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Radio and Development in Africa

A Concept Paper

**Prepared for the International Development
Research Centre (IDRC) of Canada**

Mary Myers

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Abbreviations

ACP	Africa Caribbean and Pacific
AFRRI	African Farm Radio Research Initiative
AMARC	World Association of Community Radio Broadcasters
AMDI	African Media Development Initiative (BBC)
BBC	British Broadcasting Corporation
CATIA	Catalysing Access to ICTs in Africa (DFID, UK)
CMC	Community Multi-media Centre
CTA	Technical Centre for Agricultural and Rural Cooperation
DFID	Department for International Development (UK)
DRC	Democratic Republic of Congo
FAO	Food and Agricultural Organisation of the United Nations
FM	Frequency Modulation
GPRS	General Packet Radio Service
ICASA	Independent Communications Authority of South Africa
ICT	Information and Communication Technology
IDRC	International Development Research Centre (Canada)
IREX	International Research and Exchanges Board
ISP	Internet Service Provider
ITU	International Telecommunications Union
KBC	Kenya Broadcasting Corporation
MBC	Malawi Broadcasting Corporation
MDLF	Media Development Loan Fund
MISA	Media Institute of Southern Africa
NGO	Non-Governmental Organisation
OSI	Open Society Institute
RFI	Radio France Internationale (French international radio)
RIA	Research ICT Africa
RTL	Radio Télévision Libre Milles Collines (Rwanda)
RTNC	Radio Télévision Nationale du Congo (DRC)
SABC	South African Broadcasting Corporation
SMS	Short Messaging Services
SW	Short Wave
TV	Television
UNDP	UN Development Programme
UNESCO	UN Education Scientific and Cultural Organisation
UNHCR	UN High Commission for Refugees
VOA	Voice of America
WHO	World Health Organisation
WiFi	Wireless technology
WST	World Service Trust (BBC)

Executive Summary

Radio is still the dominant mass-medium in Africa with the widest geographical reach and the highest audiences compared with television (TV), newspapers and other information and communication technologies (ICTs). Overall, radio is enjoying a renaissance and numbers of small local stations have exploded over the last twenty years, due to democratisation and market liberalisation and also to more affordable technologies. Radio seems to have proven itself as a developmental tool, particularly with the rise of community and local radios, which have facilitated a far more participatory and horizontal type of communication than was possible with the older, centralised broadcasting model of the 1960s and 70s. There seems also to have been a re-discovery of radio in the context of new ICTs, a realisation that technology has made radio into a more two-way medium and that it can help bridge the digital divide by providing a powerful tool for information dissemination and access, especially for hard-to-reach rural audiences.

Radio stations can be divided roughly into four categories: state-controlled public radio; privately owned commercial radio; community-controlled radio and international radio. However, there is much overlap. Private commercial stations have bigger audiences than government radio in many countries, and, although dependable statistics for Africa as a whole are difficult to come by, it is clear that state radio is coming under increasing pressure from regional and local commercial radio throughout the continent, especially in urban areas.

Which types of stations are best for reaching and empowering the poor depends on the context. Community radios, when truly community-oriented, can have some impressive results. But they can be appropriated by negative political forces and, at worst, can turn into 'hate radio'. Quality of output is not guaranteed, particularly given the prevailing financial constraints. 'Community' is not necessarily 'good', and 'commercial' is not necessarily 'bad'. Because a country's media may be liberalised does not mean that there are not enormous pressures on press freedom and great economic challenges faced by broadcasters. From audiences' point of view there is still a great - often unmet - demand for independent trustworthy news sources. Despite some positive examples, (e.g. South Africa), there is a clear need for more independent and more professional regulatory bodies and better legislation that favours freedom of information, diversity, pluralism and the protection of broadcasters. Community radio has special needs when it comes to legislation and regulation.

At present, Africans' news and information-seeking behaviour would seem to depend mainly on radio, TV to some extent, and to a growing extent on mobile phones. Radio as a source of news and entertainment is completely unopposed by the internet. One of the main challenges for developmental content on African radio is the need to produce programmes on a tight budget. The prevailing culture of African radio is that of the live broadcast, rather than pre-prepared programmes (e.g. dramas, magazines, talk-shows involving experts) - although there are many excellent examples in the latter categories. Normally these are produced by separate production houses and funded by donor aid. Much development content is produced in this way, with radio stations charging air-time to NGOs and civil society organisations to broadcast their programmes. Local radio still performs the function of a community telephone kiosk in many isolated rural areas and radio's immediacy, portability and ubiquity make it an invaluable tool in emergencies and the humanitarian aid context.

Radio journalists in Africa, are, on the whole badly paid, have little job-security and are poorly organised. This has various negative consequences including corruption and lowering of standards within the profession. African radio journalists are mostly poorly trained, if trained at all, and there is a high turnover and brain-drain out of the profession. Faced with this scenario the need for investment in training is continuous and vital.

Radio stations face many technical challenges, but also opportunities. Alternative energy sources (e.g. solar, wind-up) hold potential, but are not as widespread as one might expect. Satellite based broadcasting does not seem to have had as big an impact as some predicted. The advantages offered by the internet are still hampered mainly by cost and infrastructure problems, but there is a definite trend towards African broadcasters gradually getting on-line and using the web to network with each other, enhance their output, get themselves known in the wider world (websites and blogging) and to build their own capacities. There is still little known about the ways in which the internet is impacting on African radio. Mobile phones have revolutionised radio reporting and audience participation in radio, and this exciting trend can only continue and evolve.

Whilst there are some proven successes in terms of radio's development impact to date, there are still some question-marks over radio's impact. This report identifies and discusses the issues of gender and minority access and inclusion in radio broadcasting; the issue of inciting violence and radio's 'double-edged' nature in vulnerable societies; the whole question of sustainability and whether or not developmental - and/or 'public-service' - radio is a viable concern from an economic standpoint. Underlying all these questions remains the challenge of how precisely to measure the impact of radio; finding appropriate methodological tools and forums to do so; and the problem of defining and researching behaviour change.

Looking at future trends, technology is changing fast but seems to be enhancing rather than replacing radio. Future developments involving the convergence of radio and mobile telephony are particularly exciting but internet-based radio, pod-casting and 'any time any place' radio-listening via mobile devices such as MP3 players are some way off. Meanwhile, radio is likely to be challenged increasingly by TV, although this is actually a slower process than may first appear. At the level of international donor support, radio, which at one time was regarded as the 'poor cousin' of the newer ICTs, has been brought back into the ICT family, and there is renewed interest at the policy level.

Systematic and reliable data on the radio sector is underdeveloped or non-existent. This is hampering commercial and aid investment. It is valuable to understand better the state of play of 'traditional' radio, as this will help us improve our understanding of the potential impacts that can be had from enhancing the medium with the use of ICTs. Specific research is suggested under the following headlines:

1. Baseline data required:

- Statistical information and mapping of radio stations and audiences - particularly quantitative audience information about rural areas and complete and up to date directories of radio stations in Africa.
- Existing patterns and trends in technology-access by radio, and more data on how broadcasters are using new ICTs.
- Qualitative baseline data about African radio audiences and about content providers, particularly governments.

2. Impact evidence and analysis required:

- Indicators, field methods and analytical tools developed for rigorous evaluations
- Socio-political analyses of how radio improves debate and what difference debate makes to development
- Research on the impact of new ICTs and technology convergence on the radio sector
- Evidence of ways radio broadcasting can/could reduce corruption, influence public policy agendas, influence pro-poor policy-making and service provision, reach the chronically poor
- Cost-benefit analyses of radio use in development projects
- Analyses of the relative capacities of public, private and community radio to reach the poor
- Analyses of the real individual behaviour and social changes brought about by radio, especially over the long-term
- Documentation of the impacts of training, capacity-building and organisational development in the radio sector

3. Analysis of future trends required:

- How Africans are likely to use and experience radio in the future - particularly the future of wifi radio and convergence with mobile telephony.
- Where public-service broadcasting is going, in the context of economic liberalisation
- Future revenue streams and how pro-poor radio can develop existing sources of income, generate new ones and develop corresponding new business-models to help sustain itself into the future.

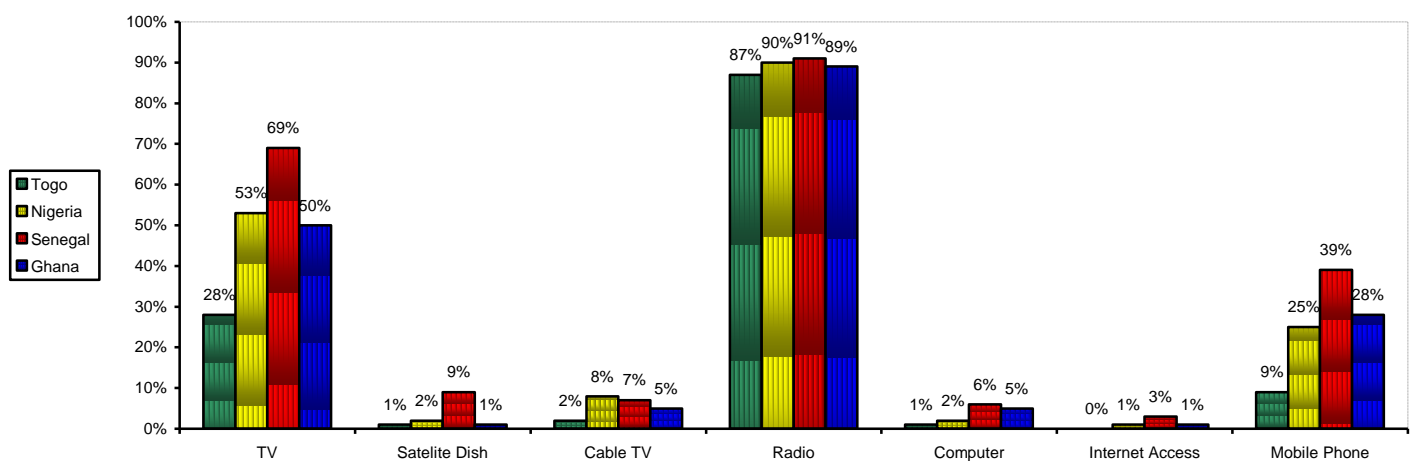
1. The present status of radio in Africa

1.a. Radio's place among other media

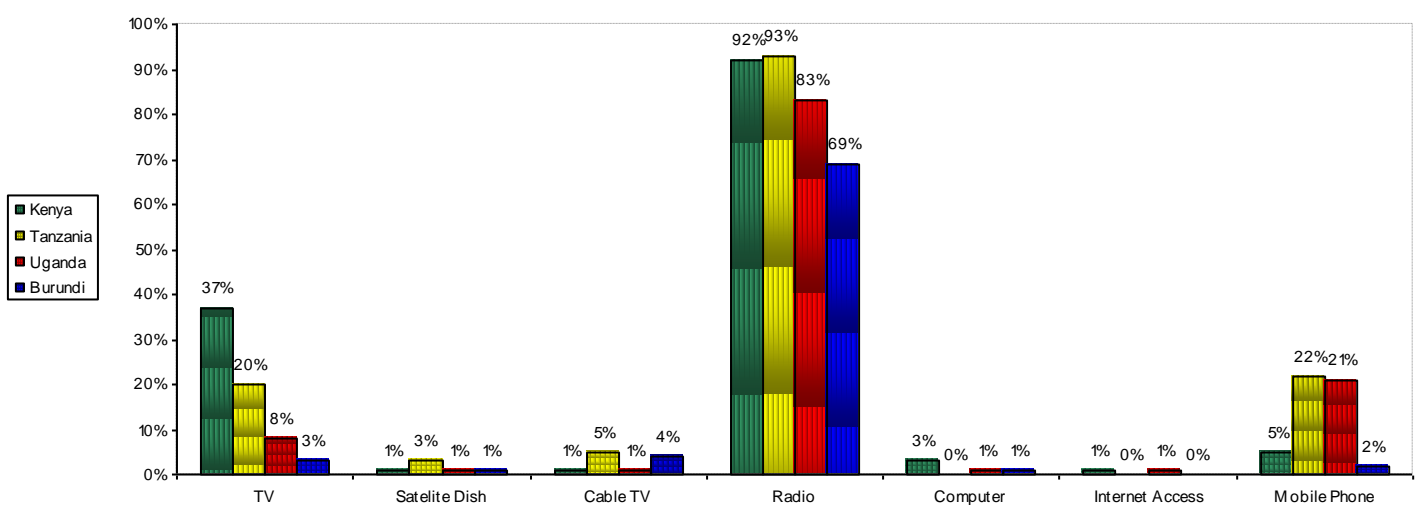
All the most recent and reliable surveys agree that radio is still the dominant mass-medium in Africa (see for instance Balancing Act 2008; BBC WST, 2006; RIA, 2005), with the widest geographical reach and the highest audiences compared with TV, newspapers and other ICTs.

