

DIGITAL RIGHTS AND ACCESS TO INFORMATION SERIES 4

# DIGITAL MIGRATION AND ACCESS TO INFORMATION

THE SOUTHERN AFRICAN EXPERIENCE

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July, 2022



Digital broadcasting migration is generally a process in which broadcasting services offered on traditional analogue technology are replaced with digital networks. It is the transition or switch from analogue broadcasting to digital broadcasting.



Most Southern African countries have made good progress and are in the final stages of digital migration. However, some countries are struggling due to financial constraints and a lack of urgency to comply with ITU and SADC guidelines.



Digital broadcasting has improved signals and technical picture quality. It affords audio descriptions for the visually impaired. This group was previously uncatered for as analogue could only provide sign-language services for the deaf and hard of hearing.



Subsidising STBs is also a clear indication of the political will of some governments in the region to ensure that citizens enjoy the full benefits of digital migration and its inherent spin-offs, which include access to information.



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## 1

## INTRODUCTION

Analogue terrestrial broadcasting has existed since the 1940s but was rendered obsolete by technological advances. Its demise was further exacerbated by its inefficient use of the frequency spectrum, which is a limited resource.

For instance, Analogue Terrestrial Television uses one frequency to carry one programme channel, while Digital Terrestrial Television (DTT) can use one frequency to carry multiple programme channels. This effectively means that DTT allows the transmission of many television programmes using one frequency channel at a lower cost.

Digital Broadcasting Migration is generally a process in which broadcasting services offered on traditional analogue technology are replaced with digital networks over a specific period. Digital Migration is the transition or switch from analogue broadcasting to digital broadcasting.

For the average viewer, this process involves the installation of a digital decoder that converts analogue signals to digital using set top boxes (STB). These signals can then be viewed on a conventional television set.

Having taken cognisance of the limitations of analogue broadcasting, especially in a world with ever-growing sophisticated technologies, the International Telecommunications Union (ITU), a United Nations agency, initially set 17 June 2015 as the deadline for migration to digital, allowing some countries an additional five-year extension.<sup>1</sup>

The motivation given was the requirement to free up bandwidth and release it for, amongst others, an expanded 5G cell phone network.

Almost all of Europe and other developed countries successfully migrated to digital as far back as 2004. Africa still lags behind.

*Almost all Southern African countries, except Mauritius and Tanzania, failed to meet this deadline. This was in sharp contrast to the performance of most European and developed countries, which managed to fully migrate Digital Terrestrial Migration before the June 2015 deadline.<sup>2</sup>*

This was despite the ambitious decision in 2009 by the Southern African Development Community (SADC), that the Southern African region should migrate to digital broadcasting by 31 December 2013, two years before the ITU switch deadline. The milestones of the envisaged smooth transition were encapsulated in *The SADC Roadmap for Digital Broadcasting Migration*.<sup>3</sup>

This SADC initiative was lauded as a step in the right direction in providing greater access to information and the means to produce and disseminate such information. Indeed, in 2013, François Rancy, then Director of the ITU Radio-communication Bureau, boasted that *"Africa, to date, is the only region to have completed frequency coordination discussions for the deployment of digital terrestrial television."*<sup>4</sup>

Therefore, it can safely be said that there is a collective political will for digital broadcasting migration in Southern Africa. In fact, the regional body has had annual meetings since 2009, to assess the status of digital migration and to troubleshoot.

1. [itu.int/en/ITU-R/terrestrial/broadcast/Pages/switchover.aspx](http://itu.int/en/ITU-R/terrestrial/broadcast/Pages/switchover.aspx)

2. Media Institute of Southern Africa (MISA). *State of broadcasting and digital migration in the region*. 2021. Available at <https://data.misa.org/en/entity/s4nfwzp95gm>.

3. SADC ICT Minister Meeting, Namibia, 2009.

4. [https://www.itu.int/dms\\_pub/itu-r/oth/0b/07/R0B070000120002PDFE.pdf](https://www.itu.int/dms_pub/itu-r/oth/0b/07/R0B070000120002PDFE.pdf)

## 2

## CURRENT STATUS

The latest figures show that some SADC countries have made good progress and are in the final phases of the digital broadcasting migration process. Others are struggling due to various factors (see **Challenges**).

