

Malawi's Journey Towards Transformation

Lessons from its National ID Project

Tariq Malik

SUMMARY

Like a number of other countries, even in 2017, Malawi lacked a functioning national registry or identification system. This essay describes how a comprehensive multipurpose national ID system was implemented in a short period of time, with the assistance of UNDP and other development partners. Successfully accomplishing such a task requires cultivating stakeholder buy-in and trust, confronting poor infrastructure and skills deficiencies, developing a strategy for mass registration, containing costs, and ensuring that the resulting system and ID card can be easily and flexibly used to support a wide range of applications. Particularly innovative features of the Malawi program include the points-based approach towards determining citizenship and the rapid development of a digitally skilled workforce to carry out mass registration. More is in the offing, for example, integration of the civil registration and national ID systems, but in addition to achieving almost full adult coverage, Malawi has gained institutional and human capital from the project. The National ID is now integrated into multiple applications, including voting, payroll, issuance of SIMs, passports and immigration, tax administration, and know-your-customer compliance. Ministries, departments, and agencies are integrating it for financial development and inclusion, farm subsidies, healthcare, and social protection.

ACRONYMS

GoM	Government of Malawi
NRB	National Registration Bureau
MEC	Malawi Electoral Commission
BRK	Biometric Registration Kit
ICT	Information and Communication Technology
NRIS	National Registration and Identification System
NADRA	National Database and Registration Authority - Pakistan
CRVS	Civil Registration and Vital Statistics
MoH	Ministry of Health
UNDP	United Nations Development Programme
UN	United Nations

PREFACE

Malawi is a poor country with limited physical infrastructure and human capacity. Until recently, it lacked a foundational system to register its citizens and identify them. Many other poor countries are in a similar situation; like Malawi, they often rely on a combination of traditional local systems and functional programs such as voter cards and driver's licenses that both performs poorly and incurs the costs of multiple disjointed systems.

Malawi's experience in moving from what was initially conceived as yet another one-off voter registration towards the rapid implementation of an integrated, living, national ID is of great interest to other countries. It shows the importance of developing stakeholder consensus and trust and effective planning, as well as a number of innovative approaches towards common problems. It also shows how the youth of Africa can be engaged in such technology-intensive projects and how they can generate spillovers and enhance future opportunities, including for people with disabilities and other disadvantages.

This is the story of Malawi's National ID Project as narrated by Tariq Malik, chief technical advisor to UNDP, who spearheaded this project, to Alan Gelb and Kyle Navis at the Center for Global Development. In 2018 CGD encouraged further research to update information related to the project. While some information is taken from UNDP public websites, this document should not be regarded as the official narrative of the project by UNDP.

Tariq Malik is the former chairman of NADRA, Pakistan's ID Agency, which is recognized as one of the leading identity management institutions in the world. He has worked with leading development agencies including UNDP and the World Bank. In November 2009 he was awarded the ID Outstanding Achievement Award at the Global Summit on Automatic Identification in Milan, Italy. He received one of the highest awards in IT, Sitara-e-Imtiaz (Star of Excellence), from the president of Pakistan in 2013 for innovative citizen-centric ICT application and services rendered for the state of Pakistan.

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I. INTRODUCTION

In 2017, Malawi was one of the only countries in the Southern African Development Community (SADC) and Common Market for Southern and Eastern Africa (COMESA) without a functioning national registry and identification system. This essay chronicles the story of how UNDP, the government of Malawi (GoM), and their donor partners (UKAid/DFID, Irish Aid, USAID, the European Union and the government of Norway) managed to achieve universal ID coverage in a short span of time, with a focus on the policy and management lessons for similar projects in other countries.

First, it is worth revisiting the question: *Why is a legal identity such an important goal?* Globally, World Bank data suggest that an estimated 1 billion people are unable to prove their identity, with most of these coming from poor, rural households. While citizens of developed countries often take legal identity coverage for granted, this infrastructure is vital for lifting people out of poverty, ensuring social justice, and providing health benefits, among other things. This has been recognized: Sustainable Development Goal (SDG) 16, Target 9 acknowledges the centrality of identity and calls for countries to “by 2030 provide legal identity for all, including birth registration.”

Having a legal identity provides an enabling infrastructure for many other SDG goals, including social protection (1.3), access to economic resources (1.4), empowerment of women (5.A/B), and reducing corruption (16.5). There are also universal financial access goals—that by 2020 everybody has access to a transaction account or electronic financial instrument. Likewise, the civil registration and vital statistics goals aim to increase the proportion of countries that have achieved 100 percent birth registration and 80 percent death registration. Additionally, World Bank goals aim to end extreme poverty and boost shared prosperity, particularly for the poorest 40 percent of the population, while also improving service to the most vulnerable populations, and there are further goals set by other multilateral organizations.¹ This overlap in goals among many diverse institutions and players established a concrete opportunity for partnership and laid the foundation for what we were able to accomplish in Malawi.

This essay lays out the story of how the UNDP team with its development partners achieved universal ID registration in Malawi, the challenges we faced, the roadblocks, how UNDP coordinated with other stakeholders and community development partners, and highlights the synergies that helped us achieve success .

II. MALAWI: BACKGROUND AND CONTEXT

Malawi faced a structural development challenge in the absence of a comprehensive and accurate system of national identification. This gap undermined most citizens’ right to identity with multisectoral consequences. It created uncertainty surrounding their access and entitlement to services. Equally, the absence of a centralized and up-to-date national register has led to a fragile capacity for evidence-based planning, beneficiary and service targeting, and accountable

¹ Universal Financial Access Goals: *By 2020, adults globally have access to a transaction account or electronic instrument to store money, send and receive payments;*
CRVS Goals, Target #17.19.2: *Increased proportion of countries that have achieved 100 per cent birth registration and 80 per cent death registration;*
World Bank Group goals: *Ending extreme poverty and boosting shared prosperity, while also improving service delivery*

administrative systems. The lack of a national ID system had negative effects, which included seven key concerns that the Malawian government wanted to address:

- non-Malawians abusing the free national health care system
- concern over ghost workers in public payrolls and ghost pensioners
- corruption, facilitated by difficulties in linking the assets of criminals to the proceeds of crime
- chronic non-repayment of loans in the education sector
- the lack of real-time data to assist disaster response management
- high and recurring costs associated with beneficiary targeting and service delivery under social protection programs

When we started this project, Malawi had perhaps 2 to 3 percent coverage for birth registration, while national ID registrations totaled only some 55,000 people out of an estimated adult population of some 9 million. There was a very preliminary civil registration system established by US funds through the Centers for Disease Control and Prevention, which had produced approximately 40,000 birth certificates by January 2017. Previous efforts to initiate national ID registration had led to fragmented initiatives, creating costly or unsustainable silos of information, while also imposing institutional and technical obstacles for interlinking information.

For example, with each election in Malawi, efforts would be put forth to register everyone, issue a voter card good for four years, and then have to repeat it again for the next election cycle. Similarly, tobacco farmers were registered biometrically, but the database to manage the system was not used optimally for the provision of subsidies and loans. Drivers licenses also utilized biometric technology. There was thus no shortage of ID programs, but the siloing of these different systems meant that their data could not be centrally merged and enrollments de-duplicated. Together, the separate costs of each initiative reached a higher total than the cost of a national project.

With these benefits evident to so many programs and stakeholders, it might have been expected that most, or all, would buy into a common project. Indeed, the wide-ranging benefits from implementing a successful universal registration were substantial enough to attract a wide range of partners. Nonetheless, shared goals do not automatically translate to action without significant coordinating efforts.

III. CULTIVATING STAKEHOLDER MOTIVATION AND BUY-IN

One of the most important factors determining the success of this project was the overlap in motivation and incentives for a diverse array of stakeholders and development partners. However, taking the time and effort to transform these parallel interests into organizational synergies was just as important to the outcome of this project, if not more so.

The initial impetus for the project came from Mia Seppo, the Resident UN Coordinator in Malawi who was phenomenal in developing a shared desire among development partners to make a concerted push towards universal ID coverage. Irish Aid was the first to initiate the process of ‘Proof-of-Concept’ in Malawi. A year-long process of meetings with the various government ministries took place to bring them onboard, explaining the uses of ID, its social value, how much it would cost, and generally building customized cases for the importance of this initiative. We were fortunate to face a favorable

political situation, with elections coming in 2019 that motivated the incumbent government to simultaneously register voters, demonstrate tangible development progress, document economic growth, and address corruption. While GoM and its development partners comprised the primary drivers of this project, other groups with an interest in the outcomes included individual citizens and the private sector.

