

# How technology can be deployed to scale-up social protection during COVID-19: The case of South Africa, Nigeria and Africa

- ❖ **Redistributive fiscal policies are widely accepted as essential to dealing with the economic and social fall out of COVID-19 lockdowns, as they make provision for scaling-up national social protection programmes.**
- ❖ **Crucial public policy debates, including the need for demand-side valuation in resource allocation in the scaling up of social protection will focus on inequality and how to ensure that the funds reach their poorest and most vulnerable; whereas key supply-side and political economy contentions will centre on how to minimise the inefficiencies and transaction costs associated with the disbursement of these funds, and who should pay for these programmes.**
- ❖ **Drawing on our pre-COVID-19 After Access survey data collected between 2017 and 2019 across 10 African countries, we explore the pre-pandemic infrastructure endowments that are likely to enable or constrain the scaling-up of social protection at the household level and make suggestions on how technologies and last mile payment distribution could be optimised to alleviate extreme poverty as well as reduce corruption and maladministration.**

## Introduction

The COVID-19 pandemic has exposed serious flaws in advanced capitalism, as it no longer holds true that a thriving economy will ensure social well-being (Rocha, Pirson, and Suddaby, 2020). Activist redistributive fiscal policies are as a result, increasingly being implemented to stabilise household consumption (Miyajima, 2020), minimise poverty and mitigate rising inequality, particularly, in sub-Saharan Africa.<sup>1</sup>

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<sup>1</sup> The sub-Saharan Africa as a region has one of the highest monetary and multidimensional headcount poverty rates in the world according to the World Bank (2020)'s Poverty and Shared Prosperity Report 2020.

In South Africa, the region's most sophisticated and unequal economy, an 18 month, three-phased COVID-19 pro-poor income and social relief of distress grant (SRD) leaning economic stimulus package valued at ZAR 500 billion (US\$ 32 Billion), was put in place by the National Treasury of South Africa in April 2020, and financed primarily through a combination of national budget reprioritisation, concessional loans from international financial institutions, and sovereign bond issuances (National Treasury, 2020). In addition to these government efforts, an additional ZAR 3,2 Billion (US\$ 2,1 billion) for emergency health, welfare, and business support was proactively mobilised from civil society, private firms, philanthropic organisations and the public sector through the establishment of a Solidarity Fund.

Nigeria, Africa's largest economy, has implemented a similar economic stimulus-social protection programme intervention with a greater orientation towards expanded public works programmes and business support, and a relatively small proportion going towards social cash transfers (KPMG, 2020). In addition to reprioritisation of the national budget, Nigeria has unlocked US\$ 3,4 billion (NGN 1,3 Trillion) in emergency COVID-19 relief support from the International Monetary Fund (IMF), the largest amount any country has been able to access, and earmarked for temporary spending increases aimed at mitigating the economic impact of the pandemic and of the sharp fall in international oil prices (IMF, 2020).

Other African governments have, on the contrary, not been able to access such emergency concessional lending windows from international financial institutions on account of their weak fiscal and economic management prior to the pandemic, and as such, had to rely on grants and donations to shore up the social protection dimensions of their economic stimulus programmes.

## What the data says...

A key challenge with social protection programmes in Africa pre-COVID is the very low coverage at only 12,8% (see Table 1 below). While Nigeria stands at one end of the scale at only 4,8%, South Africa is at the other end of the scale with 56,4% of households receiving social grants (RIA, 2017) (up from 45,5% reported by StatsSA in 2015 [StatsSA, 2016]) This is the highest amongst the ten African countries surveyed in the After Access survey namely, Ghana, Kenya, Lesotho, Mozambique, Nigeria, Rwanda, Senegal, South Africa, Tanzania, and Uganda. South Africa's peculiar challenge is not coverage but rather the relatively low

utilisation rates in its National Treasury's stimulus package (30%) and Solidarity Funds (50%).