The following charts, comparing radio receivers with other equipment owned in all parts of the continent show that radio is in the lead right across the board, registering ownership levels among adults of 70 to 80 percent on average.

West Africa: Equipment ownership (Balancing Act, 2008)

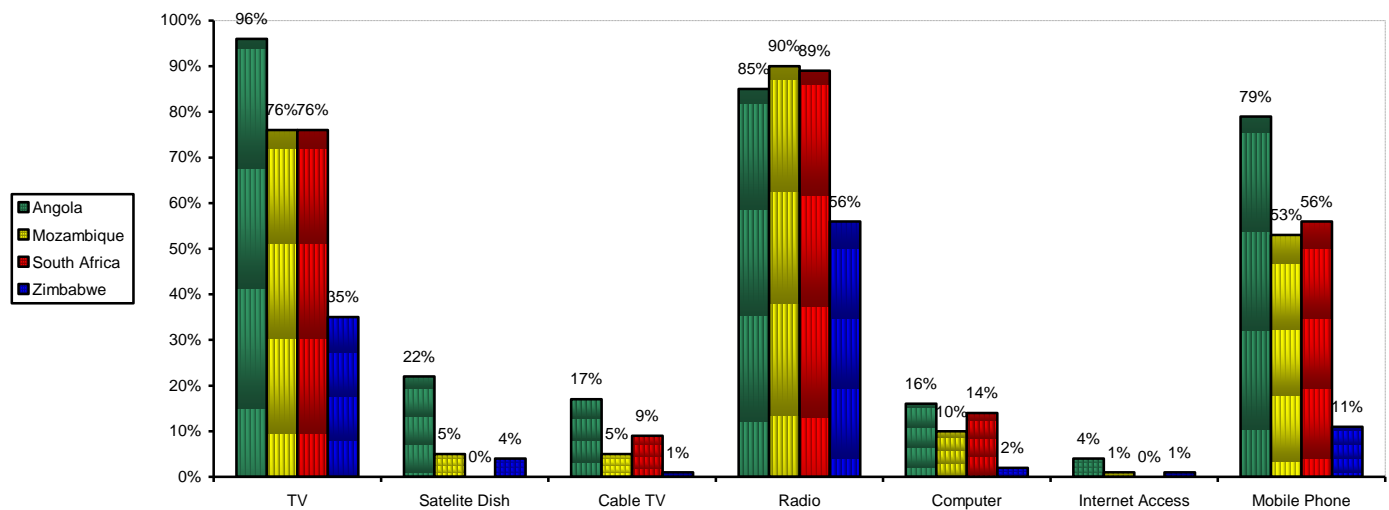


East Africa: Equipment ownership (Balancing Act 2008)



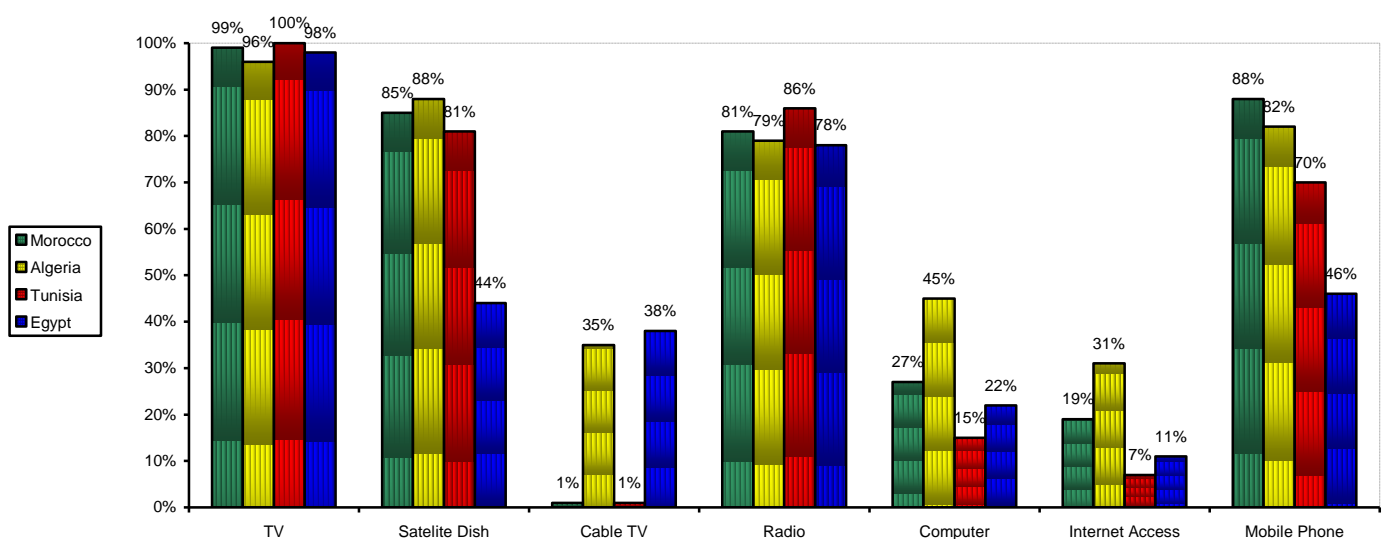
Southern Africa: Equipment Ownership (Balancing Act 2008)

Note: the figures for Angola are for Luanda only.



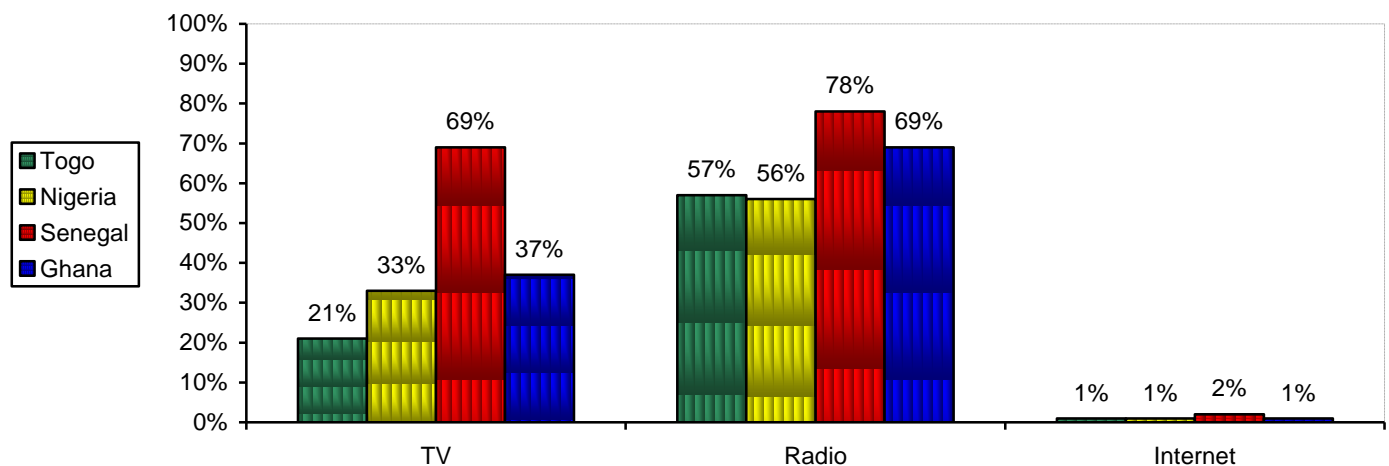
When comparing Sub-Saharan Africa with the North (Maghreb) in the chart below, we find that TV, satellite dishes and mobile phones are significantly stronger in North Africa than radio, reflecting wealthier societies, better electrification and larger GSM networks in the Maghreb.

North Africa: Equipment Ownership (Balancing Act 2008)



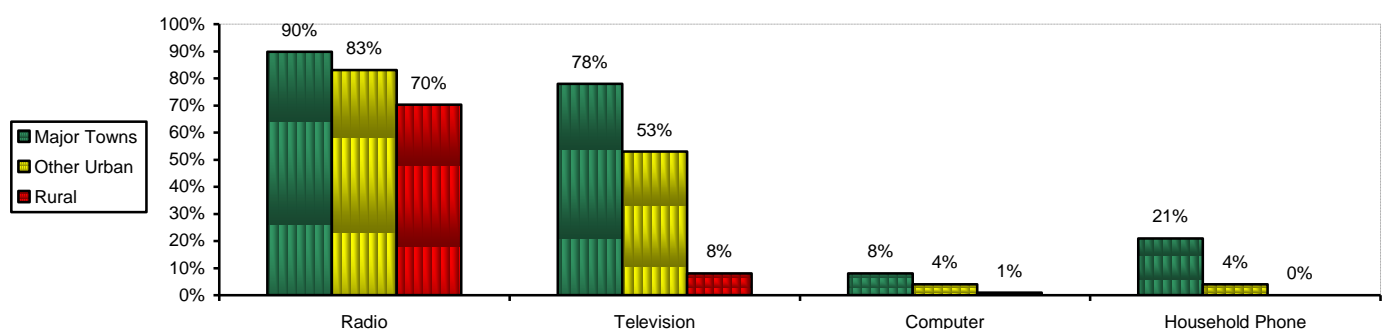
It is also interesting to look at radio *usage* as compared to other media. The comparisons done by Balancing Act (shown below) for West Africa are representative of a relatively consistent pattern across the continent, with radio usage out in front, but with TV quite markedly strong in second place in some countries and the internet still with very low showings.

West Africa: Daily media use (Balancing Act 2008)



Of the 17 countries that the BBC AMDI project surveyed in 2006, they noted 'heavy' listening (weekly reach figures of 90%+) in South Africa, Tanzania, Ghana, Mozambique, Kenya and Uganda; 'Medium' listening (weekly reach figures of 70-90%) in Botswana, Zambia, Zimbabwe and Nigeria; and 'light' listening (weekly reach figures of under 70%) in Senegal, DRC, Ethiopia and Cameroon (BBC WST:23)¹. When comparing rural and urban areas the picture is always one of lower radio ownership in rural areas compared with towns but radio is always much stronger than TV in rural areas, due in the main to poor rural electrification. The following chart for Ghana is fairly typical of rural/urban comparisons across Sub-Saharan Africa.