Cost Sharing

The total cost of the project came to US\$52 million, funded by GoM, DFID, Irish Aid, USAID, the government of Norway, the EU, UNICEF, and UNDP. Initially, a cost-sharing agreement was confirmed, with GoM agreeing to contribute 50 percent of the costs and development partners providing the balance. GoM later negotiated their monetary contribution down to 40 percent, citing in-kind contributions such as providing security and transportation.² With funding in place, the work of developing stakeholder buy-in could begin.

Stakeholders

The most important stakeholders in this entire project were the citizens of Malawi, who would receive a legal identity and thereby smooth access to a number of services, benefits, and products that require the ability to prove and assert one's identity. When I took over the project in January 2017, I went out to the public and spoke to common people—shopkeepers, vendors, donut-selling women—and communities like faith-based organizations, political parties, media, and other special interest groups representing citizens. I found an identity quest, subtly wrapped in human rights issues—right to vote, social justice, and gender balance. That was enough to sense the demand for identity.

As noted earlier, GoM provided both the political impetus and the legal framework for pushing forward with this project. Credit goes to the team lead by the UN Resident Coordinator with Ambassadors of donor countries to convince the government to move forward urgently. The incumbent government had an interest in delivering results, while the opposition had several concerns. I met with parliament and fielded around 50 questions from the opposition, explaining the proposal and the system to them; this helped to bring them onboard as partners in its implementation. They grilled me hard, especially on use of ID allegedly to rig the elections. This was surprising for me. ID is used worldwide to come up with clean voters lists to underpin “One Person, One Identity, One Vote” and combat electoral fraud. I explained this to the political parties, sharing my experiences in other countries that role of National ID is prior to elections, to come up with transparent electoral roll, displayed for public scrutiny. The outcome of that meeting was fantastic—a national consensus on the implementation of a National Identity Card aimed at empowerment of the people.

From a legislative perspective, the Malawi National Registration Act entered into force in August 2015, requiring all Malawians 16 years of age and older be included in a national registry and be issued an identity card. The act also created the National Registration Bureau (NRB) to manage both civil registration and registration for the ID program. Many countries assign civil registration to the purview of local governments, but the NRB is a federal agency tasked with both responsibilities.

² As of early 2017, the development partners had increased their contributions to a share of around 67 percent in response to budgetary concerns from GoM.

Demonstrating the revenue-generating possibilities to the NRB helped develop their interest in the project. I showed them how the system could provide opportunities for developing a sustainable revenue source by charging small fees for identity authentication at points of service, such as opening a bank account. Case studies from other countries demonstrated proof-of-concept and feasibility, such as India's Aadhaar platform and my own experience at Pakistan's National Database and Registration Authority, which relies on service charges to fund its operations. Other departments—including the Malawi Electoral Commission (MEC), Malawi Revenue Agency, Ministry of Education, Science and Technology, and Reserve Bank—saw obvious benefits from our proposal. The Department of Immigration and Passport Office under the Ministry of Home Affairs was keen to link the national ID with the passport issuance process and embed it within a border management solution to ensure secure borders. Some departments were so eager to begin utilizing the ID systems after registration that we had to ask them to delay until the cards had been distributed in 2018.

Development agencies were particularly interested in realizing this project, and, as it progressed, other institutions saw potential benefits and joined in. For example, UNICEF was not initially part of the planning stages, but when it became clear that children's data would be collected, they joined for an additional round on the project. Likewise, I was contacted by several other institutions in the development community which were looking to utilize IDs for service delivery. One example was GiveDirectly, an NGO that specializes in providing direct transfers to the poor. Robust and unique identification is clearly essential for such programs to operate efficiently. Others such as the Gesellschaft für Internationale Zusammenarbeit (GIZ) and the Clinton Foundation also showed great interest.

The private sector was also an enthusiastic booster for this project. We often had to ask them to delay implementing ID requirements until we achieved sufficient coverage. Three groups expressed particular interest. First, banks recognized immediately that universal ID coverage provides the necessary underlying infrastructure to successfully offer a range of financial products, particularly credit. Second, universal ID coverage makes it much easier for mobile money operators to comply with know-your-customer legal requirements. Third, tobacco farmers could build their own wage and subsidy delivery mechanisms off a universal ID system, rather than having to implement their own, more costly, solutions.

IV. PLANNING STRATEGICALLY

The agreed-upon timeline called for us to finish planning by the first quarter of 2017, with mass registration to be completed by the end of the year. We estimated that we would need to register nine million Malawians, with all ID cards to be distributed by 30 June 2018, and to have the National Identification and Registration System transitioned to NRB by the end of 2018.

The implementation team was led by me and consisted of a core team of 19 members that constituted full-time UNDP staff. We hired 4,200 registration officers (RO)—young Malawians, mostly from college and universities of Malawi—to work on the ground. Between the government and development partners, we had around 4,500 people involved in this project over six months.

The registration period was supposed to begin in mid-June, but I pushed the project implementation early. When “proof-of-Concept” was successful, there was no need for pilot. I don't feel comfortable

with pilot projects. My experience is that if you become too focused on the pilot, it becomes the project in itself and the primary project waits for an indefinite time in search of perfection. Paying more attention to the minutest details during planning pays off more than running a pilot. A proof-of-concept was already done; hence I didn't see the need for a pilot. The result: we were able to begin in May 2017 and finished the final registrations early, on 24 November. In a record time of 180 days, 9.1 million citizens were registered with their biometric attributes! Malawi's first ever multi-modal biometric citizen database was established.

Throughout the planning stages, we had to make several strategic decisions to overcome a variety of challenges posed by the task of registering an entire country with accurate data. We can consider each of the issues and the choices we made to address them.

Trust Deficit

In a project like this, simply taking input from government and development partners is not enough, because the real stakeholders are the average citizens served by those institutions. In seeking out this feedback, I encountered a fair amount of skepticism due to the previous failed attempts at mass registration. My discussions with Malawians, shopkeepers in the market, and the people I interacted with in the street revealed a unanimous opinion that this project would not happen, driven largely by the experiences of previous failures of the government of Malawi.

To combat these negative expectations and build enthusiasm, we launched a robust civic education campaign, and carried out a proof of concept for the parliamentarians and civil bureaucrats, making and delivering the same National ID cards to them. Hence, initially the National ID cards were given to parliamentarian and civil servants after registration of their biometric attributes. This created a goodwill gesture and an impression that this project was doable. But on the other hand, the fact that the proof-of-concept phase registered only parliamentarians and civil servants (total 55,000) prior to going to the masses of people created an impression that the project was for the elites. To avoid this perception and ensure that we truly believed in leaving no one behind in our goal of universal coverage, we also maintained consistent contact with the media and initiated meetings with all political stakeholders. These included political parties, and faith-based organizations which play an outsized role in Malawian democracy. Our commitment to transparency was key to overcoming the trust deficit that previous failed efforts led by government had left in place.

Lack of Infrastructure and the Mass Registration Strategy

Physical infrastructure requirements posed a substantial obstacle to accomplishing a nationwide mass registration campaign. Seventy percent of Malawi lacks electricity. The 28 district offices without any basic facilities were insufficient to register all citizens, and we did not have the budget to build many more offices from scratch. We therefore developed a 'Request for Proposal' that called for a portable office model using 2,000 solar-powered Biometric Registration Kits (BRK) to carry out rapid registrations. Each BRK includes a digital camera, laptop, fingerprint scanner, card reader, photo booth, solar panel, and other peripheral equipment.

We decided to deploy the BRKs in a particular pattern: each region, which consisted of four or five districts, represented a phase, and a phased approach was used to cover the population. All BRKs would be deployed in a first wave in a region to register everybody. Some kits would then be left behind for continuing registrations, with the rest continuing to the next region. This deployment strategy

aimed to combine the benefits of mass registration with the recognition that it would not be possible to cover everyone at the first attempt.