<b>Table 1: Summary of Key ICT Statistics in South Africa, Nigeria, and Africa</b>			
<b>Metric</b>	<b>South Africa</b>	<b>Nigeria</b>	<b>Africa</b>
GDP per capita (USD)	6 001,4 (2019)	2 227,86 (2019)	1 585,44 (2019 SSA)*
Population (Millions)	58,5	200,9	1 308
Gini Coefficient (%)	63 (2015)	35,1 (2018)	-
Mobile Phone Penetration (%) and average number of sim cards per user	84% 1.2	64% 1.6	
Households Receiving Social Grants (%)	56,4%	4,8%	12,8%
Unbanked Households (%)	25,7%	46,5%	55%
Households Receiving Remittances (%)	75,5%	43,4%	48%
Remittances (Top 3 Platforms: Mobile Money, Bank Transfer, Relatives, Family Member, Western Union, Driver/Courier, and Other)	68,3%; 0,6%; 5,3%; 0,3%, 0,0%; and 1,0%	0,4%; 21,6%; 18,6%; 1,4%; 0,4% and 1,5%	21,4%; 9,9%; 12,7%; 1,8%; 0,4% and 1,7%
Household Sending Remittances (%)	23,9%	49,4%	48%
Sending Remittances by Platforms: Mobile Money, Bank Transfer, Relatives, In Person with Family Member/Friend, Western Union, Driver/Courier, and Other)	2,8%; 10,4%; 3,4%, 0,3%; 5,3%; and 1,7%	0,29%; 26,1%; 19,8%; 0,3; 0,6% and 2,1%	20,6%; 11,5%; 12%; 1,7%; 0,3% and 1,8%

*Sources: RIA After Access Surveys 2017; World Bank National Accounts Data, 2020*

Another challenge is that the social protection programmes are susceptible to corruption

and misappropriation (SA News, 2020; BBC, 2020). In Nigeria and many other African countries, the paper, cash and human agency based economies add an additional layer of complexity to tracking down the recipients of social protection programme disbursement.

The pertinent question from the supply side of an expanded social protection programming is how can this be optimised?

## Opportunities for optimisation...

Research by the International Monetary Fund (IMF) (Miyajima, 2020) which, examines the welfare effects of digitisation in South Africa using five waves of the National Income Dynamics Survey (NIDS) data (2008-17), finds that consumption by mobile phone owners tends to be 10-20 percent higher than non-owners, but that benefits tend to accrue more to individuals with relatively low levels of consumption and new users. Consequently, mobile telephony provides a more effective tool for the South African Government to provide targeted distress funding assistance to the 11.3 million plus South Africans that applied for the Social Relief of Distress Grant (Spaull et al, 2020:10). This should be tempered with inclusivity considerations, particularly, for the rural-based households (Gillwald et al, 2018).

Other optimisation opportunities exist in leveraging private sector investments, expertise, and potentially tools to implement artificial intelligence based social protection disbursement systems in South Africa. Removing human agency could translate into better payment systems that minimise corruption and maladministration of public, borrowed and donated funds. This is highly dependent on the extent and quality of data. The relatively low levels of Internet and social networking penetration (only half the population had smart devices, access to the Internet and used social media in the After Access survey (Gillwald et al, 2018) and electrification, creates enormous biases in the findings and distorts outcomes.

As a result of technology innovations, many people have become data subjects without being connected to the internet, such as through biometric identification gathering through SASSA to access social grants, presenting new policy and data protection challenges. While this did improve the efficiency of the disbursement system, the large-scale implementation of social grants through a private company (Cash Paymaster Services) led to the large-scale exploitation of access to the data of those beneficiaries from the parent company, Net 1, to leverage its other services and products, like funeral policies and high interest small loans (Vally, 2016).

Digitization will accelerate as countries fight the COVID-19 pandemic.

Further, the hypothesis that biometric projects will ‘prevent’ corruption has not been realised in practice, because of several realities on the ground. Even as biometrics were being instituted through a massive drive from the Department of Social Development supposedly to ‘un-taint’ social grants distribution, massive amounts of funds were being siphoned from the Department and South African Social Security Agency through political connections and the private sector, as part of the state capture project (Foley & Swilling, 2018), leaving one academic to note:

“[T]he effect of the biometric system may have been to reduce petty corruption but increase grand corruption” (Donovan, 2015, p. 831).

And even once social grant distribution was re-centralised to government through a partnership with SASSA through the South African Post Office, SASSA itself has reported to Parliament that:

“There has been an increase in the number of fraudulent beneficiary grants withdrawals. It is believed that organised syndicates who work with both SAPO and SASSA staff are involved” (SASSA, 2020).

Even more alarmingly, a forensic investigation undertaken by an auditing company in late 2019 into the South African Post Offices payment system revealed that it has been “irretrievably compromised”, resulting in multimillion fraud as a result of card tampering that allowed for unlimited transactions (Maughan, 2019). These investigations revealed that 10 000 of these problematic transactions had been authorised in January 2019 alone. The SASSA biometrics project has demonstrated consistently that technology on its own is not a magical salve to fraud and corruption (in its variety of forms) in the social grants system, and in fact it comes with its own peculiar risks.