Ghana: Household ICT appliances (RIA, 2005)
To nearest whole percentage



¹ Note that BBC AMDI and the Balancing Act statistics do not agree completely - for instance AMDI registers heavy listening by Ghanaians (90%+), whereas Balancing Act's figures would put Ghana in the 'light' category. This lack of consistency is actually typical of the available survey-based research and reflects the large scope for sampling errors: for example, respondents' tendency to say they own a TV set when they may just have regular access to someone else's (Balancing Act 2008). Good large-sample, multi-country surveys of the African media sector are rare.

1.b. Radio's geographic distribution and spread

Every African country without exception has a state broadcaster with at least one radio (and one TV) channel. But there are wide differences between countries as regards the numbers of commercial and independent radios. Taking an overview of Sub-Saharan Africa², some countries stand out as being very radio-rich - they either have high overall numbers of radio stations, or a high proportion of stations in relation to their population size, or both. These include Mali with an estimated 300 stations broadcasting in more than a dozen local languages (Buckley et. al. 2008); D R Congo with an estimated 250 independent radios (DFID, 2007), Uganda with over 150 stations, most of which cater for one or more of the 38 different languages (Balancing Act, 2008); Ghana with 130 stations (Balancing Act 2008); South Africa with 125 domestic radio channels (Balancing Act, 2008); and Benin, with 74 stations to only 8 million people (IREX 2006/7). Some of the reasons for the high numbers in these particular countries are discussed further below, but it is mainly to do with liberalised regulatory conditions.

Countries where radio station numbers are still low include Eritrea, which is at the bottom of the list both for media outlets and for press freedom - there is only one state broadcaster and no independents at all (Freedom House, 2008); Equatorial Guinea (2 stations, one state-owned, the other one commercial but owned by the president's son (IREX 2006/7); Swaziland 5 (CIA World Factbook); and Botswana 5 (IREX 2006/7). All of these countries have relatively small populations and governmental policies which do not particularly favour press freedom.

Top country markets by levels of radio ownership (Source: Balancing Act 2008)

Country and ranking	Population	Radios owned	Percentage of pop. owning radios
1. Nigeria	135,031,164	27,006,233	20%
2. DRC	65,751,512	24,985,575	38%
3. Sudan	39,379,358	18,153,884	46%
4. South Africa	43,997,828	10,911,461	21%
5. Tanzania	39,379,358	16,462,609	41%
6. Kenya	36,913,721	8,047,191	21%
7. Uganda	30,262,610	4,932,805	16%
8. Ghana	22,931,299	4,586,260	19%
9. Zimbabwe	12,311,143	4,035,000	32%
10. Mozambique	20,905,585	3,135,838	14%
11. Cote d'Ivoire	18,013,409	2,629,958	14%
12. Togo	5,675,356	2,326,896	41%
13. Cameroon	18,060,383	2,311,729	12%
14. Benin	8,078,314	2,164,988	26%
15. Zambia	11,477,447	1,698,662	15%

Source: Various, Balancing Act projections

Radio is uniquely suited to the African context, being an aural and portable medium in a continent that is predominantly non-literate and has communal living patterns (Spitulnik

² For the best and most up to date listing of radio stations in Africa, see the map and country-country listings by Mediafrica.net (<http://www.mediafrica.net/Cadres.asp?numlg=1>)

2000). The table above shows how many radios are owned in the 15 top countries for radio ownership (according to Balancing Act's (with Intermedia) recent surveys). Sudan, Tanzania, Togo and DRC emerge as countries with relatively high percentages of radio ownership³, but clearly the most populous countries have the largest markets, by and large.

1.c. Radio's historical development over the last 20 years

Twenty years ago - in 1988 - there were only ten independent (non-State) radios in all of Sub-Saharan Africa (Girard, 2003). Since then, radio has had a renaissance. This is due to the spread of cheap transistors, the inability of television to compete due to high unit costs and lack of rural electrification, the opening-up of the airwaves in many countries, a thirst for alternatives to government-controlled media, and to fresh investment by international donors, civil society, the private sector, NGOs and governments.

This new investment is partly attributable to the fact that radio seems to have proven itself as a developmental tool, particularly with the rise of community and local radios, which have facilitated a far more participatory and horizontal type of communication than seemed to be possible with the older, centralised broadcasting model of the 1960s and 70s (see examples in e.g. Gumucio Dagron, 2001). There seems also to have been a re-discovery of radio in the context of new ICTs, a realisation that technology has made radio into more of a two-way medium and that it can help bridge the digital divide by providing a powerful tool for information dissemination and access, especially for 'hard-to-reach rural audiences' (Girard, 2003).

The opening up of the broadcast sector has been part of the wider liberalisation of African economies in the 1990's. Southwood makes the point that despite the seemingly fast pace of change, broadcasting liberalisation has been relatively slow to follow the political changes (Balancing Act, 2008). For example in Senegal a decision was taken to end the monopoly of the state broadcaster in 1991 but it was not until 2006 that the first private TV stations actually went on-air (Frere, M. S., pers. com.)

Since the turn of the millennium there has been an explosion in the numbers of small radio stations all over the Africa. The BBC AMDI research, across 17 sub-Saharan countries, found that local commercial radio grew by an average of 360 percent between 2000 and 2006 (see chart in Annex 1) and that community radio had grown on average by a striking 1,386 percent over the same period (see chart Annex 2)⁴. For example, in Tanzania, whereas there were only eight independent local radio stations in 2000, there were 32 in 2006. And in the Democratic Republic of Congo (DRC) there are now over 150 community radio stations when there were only ten in the year 2000 (Myers, 2008 b). In North Africa, the main growth has been in commercial radio stations⁵, rather than community ones.

³ Note that this is as a proportion of the whole population, including children. The figures at the beginning of this report show ownership percentages among samples of adults only, hence the discrepancies between the two tables.

⁴ Statistics for 11 countries for which consistent data were available: Botswana, Cameroon, DRC, Kenya, Nigeria, Senegal, Sierra Leone, South Africa, Tanzania, Uganda, and Zambia.

⁵ See, for example, this article on Tunisia in Jeune Afrique September, 2004 ' *Les chaînes privées tunisiennes ont le vent en poupe*' (private channels have the wind in their sails): http://www.jeuneafrique.com/jeune_afrique/article_jeune_afrique.asp?art_cle=LIN04095jawhaoidare0

1.d. Ownership and control of radio stations

Radio stations can be divided roughly into four broad categories:

- State-controlled public radio
- Privately owned commercial radio
- Community-controlled radio and
- International radio.

These distinctions are only approximate because there is much overlap. For instance, many radios operating under private commercial licenses are, in fact, closely controlled by the state through the ruling party and/or family ties (e.g. Digital Congo, one of the most popular commercial stations in the DRC is part-owned by President Kabila's twin sister (Frere, 2007)). Community radios may not necessarily be owned or controlled by a representative board of community members, but by a local business-man, an international NGO or a religious community; a so-called 'community' radio may, in fact, be nearer to a local private commercial station. Several international broadcasters (e.g. BBC) are not limited to shortwave (SW), but operate local frequency modulation (FM) studios too or they are re-broadcast by local stations. Then there are the trans-national African channels like *Africa Numéro Un* out of Gabon, West Africa Democracy Radio, or Transworld Radio operating out of Swaziland, their signals reaching across much of the continent. Finally, we have the national-level radio stations operated by the UN, like Radio Okapi in DRC or *Radio Miraya* in Sudan that are 'owned' by the international community.

Looking at the overall picture, the BBC AMDI research (based on surveys in 2004/5) concludes that 'state-controlled radio services still command the biggest audiences in most of Sub-Saharan Africa' (p.9). However, this assertion seems to be challenged by Balancing Act/Intermedia's surveys of 2005-2007 which suggest that private commercial stations have bigger audiences than government radio in many countries: out of 11 Sub-Saharan countries⁶ where Balancing Act's partners took a national sample, more than half (6) countries had larger audiences for private channels than for the state broadcaster⁷. Dependable statistics for Africa as a whole are difficult to come by but nevertheless, it is clear that state radio is coming under increasing pressure from regional and local commercial radio, especially in urban areas.

Which types of stations are best for reaching and empowering the poor depends on the context. Community radios, when truly community-oriented, can have some impressive results - see the example of Mali in Annex 3 - and there are many more, (see, for examples, Gumucio Dagron 2001 and Jallof and Musheshe in Rudebeck and Melin eds. 2008). But there are some radios with a community licence that can be appropriated by negative political forces and, at worst, can turn into 'hate radio' (e.g. in DRC and recently in Kenya, see below section 2.d.). Many commercial radio stations have impressive development content. So, 'community' is not necessarily 'good', and 'commercial' is not necessarily 'bad' and many community radios are semi-commercial anyway (AFRRI, 2008 b).

International radio, like the BBC World Service, the Voice of America and Radio France Internationale are often very closely followed by rural people, as these are often the only reliable windows they have on the wider world. The influence of international radio within

⁶ These were Burundi, Ghana, Kenya, Mozambique, Nigeria, Rwanda, South Africa, Tanzania, Togo, Uganda and Zimbabwe.

⁷ These were Ghana (most popular radio station was Peace FM), Kenya (Citizen FM), Mozambique (Radio Cidade), Nigeria (where the Hausa services of the BBC and VOA have a larger overall audience than the state broadcaster), Tanzania (Radio Free Africa), Uganda (CBS).

the mix of radio on offer in any one country and the extent to which it may be stifling the generation of good quality domestic radio production is an under-researched area.

In some countries, state radio, though dubbed 'public service' may not actually reach the poor, because of weak transmitters and lack of capacity to cater for local language-groups (e.g. in Tanzania, Malawi, Sierra Leone and many other countries). In other places it works better. For example, in 2006 DFID commissioned a household survey in Senegal among 650 urban and peri-urban households (Batchelor and Scott, 2007). It was found that Senegalese national radio was, in fact, having a greater impact on health education than community stations. Senegal state radio seemed to carry better quality development programmes as well as catering relatively well for local languages, compared to the under-resourced community stations. Egypt is another example, where state radio and TV are well known for their agriculture and health information⁸. But the Egypt and Senegal cases do not necessarily apply elsewhere. In another study in South Africa in 2003 (Berger, 2008), a comparison of poverty coverage by different mass media found a surprisingly poor performance by national public service radio, SABC, compared with media of a more 'elite' nature, such as the business press.

In many countries, religious groups have a strong influence over the domestic airwaves and command high audiences - particularly among women. For instance in DRC 35% of FM radios are thought to be owned and controlled by religious groupings, mostly evangelical Christian churches (Radio France Internationale, 2008). In South Africa, Radio Pulpit, a Christian radio as its name implies, is the only radio other than the state-run SABC to have national coverage (BBC WST, 2006). In Kenya the leading radio station in the most populous province (Rift Valley) in Kenya, is Sayare FM, a private station with a Christian focus (BBC WST, 2006).