We also established a call center and SMS USSD service in place with two Telco operators to help with customer service needs, and a comprehensive complaint redressal system for citizens.

Finally, we also needed in-country transportation. GoM committed to providing 800 vehicles as an in-kind contribution for the exercise but unfortunately, we had to live with 120 vehicles to conduct mass registration and alter our plan on the fly due to the scarce transportation provided by the government.

The BRKs generally performed quite well, although we did have to adjust for their overuse without adequate time for battery charging. Typically, the BRKs were started up at 6 am and would be used to register citizens till dark at 6 or 7 pm, leaving no time to recharge them. Due to the increased demand created by the robust civic education campaign, the ROs continued to register citizens from sunrise to sunset in two shifts. As a result, we needed to purchase extra batteries for the BRKs and develop a distribution strategy to get them to the teams in the field. A few BRKs were used very roughly so that rapid response teams of technicians had to be made available to fix them on the spot.

Following the end of mass enrollment, the BRKs have remained in Malawi as a government asset. As a scarce resource, they have created competition between ministries, pushing the ministries to hone their respective business cases to justify their use. For example, the Health Ministry wants to equip 853 of their healthcare facilities with BRKs to collect vital statistics and record live births, and, as noted before, the Malawi Electoral Commission is already using these BRKs for its voter registration drive.

Lack of Skilled Resources

Even though there are several international agencies working in Malawi with the goal to train four to five thousand professionals in information and communication technology (ICT) skills by 2019, a skilled work force was not available. We therefore saw an opportunity to use the project to create a positive spillover—to rapidly train a cohort of workers who could provide ongoing support for the ID system and its applications. At the end of the project this workforce is still available to contribute in country's progress.

To streamline the hiring process, we approached local universities and collaborated with consultants to develop an online-based competency test to identify the best candidates. UNDP with the help of consultant prepared job descriptions, while selection and human resources management was to be done on merit via the online test. We emphasized hiring young Malawians, considering the need to ensure gender balance, and to make accommodations for persons with disabilities (box 1). The crash training course included creating a sense of mission—evangelizing why ID is important, and why the project was a patriotic undertaking, on top of skills training. Developing the training curriculum was a project unto itself. We had to create digital audio and video content from scratch and ended up booking all the hotels in the capital of the country—Lilongwe—for three months to carry out the training.

When we talk about linkages, we must also recognize that many government departments and ministries will need a workforce to be able to work with the ID system once it has been established and taken over in full by the NRB. That alone was calculated to require a staff of hundreds of trained skilled technical staff to manage the ID program going forward. In addition, border management and

security, the immigration department, airports, the revenue and tax authority, the traffic department, banks—all will need technically competent workers to incorporate the unique ID system into their own digital infrastructure. The same workforce is now being used for the voter registration drive and in the census exercise. We can reasonably expect this workforce to become a backbone of Malawi's increasingly digitized economy. In addition, nearby Zimbabwe, Mozambique, Zambia, Nigeria, Tanzania, Sierra Leone, and Kenya have all embarked on biometric ID programs, which means that this training can potentially open doors of opportunity beyond Malawi's borders.

As a new project, the national ID program offered an opportunity to employ members of disadvantaged groups and, equally important, to help demonstrate their potential to society. We took special efforts to ensure fair representation of protected classes, including persons with disabilities, women, and albinos, who face severe problems of discrimination, violence and even ritual murder in Malawi.³ Among the albinos, this meant we also had to take extra security precautions to guarantee their safety. One albino RO who easily passed the online test and was selected, called this experience an “identity quest,” and a way to prove that albinos can work even better than others. This man managed to register 8,000 people, became a BRK troubleshooter, and earned enough money to continue for a master's degree in computer science.

³ <https://www.amnesty.org/en/latest/campaigns/2016/12/5-facts-about-albinism-in-malawi/>

Box 1. Demonstrating the Capability of Disadvantaged Groups

Disability Not Inability: John's Determination to Succeed



John doing what he does best

When Everyone Else Says You Can't, Determination Says "Yes You Can."

Thirty-four-year-old John Mwangonde from Mwambuli Village in Karonga District was diagnosed with poliomyelitis at the early age of 6. "When I first lost the ability to use my legs, my family thought I was bewitched so it was a while before I was taken to the hospital where they told us it was polio and that I was going to stay that way, unable to walk," John tells.

He explains how, after he became a paraplegic, his family could not afford a wheelchair and how he had to crawl to get around, including going to school. Despite the nearest school being 8 kilometers away, John was determined to stay in school. "I saw how a lot of people with predicaments like mine found it too much of a challenge to get to school and decided to stay at home. Something in me always kept me going even though it was not easy to go to school every day," John explains.

He explains how his mother kept repeating to him and to his family that he was meant for great things and that he would someday become a very important person in their community. Her words motivated John to stay in school, and whilst all his siblings eventually dropped out, he kept his

determination and passed his Primary School Leaving Examinations and proceeded to a Community Day Secondary School near his home where he was among the top students in his class.

“One day, a well-wisher came to our school and saw me. I was the only one in my class with a physical disability and he said my life story and determination inspired him and he committed to pay all my school expenses and facilitated the provision of my first wheelchair,” John tells.

Although John’s final grades for the Malawi School Certificate of Education Examination were quite good, he was not selected to the University of Malawi, but he was offered a chance to study for a Diploma in Community Development by the Malawi Council for the Handicapped. “After I obtained my Diploma in Community Development, the biggest challenge I faced was that most of the job opportunities that were being advertised in that field required a lot of mobility and for one to know how to ride a motorcycle, which was not possible for me, so I ended up being unemployed for a long time,” he explains.

According to John, despite his qualifications as a Community Development worker, his passion was always in electronic gadgets, and especially in computers. “I knew how to fix things like computers, simply by studying others doing it. I therefore decided to go back to school and study Information Communications Technology and proceeded to open a small shop for electronics outside my house and provide apprentice opportunities for the youth to come learn basic computer skills for a small fee,” he said.

This was how John made his living for a while until his big break, when he was selected as a Registration Officer for the National Registration and Identification Systems Project. “I heard from a friend about the call for applications for the National Registration Officers and I was immediately interested and decided to try my luck. Being in a wheelchair, I was a bit skeptical about my chances, but here I am, getting my Certificate of Accomplishment for successfully completing my role,” he says.

For people with a disability in Malawi, life is not always easy. Their needs are often neglected, and they can sometimes be isolated in their communities, due to superstitions and the lack of knowledge about disability issues. John’s determination to overcome every obstacle that came his way due to his disability is a true testimony to the saying that where there is a will, there is a way.

“I feel like I am a role model who helps clearing misconceptions by some people that being in a wheelchair means that I am incapable of achieving any success in life. I used my opportunity as a Registration Officer to show people in the communities where we were based that I am just as capable as everyone else,” he says. “In fact, during my lunchbreaks when we were registering the people, some of the community members would try to get me to go back and help the rest of the team because I was the fastest in using the Bio-metric registration kit to record their information.”

His journey as a Registration Officer was not always smooth sailing though. John recalls finding challenges in accessing some of the school blocks where his registration team was based. He explains how in Chiradzulu District, where the terrain is rocky, it was difficult for him to navigate his wheelchair and he had to be assisted by his team members. “I realized that most schools are not accessible for physically challenged people. I would use every opportunity to speak to the school officials urging them to come up with simple ways of making paths for wheelchairs in places where they only have steps or in other places that are hard to climb through,” he explains.

John is currently enrolled at the University of Mzuzu, studying for a Bachelor of Science Degree in Information and Communication Technology. When asked what his long-term life goals are, John explains how he eventually wants to open a school for children with disabilities to learn different skills in the Karonga District. He explains how a lot of the youth in Malawi face different challenges

and are too often dismissed as burdens, not capable of contributing anything and ultimately, give up on their dreams and end up begging in the streets.

Despite some of his daily struggles and challenges, John is an inspiration to all of us and he continues to showcase that having a disability is not a barrier to achieving one's dreams and living life to its fullest.

