) that do not communicate well with each other. Their

struggle over non-strategic issues joins the tiffs in East Africa as indicators of the serious challenges continental integration faces. Seen from another angle, to prevent small businesses relocating to other countries, governments should create the optimal conditions locally to aid the development of business. This includes improving upon the ease of doing business and global competitiveness factors, as well as eradicating governmental corruption. It has become imperative for the two countries to sort out their differences to maintain the peace and development of not only West Africa, but also the continent at large.

- Morocco is an African country that embarked on a strategy to build bridges with other countries in Africa. It recently concluded an agreement with Ethiopia to collaborate in the field of energy generation. Ethiopia has a large economy in East Africa (at ±US$96 billion) and has a population of 112 million people. Kenya has a similar size economy with a population of ~48 million people, which makes for a higher per capita GDP. These are therefore both attractive markets for Morocco to get involved in. One would next expect Morocco to reach out to Tanzania for a similar type of agreement. This country has a GDP of US$63 billion and a population of ~56 million. With Tanzania’s gas fields, the country has a lucrative future lying ahead, increasing its attraction as an investment destination.

4. Developments in Renewable Energy

Renewable energy and low carbon energy sources such as waste to energy are increasing their footprints in Africa. The continent has vast potential renewable energy resources. However, to benefit fully from this potential, the continent must first address a number of serious challenges. This report addresses some of the recent developments in this field.

FLEXIBILITY A DRIVER OF RELIABLE ELECTRICITY IN AFRICA

Africa has one of the world's greatest solar energy potentials. The cost to generate solar energy could soon be among the lowest in the world. However, the continent faces a number of challenges, such as weak electrical grids, chronic power shortages and blackouts, and the inherent variability of renewable energy. Meanwhile, rising electricity demand and increasing deployment of intermittent renewable energy resources increase the complexity and difficulty of grid management.

The continent needs both new sources of power and reliable distribution systems. This will involve tapping the potential of clean energy while avoiding electricity shortages. The challenge: how to reliably integrate low cost renewable energy with legacy national grids. The solution: flexible power distribution systems with advanced energy storage and optimisation capabilities. This strategy will guarantee the reliability of grids that use renewable energy, while lowering the cost of electricity.

Integration of intermittent renewable energy resources combined with grid congestion exacerbate grid management challenges. This task is especially difficult when renewable dependence is high, on cloudy days or when there is little or no wind.

The solution, according to one global leader in smart technologies and network management solutions for the energy market,, lies in energy storage technologies:

- Storage buffers supply and demand, enabling energy systems to rebalance during and after a disturbance such as a local failure.
- Storage can charge and discharge energy as required on-demand, making it a key piece of the stable energy infrastructure needed to improve grid reliability and security in Africa.

However, relying on storage as the only form of flexibility could be too expensive in the near-term. There is a need for smaller flexible-generation plants, such as small, rapid-start combustion-based auxiliary power plants that can flexibly switch on and off in minutes and which can run on natural gas, and later on renewable-derived fuels as they become cost-competitive and more widely available.

Africa's economic and population growth drives its rapidly growing demand for reliable electricity. Energy storage and flexible power distribution systems will be key enablers in the provision of reliable and affordable energy to the continent's population.[16]

CORPORATES EMBRACING SOLAR IN AFRICA

In Morocco, Maroc Bureau, the national leader in professional furniture and workspace design, intends to switch to solar energy and install solar PV panels on the rooftops of its factories. The project will enable Maroc to produce nearly 800 kWh, which is 70% of its total electricity consumption. This is in line with an appeal from the World Wide Fund for Nature (WWF) for public and private sector actors to prioritize clean or carbon-neutral investments in the post-Covid-19 period.

In addition to the solar power plant installed on the roof of its factory in Casablanca, Maroc will also install solar panels on the rooftop of its second factory in Rabat. The project will require an investment of €735,000 (~US$867,000).

The company sees this investment as a contribution to preservation of the environment, and also as a way to reduce its energy bills.[17]

In Kenya, New Kenya Cooperative Creameries, the country's largest dairy producer, intends buying 40% of its electricity needs from a solar facility that will be built at its new KCC Sotik Factory. The project will feature both ground-mounted and rooftop solar PV arrays. The selected developer will finance, own and operate the plant and will sell all of its output to New Kenya Cooperative Creameries under a power purchase agreement.