Trust in news outlets is a big factor in terms of listener numbers and development impact. For instance, the Zimbabwean state broadcaster, ZBC, has witnessed declining listener figures year on year, under Mugabe's rule (Balancing Act, 2008). The RTNC, the national broadcaster in DRC, lags well behind international channels because it is known as the government mouthpiece (DFID, 2007). This pattern of abandoning the state broadcaster is repeated all over Africa and there is a great - often pent-up - demand for independent trustworthy news sources. There is anecdotal evidence that suggest that sales of radio receivers rise in areas where new local radios start-up, offering relevant programmes and reliable news in people's own languages, where there was nothing before (Myers et.al., 2004).

Because a country's airwaves are liberalised, it does not necessarily mean that content is objective, trustworthy or balanced. Many commercial private stations toe the line of the government of the day, for fear of repercussions, or are controlled by various other vested interests. Self-censorship among journalists is a widespread phenomenon. The map overleaf depicts the level of press freedom, as rated by Freedom House, for the African continent, in 2007.

⁸ Adel El Zaim, personal communication, August 2008.

1.e. Legal and regulatory issues

Radio, like all mass-media, flourishes best in countries where the rule of law is respected and where media regulation is independent and even-handed. This, unfortunately, is not the case in the vast majority of African countries (as can be seen in the map overleaf). In most places the body that regulates the media either operates directly out of the ministry of information or its officers are direct appointees of the ruling party of the day.

An example of heavy-handed regulation is Rwanda. Radio's record in Rwanda has been indelibly scarred by the infamous involvement of *Radio Télévision Mille Collines* with the 1994 genocide, after which the Kagame government severely restricted all media and regained exclusive control over the airwaves. It was not until 2002 that a new, more liberal, media law was voted in, and not until 2004 (ten years after the genocide) that the government-controlled Rwanda media council (*Haut Conseil de la Presse*) agreed to six radio stations who had requested private licences. However, in a recent country overview Reporters Without Borders described relations between journalists and government as 'appalling', asserting that 'even though the government denies it, Rwanda's independent press is forced to live under relentless harassment from the highest levels of the state' (Myers, 2008b; Reporters without Borders, 2008).

In some countries, there is no separate regulator at all, as in Djibouti, Equatorial Guinea, Eritrea, Gambia, Liberia, Mauritania, Sierra Leone, Somalia, Sudan and Swaziland. This obviously has negative consequences for independent journalism.

Community radio has particular problems when it comes to regulation. Most states do not recognise the particularity of community radios in their media legislation, bunching them together with larger-scale commercial stations, and obliging them to pay the same taxes and licence fees, without recognising how punitive such fees often can be. For example, Radio Simli, a community station in Ghana, was shut down and its equipment confiscated due to its inability to pay steep licence fees which broke down as follows: a US\$100 application fee, a US\$2,000 frequency fee, and a US\$800 annual fee (AFRRI, 2008b). Similarly exorbitant taxes and fees mean that community radio stations all over Africa.

In order to have 'community' status, community radios are often debarred from collecting advertising revenue and they often have special restrictions on them regarding local language usage, for fear of fomenting ethnic divisions. In Niger, by law community radio stations may not broadcast news. In Senegal, community radio stations may not sell advertising. In Botswana, the law provides for community radio but there are no implementing regulations (IREX 2006/7).

However, there are positive examples of regulation, notably the regulatory regimes in Benin, Mali, and South Africa. In all of these countries recent legislation has reformed or created a media regulator whose independence from government - and in some cases from commercial interests too - is enshrined in law. In South Africa, the Independent Communications Authority of South Africa, (ICASA), has responsibilities for both media and telecommunications⁹. Benin has 73 radio stations and there is virtually nowhere in the country where the population does not have access to at least one radio station (IREX

⁹ Media and telecommunications are also merged within the regulatory bodies of Botswana, Cape Verde, Ghana, Kenya, Lesotho, Namibia, Tanzania and Uganda. There have been discussions in Nigeria about combining the Nigerian Broadcasting Commission and the Nigerian Communications Commission, too (Balancing Act, 2008).

2006/7), it is also one of the few countries that legally recognises the distinctiveness of community radio and, through the *Haute Autorité de l'Audiovisuel et de la Communication* (HAAC) supports it through specific licensing arrangements that guarantee fair access to the radio spectrum. Mali has been a radio-friendly country since the fall of Traoré in 1991, when it adopted 'one of the most democratic broadcast laws in Africa' (Buckley et.al.2008:209), and ensured that there were few bureaucratic or financial hurdles to obtaining a radio license - in fact there are no license fees payable to establish a radio station in Mali, which partly explains the high number (about 300) of FM stations (Buckley et.al. 2008).

Map of Press Freedom in Africa¹⁰



Purple = media is not free

Yellow = media partly free

Green = media is free

(Source: Freedom House, *Map of Press Freedom 2008* <http://www.freedomhouse.org>)

¹⁰ The Map of Press Freedom reflects the findings of Freedom House's study *Freedom of the Press 2008: A Global Survey of Media Independence*, which rates the level of press freedom in 195 countries and territories during 2007. Based on these ratings, countries are classified as **Free**, **Partly Free**, or **Not Free**. The ratings system is designed to capture the varied ways in which pressure can be placed on the flow of information and the ability of print, broadcast, and internet-based news outlets to operate freely and without fear of repercussions. The study also assesses the degree of news and information diversity available to the public in any given country, from either local or transnational sources. Criteria include: the legal environment in which the media operate; the degree of political control over the news media; economic pressures on content; and violations of press freedom ranging from the murder of journalists to other extralegal abuse and harassment by both state and non-state actors (Freedom House 2008).

In some cases, the weakness of the state apparatus allows for a *de facto* freedom of the press, and a proliferation of FM radio stations in a relatively chaotic manner. This is the case, for example, in Somalia, where, given the state of anarchy during 2006/7, 'anyone able to afford the equipment could set up a radio station without the trouble and potential delay of applying for a license' (IREX 2006/7); and in the DRC, where the regulator, the *Haute Autorité des Médias*, has had only a tenuous grip on the hundreds of radios that have sprung up during the war years and during the elections (roughly 1998-2006) - a few of which have, at times, been guilty of hate speech and inciting racial violence (Frère, 2005).

In Windhoek, in 2001, the African Charter on Broadcasting declaration was drawn up and adopted by media practitioners and freedom of expression advocates from all over Africa (Buckley et. al., 2008). If adhered to, this would be a good basis for regulation of community radio. One of the bodies that has championed regulatory reform for community radio is AMARC - Africa (World Association of Community Radios).

Radio spectrum management is one of the crucial roles played by national media regulators. Ideally, regulators should manage the available radio spectrum to ensure a balance between commercial, community and public service broadcasters. According to Buckley et. al., 'the allocation of a minimum of 10-15 percent of the FM band to community broadcasting (2-3 MHz out of the 20 MHz contained in the FM band that runs from 88 to 108 MHz) should be adequate, while 20 percent is optimal' (2008:182). In much of Africa this is an area of blatant corruption, as government officials are often open to bribes from the highest bidding commercial radio (and TV) stations for the allocation of frequencies. Governments or other vested interests (i.e. local warlords) can effectively block radio stations deemed undesirable, by allowing the FM band to be crowded, and thus 'drowning-out' unwanted voices.

In global comparisons, Sub-Saharan Africa is second only to the Middle East/North Africa region for *not* having enacted freedom of information laws: of 39 Sub-Saharan countries surveyed by Privacy International in 2007, only 42% had enacted or were pending enactment of such a law, compared with almost 90% of countries in Latin America (quoted in Buckley et.al., 2008).

1.f. Dominant types of radio content

The world over, people use radio primarily as a source of news and music, and African listeners are no exception. Balancing Act's latest research asked large representative samples of listeners from nine Sub-Saharan countries¹¹ about what kinds of radio programmes they listened to on a daily basis comparing news, music, sport, talk, religion, call-ins and information. The results show that radio is listened to almost equally for news and music (a rough average of 57% across all nine countries said they listened to the radio *daily* for news, 58% for music), this is then followed by sport 29%, 20% for religion, 18% for call-ins, 13% for 'information' and 9% for 'talk' (Balancing Act, 2008).

When compared to other mass-media, for instance TV, one of the great advantages of radio is that it is portable and it can be listened to while doing other things (driving, cooking, farming, for instance). When one sees from the same Balancing Act research that news-seeking behaviour in North Africa favours newspapers much more strongly than Sub-

¹¹ For this particular question, Balancing Act (with Intermedia) surveyed the following 9 Sub-Saharan countries: Angola, Burundi, Ghana, Kenya, Mozambique, Nigeria, Rwanda, Senegal and Tanzania, as well as Morocco, Algeria and Egypt (Balancing Act, 2008)

Saharan Africa¹², one is also reminded just how important radio is for serving poorer, illiterate populations with news, particularly given that in most of Africa South of the Sahara there is a weak tradition of the written press¹³ and newspapers are relatively expensive to buy.

Furthermore, what we know about how people in Africa use the internet - not for news, but primarily for e-mailing, job-applications, studying, dating etc. - shows that radio holds a distinct place in Africans' information-seeking behaviour, and is, as yet, completely unchallenged by the web. However, it is interesting to note that there are growing numbers of people accessing news on their mobile phones, via SMS: in Kenya 6% of adults report seeking news from their mobile service provider, and in Ghana the figure is 9% (Balancing Act, 2008)

Although they may not be at the top of people's daily list, talk shows are still enormously popular. 'Talk' is basically any content which is neither music, news/weather, sport or announcements. This can mean any of the following: features about current affairs, magazine programmes (mixing interviews with actuality and comment), studio discussion programmes, vox-pop interviews, radio dramas (plays, skits, soap-operas or serials), lectures, quiz shows, story-telling, poetry... All of these formats lend themselves to content of a developmental nature, be it a magazine programme about women's rights or a soap-opera about two ethnically-opposed villages. Many of these types of programmes work better on radio than on TV because audio is normally better for communicating complex ideas and has the added value of the listeners' imaginations. They can also attract huge audiences, especially when they are well produced and when they mix education with comedy, drama, engaging narrative and music. For instance, Search for Common Ground's radio magazine by and for children in the Great Lakes area, called *Sisi Wa Toto* attracts a regular Swahili audience estimated at roughly 30 million across the region (DFID February 2008). Kenya's ever popular educational radio soap opera *Tembea na Majira* has a regular audience of 5 million¹⁴

One of the main challenges for developmental content on African radio is, of course, the need to produce programmes on a tight budget, which means that potentially high-impact educational dramas - which require retaining dedicated teams of writers, actors, technicians, editors, vehicles, fuel-supplies etc. - are too expensive to produce locally¹⁵ and are therefore produced by separate production houses and funded by donor aid. Much development content is produced in this way, with radio stations charging air-time to NGOs and civil society organisations to air their programmes. Furthermore, African broadcasters are, on the whole, not trained for preparing scripts in advance and most radio studios have rudimentary editing equipment. This means that the prevailing culture of African radio is that of the live broadcast, rather than the meticulous and costly pre-recording and editing of magazine programmes, features and dramas. It is therefore no accident that the African airwaves are full of *live* studio-based programmes, i.e. news, DJ-led music shows, call-in programmes, and live studio discussions. This gives African radio a very 'fresh' sound, but it has its dangers in terms of broadcasting unconsidered opinion, myths and rumours, trivia

¹² For instance, 31.4% of Egyptian adults use newspapers on a weekly basis (Balancing Act, 2008), whereas in Kenya only 5% do (BBC WST, 2006)

¹³ There are, of course, exceptions to this rule, Nigeria and its strong newspaper tradition being one of them: the BBC WST found that in 2004-6 a surprisingly high 39% of Nigerians read a newspaper once a week.