Corruption and Nepotism

Like many countries, Malawi struggles with corruption, and I had to address the question about how we would ensure that the registration officers returned the expensive assets—the BRKs—once the job was done. Given that this project itself was intended to provide a conduit for reducing corruption, we decided to apply its functionality to the project itself. As each RO was assigned to a registration office, their ID card was produced first. That ID card was then linked with the BRK they operated so that each transaction would be linked to the identity of the operator. The ID card would open the office (BRK) in the morning by punching the ID number on the BRK login and the same procedure was used to close the office by logging out. This helped us to monitor the hours worked by the ROs and became an attendance system. We also paired this with a payment structure wherein, for each phase of the project, ROs received 40 percent of their pay up-front and 60 percent when they returned the BRK at the end of the phase, and we found that this strategy worked quite well. All 2000 BRKs were returned to NRB after the mass registration. It surprised international development partners that not a single asset was stolen in one of the poorest countries of the world. In a way this proved how linking ID with even a manual system can enforce accountability and promote responsible behavior!

Lack of Credible Data

Malawi's last census was carried out in 2008, which meant that we had to develop a revised population estimate. We took the census figures, compared them against the last voter registration list, and then estimated an annual increase of 500,000 children turning 15 to 16 years of age. This was added as an annual growth rate to come up with an adult population estimate of nine million aged 16 and above, which in the end turned out to be reasonably accurate. This estimate was then used to make projections about the scope of work and resource requirements.

V. MASS REGISTRATION AND THE ID CARD

Mass Registration Strategy

To register nine million people, we divided the mass registration campaign into five phases, each covering four to six districts representing a region (Northern, Southern, Central, etc.). Prior to the deployment of registration teams, we carried out a robust, localized civic education campaign. With that base in place, the 2,000 RO teams with 2,000 BRKs were deployed for each phase in a region, lasting between 25 days to a little over a month. The strategy to achieve universal coverage was to get the sign-off from a taskforce comprised of the district commissioner, assistant district registrar officer, village heads, traditional authority, and notables, to ensure that all available adult citizens were registered and that nobody was left behind. After each phase was signed off by the taskforce, a few kits were left behind to register those citizens who were not present during the campaign.

This strategy of rapid deployment and retrieval worked very well. Citizens were registered with their unique biometric attributes such as 10 fingerprints and digital photograph as well as demographic and biographic data. The data collected by the BRKs was synced after each phase and downloaded to the central server. Biometric data was deduplicated, validation checks were performed on biographic and demographic data, and after scrutiny and due diligence of records (to determine, for example, if there were indications that they had been processed under duress), the data was sent in batches for the printing of ID cards.

Box 2. Through the Eyes of a Registration Officer: Maawi's Story



“This whole experience showed me why they call Malawi the warm heart of Africa. We were well received by community members in most of the areas we went to. They would come together to make our stay more comfortable and made us feel like we were part of the community. It was an experience of a lifetime and the memories will stay with me for a very long time.”

Meet 24-year-old Mwawi Ng'ombe, from Lilongwe District, at the National Registration and Identification System (NRIS) Consolidation Center as she returned the Biometric registration kit, processed her final payments, and collected her Certificate of Accomplishment upon successful completion of her service in the Mass Registration Campaign. As one of the 4,000 men and women selected to work as Registration Officers and Supervisors for the NRIS project, Mwawi has played a vital

role in the provision of a legal identity to eligible Malawians.

A young woman with a diploma in Information and Communications Technology, Mwawi's passion for information technology is quite evident as she recounts her journey of her six months as a Registration Officer. She narrates her most memorable moments, the challenging moments she experienced, her future, and how the exercise brought her closer to her dream of becoming a software development engineer.

“My older sister is the one who encouraged me to apply when we saw the advert. I did not think that I stood a chance but surprisingly, I was shortlisted to go through the aptitude test to assess our computer skills and other things,” she recounts.

This was not only to be Mwawi's first employment, but an also an opportunity for her to showcase the ICT skills that she had acquired through her diploma studies. “There were no job opportunities at all and I was depressed because I was unable to support myself after completing my school, so this opportunity came at a very good time for me,” she says.

Mwawi was first assigned to the Chankhungu registration center in the Dowa district, a rural area about 30 kilometers east of her birthplace and home in Lilongwe city. It was a time not only to work and earn a living, but also to sample life in a village—no electricity, no bed, a room with broken window panes in the chilly weather conditions of Dowa in June. “It was very tough, but I am glad that I got to experience how differently people live. It has made me more grateful of what I have and more knowledgeable about the levels of poverty in Malawi,” explains Mwawi.

And this was not all that the role as a Registration Officer for the National ID taught Mwawi. More lessons followed as she moved from one phase to another, from one district to the next. She also learnt a work ethic and dedication.

“We always made sure to start work by 7 o’clock (in the morning),” recalls Mwawi, probably remembering the comfort of her bed just some 10 to 20 minutes’ drive to her home in Lilongwe.

For her, it was a humbling experience, all in the wish to assist thousands of Malawians acquire a legal identity, and that kept her positive because she knew what she wanted.

“This whole experience will increase my chances of finding a job, which is usually a challenge for us young people with no prior work experience. They [NRIS and NRB] have given us Certificates of Accomplishment which will also boost my CV. I would like to eventually become a software developer and I already have ideas on how to go about it,” she tells us. Growing up, Mwawi “had always been fascinated by computers and wondered how they worked and that is why I chose IT.”

Through her work as a registration officer in Dowa, Mwawi has also grown up to care more for the underprivileged. She now knows just how underprivileged Malawian women are. “In all the three districts I worked, there were more women who were illiterate than the men. They faced challenges when filling in the registration forms even though they were written in simple Chichewa,” she recalls.

She met a 14-year-old mother who had waited the entire day in the queue at a registration center, only to discover that she could not register, as she was under 16.

“It was my first time to see a lot of girls with babies, who should have been in school,” she says.

Mwawi immediately became a center of attraction, a role model. “Seeing a young lady operating the biometric kit was inspiring to them. Some girls would just sit there and watch me work for long minutes. It made me realize that having a female doing what I was doing was very rare in those areas,” the 24-year-old muses.

Most of the girls, says Mwawi, said they dropped out of school due to poverty, but she begs to differ. “I feel that the biggest reason is that there is no one to motivate and inspire them to stay in school. There is no supportive environment, like what I had growing up. They really need to be inspired to have an ambition. When you have ambitions, not even poverty will keep you from accomplishing your goals,” she opines.

Mwawi will never be the same again. “My whole experience as a Registration Officer opened my eyes to issues of development in Malawi. It has made me appreciate all the organizations that are working to promote issues of gender in the country,” she says.

It was not all rosy, however, because in Phalombe District, Mwawi met her worst experience: she was called a “blood sucker.”

“Some community members in the southern region accused us that when taking their fingerprints, we were trying to find out how much blood they had and that the kits we were using were refrigerators where we stored the blood that we sucked off people,” she narrates.

Fortunately for her and her colleagues, they left unscathed amid stories of angry villagers attacking and killing innocent people whom they suspected of being vampires. She returned to tell her story, a story of a lifetime experience having helped Malawians acquire a legal identity through a biometric ID card.

“This whole experience showed me why they call Malawi the Warm Heart of Africa. We were well received by the community members in most of the areas where we went. They would come together to make our stay more comfortable and they made us feel as we were part of the community. And on our part, we also treated everyone with respect, we spoke to them kindly when they needed clarifications about the registration forms and we also observed their culture in terms of our dressing, especially for us females,” she concludes.

ID Card: Features and Applications

Countries vary greatly in terms of the quality and sophistication of their ID credentials. Some offer simple cards, others complex smartcards with chips. India’s Aadhaar system authenticates against a number, with no card involved, while Pakistan and Peru use chip-based ID cards. For Malawi, we needed to take into account the wide potential range of uses and the need to offer as wide a range of authentication options as possible under limitations such as the lack of electricity and limited network connectivity. We therefore decided on a card-based system with strong security and offering a wide range of choice over the mode of use.