Nevertheless, with equitable access to the digital infrastructure, together with a rights-based data governance system in place, that safeguards privacy, ensures anonymity of data subjects, transparency of methods of data collection, which should anyway be minimal and only for the purposes for which it is intended, and not be reconstructed, Africa can minimise its transaction costs by taking advantage of the synergies that exist between social protection programme payment and remittance infrastructure. South Africa and Nigeria could potentially use their digital identity and social protection programme infrastructure to provide financial inclusion to 25 and 46 percent (see Table 1) of the households that remain unbanked, respectively.

## How to Scale-up Social Protection?

Mobile telephony, artificial intelligence, digitisation, and infrastructure pooling present the most significant opportunities for optimising and scaling-up social protection during the COVID-19 pandemic and beyond. However, these interventions need to be context-specific, data driven, and economically and politically beneficial.

South Africa's unequal history and high Gini-coefficient of 0.65 in 2005 and 0.63 in 2015, has paved the way for a variety of social protection programmes to be implemented and the development of a redistribution infrastructure that relies on a combination of the banking and postal services. This has increasingly become digitalised, the financial sector far more rapidly than the postal sector, which in many African countries is moribund.

Scaling-up the social protection programmes in South Africa will require further unlocking the mobile and banking payment platforms that don't necessarily require smart devices, leveraging existing private sector investments in artificial intelligence systems, ensuring better payment governance oversight, reducing fungible infrastructure costs, and making strategic public and state-owned enterprise investments in AI-related infrastructure.

Conversely, Nigeria's lack of an adequate affirmative action social redistribution programme infrastructure (World Bank, 2020) can be attributed to its relatively even income distribution and Gini-coefficient of 0.35. As mentioned previously, the economy is highly cash-based (i.e. 46,5 percent of the households are unbanked) and reliant on human agency and bank transfers to send and receive remittances.

Scaling-up social protection in Nigeria requires setting up a dual paper and digital platform to track recipient households of the COVID-related social protection programmes disbursements. In the medium to long term, Nigeria needs to leverage its available fibre infrastructure to attract private sector investment in digital tracking and payment platform creation for social protection programme recipients and the unbanked.

Across Africa, the situation is similar to Nigeria, with 55 per cent on average reported in the 2018 After Access survey being unbanked, 48 percent of the households confirmed having received some remittance primarily through mobile money, bank transfers or through family members, and 12 percent of the households on average receiving social grants in 2017.

Scaling-up COVID-19 related social protection programmes across Africa might be challenging in the short term but realisable with sufficient investments in last mile payment distribution, and more innovative integration mobile payment platforms with conventional banking and human agency.

## Recommendations

- ❖ **Leverage mobiles, digitisation and private sector infrastructure to scale up social protection.** Governments in Africa should leverage existing productive private sector investments to unlock digital and artificial intelligence based social protection programme payment platforms, as it reconsiders the specific public infrastructure and goods it needs to develop beyond the crisis period.
- ❖ **Introduce open data policy** that will improve information asymmetries and enable the better use of available public and private data to exploit new technologies such as AI, machine learning and blockchain to improve efficiencies and decision making and potentially limit corruption. This must be addressed concurrently with digital inequality. Currently the quantity and quality of many big databases reflect the social and inequality access and use of digital services, rendering large parts of the population ‘invisible’, or the data with biases that render them useless for such national application.
- ❖ **Develop and fund better the Information Regulator to ensure the enforcement of the Protection of Private Information Act (POPIA)** but also its critical awareness-raising and education function as more vulnerable people become data subjects.
- ❖ **Enhance real-time governance of public funds.** African Governments should capacitate the Auditor General and investigative wings to conduct frequent audits and investigations on the use of COVID-19 funds. Also, Governments in Africa should regularly and transparently engage with cooperating partners and civil society groups on how COVID-19 social protection funds are being utilized to avert corruption and misappropriation.
- ❖ **Build fungible long-term public goods.** Governments can minimise infrastructure costs by investing in fungible public goods such as integrated social protection programmes and remittance payment infrastructure. In this regard, governments need to incorporate state-owned enterprises and local development finance institutions in

the long-term development and financing of these public goods. Without redressing inequality in access to these public goods, the potential efficiencies associated with their deployment will be limited and potentially exacerbate existing inequalities.

- ❖ **Complement social protection grants with support to businesses.** Scaling up social and COVID-relief grants to households alone is not an exhaustive solution, Governments will also need to provide income grants and tax credits aimed at building resilient businesses in the pandemic period and beyond.

**Further research is being undertaken by RIA to understand the linkages between digitalisation on formality and informality, the increased visibility it paves to grow the tax base and support the demand for increased social protection, and more so, with the rising pandemic fall out and for a more sustainable taxation and social protection system for the future. Watch this space.**

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