¹⁴ See Mediae Trust www.mediae.org

¹⁵ For instance, the Kenyan soap opera mentioned above, *Tembea Na Majira* was estimated in 2002 to cost an estimated \$75,400 per year to produce and air (Myers, 2002) - well beyond the means of an average-sized local station, and sometimes even difficult for a national broadcaster to produce without outside donor aid.

and, at times, incitement to political or ethnic violence, when live discussions are badly managed.

Kothmale community radio in Sri-Lanka is the famous pioneer of the 'radio-browsing' format which involves radio presenters surfing the web on-air, in search of answers to listener's questions. As Girard puts it, the radio browsing format makes useful information *meaningful* and plays the role of 'part search-engine, part librarian, part journalist and part translator' (Girard 2003:13). With internet connectivity relatively low in Africa, this is not a format that, in the author's experience, is particularly common at present but it may be on the rise. There is evidence that when there is an internet connection at a radio station it is used mainly for e-mailing, often because connections are too slow and expensive for web-browsing.

Despite the recent rise in ownership of mobile phones, local radio still performs the function of a community telephone kiosk in many isolated rural areas. Typically, this still works simply by people walking to the radio station or sending in a written note to the radio presenter and, for a small fee (normally around US\$1), getting their personal message broadcast on-air - be it a wedding announcement or an invitation for field agents to a training workshop.

Finally, a word must be said about radio content relating to hazard warnings and disaster-recovery services in the contexts of emergencies. Again, radio's immediacy, portability and ubiquity make it an invaluable tool in the humanitarian aid context. Current examples of radio programmes in ongoing emergencies include Lifeline Radio in Darfur run by the BBC¹⁶ and in Eastern DRC the UN's refugee agency (UNHCR) is using the local radio to give regular on-air updates about the numbers of returnees from refugee camps in Tanzania, the conditions and benefits of return, and how to access food and tools for the purposes of resettlement.

1.g. Status of radio journalists

Radio journalists in Africa, are, on the whole badly paid, have little job-security and are poorly organised in terms of professional or trade-union bodies. A typical monthly salary will be equivalent to that of a rural primary school teacher (about US\$100 per month on average), but many community radio journalists and technicians work on a wholly voluntary basis, while government-employees of state radios often have to wait months to be paid¹⁷. This financial insecurity for the individual journalist stems from the financial fragility of most African radio stations, be they government-owned, commercial, religious or community-type.

In such dire economic circumstances, editors and journalists must find income where they can which often means accepting payment for covering stories. Thus, politicians (or their extended families) are often the patrons of private radio stations, or if a politician/businessman cannot afford to buy a radio station outright, s/he can opt for paying in cash or kind for positive coverage. The name for this practice varies across the continent: in DRC it is called *coupage*; in West Africa, *gombo* (Nyamnjoh, 2005). It amounts to cash payments or free meals, per diems, and other gifts and favours which, in many countries,

¹⁶ See article by David Smith 'BBC's Darfur Lifeline Project is Emergency Radio at its Best' <http://sudanwatch.blogspot.com/2007/05/sudan-bbcs-darfur-lifeline-project-is.html>

¹⁷ BBC AMDI acknowledges that while low pay for African journalists is the norm, 'there are a few notable exceptions, such as top radio stations in Ghana paying very high sums - up to \$1,000 per month' (BBC AMDI Summary:42,136)

keep most journalists alive, yet in thrall to local and national political and business interests, and with dire consequences for the neutrality and quality of content¹⁸. Southwood perceptively remarks:

'Media – whether private or otherwise – is very “political” and involvement in media is often seen as a way of getting or currying political favour...As a result, African media is not seen as a business sector in its own right that can generate jobs and money but rather more as an act of political patronage' (Balancing Act, 2008:39).

Though it may not be money, one thing that attracts young people to broadcasting is the chance for notoriety. This can be positive, but an increasingly common feature of African urban commercial radio is that of the 'Shock-Jock' or the live phone-in programmes hosted by opinionated and outspoken DJs that attract high audiences - and consequently higher advertising revenues - but which can turn to hate-talk - as was the case of Kenya in the post-election violence in January 2008 (Abdi & Deane, 2008).

On the whole, radio journalists are poorly trained, if trained at all, and due to low job-security and scant professional rewards, there is a high turnover and brain-drain out of the radio profession. Faced with this scenario the need for investment in training is continuous and as vital as ever. Many excellent materials have been written specifically for radio training in the African context, and much experience has already been gained by, amongst others, FAO, UNESCO, the family of Panos Institutes, AMARC, Media Institute for Southern Africa (MISA), RFI, BBC, and others¹⁹.

Almost all African countries have at least one national journalism/broadcasting training institute and or university course but, as the BBC AMDI remarks: 'there remain large question marks over the quality of much of the training entities in the media and journalism fields' (BBC WST 2006:39). The CIERRO²⁰ in Burkina Faso used to offer the best training specifically for rural radio broadcasters, but since its recent demise (due to funding problems) there is no lead institution on the continent catering specifically for radio. Meanwhile, for journalism in general, the places with the best reputations are still in Europe or North America. Obviously this situation is far from ideal. However, some of the best schemes - mainly run by NGOs - offer *in-situ* training where the training is offered at the radio station itself, dealing with real-life issues, be they technical, managerial or content-related. For instance, Institut Panos Paris has devised an *in-situ* radio training manual and CD for community and for-profit local radio stations in francophone countries (see Martinot, 2007).

Professional bodies representing journalists exist in all countries (BBC WST, 2006), but the power, nature and usefulness of these bodies varies greatly - and sometimes unions and associations exist on paper only. For example, in DRC the UNPC (Union de la Presse Congolaise) exists to grant journalists a press card and, in theory, to champion their rights, but it has been so riven with internal power disputes and lack of funding that it is virtually ineffective at present. In some countries where community radio is strong there are active bodies under a general 'community media umbrella' - such as URTEL (Union des Radios-Télévisions Libres) in Mali, the Community Media Forum in Zambia, and sometimes women,

¹⁸ For an article describing the corruption process, see 'Africa 'Pay for Publicity' Alive and Well' by Faten Aggad, April 2008 <http://allafrica.com/stories/200804240583.html>

¹⁹ Space does not permit a list, let alone a critique of all the radio training materials, guidelines and manuals currently on offer for radio in Africa, but some of the author's favourites include: ABC Ulwazi, 2003; Garber, 2006; Querre, 1992; Martinot 2007, (see bibliography for details).

²⁰ Centre Inter-Africain d'Etudes en Radio Rurale Ouagadougou.

radio and community media come together in relatively strong groupings such as the Tanzania Media Women's Association²¹ or the Women of Uganda Network (WOUGNET)²².

1.h. Technical opportunities and challenges

From a technical perspective, a radio station is relatively easy and cheap to set up. A small FM station, with a 40 watt transmitter, mast, and basic studio equipment can be bought for about US\$3,000, excluding shipping and customs duties²³. This sort of package would be typical of the many tiny local and community radio stations mushrooming all over Africa at present, with average broadcast footprints of between 25km and 50km. At the other end of the scale we have the large networks like Radio Okapi in the vast D R Congo, with national coverage via satellite relays, which cost upwards of US\$3 million to establish²⁴. Be it big or small, what is most challenging for any radio station is what comes next, in other words producing good quality content, managing, paying and retaining staff, maintaining the premises, studio and broadcast equipment and paying the monthly rent and fuel bills.

Given the onerous cost of generator fuel, one might expect more solar powered radio-stations in rural areas, but, in the author's experience, they are not the majority. Reasons include the initial expense of the panels, as compared to a diesel generator, the fact that panels can be a target for thieves, and the difficulties associated with replacing and sourcing the battery(ies). However, there are some good working examples of solar-powered radio stations, for instance, Radio Daande Douetza in Mali (see also Annex 3) which is a solar-powered FM Radio station, transmitting to a radius of about 150km, broadcasting about 10 hours per day, 7 days per week. One often finds that solar-powered stations receive outside finance from international bodies who can provide technical back-up when needed (Douetza is supported by the U.S. based Near East Foundation, Oxfam and others). There have recently been some interesting experiments with oxen-powered radio stations - for example at *Radio Maïgaro de Bouar* in Central African Republic²⁵. It is not known what proportion of radio stations in Africa function on alternative energy sources, nor, it seems, is there adequate documentation of experiences with such technology, either positive or negative.

In terms of alternative energy for radio receivers, windup/clockwork and solar models have been developed over the last 10 years. The wind-up model, developed and manufactured notably by Freeplay (initially in South Africa, now in China), has had some success, particularly when distributed by NGOs and humanitarian agencies or through organised listening clubs²⁶. However, it has been far from the pro-poor revolution originally hoped for. The reason, at base, is that the receivers still retail in Africa for no less than US\$50 apiece,

²¹ See <http://www.tamwa.org/>

²² WOUGNET, based in Kampala, is an NGO working on new ICTs and their crossover with radio, among other communications technologies. See

http://www.wougnet.org/cms/index.php?option=com_content&task=view&id=20&Itemid=33

²³ Source: Radio Active www.radioactive.org.uk. For further detailed analysis of radio costs see AFRR, 2008 b.

²⁴ This figure is based on figures from Fondation Hirondelle relating to Radio Okapi in the DR Congo. They assume building a principal studio in the capital, 7 regional studios linked to the capital via satellite and 21 FM relays and would require another \$7m for one year's operating costs (salaries, transport and power).

²⁵ See Panos' Afrique Centrale Médias April 2008: <http://www.panosparis.org/fichierProdFR/fichierProd1682.pdf>

²⁶ Organisations successfully using wind-up radios in a development context include the Development Communications Trust (DCT) in Malawi and the Andrew Lees Trust (ALT), Projet Radio in Madagascar. For reports on their work see for DCT: Chapter 6 'Impact evaluations in Malawi' in AFRR, 2008 and for ALT see www.andrewleestrust.org.

which is unaffordable by many, and compares unfavourably with conventional sets that are widely available for US\$10 or even less, plus batteries.

At present, FM dominates the radio scene in Africa - it has the advantages of affordability and clarity, though it has the disadvantage of limited reach beyond the line of sight. Large-scale radios that opt to add Shortwave (SW) to their offer, in order to reach areas not otherwise covered by FM relays, such as Radio Okapi in the DRC, find this a very expensive option, but it is an expense justified in some operators' eyes by the extra numbers of poor listeners reached in rural areas by means of SW. In the author's experience, most radio receivers sold in rural areas of Africa can receive SW, partly because of the continuing popularity of international broadcasters such as BBC, VOA etc.

Medium wave (MW/AM) is the transmission option for the big, older, national stations like KBC (Kenya), MBC (Malawi), and the state radio network of Nigeria. This is expensive to set up and to maintain, but has the advantage of reach - though not of clarity of signal.