The ID card itself is quite sophisticated (figure 1). The registration process captures 10 fingerprints, a digital photograph, and electronic signature. It is ICAO (9303) and ISO (7816) compliant, with seven built-in security features to prevent forgery. The ICAO Identity Applet will allow card holders to use it for all national travel at airports, where card readers can access the data and verify the identity of the holder. It has a digital certificate as well, issued by the NRB. Likewise, the e-Health Applet allows it to become a virtual health insurance card (compliant with European standard CWA15974), so that health offices can use it to verify identity and deliver services for which the holder qualifies. The CWA 15974 and ISO 21549 standards-compliant eHealth applet is a Java applet that is preloaded on every ID card. ISO 21549 ensures patient empowerment by standardization in the patient health card domain. Malawian citizens will therefore not have to carry a separate health card as the main ingredients of a Health insurance card that is compliant with international standards are embedded in National ID card. These standards are followed by European countries, New Zealand, and Australia. The Public Key Infrastructure applet allows the government to use the card as the basis to roll out, for example, a financial inclusion or social safety net program and verify the identities of beneficiaries. Finally, the e-Driver’s License applet can verify whether the holder also has a driving license.

Figure 1. Features of Malawi's National ID Card

 	<p>Features</p> <ul style="list-style-type: none"> • Unique ID • 10 fingerprints, digital photo, and electronic signatures • Security features to prevent forgery include optical variable ink, direct tone guilloche, duplex security printing, micro-text, invisible fluorescent ink, direct rainbow printing and microchip <p>Applets on the chip</p> <ul style="list-style-type: none"> • ICAO Identity Applet • e-Health Applet • Public Key Infrastructure (PKI) • e-Driver's License <p>Ways to Interact</p> <ul style="list-style-type: none"> • Recording unique ID no. from eID and recording on forms • Scanning QR code using scanner, smartphone or computer • Reading MRZ using scanner, smartphone or computer • Reading the chip using card reader and computer 		
<p>Data Fields</p> <table border="0"> <tr> <td data-bbox="219 1228 820 1879"> <p>Data of Surface:</p> <ul style="list-style-type: none"> • Document type • Issuing state • Issuing sate • Surname • First name • ID number • Nationality • Date of birth • Sex • Date of expiry • Photo • Signature • Other names </td> <td data-bbox="820 1228 1421 1879"> <p>Data in Database:</p> <ul style="list-style-type: none"> • Document type • Issuing state • Issuing date • Surname • Name • ID number • Nationality • Date of birth • Sex • Date of expiry • Photo • Signature • Other names • Place of birth • Permanent residence </td> </tr> </table>		<p>Data of Surface:</p> <ul style="list-style-type: none"> • Document type • Issuing state • Issuing sate • Surname • First name • ID number • Nationality • Date of birth • Sex • Date of expiry • Photo • Signature • Other names 	<p>Data in Database:</p> <ul style="list-style-type: none"> • Document type • Issuing state • Issuing date • Surname • Name • ID number • Nationality • Date of birth • Sex • Date of expiry • Photo • Signature • Other names • Place of birth • Permanent residence
<p>Data of Surface:</p> <ul style="list-style-type: none"> • Document type • Issuing state • Issuing sate • Surname • First name • ID number • Nationality • Date of birth • Sex • Date of expiry • Photo • Signature • Other names 	<p>Data in Database:</p> <ul style="list-style-type: none"> • Document type • Issuing state • Issuing date • Surname • Name • ID number • Nationality • Date of birth • Sex • Date of expiry • Photo • Signature • Other names • Place of birth • Permanent residence 		

ICAO Data on Chip of Card:

- Document type
- Issuing state
- Issuing date
- Surname
- Name
- ID number
- Nationality
- Date of birth
- Sex
- Date of expiry
- Photo
- Signature
- Other names
- Place of birth
- Permanent residence
- Telephone number
- Time of personalization
- Machine used to personalize
- Digital signature keys
- 1 x fingerprint
- Persons to notify (mobile, name, address, date of capture)
- Telephone number
- Time of personalization
- Machine used to personalize
- Digital signature keys
- 10x fingerprints
- Persons to notify (mobile, name, address, date of capture)
- Title
- Other travel doc. no.
- Endorsement/observations,
- Place of residence
- Proof of citizenship
- Father name
- Mother name
- Maiden name
- Marital status
- Eye colour
- Height
- Disabilities (amputees of biometrics only)

There are four ways to interact with the card; this increases flexibility and allows the NRB to avoid exposing the whole database for every single function.

First, and most simply, users can simply look at the card and record the unique ID number; the validity of the ID card can be checked via a telephone call for copying into forms. The identity of the holder can be simply verified by using the photo on the card.

Second, points of service can scan the QR code from the back of the card using a scanner, smartphone, or computer to retrieve the information stored on the card chip (except for the fingerprint). The MEC used this technique to register voters. Over 8 million eligible voters willing to register to vote in the next election presented their ID cards, which were scanned. A simple script checked the age of the person, and if s/he was 18 years old or above, his/her data was inserted in the voter list. The whole process took few seconds which was quite an improvement of earlier practice that took 20-25 minutes to register a voter. At the end of the day, the MEC would send the list, with unique ID numbers, to the NIRS database to pull the digital photos of the registered voters for printing in electoral rolls. This further authenticated the voter's credentials ensuring a transparent voter list underpinning '*One Person, One Identity, One Vote.*'

Third, the machine-readable zone (text) on the back of the card allows users to swipe the card to read and populate the details of the citizen into a functional database, if required. These details can be authenticated by the NIRS database via secure virtual private network connection, if required. One use-case involves district officers who need to verify IDs to register marriages, and alert officials to cases of underage cardholders to prevent child marriages.

Last, the card's chip can be inserted into a card reader to access the expanded array of data fields on the chip (which has a storage capacity of 128 kilobytes), including the best fingerprint scan (which is also shown on the front of the card). Any point of service can insert the card into a chip reader, scan the holder's fingerprint to ensure a match, and when confirmed, provide the service. In this case, no connection is required with the central database; neither is access to power, as the one-on-one match can be performed using battery-powered devices. All that is needed is a card reader and fingerprint scanner.

Printing and Distribution Logistics

Printing the eID card is a huge task in and of itself and is being done in batches. After deduplication, the eID cards generated by the mass registration campaign were printed using large-scale smart-card printers in France, while 15 printers have been imported into Malawi for ongoing registrations after the mass campaign. The NRB took over operations this year and kicked-off continuous registration program in January 2018. We estimate a need for around one million new cards per year, accounting for both population growth projections for Malawi and replacement cards, and this capacity is enough for such a number.

Almost all the printed cards have been distributed. After the end of mass registration, the new card printing facility was setup at Lilongwe as per international standards. Approximately 1 million cards are produced after mass registration, hence overall over 10 million Malawians have National ID. Printed cards are delivered to district offices, where teams headed by a district education manager work with mosques, churches, and other community institutions to announce that people should go to the locations where they registered to pick up their cards. In the districts where distribution has taken place pickup rates range between 96 and 98 percent. Importantly, civic education does not finish with the mass registration but is continuing throughout the distribution process to keep demand for cards high. Providing civic education and other troubleshooting resources in the local language is a key component of the success of these supports.

Uncollected cards are placed in district offices for collection, and citizens can check the location of their card by dialing the SMS-based USSD system at *676#. Citizens are asked to provide the receipt number from their registration, and it will reply with the eID's production/print status and where it is in the local language. There is also a call center that citizens can contact and provide some basic details without the receipt number, and the call center representative can run the query and provide a status update.

Containing Costs

The UN's Procurement Services Unit (PSU) based in Copenhagen, Denmark bid the printing process out for international competition when searching for an ID card vendor. This resulted in an average cost of approximately US\$1.65 per card, which includes personalizing them in France. The project purchased cards for approximately 10 million citizens. With a budget of US\$49.7 million, the per capita

cost of the mass registration project comes out to around US\$4.97 per person, which is in line with similar cost estimates. Costs include not only procurement of chip-based ID cards, but 2,000 BRKs, and the salary of approximately 5,000 staff, setting up a sustainable operation, logistics, the civic education campaign, the refurbishment of offices and establishing a government-wide area network for connectivity. A card printing facility was setup at Lilongwe as well. UNDP saved large sums of money by outsourcing the procurement process to its PSU and developing registration software in-house.

GoM has decided that the first eID card will be free for citizens, although citizens will be responsible for paying to replace the card if it is lost and when it expires. The initial batch of cards from the mass registration campaign will be good for 10 years, while new cards will be issued with seven-year expiration dates. GoM has set a nominal price for replacement cards.