The company currently obtains 69% of its electricity needs from utility Kenya Power and Lighting Co. (KPLC). It generates the remainder internally with a 500 KVA standby generator.

New Kenya Cooperative Creameries operates 22 milk-cooling plants and processing factories. It has a daily milk intake of around 350,000 kilograms.[18]

In Egypt, approval was granted for the construction of a 7.5 MWp solar PV power plant to power the Arabian Cement Company's facilities in the governorate of Suez. Arabian Cement, which supplies almost 6% of Egypt's cement, signed an agreement in 2019 with SolarizEgypt for the construction of the plant under a BOOT (Build Own Operate Transfer) arrangement at a cost of US$6.3 million. SolarizEgypt, acting as an Independent Power Producer (IPP), will sell the output of the solar plant to Arabian Cement Company and operate the plant for the next 25 years. The 7.5 MWp peak power supplied by this project represents 4% of the electricity consumed by Arabian Cement's facilities. The project will also enable Arabian Cement Company to reduce the environmental impact of its facilities.

The cement company sees the initiative as part of the Egyptian government's strategy to achieve 20% of the country's electricity supply from renewable sources by the end of 2020.

Qatar National Bank will provide financing for the project under the European Bank for Reconstruction and Development (EBRD) Green Economy Facility.[19]

WASTE TO ENERGY IN WEST AFRICA

The ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) called for proposals on Waste to Energy (WTE) projects for cities in the ECOWAS member countries. Interested stakeholders had until August 28, 2020 to submit their projects.

According to ECREEE, municipalities in the region face many challenges in collecting, transporting and disposing of waste. Much of this is either incinerated in open landfills or left in the open without appropriate management. This can lead to groundwater contamination/pollution, methane emissions, and attracting flies and mosquitoes that can easily transmit diseases to people living near landfills.

The projects are intended to generate electricity through the use of steam in boilers. This steam may either be generated through direct combustion of waste, or the use of gasification/pyrolytic furnaces.

The initiative also covers the use of landfill gas and biogas from biodigesters from presorted vegetative waste. The gas can be used for electricity generation or other applications. At least six projects will be selected under this initiative.[20]

PRODUCTION OF SOLAR EQUIPMENT

A solar panel assembly production called Faso Energy was recently set up in Burkina Faso. The plant has a production capacity of 30 MW of solar panels per year. This amounts to 200 solar panels manufactured daily. The production plant will boost the acquisition of solar energy equipment by the population, thereby reducing the need to increase the rate of access to electricity in Burkina Faso. In addition, the company's operations will create 170 direct jobs and 2,000 indirect jobs.

Faso Energy will benefit from non-payment of customs taxes during the establishment of the plant in Burkina Faso. The government's goal is to minimise the importation of solar panels into the country.

This initiative should also enable the government of Burkina Faso to move towards its goal of producing 30% of its electricity from solar energy by 2030.[21]

WIND POWER IN MOZAMBIQUE

The construction of Mozambique’s first wind power plant at a cost of US$280 million commenced in the southern province of Maputo. The privately owned plant will have the capacity to generate an average of 120 MW of energy for the state electricity company EDM to distribute to the final consumer when it goes into operation in three years’ time. The project will create more than 700 new jobs, most of them for local individuals, as from 2021.[22]

POINTS OF INTEREST

- The attraction and benefits from the use of renewable energy as a source of power in Africa are vast and growing. Organisations may no longer be dependent on frequently unreliable and expensive state utility companies for their electricity supply. Economies may no longer lose huge amounts of money due to blackouts or power outages. Governments that have embraced renewable energy as a source of electricity will find it is increasingly less expensive and more efficient. It is often faster to distribute electricity to rural and remote areas through use of renewable energy sources. The increase in the number of corporations embracing renewable energy is a positive development. It will in all probability soon be followed by governmental policies to enhance this process.
- We previously saw two countries developing Waste to Energy (WTE) plants, i.e. Ethiopia and South Africa. The call by ECOWAS for interested parties to submit projects for WTE is heartening. Africa has vast waste dumps that generate huge amounts of waste on a daily basis. It makes a lot of sense for governments to encourage the development of WTEs. African Digest has previously noted the significant roles played in Singapore by WTE plants, especially in the generation of electricity and managing waste. Currently most of Africa’s waste is dumped in landfill sites, which is not a sustainable strategy.
- The adoption of renewable energy in Africa will receive a welcome boost with the advent of solar equipment manufacturing on the continent. As mentioned in previous African Digests, most, if not all, of the needed equipment is currently imported from countries such as China and Germany. In addition to boosting the adoption of renewable energy, this will also create more job opportunities, while national economies could tap the benefits of import substitution.