Internet

African radio stations with websites and who offer audio streaming are in the minority but are bound to rise as internet bandwidth costs come down gradually over the next few years. Because the numbers actually listening via the internet in Africa are very low, the interest for such stations in having an internet presence and for streaming their programmes is mainly to attract advertising revenue (through advertisements placed on the website), and to attract listeners from the various diaspora communities who wish to keep in touch with 'home'. For instance, Radio Okapi in the DRC has a very popular website²⁷, currently with 316,000 visits per month, with the largest number of hits coming from Belgium, then France, USA and the UK. Considering that the numbers of Afro-American and African households with internet broadband in USA alone is estimated to be 8 million, there is great potential for reaching large diaspora audiences with online broadcasting (figures from US pollsters Horowitz Associates, quoted by Balancing Act, 2008). Furthermore, because the coverage of African conflicts by the Northern press is usually dominated by the perspective of Northern journalists, the internet gives African journalists the opportunity to put their points of view about their own continent, region or country (Frère, 2008).

It is difficult to tell how many radio stations in Africa have direct access to the internet, (i.e. an ISP subscription and a connection at or near the radio studio). Mediafrica.net²⁸ lists radio stations in Africa country by country and shows only 194 radios with websites, out of a total of 1,316²⁹. So this indicates that the numbers with websites are still low, from which we can assume that numbers online are still low. A 2007 report looking at community radio found that, in South Africa (normally the leader in Africa in terms of technology uptake):

'[V]ery few stations have access to the Internet, and those that do only use it for basic email, in fact only Bush Radio, Fine Music Radio and Rhodes Music Radio have taken their access to the internet to the next level by providing online streaming of their program via the internet. This has increased the appeal for the stations in the minds of major advertising agencies' (Girard, 2007).

²⁷ See www.radiookapi.net

²⁸ It should be noted that although Mediafrica.net probably has the most comprehensive publicly available listing of African radio stations, it is still not complete or up to date.

²⁹ This list does not include radio channels based outside Africa such as BBC, VOA etc.

The advantages of radio stations getting on-line are still contested; for instance Zane Ibrahim of Bush Radio, South Africa has said

'Since our radio has been connected to the Internet, our telephone bills are four times higher but I've also seen that we communicate four times less with our community' (quoted in Girard, 2003).

In most impoverished rural stations an internet connection is still not the main priority. For instance in 2004, the author did a rough and ready 'poll' of four rural stations in Sierra Leone asking them what 'one' piece of equipment they would most wish for: they either wished for a vehicle or a better generator; none of them wished for an internet connection.

Nevertheless, for many radio stations, particularly those that are serious about news-gathering and reporting, the internet has been of enormous benefit. Now international news, sports, weather etc. are available almost instantly (or at least after a walk to the nearest internet café), and subscriptions to relatively expensive news agencies are no longer necessary. Documents, press releases, statistics and research reports are all available for download (though this may often be painfully slow). For example, it is thanks to the Internet that the *Report of the United Nations Experts Panel on the Illegal Exploitation of Natural Resources in DRC* or the *Dar es Salaam Declaration* adopted by 11 heads of state at the end of the Congo/Great Lakes war in 2004 became available for all African journalists, including the ones from the countries directly involved. Such documents would have been totally unknown by local media before the development of the internet (Frère 2008). Thanks to the internet, journalists can subscribe to mailing lists, information e-letters, webchats and blogs of national and local interest.

Because of such advantages, there have been several international development programmes promoting connectivity for rural radio stations, notably DFID's CATIA project (Catalysing Access to ICTs in Africa)³⁰, UNESCO's telecentre initiatives³¹, Radio Netherland's 'Informorac' project³² and various efforts by the Panos Institute, One World International and others. CATIA was meant to have funded 80 community radio stations to get online across Africa between 2003 and 2006 but funding came to an end before the impact of all these new internet connections was consistently evaluated. However, Institut Panos Paris is monitoring the five radio internet hubs in the DRC it initiated under CATIA, and it should be producing some interesting impact data in the near future.

One of the most positive early models of radio-internet convergence was the *Pulsar* news service network based in Ecuador in the mid-1990s - which, at its height, had 2,500 subscribers (mostly radio stations) in 50 countries to which it sent text and audio news items every day (Girard, 2003). There have been attempts at replicating this model in Africa, but so far, there has not been the same large-scale success. AMARC-Africa's Simbani news agency was a promising example of an ICT/radio application in support of rural populations. It functioned for three years (2003-2006) out of a radio hub in Johannesburg, and, at the height of its activities posted daily scripts and audio features on its website from 23 correspondents around the continent. However, it folded when AMARC-Africa went into receivership in 2006.

Probably the most successful of the early initiatives for providing free audio files online for African radio was Panos/One World's Interworld Radio project. It still exists (though it is now integrated with the main Panos London website) and commissions journalists to file

³⁰ A £9million programme from 2003 to 2007, covering mostly new ICTs and radio.

³¹ See Creech 2006.

³² Informorac stands for *Initiative de Formation Mobile en Radio Communautaire* and is working in 6 countries in West and Central Africa to train and equip community radio stations. See <http://www.informorac.org/>

reports and short audio features on developmental subjects (economics, environment, health, human rights etc.) and makes them available, free of charge on the web, via e-mail or as audio-files³³. Back in 2003 it had 125 stations in 59 counties subscribing to its service (more recent statistics are not available). Although audio content is now more readily downloadable from this and a number of similar websites, Interworld radio's main challenge is still overcoming the access problems experienced by radio stations and supporting these radios' own efforts to produce high quality content (Silvani, F., in Girard, 2003). Other free downloadable audio services of this type include those of IRIN and Farm Radio International, Wrenmedia through their AGFAX service, and the Technical Centre for Agricultural and Rural Cooperation (CTA)³⁴. Ready-made programmes from such services typically cover issues of interest to more than one country or region, for example, refugee issues, crop pests, HIV/AIDS, women's issues, migration etc. Pieces are normally about 5 minutes long and are in MP3 or Real Audio format.

At present, the familiar barriers to broadcasters attempting to incorporate the internet into their daily work and their on-air programming remain those of language, literacy, cost of equipment and ISP subscription (for example, in 2007, a 20 hour monthly internet subscription cost 85.95 US\$ in Burundi and 79.74\$ in Rwanda (ITU figures quoted in Frère 2008)). Unfortunately, even in countries where ISP fees are lower, regulations and the political climate limit broadcasters' access to the internet. Access to infrastructure (electricity and internet connection) is also a challenge, as is familiarity with computers, organisational barriers and lack of appropriate, *local* content. A quote from a broadcaster in from Radio Jiida in Senegal in 2003 remains as poignant as ever:

'It hurts when you browse the Internet and the only information you can find on Africa comes from the USA or Europe. It simply means that Africa is very poor in terms of information' (Quoted by Attias and Deflander in Girard, 2003).

A pilot project which began in 2001 in Timbuktu, Mali, involving radio and internet through a community telecentre³⁵, is one of the few such programmes to have been written-up and analysed in detail, and its lessons are salutary. UNESCO added radio equipment to its Timbuktu telecentre in order to 'enable the local radio stations to make full use of new ICTs and start radio browsing programmes' (Hughes, S. in Girard 2003). Although the telecentre was very popular and successful, the radio element was a failure, as far as development broadcasts were concerned. It is worth quoting from Hughes at some length to explain why:

'the only radio programmes for which web searches were used regularly [by radio staff] concerned sports, music stars and horoscopes. Attempts by the telecentre managers to organise the making of development programmes in the telecentre failed. As in many other parts of the developing world, in Timbuktu development partners – NGOs and IGOs – have been in the habit of paying local radio stations to broadcast development programmes. Although the development partners may view this as general support for community media, the hard-pressed radio directors naturally enough come to view development programmes as a legitimate source of revenue and are reluctant to use their own resources to make relatively time-consuming, high-input programmes' (Hughes, S. in Girard 2003:85)

³³ See <http://www.panos.org.uk/?lid=20785> - the site currently has 155 audio items of about 5 minutes each in low, medium and high quality audio formats (up to 3MB in size), many from and about Africa.

³⁴ For IRIN see <http://www.irinnews.org/>; for Farm Radio International see www.farmradio.org; for AGFAX <http://www.agfax.net/>; for CTA see <http://ruralradio.cta.int>;

³⁵ This telecentre was backed by a consortium of partners (UNESCO, IDRC, ITU, the national telecom company SOTELMA, WHO and FAO).

Nevertheless, the Timbuktu telecentre has had some success in training and enthusing local youth to present radio-browsing programmes from the telecentre's studios and, with investment of time and equipment by telecentre staff there are a growing number of radio/telecentre co-productions. UNESCO's original idea was to set up telecentres in the 50 main administrative centres of Mali and to equip every Malian local radio station with a computer and a link to the nearest telecentre. But this was reconsidered in favour of creating a radio studio within each telecentre for all nearby radio stations to use. This is more cost-effective and ensures that 'radio station staff are brought into an ICT-rich environment in which they can benefit fully from training and specialist support.' One of the major lessons learned is that it can be a mistake to introduce minimal ICT equipment into radio studios where there is no specialist back-up and where there is no assurance that the equipment will be used adequately (Hughes, S. in Girard, 2003:88).

In another evaluation of 39 of UNESCO's pilot community multi-media centres (CMCs) around the world, Creech (2006) found some more positive impacts of the convergence of radio and internet. For example radio producers said they now used the internet to research their programmes and CMC workers broadcast weather and market price information on the radio, previously downloaded from the web - which is, reportedly very appreciated by local farmers³⁶. One of Creech's interesting insights was that when a telecentre was added to an existing radio station, capacity-building was often required for radio broadcasters who were not necessarily used to making developmental programmes and making links with other development actors within the community, such as NGOs and government services. When radio transmitters were added to existing telecentres, securing community broadcast licenses and competition from other local radios were common problems.

For journalists with good internet access it can, of course, be enormously useful for on-line training courses. For example, one of the best initiatives for guidance and on-line training for using web-based audio is I-Train online, funded by various international donors including DFID and IDRC³⁷. They and Farm Radio International (see above) have collated a wide range of online training resources for community radio broadcasters, ranging from interview techniques, to audio-editing to style-guides.

It is not only radio stations that can benefit from an internet connection, but human rights organisations defending the rights of broadcasters. The following story illustrates how the internet has helped the work of *Journalistes en Danger* (JED), the main press freedom pressure group in Central Africa: -

'Before 1999, JED had to transmit its alerts and reports about infringements of journalists' rights by fax. The fax transmission cost \$2.5 per minute and sending a single press release lasted 2 minutes: that meant it cost US\$5,000 to reach only 1,000 recipients in DRC and abroad, which was unaffordable for a small NGO like JED. As early as 1999, JED was the first media organisation in the DRC to develop its own website, hosted abroad. At that moment Pierre Sosthène Kambidi from Radio Kilimandjaro in Tshikapa (West Kasai), 1,000 km away from Kinshasa, was arrested and imprisoned. He wrote a letter to JED (at the time there were no cell- phones in the DRC) that took a whole month to reach the JED office. But as soon as JED received it they sent out a press release via the internet about his case. On the very same evening the information was broadcast on international radio stations (RFI and VOA). Three days later, thanks to worldwide publicity, the journalist was free' (M'Baya quoted in Frère 2008).

³⁶ No specific centre or country is mentioned in the section of Creech's report that mentions this weather and market information reporting.

³⁷ See <http://www.itrainonline.org/itrainonline/english/radio.shtml#Web%20Radio%20-%20General>

Mobile phones

The recent explosion in mobile phone ownership and the ever increasing reach of GSM networks³⁸ has been a significant advantage for radio in Africa. Journalists announce their phone numbers over the air and invite listeners to phone-in or send SMS messages with comments on the news, questions, greetings, song requests etc. Some of these are then used on-air (Girard, 2008). In some cases audiences are able to give feedback without even having to pay for a call, by means of 'beeping' the station and being called back. Adding up the number of 'beeps' received from different callers is also a basic way of gauging the popularity of songs played, or of gathering audience responses to a poll.