VI. RESULTS

Over 10 Million Malawians have been registered so far. We achieved the target of universal coverage, having registered 9.168 million citizens in 180 days by November 24, 2017. In addition, collecting children's information was an important part of expanding the project motivation from a narrow focus on voter registration to becoming a full national ID project.

Formally, we have initiated linkages with numerous ministries, departments, and agencies within GoM. These include MEC, Malawi Revenue Authority, the Health Ministry, Immigration Department, Reserve Bank, Payroll Management, and others. We have also begun building the capacity of NRB by restructuring the organization, transferring technology and source code, and training their staff. In January 2018, NRB began the process of continuous registration using 238 BRKs and 84 motorcycles which were transferred to their staff.

The district-level registration rates in each phase have varied from a low of 90 percent to 105 percent of the projected populations (figure 2). The phase with the highest overall registration rate included the capital city of Lilongwe, itself a hub for rural to urban migration. Of 28 districts, only one failed to cross the 95 percent registration rate threshold, while 16 districts recorded over 100 percent. There are two reasons for districts recording over 100 percent registration: either we were off the mark in our population guesstimates or there was migration from rural areas to cities. Nevertheless, this represents the birth of a robust foundational database of citizens' biometrics as well as an update on where they live.

Examining the results along other dimensions, 53 percent of the registered adults were female, with the balance of females at the district level ranging from 51 percent to 58 percent. During the registration project, I was particularly impressed with the enthusiasm of Malawian women who would often stand in line all night to register. In another example, an 86-year-old woman I met had just registered for her card, and was dancing and singing, and I asked her, "What is so good about this piece of plastic?" She replied, "Finally, I exist!" The official recognition of women's presence had a palpable impact on people.

Sean Dunn was CTA before me who ensured that the proof-of-concept was tested before we moved to full implementation. Keeping all stakeholders together including GoM ministers, development partners, ambassadors, heads of missions, heads of high commissions and international NGOs in monthly technical committee meetings and quarterly steering committee meetings was a project in itself for me, but the support from UN country office was instrumental. I ensured all the meetings took place on time—we had 26 technical committee meetings till the end of 2019.

Creating small teams, assigning leadership roles to each with an advisor leading those teams, and then delegating tasks worked very well. The logistics advisor led a team with a consultant and IUNVs (International UN Volunteers) to deploy and retrieve teams in a phased approach, while the ICT advisor was the main architect leading the software development with the ICT specialist. GoM programmers were included later to get trained on source code, and a quality assurance consultant reviewed the architecture of the application. The capacity development advisor led the effort with a consultant, first assessing the capacity of the NRB and, based on this assessment, developing a roadmap for training and sustainable operations. But the real test was to hire 4,500 temporary staff for mass registration. The advisor worked with Department of Human Resource Management of GoM to restructure the NRB, prepare job descriptions for permanent staff, and develop a five-year strategic plan.

The legal advisor led an effort to review the legislative framework viz-a-viz the registration of adult citizens, in the light of the National Registration Act and Citizenship law, and probed privacy and data protection provisions in the Electronic Transactions Act (2016). An effort to reform these laws to further protect the privacy of citizens is under way where the advisor is working with a law commission formulated for this purpose. The civic education advisor worked with a small team of NRB to develop a robust national and community-level campaign that generated high demand for national ID.

Getting to universal coverage with a team consisting of 19 core members and 4,500 registration staff using 2,000 BRKs (all of which were returned at the end of the campaign) is no small feat. The lessons we learned can be a model for future projects in other countries. In this section, I will discuss the teams we created to implement key components of our strategy and how they contributed to our success.

In the biometric registration campaign, the **Information and Communications Technology** team was key to develop in-house registration software followed by designing the architecture of the multimodal database containing an Automated Finger Identification System as well as the Facial Recognition System which logged over 13 million registrants. They also were key to provide source code training on the ID card registration software application to GoM's e-Government department, which became part and parcel of that team. The ICT advisor walked an extra mile and laid foundation to develop the Civil Registration and Vital Statistics component.

The World Bank was to assist us in setting up a data center, backup system, and disaster recovery servers through their Digital Malawi initiative, but the parliament of Malawi took a whole year to pass that program. Work will start soon, but the delay did not deter the ICT team from working with NRB, the e-Government department, and vendors to create an interim solution of hosting the NRIS servers temporarily at the Accountant General Data Center before moving them to a permanent data center, with disaster recovery at a separate location in Malawi. We also had to go for an interim solution to sync the BRKs with the data center to carry out deduplication.

In addition, the ICT team set up the real-time SMS and USSD system to empower citizens with a comprehensive complaint and grievance redressal system. Citizens would be informed through SMS on their personal mobile before we launched in their districts. The USSD system was rolled out for citizens to lodge complaints against ROs or the process of registration and to check on their card. It would inform them about the location of their card, its production status, etc. We also created an incident response team (which included 30 female engineers alongside male staff) with transportation to carry out troubleshooting on BRKs. The ICT Team oversaw data management and governance, as well as protecting privacy by securing the database and transactions.

Most importantly, the ICT role was not simply deduplication, but extended to a variety of underlying infrastructure necessary for the success of the project success. Some ICT applications, like linking each BRK with the ID card of Registration Officer in a way that all transactions processed through those BRKs are linked with the performance of the corresponding RO, went a long way to ensure transparency and accountability of ROs. In fact, it tested the ID card linkage with the operation of the project itself and also helped to establish an accountable attendance system as each RO had to swipe his/her own ID card to login to the BRK in the morning and log out when done for the day. Equally, it ensured that all BRKs/assets were returned in time.

Another key foundational component of the project was the **logistics operation**. The logistics team developed district-specific deployment plans that took into account input from the taskforce comprised of district commissioners, district registrar officers, village heads, and other notables on the ground. We used three World Food Programme warehouses in separate cities to stage, deploy, and retrieve the teams with BRKs as well to sync the data collected after each phase. Warehouses were abuzz with project activities and became the satellite offices of the project. The logistics team was also heavily involved in setting up a mobile bank to facilitate RO payments via ID and debit cards, along with the BRK troubleshooting center, incident response center, and a call center within each warehouse

Maximizing the utility of universal ID coverage obviously requires a policy and legal framework that allows for syncing between databases subject to appropriate privacy protections. The legal advisor managing the **Linkages and Legislative Framework** was charged with overseeing the MOUs and linkages with the different GoM ministries, departments, and agencies. Table 1 below outlines both confirmed and discussed linkages with the NRB, which manages and oversees the unique ID database.

Table 1. Linkages with NRB

Confirmed	Discussed
<p>Malawi Electoral Commission: MOU signed with NRB for easy, quick, and accurate voter registration underpinning “One Person, One Identity, One Vote.” MEC is conducting voter registration using National ID cards, resulting in savings of 70% as compared to last election.</p> <p>Civil Registration & Vital Statistics System (CRVS): NRIS and CRVS systems are interlinked. Each birth certificate issued by birth registration software will include Unique National ID, thus establishing one national ID from cradle to grave. Child registration will commence next year.</p> <p>Malawi Communications Regulatory Authority: announcement that ID is mandatory requirement of SIM cards. All mobile operators notified. National ID will be used for mobile money transfers to comply with know-your-customer requirements.</p> <p>Malawi Revenue Authority: MOU signed with NRB. National ID would be used as tax ID resulting in combating identity fraud in income tax returns and refunds</p> <p>Reserve Bank: agreed to use National ID as the primary source of identification for know-your-customer compliance. Ministry of Justice is issuing the gazette notification in this regard</p> <p>Department of Human Resource Management and Development (DHRMD): software changes made to integrate National ID to identify ghost workers. DHRMD has started to collect national ID from all civil and public servants to link national payroll with unique ID number.</p> <p>Unified Beneficiary Registry: Malawi’s social benefits registry for cash transfers for poor, social grants and benefits are linked with National ID. The Unified Beneficiary Registry now contains National ID field.</p> <p>Immigration Department: agreed integrated National ID in border management system. ICAO compliant National ID to be used as secondary form of identification after passport for recording movements on borders aimed to secure border and combat human trafficking.</p>	<p>Ministry of Health: using Unique ID as patient ID, recording vaccination combating medicines smuggled to neighboring countries.</p> <p>Ministry Home Affairs: for refugees, Malawi Police Service, Prison Services</p> <p>Ministry of Justice: on use of IDs to witness protection, identification of convicts</p> <p>Ministry of Agriculture: on linking fertilizers distribution or other subsidies to farmers with National ID card</p> <p>Commissioner for Lands, Malawi House Corporation: on linking land and property titles with National IDs</p>

The legal advisor worked with a Malawian legal team leading the legislative framework process, which includes a Citizenship Act to be addressed by the fourth quarter of 2018. A Data Protection Act has been outlined as part of the World Bank's Digital Malawi initiative, but a task force has already started to work actively on this Act (the task force is comprised of UNDP, NRB, Ministry of Justice, Law Commission, Communications Regulatory Authority, Ministry of Information).