The Covid-19 pandemic that hit the world in early 2020 also negatively impacted the progress of digital broadcasting migration programmes as resources had to be channelled towards fighting the pandemic.<sup>5</sup>

With the pandemic hopefully behind us, regional governments can once again focus on this process. In fact, there is no choice but to go this route, as DTT is critical to development.

An ITU study on the economic contribution of broadband, digitisation and ICT estimated that a 10% increase in mobile broadband penetration in Africa would generate an increase of 2.5% in GDP per capita.

### *So, where is Africa with digital broadcasting migration?*

In its latest research paper on the status of DTT in the region, the Media Institute of Southern Africa (MISA) gives a general overview of the status of digital migration in the region:

- **Zimbabwe** has migrated to digital broadcasting and invested millions of US dollars in infrastructure. However, STBs have not yet been made available to consumers.
- **Tanzania** successfully completed migration in 2015.
- **Mauritius** successfully migrated to digital in 2005.
- **Botswana** is well on its way to fully migrating to digital broadcasting with all the analogue transmitters in the northern regions switched off.
- **Angola**, with the technical assistance of Japan, switched over in mid-2022.
- Although **South Africa's** digital migration has been fraught with problems, it has largely been achieved. Some 5 million free decoders are currently being distributed. The final migration was scheduled to take place in mid-2022.
- **Namibia** is in the process of migrating to the high-definition Direct to Home (DTH), which uses satellite. It has the advantage of no infrastructure or maintenance costs.<sup>6</sup> But before this can be achieved, the country must first solve the problem of faulty STBs, which saw many of them returned by consumers.
- In an example of a well-planned and carefully implemented DTT migration process, **Zambia** has supplied 1 million STBs to consumers and 250,000 satellite decoders to those not covered by the DTT network.
- **Malawi** migrated fully to digital in April 2021, with the minister of Information, Gospel Kazaiko, saying the migration to digital would open up more opportunities for the country's broadcasters to expand the broadcasting industry to its full potential.<sup>7</sup>
- **Lesotho** adopted a phased migration and, by September 2022, had constructed 22 towers for the digital migration process. To date, 16 radio stations have migrated to digital. As in all countries in the region, audiences will be required to have an STB. The national broadcaster, Lesotho Television, will be able to expand its network to 27 channels.<sup>8</sup>
- In 2014, the **Eswatini** government embarked on regional roadshows to sensitise the public about the switchover from analogue to digital. This was scheduled for the end of 2015. The Swaziland Digital Terrestrial Television Migration Policy (SDTTMP) was developed and brought together stakeholders, including content providers. The government says the country is ready to migrate to digital. However, the process is hamstrung by the unavailability of STBs.<sup>9</sup>

5. MISA State of Broadcasting and Digital Migration in the region, 2021

6. NAMIBIAN BROADCASTING CORPORATION 2022

7. The Nyasa Times, March 2021

8. Government of Lesotho Newsletter, 2022

9. UNESCO. Digital Library: [unesdoc@unesco.org](mailto:unesdoc@unesco.org) 2015

## 3

## ADVANTAGES

Why the migration to digital terrestrial broadcasting? What's in it for the ordinary citizen or even broadcasting professionals, for that matter? More importantly, how does it promote and entrench the right to information and human rights?

Digital radio and television are revolutionising the terrestrial broadcasting industry. There are several arguments in its favour:

- Digital broadcasting is more cost-effective than analogue and provides a broader spectrum on various platforms. This effectively means that a wider range of citizens and interest groups can access broadcasting frequencies.
- It gives broadcasters and content creators a wider choice of frequencies, which means more players can enter the market. This gives viewers a far greater range of viewing options. In Tanzania, the number of television channels, for example, grew from 13 to 34 with digital migration.
- It affords users and stakeholders more access to viewing and listening options. For instance, when the STB receives the signal, it can interface with devices such as cellphones, memory cards or internet modems, giving users access to more services and information.<sup>10</sup>
- Digital broadcasting has improved signals and technical picture quality. It affords audio descriptions for the visually impaired. This group was previously uncatered for as analogue could only provide sign-language services for the deaf and hard of hearing.
- It gives the voiceless a voice, enhancing and strengthening access to information and human rights. This benefits marginalised groups, such as women, people with disabilities, people in remote areas such as the OvaZemba (Namibia/southern Angola) and minority groups, such as the LGBTIQ+ community.
- It creates better opportunities for local content, an important consideration in the quest to promote local cultures to younger generations.
- A MISA report noted that "digital migration...creates avenues for media freedom and content creation which subsequently ensures access by media practitioners to diverse information and views. This is also beneficial to ordinary citizens who are also guaranteed further access to information."<sup>11</sup>
- Arguably the most important benefit of this digital migration is access to information in a language of one's choice.