The combination of radio and mobile has, on many occasions, been important in political crises, as in the following example from Ghana in 2000:

'[V]oters who were prevented from voting used mobile phones to report their experience to call-in shows on local radio stations. The stations broadcast the reports, prompting police to respond to the accusations of voter intimidation. Had voters called the police directly, it's possible that authorities might not have responded — by making reports public through the radio, voters eliminated the possibility of police announcing that there had been no reports of voter intimidation. Similar techniques have been used in Sierra Leone, Senegal...'
(Zuckerman, 2008)

With the current political crisis in Zimbabwe, SW Radio Africa in the UK gets through to rural zones (though the signal is jammed in urban centres) and it also sends SMS news headlines in via mobile phones. Gerry Jackson, the station's founder says:

*'We generate news headlines on a daily basis anyway - so this is just another way of using what already exists. It's nice and cost effective... because there is only the one cost, actually sending the texts. In two months we've built up an address database of about 2,000 mobile phone numbers. Like many, Zimbabweans truly love their mobile phones and of course what we're banking on is the virus effect. We also get up to 100 requests a day to be added to the service so it's growing rapidly.'*³⁹

In the war-torn areas of Burundi and DRC, local radio stations like Radio Maendeleo in Bukavu and Radio Isanganiro in Bujumbura have used mobile phones to broadcast live updates from the field about rebel movements and testimonies of war victims (for example survivors of sexual violence and displaced people) in the hope of alerting authorities and the UN to prevent abuses or to head off attacks on civilians (Frère 2008).

Mobile phones have also eased the logistics of reporting from the field since reporters are now able to phone-in their reports to their studios from far-flung places in real-time. For example, in the D R Congo, during the 2006 elections, Radio Okapi had 64 reporters spread out across an area equivalent to the size of Western Europe - some in remote jungle villages only accessible by canoe but still with GSM coverage - who were able to file live reports about attendance and voting patterns at polling booths all around the country, simply by using their mobiles (Myers, 2006).

³⁸ Four times as many people had access to mobile phones than to fixed-line phones in sub-Saharan Africa in 2004; by 2010 85 per cent are projected to have network coverage (Source: The Economist, 25 January 2007)

³⁹ See 'Texting to beat Zimbabwe censors' BBC News 27 February 2007

<http://news.bbc.co.uk/1/hi/world/africa/6401569.stm>

SMS text-messaging and radio have worked together well in a number of different projects in Africa. For instance, at Radio Lira in Uganda the stations' correspondents in the local area regularly gather prices for basic commodities (sorghum, plantain, maize etc.) at all the area's local markets which they phone or text into the radio station. This information is then broadcast on the FM signal and is also made available to farmers as a text-messaging service for a small fee. Weather reports, health advice, warnings of imminent pest attacks (e.g. locusts) are all communicated in this way and are very popular.

The costs associated with mobile phone use⁴⁰ remain high for radio stations operating on shoe-string budgets – which most are. For instance, most station managers in Cameroon expect their regional correspondents to buy their own air-time units (Ouendji, quoted in Frère 2008). In the DRC, *Journalistes en Danger* (JED), supporting journalists and reporting cases of attacks on press-freedom, rely heavily on mobile phones, but would be unable to cover the phone bills of their 180 plus national correspondents without international donor support.

World Space

The WorldSpace satellite has some potential for widening development impacts through radio. WorldSpace beams 80 plus channels to the African continent via the AfriSat satellite, four of which are dedicated to development themes. The NGO branch of WorldSpace, now known as First Voice International⁴¹ is behind these developmental channels, notably the Africa Learning Channel, which is available on audio and in downloadable multi-media format. Multi-media information can be downloaded when the WorldSpace receivers are linked to a computer using a special adaptor card. While WorldSpace receivers, which cost over US\$250, are expensive for individuals, a local radio station can be used to re-broadcast the transmissions so that they can be received by standard radio sets. WorldSpace receivers are often used to re-broadcast international channels such as BBC and RFI which are received via World Space in more or less FM quality. This is done, for example, at Apac, Busoga and Kigadi-Kibaale community radios in Uganda (Lusaka et.al. 2002). First Voice International reports having placed close to 1000 receivers in 21 African countries to date⁴².

Despite its theoretical potential, the World Space experience has, however, been mixed. A field study with which the author was involved, in Uganda, Kenya and Ethiopia in 2002 for the UK NGO, Intermediate Technology (Lusaka et.al. 2002) found that little of the information downloaded from the Africa Learning Channel was of direct use to the rural communities surveyed. This is mainly because the information was not local and specific enough, and because it was not in local languages. It was also found that the potential for linking the WorldSpace receiver to a computer to download internet-type content was under-used because of the usual problems of lack of computer literacy, lack of electricity, and organisational problems which resulted, in one instance, in the World Space receiver being locked away in an English volunteer's office for long periods, unused. There are some enthusiastic proponents of WorldSpace, notably the ALIN (Arid Lands Information Network) based in Kenya which, through the Open Knowledge Network (funded notably by DFID and Industry Canada), has conducted training and placed over 50 receivers in different

⁴⁰ Christopher Yordy provides a useful breakdown of mobile phone usage and other ICT costs across a sample of 15 rural radio stations in Africa in AFRI, 2008 b.

⁴¹ <http://www.firstvoiceint.org/>

⁴² <http://en.wikipedia.org/wiki/WorldSpace>

Community Information Centres in the eastern Africa drylands⁴³. However, the author is more inclined to agree with the verdict of an 'unreferenced' article in Wikipedia:

'WorldSpace's original plan to offer low-cost satellite radio services to rural Africa has failed due to the cost of receivers and batteries, which has led to the service being accessible only to expatriates and to the wealthier members of urban African society'⁴⁴

⁴³ See <http://www.alin.or.ke/work/ict.asp>

⁴⁴ <http://en.wikipedia.org/wiki/WorldSpace>

2. Assessment of radio's capacity to promote development in Africa

2.a. The challenge of assessment

The next sections look at some proven successes in terms of radio's development impact in the past; and also at some troublesome issues and 'question-marks' over radio's impact. But before embarking on that, it is important to recognise just how difficult it is to *prove* the causal link between communication intervention *x* and behaviour change *y* (although see following section 2.b. for links to research studies which have done just that). The evaluation challenges for radio (and all communication interventions) are:

1. attributing a particular effect to a particular radio campaign/programme/series
2. giving an objective value to qualitative, anecdotal and subjective indicators
3. verifying reported behaviour-change against actual behaviour
4. keeping track of the fast-changing radio sector, its audiences, and the effects of convergence
5. reconciling the short time-frames and rapid results required by donors with measuring attitude and behaviour change which happen slowly
6. generalising convincingly from case-study data
7. managing the many cultural, linguistic, logistical and security-related challenges facing researchers in developing country contexts - particularly rural Africa.

Given how real and prevalent these difficulties are, there is probably insufficient documentation of failed or flawed research. There are not enough honest accounts of methodological problems, sampling errors, and simply of cases where data is unreliable or goes missing, where mistranslation skews the facts, and where guess-work is substituted for hard evidence. There is also not enough lesson-learning from mistakes.

Over the last 10 to 15 years there have been various efforts to refine the monitoring and evaluation process for radio (and other communication) interventions⁴⁵. Recent work involving propensity score analysis⁴⁶ aims to overcome part of the difficulty of attribution; namely that people already doing a behaviour may be more attentive to messages about it, therefore the effect may be wrongly attributed to the communication intervention rather than to the real cause, which is people's propensity to act in the recommended way to begin with.

Other techniques for understanding the relationship between communications and behaviour change, such as Outcome Mapping⁴⁷ and Most Significant Change technique⁴⁸ are also innovative and promising, and probably deserve more field-testing.

⁴⁵ See, for instance, DFID's guidelines to M&E in communications programmes, written by the author (DFID, 2005, <http://www.dfid.gov.uk/pubs/files/icd-guidelines.pdf>)

⁴⁶ See, for example, an evaluation by CADRE (Center for AIDS Development Research and Evaluation), 2005, of an education/entertainment TV drama in South Africa: *Tsha Tsha Key Findings of the Evaluation of Episodes 1-26* (http://www.cadre.org.za/images/publications_presentations/cadre-tsh-eval.pdf). Propensity score analysis, say the authors, 'is a method that effectively overcomes the problem of confounding variables that influence exposure being associated with outcome variables – an issue that has been one of the most vexing challenges in establishing equivalent exposed and unexposed groups for evaluation of mass media interventions' (Ibid, p.5).

⁴⁷ Outcome Mapping places more emphasis on documenting short term outcomes, and acknowledges that in the long term, project activities will be *contributing* to the desired goals along with many other factors that we cannot control. See IDRC http://www.idrc.ca/en/ev-26586-201-1-DO_TOPIC.html

Furthermore, in the field of media assistance, there have recently been some interesting initiatives to develop indices for assessing the progress of a country's media sector - which, for instance, could be used for understanding radio's ability to influence governance. For example, IREX's Media Sustainability Index⁴⁹ and Puddephat's work with UNESCO⁵⁰ propose scoring systems and toolkits to measure the independence of and access to media, and the positive and negative impacts of media activity on governance. Support to further develop and road-test these kinds of instruments is still needed.

Finally, a word must be said about the lack of academic outlets or forums for presenting communications-related research. In his recent paper for the World Bank, Inagaki (2007) makes the point that much communications experience - and this often involves radio - is written-up by or for implementing agencies, and appears in 'grey' literature and at professional conferences. There are few dedicated, respected academic journals for work on development communications. Demonstrating the impacts of development communication has therefore become a 'domain of self-reporting' (Inagaki, 2007: 2) and often suffers from a lack of peer review, containing case-studies which are often little more than 'success stories' written to reflect positively on the implementing NGO or their funder(s) - or both. The resulting situation 'is not ideal for the purpose of systematically accumulating evidence. Decision-makers, and even the development communication specialists themselves, are not provided with tightly defined institutional resources to look up the impacts of communication for development' (Inagaki, 2007:3).

2.b. Some proven successes

Radio has had many proven successes in development terms and there have been some efforts recently to gather these experiences together to form a robust body of knowledge. For example, DFID's Development Communication Evidence Research Network (DCERN) website⁵¹ put together by Gamos in the UK 'pulling together the most compelling pieces of evidence', has 33 recent radio-related evaluations and impact studies; a search on The Communication Initiative website⁵² returns 300 impact studies relating to radio, using a whole range of experimental and participatory methods. Panos London is currently compiling an overview of research into radio in development and has determined a useful typology of the three ways that radio can contribute to development: firstly 'radio as an instrument for development' (i.e. development communications, programme-making with a predetermined development objective), 'radio as a development actor in its own right' (community radio, emphasis on empowerment) and 'radio professionals in support of good governance' (the radio sector taking an effective fourth estate role)⁵³. Tellingly, Panos is

⁴⁸ 'Most Significant Change' technique, developed notably by Rick Davies, is a participatory monitoring and evaluation method that involves 'the collection of significant change stories emanating from the field level and the systematic selection of the most significant of these stories by panels of designated stakeholders or staff' (Davies, R and Dart, J 2005, *The 'Most Significant Change' (MSC) Technique A Guide to Its Use*, <http://www.mande.co.uk/docs/MSCGuide.pdf>)

⁴⁹ IREX's Media Sustainability Index (MSI) 'provides in-depth analysis of the conditions for independent media in 76 countries across Africa, Europe, Eurasia and the Middle East'. Source: <http://www.irex.org/msi/index.asp> - accessed 11th July 2008.