Continuous registration in progress in Blantyre: An NRB Officer assists a citizen to register for National ID card.

The **capacity development** advisor oversaw the training for all aspects of the project, beginning with a capacity assessment of the NRB and focused on identifying gaps in the technical, organizational, governance, and staff capacities of NRB, and led to a capacity development plan for the group. The advisor carried out training for all staff and personnel after developing content on registration standard operating procedures, biometric registration, BRK troubleshooting, ID card distribution, etc., along with technical trainings for the NRB staff which later took over responsibility. Of particular note was the two-week one-on-one BRK troubleshooting and repair training for 30 top-performing female ROs.

The public awareness campaigns carried out by the **civic education** team were led by the public information officer. We staged campaigns at the national level, as well as at the community level using local languages. The campaigns used media including posters, banners, jingles, leaflets, radio, TV call-in programs, press releases, and district-focused SMS campaigns.

A full 97 percent of the plan activities were implemented on time.

The officer mobilized support for announcements at local gatherings such as football matches and weddings as well as at faith-based organizations, like mosques, churches, temples. These organizations were especially helpful to dispel misinformation regarding registration and to generate demand for IDs.

The different modes of community mobilization for national ID were road shows/ village caravans, community meetings, mobile loud-hailing punctuated by whistle-stop shows (some with MoICE), market-day (and trading centre) awareness rallies, sports bonanzas, interactive drama performances, live local and popular music and dance shows, radio / TV jingles and soap opera, dictation in schools, etc. In addition to these, there were district-focused SMS campaigns at the community level as well. A total of 27,630 posters were printed to inform citizens about the mass registration (10 percent in English, 90 percent in Chichewa) plus more than 98,000 public awareness campaign activities using posters; banners; jingles; leaflets; radio; TV call-in programs; press releases; and announcements at local gatherings such as football matches, market places, and weddings were conducted to mobilize for registration.

The **monitoring and evaluation** team utilized feedback collected from the call center and USSD reporting to inform immediate decision-making by the management. The team, led by the M&E officer, included UNDP, NRB staff, and development partners who scrutinized operations at ground level. They also conducted field monitoring in all of the districts, visiting more than 50 percent of the centers and interviewing over a hundred people including village heads. Finally, they liaised with partner agencies (UNICEF, Irish Aid, DFID, MEC, and NRB) to facilitate their field visits.



An NRB Officer assisting a citizen to collect her National ID card while others patiently await their turn.

VII. CHALLENGES AND LESSONS LEARNT

While UNDP has expertise on voter registration projects, this was the first initiative to directly implement a countrywide national ID project. It was a unique opportunity aimed at rapid registration to provide legal ID—what I call a shotgun approach. The initial challenge we had to confront with the Malawi national ID project was that **election experts originally designed it. Thinking about a national ID had to proceed through the lens of their rich knowledge of voter registration projects** even though the project document envisioned a national ID initiative beyond just voter registration.

This means while each of my team members could see the sky clearly, I had to make them see a new horizon!

This required me to expend much effort to convince Malawian stakeholders to rethink their preconceptions about the functions and utility of ID beyond voting. Voter ID cards are used for a single, closed, one-off transaction and are not meant to be enduring documents that serve citizens' needs over the course of many years. On the other hand, national IDs are living documents that are utilized for multiple verification and authentication processes. This meant changing the way we thought about implementing the project.

Shifting the focus towards a living ID meant we had to record families, not just individuals. This required connecting spouse data, registering children with a parent/guardian, and strengthening our procedures for identity verification. Greater privacy of citizens' data is required while implementing a national ID. I remember losing my cool when the government proposed to display ID card data on display centers so that citizens could collect their cards; this was not acceptable. Similarly, open architecture is required to eliminate the risk of vendor lock-in. Identity databases are forever, as record retention of citizens' data in many countries must extend beyond 99 years—hence the utmost care is needed when the identity of the citizen is born!

Indeed, in the Malawian context, **determining who was and who was not a citizen required innovation** on our part. There are three paths that people can take to Malawian citizenship: (1) birthright citizenship, (2) already being a Commonwealth citizen and then being awarded citizenship by the Minister of Government, and (3) naturalization after five to seven years spent in Malawi. Each of those methods ostensibly provides a verifying document, but in practice it was often not so simple.

To determine who qualified as a *bona fide* citizen, we developed a scoring model that assigned a certain number of points to different forms of identification, with 100 points acting as the threshold needed to qualify. For example, a passport received 60 points, a birth certificate 40 points, a driver's license 30 points, and so on (figure 3). Other acceptable documents included (but were not limited to) registration and naturalization certificates, utility bills, paystubs from government departments, etc. Crucially, given the prevailing absence of formal documentation, we also assigned 80 points to each traditional authority or village head who could act as a witness to verify a person's citizenship.

Obviously, no scoring system is perfect, so we also created an **adjudication committee to investigate and make determinations** for the roughly 3,400 cases whose files were either processed under juris or flagged as possible duplicates during deduplication. The adjudication committee, run by the NRB, includes members from the police, Immigration Department, and NRB officials to make the final decision for each case.

Figure 3. The Scoring Pattern for Registering as a Malawian Citizen

For proof of citizenship, score must total 100 or more.	
National ID card presented in person by biological parent, who is a Malawian (100)	Receipt presented in person by biological parent, who is a Malawian and registered previously by same BRK (100)
Personal testimony of village head and advisor (80)	Certified and signed letter from village head with indication of your parent and list of children (80)
Name in village register (80)	Citizenship or naturalized certificate (60)
Certified and signed letter from village head (40)	A certified copy of adoption court order (in the case of an adopted child when one or both of the adopting parents are Malawian Citizens) (40)
New birth certificate post 2015 (60)	Old birth certificate pre-2015 (30)
Malawian diplomatic / service passport (70)	Malawian passport (40)
Driver's license (30)	Voter card (40)
Government pay slip (30)	Two community witnesses registered by same BRK (must be present when register) (100)
Employment ID card (10)	Employment discharge certificate (10)
Marriage certificate (10)	Tax certificate (5)
Any other official document (10)	Letter from the social welfare officer of the district (in the case of an abandoned child who is now 16 years or above) (40)

The wide swathe of participating institutions meant that it was important **to keep all stakeholders together until the end of the project**. Weekly NRIS progress review meetings, monthly technical committee meetings, and quarterly steering committee meeting were conducted on time. All stakeholders with different vested interests worked together as ONE team to resolve the issues and conflicts. This developed a sense of ONE team working together towards common objective. Likewise, I kept high-level contacts such as minister and chief secretary with office of president in touch and sought their interventions as needed. As I noted previously, we were often asked how we would **find adequate numbers of competent registration staff and hold them accountable for the expensive equipment**, but our online testing for selection, payment structure (40 percent up front and 60 percent when they finished the job), and linking BRKs to staff IDs were effective in finding potential operators, removing bias and holding everyone accountable.

One concern that came up in the course of the project was that **ROs and their supervisors were unable to sustain the daily cost of living** in the field because project expense were estimated using a payment package based on voter registration drives. I was able to convince the development partners to add to their contribution to the basket fund to increase their pay, and we avoided strikes or work disruptions even though the ROs organized as a union. It is important to note that not even one day of strike or disruption of work was observed during the project.

The in-kind contribution promised by GoM in lieu of logistics were a problem. The GoM had **promised 800 vehicles for the project along with fuel and drivers, but we could only count on an average of 120 on any given day**, which meant we had to do resource leveling on the spot to manage the risks of delay.