10. International Journal of Scientific and Research Publications, Vol. 12, Issue 7, July 2022

11. <https://data.misa.org/en/entity/s4nfwzp95gm?file=1639144599829scavj93pwgk.pdf&page=6&raw=true>

## 4

## CHALLENGES

Digital broadcasting hinges on three pillars:

- Infrastructure
- Content
- Consumer awareness and set top boxes (STB)

Although these pillars are interdependent, the most important of them is the third: consumer awareness and set-top boxes. Without the buy-in of the population, digital broadcasting migration (DBM) will not succeed.

Most Southern African countries have made good progress and are in the final stages of this process. However, some countries are struggling mainly due to financial constraints and a lack of urgency to comply with ITU and SADC guidelines.

Some countries adopted a phased approach to DBM, initially emphasising infrastructure rather than consumer awareness and STBs. In these countries, consumer buy-in is lacking and purchasing STBs is therefore considered an unnecessary financial burden.

In other countries, STB distribution and installation have been problematic. Some viewers found the decoder installation and television-tuning processes difficult, and others required antenna adjustment or even the purchase of new antennas.<sup>12</sup>

For example:

- In Namibia, the STBs were of poor quality and broke down frequently, resulting in hundreds being returned.
- In Zimbabwe, while infrastructure was in place, no STBs were available.
- In Tanzania, STBs cannot yet be operated as a single unit. A consumer currently has to buy several STBs to access all services.

Restrictive media regulations have also been a challenge. Although many countries profess to uphold freedom of speech and access to information, the reality on the ground is a different story. National broadcasters, in most cases the drivers of DBM, practice self-censorship or are controlled by authorities.

However, as DBM becomes a reality, political authorities loosen their grip on the airwaves. This has also seen several countries enacting Access to Information laws or policies (see Promoting Access to Information).

Other challenges in the digital migration rollout include legal squabbles about STB encryption in South Africa, allegations of 'premature' digital migration strategies (Malawi and Tanzania), and numerous setbacks continuing in Zimbabwe due to, amongst others, lack of funding for infrastructure.<sup>13</sup>

There was also concern that the costs to go digital "may cause problems when it comes to the right of access to information because there is a barrier in terms of how that information is accessed and millions will be left out."<sup>14</sup>

In Botswana, persuading middle- and high-income viewers to purchase STBs has been challenging because they don't see any advantage over their existing satellite options. The same is true in Namibia, where DSTV decoders far outnumber the Namibian Broadcasting Corporation's STBs. DSTV subscribers do not see the need to purchase STBs, even subsidised, because the same DTT options are available on DSTV.<sup>15</sup>

Further exacerbating this situation is GOtv, a pay television terrestrial service made available in sub-Saharan Africa by MultiChoice. This is a far cheaper option than any DSTV bouquet and has made decoders affordable to ordinary consumers, many of whom chose this option over STBs.

12. <https://www.gov.za/sites/www.gov.za/files/DTT-everything-you-need-to-know-2015.pdf>

13. <https://allafrica.com/stories/202203070189.html>

14. <https://data.misa.org/en/entity/s4nfwzp95gm?file=1639144599829scavj93pwgk.pdf&raw=true&page=27>

15. Namibian Broadcasting Corporation Commercial Services, August 2022

In South Africa, a court case was brought by the free-to-air terrestrial broadcaster, e.tv, who feared the process of migration was being “rushed” and that the switch-off from analogue “would leave numerous people who rely on free-to-air television without signal, with no access to news and other important information.” The argument from the government was that stalling the process further would lead to “digital exclusion” for many viewers and listeners.

The South African government and the DBM were dealt a blow when the Constitutional Court declared that the final switch-off date of the analogue signal and the end of dual illumination, as well as the deadline of 31 October 2021 for qualifying households to register for STBs, was unconstitutional, invalid and was set aside.<sup>16</sup>

By 25 April 2022, only 258,821 STBs had been distributed, and only 109,000 units had been installed.