5. Developments in Sustainability

The circular economy receives increasing attention in Africa. Dealing with waste is complemented with initiatives for more eco-friendly power generation, as well as launching sustainability projects such as desalination. This report addresses some of the recent developments in Africa in this field.

COMBATTING WATER HYACINTH

In the southeast of Benin, the water hyacinth threatens the livelihood of people relying mostly on fishing to survive. While recent data on the plant's economic impact is scarce, in 1999 the weed reduced the annual income of 200,000 people in Benin by about US$84 million. Typical threats reportedly include:

- The weed impedes access to fishing zones and blocks sunlight and oxygen from getting into the water, which depletes fish stocks.
- In the rainy season it prevents excess water from flowing into rivers and irrigation canals, thereby exacerbating flooding.
- It encroaches on the mangrove forests in the area, endangering the rich and fragile ecosystem.

This drove a startup in Benin, Green Keeper Africa, to combat water hyacinth by using it to create a fibrous substance that can help mop up oil spills. The process works as follows:

- The hyacinth is harvested, dried and broken down into a loose fibre marketed as GKSORB, which is packed into bags, pillows and "socks."
- The products are sold in emergency spill kits that can soak up spills of up to 220 litres.
- The products can soak up a range of pollutants, from motor oil to dyes and paints.

Oil and gas companies, such as Puma Energy Benin, buy the products as an eco-friendly alternative to existing methods.

Green Keeper Africa collaborates with a partner to collect and dispose of the used product. Oil-soaked stacks are incinerated, with the energy produced used to power a local cement kiln.

According to Green Keeper Africa, the product helps local communities by removing the weed and creating jobs. The company employs a network of more than 1,000 people and offers training to local workers.

The company raised more than US$171,000 in funding and generates annual sales of approximately US$90,000. This is expected to rise as the company expands into countries such as Ghana and Cote d'Ivoire.[23]

PRODUCING CLEAN WATER BY MEANS OF DESALINATION

GivePower is a non-profit organisation providing solar energy and clean, affordable water. It recently deployed a seawater desalination system in Mombasa County in eastern Kenya. The system is housed in a 20-foot shipping container, powered by solar and battery storage and can transform 70,000 litres of brackish and/or seawater into clean drinking water daily. It is designed to operate 24 hours a day, in good and bad weather, with a SmartTap system that facilitates the management of the decentralised drinking water supply systems.

The battery storage system enables the installation to provide drinking water after sunset or in bad weather. This system produces a higher quality of water than most ground well systems over a longer period of time with virtually no negative environmental impact.

GivePower believes its system could help limit the spread of COVID-19 among the population as it facilitates hand washing.[24]

REPLACING SAND WITH GLASS IN FILTERS

South Africa-based Capespan is innovating, replacing sand in water filtration systems with a new glass product that can reduce both water and energy consumption. The company views sustainable farming and visibility of the fresh produce supply chain as essential to building a strong partnership with retailers. Transparency is important as modern consumers want to know about the origins of their fruit and that it is grown responsibly.

Implementation of the glass filtration product, manufactured by PristinePure, is part of Capespan's efforts to optimize farming techniques. The filtration media is produced from virgin recycled glass, which serves as a substitute for sand in the water filtration systems on the farm and offers unique benefits, such as limiting water waste and energy consumption. In addition, as the lifespan of the glass product is the same as that of the filter, it does not need to be replaced after a few years, as is the case with sand.

This product is therefore good for business, the planet, and humanity.[25]

SUPPORTING STARTUPS IN WASTE MANAGEMENT

Waste management is a major challenge impacting most East African countries, socioeconomically and environmentally. The region faces needs for a more circular and efficient approach to the use of resources and materials, as well as smarter solutions for managing waste, especially in creating value from waste. The region's exponentially growing population drives these factors.