Another logistical difficulty came in the form of **power breakdowns. As noted above, 70 percent of Malawi lacks electricity. Equally difficult, power breakdowns in the 30 percent of the area where there is electricity meant problems at warehouses and data centers**, which meant problems in syncing the BRKs with the NRIS servers. The BRKs were solar powered, and each was to be operated for eight hours a day, but due to the numbers of people who came to register, they were often operated more than 12 hours a day, which took away the charging time; there was not enough time to recharge the BRKs during the day.

To allay these issues, we purchased an additional 250 batteries and gave those to SWAT teams to hand over where they were needed. We used churches, mosques and some nearby schools to recharge the BRKs quickly. To handle data center electricity outages, we installed a dedicated power line from the utility as well as an automatic voltage regulator and an uninterruptible power source at the data center

Carrying out the registration process in parts of rural Malawi also presented **unexpected religious and cultural challenges**. For example, there were modesty concerns about face-coverings among some Muslim communities, rumors that registering marked a person with an apocalyptic sign among some Christian areas, and rumors that the BRKs were used for blood-sucking. In most cases, these were resolved by engaging with religious authorities to explain how their constituents would benefit from registering, or explaining how the BRKs worked, although in very few minor cases we did require police intervention to evacuate ROs from difficult situations.

A few instances of corruption did arise when it came to our attention that **some village heads were demanding money to sign forms**, which we addressed by incorporating clarifications that all forms were free into our civic education campaigns. Community radio was the best platform to disseminate information very quickly. Part of this bottleneck arose from a **scarcity of printed forms** in the first place, which we solved by printing more and publishing the same on the UN Country Office website for the public to freely download. When people found out, they downloaded the forms and hence we saturated the black market and drove culprits out of their illegal business.

At the completion of NRIS mass registration, **two different and uncoordinated systems were existing: the Birth Registration System and the NRIS system**. UNDP recommended at this juncture that the current Birth Registration System and NRIS should be combined and merged into one seamless system with regards to the database, operating systems, and hardware technology. This would have resulted in ONE NRIS having different modules such as registration for a national ID card, birth, death, divorce, marriage and others. These modules could be deactivated as per context demands, for example, marriages and divorces could be deactivated for health facilities. The objective

was to leapfrog towards a unified National ID and Civil Registration & Vital Statistics (CVRV) System operating on ONE database, avoiding duplication of effort, and offering easy maintenance, data protection, government ownership and resource-levelling—but instead of merging with the birth registration system, the GoM insisted on keeping the two systems separate. We anticipate this contributing to fatigue, in systems operations and maintenance and database management.

NRB is positioned uniquely as it has a mandate for both CRVS and ID card issuance, unlike the situation in many other countries where civil registration is decentralised and is under the mandate of local government. Hence, in my view, not opting for ONE system by the GoM was a missed opportunity. Nevertheless, respecting the sovereign government decision, as a last resort, we linked both systems in a way that a birth registration is captured by the birth registration system and that transaction is passed on to the NRIS to generate a unique ID, which is sent back to birth registration to issue a birth registration certificate. But at the same time, we told them that it would not be easy to ensure the syncing of both systems. After a year the NRB learnt the hard way that it was indeed very challenging and taxing to keep both systems in sync. They are now ready to merge the systems and we are helping them to achieve that goal.

Now that Malawi has achieved almost universal adult registration and ID card distribution, the biggest challenge it faces is what I witnessed in Pakistan as well⁴—that is **the will of established political and bureaucratic elites to continue with integrating the National ID into the operations of ministries, departments, and agencies as a key public reform**. Doing so has the potential to strengthen democracy, empower Malawians with their key rights, increase the transparency of the economy, target vulnerable groups and communities to roll out social safety nets, and expose grand corruption. With the citizens' database established, one can assert that Malawi has acquired capacity to do all of the above. But does it have the political will? That is the real question!

Anticipating the Future: Digital Dividends of the ID Ecosystem.

As I look ahead, the new government has an opportunity to institutionalized its reform agenda anchored in National ID integration with various MDAs (Ministries, Departments and Agencies). At least 10 major initiatives and applications growing out of this project to anticipate in the near term.

1. Perhaps most obviously, MEC grew its voter lists out of the national ID database. The countrywide voter registration drive resulted a process that restored citizens' confidence in the process that was just a scan away for citizens. A transparent voter list comprising **6,859,570 registered voters** having the National ID was developed without any inclusion or exclusion errors (Gender Breakdown: **Female 3,813,578 -55.6%**; **Male 3,045,992-44.4%**) Malawi can learn from Pakistan and register the adults in voters list when they register for the National ID. There is no need to wait for five years or on elections.
2. The Malawi Revenue Authority is implementing an integrated tax administration system which will ensure that anyone registered with an ID card is concurrently registered as a potential taxpayer, so facilitating tax collection and making evasion more difficult. This will also be the first time that a citizen will be able to go online and register with their ID card to pay taxes. An API (Application Protocol Interface) has been developed and user acceptance testing is being conducted, initially on 7000 taxpayers.

⁴ For more discussion of the political economy of ID applications in Pakistan, see Tariq Malik (2014) "Technology in the Service of Development: The NADRA Story" Center for Global Development, November 7.

3. The Reserve Bank issued a gazette notification requiring all banks to use the ID as the primary means of identification, eventually linking not only all bank accounts to the national ID, but also helping to identify high-value transactions to combat money laundering. The ID system also provides the underlying identification infrastructure needed to roll out branchless banking.
4. Robust identification systems such as the National Registration and Identification System (NRIS) for Malawi, designed and implemented with the SDG aspirations in mind, can be a catalyst for achieving many other development goals and targets, especially those related to health. In the process of managing the project, I wrote a concept paper titled “Unique ID for eHealth Strategy” for Malawi, which got a lot of attention from the NGO community and the Ministry of Health. The Chief Director, NRB and the Minister of Health are enthusiastic to implement it next year. It integrates the national ID into all health system, records vaccinations provided to children, reduces the gap in child registration and tracks the delivery and stocks of medicines. As part of its efforts to boost South-South cooperation, the UN is tapping all its global resources to deploy the most innovative, yet proven, solutions in this area.
5. The GoM’s Department of Human Resource Management (DHRM) and NRB embarked on reconciling the civil servants’ database with the data on citizens. This has resulted in identification of thousands of civil servants some with mismatches between their National ID and employment ID data. The work is proceeding to expose ghost workers and clean the payroll system of the country.
6. The Immigration Department intends to populate passport applications with the data provided by the ID card and allow for one-swipe functionality in use at airports and land crossings. The initial integration of National ID System with Passport System is completed. ID card authentication is mandatory now for issuance of a passport.
7. We are working with the Ministry of Foreign Affairs to issue cards to overseas Malawians, while advocating that special benefits be offered (such as speedy processing at the airport, expedited customs clearance, visa-free entry, etc.) to incentivize enrollment. There will be spillovers, such as encouraging domestic investment and making it easier to process remittances. Moreover, the Ministry of Home Affairs and the police service are interested in obtaining BRKs for the registration of prisoners (to ensure that the genuine convicts are in jail, not proxies as in, for example, Pakistan) as well as to support witness verification and protection.
8. Beyond these applications, the Malawi Housing Corporation and the Ministry of Local Government are looking for ways to link IDs with property deeds and land rights, as a means of preventing corruption and clearing up longstanding disputes.
9. The national ID system is facilitating private sector activities such as those of credit bureaus, telecom operators, and financial lenders.
10. The Malawi Postal Corporation has outlined a proposal to equip their network of 98 post offices with BRKs and thereby serve as citizen service centers that can interface with the ID system last year. Over 65 post offices with technical infrastructure have facilitated expansion of the service network from the 28 district offices, and provide a far broader geographic footprint.

In nutshell, the NRIS project is a gamechanger. It has the potential of transforming governance in Malawi. Three key drivers of its success and continued effectiveness are commitment, coordination, and cooperation among all stakeholders. Can this model be applied to leapfrog towards SDG16 target

9? Isn't it time for "the global community to move beyond asking 'What is the right policy?' and instead ask 'What makes policies work to produce life-improving outcomes?'"⁵

⁵ *Governance and the Law*, World Bank Group Report 2017



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