There are now fears that some stations will lose viewers because of what has been called the “rushed” implementation of digital migration. One community station, Cape Town TV, claims it will lose 600,000 viewers a month and will have to find funds to hire space on 32 transmitters instead of one.<sup>17</sup>

However, while migrating to digital terrestrial broadcasting may be fraught with problems, Mauritius successfully migrated to digital in March 2003. Today, the country has three operational digital multiplexes, which have provided seventeen channels for the Mauritius Broadcasting Corporation. Like Namibia, it is now upgrading infrastructure to include High Definition (HD).<sup>18</sup>

16. <https://www.engineeringnews.co.za/article/court-ruling-pushes-out-digital-migration-wrap-up-2022-06-29>

17. <https://allafrica.com/stories/202205140229.html#:~:text=The%20analogue%20television%20signal%20will,and%20sink%20community%20television%20stations.>

18. Multi Carrier Mauritius Ltd. (MCML)

## 5

# PROMOTING ACCESS TO INFORMATION

Digital terrestrial broadcasting engenders access to information, not only for content creators and broadcasters but also for the public at large. This enhanced media freedom means a more discerning and informed society, especially if such information is provided in local languages. However, the political environment must be conducive towards free access to information.

In the last thirty years, a revolutionary wind of change has been blowing over the region, and indeed the continent, inexorably ushering in a new age of democracy. One by one, totalitarian governments were toppled by the will of the people. This shifting tide brought new freedoms, not least of which was access to information in many countries. In keeping with these ground-breaking changes, new democratic governments enacted access to information laws or put in place mechanisms that contribute to the access to information environment. Zimbabwe and South Africa led the charge, with other countries following suit. Namibia, paradoxically being the most recent country to begin the process of enacting such a law. The only exception in the

region is the Kingdom of Eswatini (formerly Swaziland), where efforts to bring about democracy have not been successful.

An interesting case of ‘where there’s a political will, there’s a way’ is Malawi. This former one-party state only introduced television in 1999 under the first democratically-elected government of Bakili Muluzi, literally decades after other countries in the region had introduced television. And yet, by 2015, the country had migrated swiftly to digital.<sup>19</sup> This increased access to information and freedom of speech in the form of a plethora of private broadcasters.

Despite the above-mentioned positive steps towards freedom of information, the Russia-Ukraine conflict showed how vulnerable this freedom remains. Consumers woke up to find that broadcasts of Russia Today, the Russian Federation’s state broadcaster, had been removed from their DSTV bouquet. MultiChoice blamed their global service providers, claiming they had curtailed the broadcasts and the matter was, therefore, out of their control. This raised serious concerns about how independent broadcasters in Southern Africa are

19. Rapid TV News, April 2016

when they are reliant on a restrictive bouquet of channels chosen elsewhere, with little or no concern for the region's geopolitical dynamics or its people.<sup>20</sup>

Digital migration has also brought unexpected benefits: in the five countries in the region that fought brutal wars of liberation (South Africa, Zimbabwe, Angola, Mozambique and Namibia), the colonial regimes had used the limited frequency coverage area of FM radio transmitters to control what citizens could listen to. This has all changed with the advent of DMB.

During the liberation war in Zimbabwe, free 'FM only' radios were distributed to rural areas to prevent listeners from tuning in (via shortwave) to broadcasts by the region's liberation movements, which were broadcasting from independent neighbouring countries such as Zambia, Tanzania and as far afield as Ethiopia. South Africa jammed these broadcasts, not always successfully. This sort of control is now in the past as DMB has brought with it unlimited access to many people, offering previously unknown and unheard-of listening choices for rural people. DMB is also far more difficult to jam, and thus has added an additional level of protection to the rights of listeners.

The most important example of how digital migration has positively impacted access to information is the availability of

unlimited radio frequencies. This has seen the proliferation of hundreds of independent and private radio stations, some broadcasting in local languages. It has also given rise to community radio, which is owned by the community. Programmes aired are for and about the community, giving a voice to issues affecting them.

It is crucial to note that radio is the most popular medium to access information in the region, which is still plagued by poor rural infrastructure. Its importance cannot be stressed enough as it takes centre stage in promoting access to information.

Digital migration has further strengthened access to information, giving a voice to the previously voiceless. Citizens are, therefore, able to set their own development agendas. A case in point is the Development Through Radio (DTR) concept, where rural women produce their own radio programmes, which are then aired on national broadcasters or community radios.