Bestseller Foundation is a private foundation that supports and invests in businesses targeting environmental protection and social progress. It collaborated with Intellecap to launch the Waste to Value Challenge in December 2019. The Challenge took place in Kenya, Uganda, Tanzania, and Rwanda. The six winning startups will participate in a Waste to Value Accelerator programme. They will receive technical and financial support of up to $100 000, in the form of convertible debt. They will also receive mentorship and professional guidance over eight months. Topics covered include issues such as waste sector market analysis, market development, product refinement, business planning & operations, financial management, and financial modelling.

Three of the six enterprises selected are:

- "Zijani is a Kenyan start-up that reclaims used vegetable oil from bulk cooking institutions and supplies the cooking oil as raw material to other larger manufacturers of soap and biofuel.
- Yo-Waste is a Ugandan smart waste management start-up that connects households and businesses to the nearest garbage collectors at the touch of a button.
- Gjenge Makers is a Kenyan start-up that produces eco-friendly paving systems made from recycled plastic waste and sand."[26]

DEALING WITH PLASTIC WASTE

Nestlé Côte d'Ivoire and the municipality of Cocody in the greater Abidjan area recently launched a plastic waste management project to reduce plastic pollution in municipality lagoon bays. The initiative is part of Nestlé's social commitment, to offset use of plastic in abundance to package its products.

The municipality of Cocody and Nestlé intend to set up a plastic waste collection system, which will be tested on each lagoon bay in the municipality. A network of pre-collectors will reduce the pollution that wipes out many species of aquatic animals and keeps tourists away.

The two organisations also signed an agreement with the Envipur association. The latter will be in charge of waste collection in the lagoon bays. The collected waste will be sorted and recycled. This project will create jobs for youths and promote development of a circular economy in the commune.

Nestlé Côte d'Ivoire intends that all of its plastic packaging in Abidjan will be recyclable or reusable by 2025. It recently launched a project "my council without plastic waste" in the council of Abobo, in collaboration with Envipur. The project will use pre-collectors to collect 30 tons of plastic waste from Abobo's uncontrolled landfills. They plan similar projects in several other councils in Cote d'Ivoire.[27]

FROM SEWAGE TO BIOMASS BRIQUETTES

Stantec, a Canadian construction engineering company, recently designed a faecal sludge energy recovery plant in Nakuru County, Kenya. Sanivation, a company based in Naivasha, Nakuru County is developing the plant. Stantec also completed the design of a facility to treat sewage sludge collected in Naivasha.

The sanitation and clean energy plant will occupy an area of 13,470 m^2 and will convert more than 200 m^3 of faecal sludge per day into bio solids. This, in turn, will be mixed with sawdust to make 1,200 tons of biomass briquettes per month. The briquettes will be sold to local industries, making the sludge treatment plant profitable. This will support the development of a circular economy for the benefit of the community, providing the people with access to a financially stable sanitation solution that also contributes to a healthy environment.

The project will reportedly provide a cost-effective and sustainable sanitation solution for a community of more than 350,000 people. It will also help offset deforestation in Kenya.[28]

POINTS OF INTEREST

- We have seen several projects using water hyacinth as a resource. Such projects not only deal with the pest, but also generate jobs and revenues. The additional benefits are huge. The water erosion challenges are dealt with, while the fish industry benefits, in turn creating a beneficial cycle that enhances food security.
- Biomass briquettes are manufactured from a range of waste types, now from faecal waste. Not only does this create jobs, but it also reduces the pressure on forests in Africa, as well as reducing the harmful effects on the women in Africa who are the victims of lung diseases due to inhalation of smoke from wood when preparing food.
- Plastic waste remains a challenge on the continent, and everywhere else. It is therefore good to see global corporates such as Nestle approach the problem from a strategic perspective. Governments adopted legislation banning the using of plastic bags in a growing number of countries. We also see startups that use plastic to manufacture a range of products, thereby providing an incentive to harvest the plastic waste that fills landfills sites and even Africa's oceans. SMEs that have targeted plastic waste in Africa need all the support they can get.

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