On a side note, the digital migration process has, at least in Africa, avoided mention of phasing out FM (analogue) radio. The costs involved in replacing every radio in every household would be high, and it would deprive citizens of many countries of vital access to information in their own language, access which the FM radio network still provides in most countries.

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20. <https://ewn.co.za/2022/03/03/multichoice-explains-why-it-stopped-rt-airing-on-dstv>

## 6

# THE INTERNET DEVELOPMENTS

Initial plans for digital migration to allow unlimited internet access have been irrevocably overtaken by the rapid development of internet technologies. Citizens who can afford it can now access unrestricted internet. This can be done not only with modems but also through smartphones. This new development enables citizens to listen to live radio broadcasts anywhere in the world. For instance, it has also given rise to alternative broadcasts by Zimbabweans living in the diaspora.

The NBC has taken advantage of this development by introducing programmes such as 'In the Diaspora' for Namibians living abroad.

Regarding television, several television and radio stations live stream on social media platforms such as Facebook, providing citizens in Southern Africa the ability to follow developments in the region.

However, with only 22% of the continent having access to the internet and 9 out of 10 young people with no internet access throughout Africa and Asia, radio continues to take centre stage. Total internet availability on the continent is not expected until 2030, bar challenges and other constraints.<sup>21</sup> Therefore, to dwell on the benefits and advantages of the internet to citizens in the region is moot at this time.

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21. IFC.ORG 'Bringing Africa up to speed'. 2019

Regardless, governments in the region recognise the importance of the Fourth Industrial Revolution (4IR) to democracy and economic and social development.

This was never made more brutally evident than during the COVID-19 pandemic when governments imposed draconian lockdown measures to contain the spread of the virus. This included stay-at-home orders, with movement strictly limited to essential service providers only. The way citizens in the region work, live and socialise changed dramatically with the advent of the pandemic. Additionally, employers relied heavily on video conferencing tools such as Zoom and Microsoft Teams, as did schools and tertiary institutions.<sup>22</sup>

Regional governments have been left with little choice but to embrace 4IR technologies and to fast-track its implementation.

Ironically, a digital divide has also now opened in the opposite direction. Those viewers who have no traditional aerial, digital decoder, or satellite dish, and rely solely on the internet for their content, are now in the invidious position of having no coverage of their local events.

International television stations, such as Aljazeera, livestream their programmes on YouTube, but, to date, this is not the case with Southern African broadcasters, except for SABC (South Africa) and ZNBC (Zambia). However, many have short specific programmes on YouTube.

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22. UNIDO, November 2021 'South Africa's capability to deploy 4IR technologies post Covid'.

## 7

# CONCLUSION

The region has taken a step in the right direction towards digital migration, as can be seen by the fact that all the countries in the region have migrated, or are in the process of migrating to, digital terrestrial broadcasting.

Subsidising STBs is also a clear indication of the political will of some governments in the region to ensure that citizens enjoy the full benefits of digital migration and its inherent spin-offs (including access to information).

Digital technology has allowed the region to progress from single television channels with poor-quality audio and video to multiple high-quality television channels; from radio broadcasting restricted by area to radio broadcasts accessible throughout an entire nation and beyond, and from a reliance

on printed news to digital information available on a television screen.

It will allow countries to introduce faster 5G internet access despite limited area coverage. It will also benefit citizens by increasing access to language-specific information and entertainment, as well as industry players. Equally important, communities will now be able to set their own information and programme agendas, giving them voices for the first time, further entrenching democracy and basic rights.

Lastly, the regional governments still lagging behind in DBM must hasten the process and provide the finances, infrastructure and buy-in of the people if the region is to achieve Vision 2030 and MDGs.

## ABOUT THE AUTHOR

Norah Appolus is an award-winning veteran journalist and broadcaster. She has worked for various broadcasters around the world: Radio-Television Algerie (RTA) Algeria; Radio France International (RFI) France; and Namibian Broadcasting Corporation (NBC) Namibia. She is also a stringer for British Broadcasting Corporation (BBC) and RFI.

Her notable achievements include leading the team that trained and launched TV Malawi in 1999. She also successfully introduced the Development Through Radio concept to rural women in Namibia.

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opportunities to access, exchange and use information and knowledge. They need to be able to communicate and exchange ideas, opinions, data, facts and figures about issues that affect them and their communities.

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