⁵⁰ See Puddephat, A., 2007: http://portal.unesco.org/ci/en/files/24288/11743196661media_development_indicators_background_paper.pdf

⁵¹ (www.dcern.org)

⁵² (www.comminit.com)

⁵³ Armorer Wason, Panos London, pers. comm. 9th July 2008.

finding that there exists much more research and stronger analysis for the first category than the second and third⁵⁴.

No overview of radio in Africa would be complete without some positive case-studies, therefore see Annex 3 for three summaries of some of the author's personal favourites.

2.c. Gender, inclusion and participation issues

Reliable evidence of radio's positive impact exists but it cannot be denied that there are still question marks over radio's developmental impact. Some perennial areas of debate are questions over gender and inclusion.

The use of radio, like all ICTs, is not gender neutral. There are significant differences between the way women and men use radio; and there is evidence that women have less access to radio than men. In the author's doctoral research in Eritrea (Myers, 2004), several factors were found to negatively affect rural women listeners, namely: men's ownership and control of radio sets, women's lower levels of education (and lack of knowledge of languages other than their mother tongue), and women's higher and more constant domestic workload which left them little time to devote to radio listening. Often the nature of women's workloads - being constant and very fragmented - meant that concentrating on the radio and *listening*, rather than just hearing, was more difficult for women (Myers, 2004). Evidence from elsewhere in Africa corroborates these findings - allowing, of course, for cultural variations. For example, Bocoum Koumbourou Koita, the *animatrice* currently in charge of programmes for women at Radio Daande Douentza in Mali, says

'...Unfortunately, women are busy and it's a problem for them to find the time to listen. Some men think it a waste of time for women to listen to the radio. We broadcast women's programs in the morning so that they can listen undisturbed while the men are in the fields.'

This male bias is borne out by the following figures (Source Balancing Act 2008).

Percentages of Male and Female respondents who listened to the radio 'yesterday' (average sample size 2,000)⁵⁵

	Male	Female
Mozambique (Intermedia survey in 5 cities 2005)	73%	64%
Senegal (weekly listening) (Intermedia survey, mostly Dakar, 2006)	95%	92%
Tanzania (Intermedia survey 2006)	78%	64%
Uganda (Intermedia 2006)	73%	63%

So, it must not be assumed that because radio is a relatively cheap and accessible technology, that special measures are not needed to ensure women's access to it. This includes scheduling with the female audience in mind (e.g. asking at what times women are

⁵⁴ Ibid.

⁵⁵ The data here is mostly for urban areas. In the author's opinion, the gap between men and women's radio listening in rural areas would be much wider.

most likely to have time to listen), access issues (e.g. are women-only listening groups preferable to listening in the home context? should radio receivers be made available to women in special distribution programmes?) and stylistic issues (e.g. asking whether more female presenters and more engaging formats might attract more women listeners).

Participation by women in radio production is also an issue: radio broadcasting in Africa is still dominated by men, as anyone who has ever visited a radio newsroom or studio in Africa will attest to. In many places there are still cultural impediments to women fulfilling the role of a radio journalist - particularly in relation to travelling away from home, evening work, and covering issues like politics and sport which are felt to be masculine preserves. Initiatives such as Uganda's woman run station, Mama FM, Senegal's Manoré FM aimed at women, and training courses for women journalists, like those offered by Internews⁵⁶, for example, are among some of the initiatives tackling these problems.

Participation in radio by other marginalised and minority groups can also be problematic. Just because a station proclaims itself a 'community' radio, does not guarantee that minority religious and ethnic groups are necessarily included in its running or on its airwaves, nor that the young, old or disabled are necessarily taken account of. In some contexts, community can mean "exclusive" to an ethnic group, linguistic group, and, by definition, it is not inclusive.

In terms of reaching the rural poor the problem is that, although people have access to a local or community radio station and may listen to it frequently, they do not have access to the same diversity of stations as urbanites and their stations are often under-resourced. This means that they can often lack access to a media channel that allows them to participate in public debates at the national level or society-wide level. The danger is clear, unless national broadcasting corporations have a commitment to reaching the whole country with independent, trusted, public service content, the rural poor will remain marginalised and their right to information and their right to a voice will continue to be infringed (Panos London, 2008).

2.d. Promoting peace or war?

In almost any discussion of the value of radio in Africa, the first example that may come to mind is the negative one of Rwanda, and the notorious role played by *Radio Television Libre Mille Collines (RTLM)* in the genocide that took place there in 1994 against Tutsis and moderate Hutus. Without going into detail, the bare facts are that this Hutu-controlled radio station called for hunting down and eliminating the 'cockroaches' and 'snakes' who seemed to threaten to eradicate the Hutu population. The radio supported, guided and encouraged the work of the militias who systematically killed hundreds of thousands of Tutsis - even to the point of broadcasting the names and addresses of the supposed 'enemy within' - resulting in the terrible final death-toll of about one million Tutsis and moderate Hutus (Frère, 2007). Subsequently, the owners and directors of the station were arrested on charges of war crimes, and, in some cases, received life sentences in prison (Myers, 2008b).

Rwanda, though extreme, is not an isolated case of 'hate radio' in Africa. Before and since, radio has been used for purposes of propaganda, incitement to ethnic violence, witch-hunts

⁵⁶ Internews provides media training to about 5,000 women in some 30 countries worldwide each year - see <http://www.internews.org/global/gender/default.shtm>

and to support violent *coups d'etat*. Indeed, just recently in Kenya, the spectre of Rwanda arose again, as local vernacular radio stations started broadcasting ethnic abuse and invective in the post-election violence of January 2008 (Myers, 2008b; Abdi and Deane, 2008)⁵⁷.

Do these chilling examples mean that radio can potentially do more harm than good? This is certainly a subject for continuing debate and, in some quarters, has strengthened the position of censors, government regulators and those who argue strongly against allowing vernacular and community radios, suspecting them of being a 'front' for separatist movements and tribalism⁵⁸.

Some interesting work has been done recently on this issue. For example, a report by the Fragile States Unit at the London School of Economics argued that in certain circumstances, particularly conflict and fragile states such as Sierra Leone, DRC, Burundi, investment in regulation was more important than the promotion of pluralistic media (Putzel and van de Zwan, 2005).

Like all media, radio can be a double-edged sword. It has the power to educate and inspire, but also to trivialise and 'dumb-down'. It can propound truth or tell lies. Likewise, it has the power to promote peace, but also to incite war and hatred. Whether or not radio actually incites people to commit acts of violence is debatable, but it is nevertheless true that what people hear and see on a day-to-day basis helps to have a pervasive impact on what they regard as acceptable or normal (Buckley et.al. 2008). And there seems to be evidence that media can be abused and exploited to violent effect in already vulnerable societies (see Frohardt and Temin, 2003).

The onus is therefore on all stakeholders in radio - journalists, owners, promoters, funders - to use radio for peace-building, counter-propaganda and truth-telling, and to look to the many positive examples of this throughout the continent. Radio Okapi in the DRC is one example (see above). Another example is Ter Yat, which is a weekly political talk show broadcast on Mega FM, a community based radio station in Gulu, northern Uganda, explicitly set up to contribute to dialogue and better public understanding in order to defuse tensions. Ter Yat is one of the most popular programmes on the station, broadcast weekly on Saturday mornings. Political leaders and opinion makers discuss issues of regional and national importance. Ministers, members of parliament, religious leaders, politicians and rebels talk in the studio or by phone and give their views on the way forward to peace and development and answer questions through phone-ins (UNDP, 2006).

2.e. Sustainability issues

One of the main problems for radio in Africa is economic sustainability⁵⁹. This is true even of commercial entertainment-oriented radio, and even more so for radio services aspiring to public service and to developmental content.

⁵⁷ See, for example 'Dozens die as broadcasts stoke ethnic tensions' Daily Telegraph, London, 29th January 2008 <http://www.telegraph.co.uk/news/worldnews/1576737/Dozens-die-as-broadcasts-stoke-Kenya-tension.html>; or 'Spreading the word of hate' Reuters Alertnet, 22nd January 2008, <http://www.alertnet.org/thenews/newsdesk/IRIN/777bb0d43384210781b07badf7d4df3f.htm>

⁵⁸ See, for example, Kenya's former president, Daniel Arap Moi's arguments in 'Ban vernacular radio stations, says Moi' (Barasa, 2008)

⁵⁹ As Gumucio Dagron (2005) and others have pointed out, sustainability is not necessarily 'just about money'. Sound institutional organisation, social inclusiveness and participation are also crucial elements for sustaining

Africa's broadcast output has always been largely funded through advertising - even the state broadcasters. This is because most Africa states have never had the tradition nor the means by which to raise significant funds through taxation or a licence-fee. At present South Africa's SABC, for example, finds 80% of its revenue from advertising; Tanzania's TBC raises 85% in the same way (Balancing Act, 2008).

The following table gives an idea of the size of the media advertising market in Africa and the relatively high importance of radio in the media mix, as far as advertisers are concerned.

Top 5 African country markets by estimated advertising spend (2006) in US\$. (Balancing Act 2008: Steadman Associates and Balancing Act estimates)

Country and ranking	Total	TV	Print	Radio	Other
1. South Africa	3,424,270,086	1,367,703,768	1,359,053,782	417,760,950	243,123,176
2. Kenya	195,034,316	54,609,608	44,857,893	91,666,129	1,950,343
3. Sudan	194,940,000	48,735,000	38,988,000	77,976,000	29,241,000
4. Zimbabwe	154,360,372	38,590,093	30,872,074	61,744,148	23,154,055
5. Nigeria	104,182,200	41,672,880	20,836,440	36,463,770	5,209,110

Obviously, there are several problems with the commercial funding model. From a developmental point of view, the poorer your audience, the less advertising revenue you are likely to attract, and therefore the less economically viable your rural stations are likely to be. Then you have the problem of quality of content - the more entertaining, sensational, controversial etc. your content, the bigger your audience, and the more advertisers you are likely to attract. Furthermore, in a liberalised and plural broadcasting environment you can quickly reach a situation where too many stations are chasing too few advertisers.

African radios face a particular challenge with regard to increasing their advertising revenues. As the BBC's 2006 report points out, there is an overriding need for regular and robust market research and media monitoring, especially in high growth markets in order to attract and build an advertising culture. Fledgling radio stations need expertise in selling and attracting advertising, and this needs to be backed up by advertising research, based on financial estimates in order to make a persuasive case (BBC WST 2006).

While liberalisation and deregulation of Africa's airwaves may have been successful in rapidly increasing the numbers of radio stations, there are real dangers for quality of programming. There are some lessons for Africa in what happened in Ecuador in the 1990s, where the number of radio stations increased by 300 percent between 1991 and 1996 but the amount spent on radio advertising increased by less than 20 percent in the same period. This inevitably resulted in a financial squeeze, and, in order to survive, new stations invested as little as possible in expensive news reporting and programming and resorted to inexpensive automated formats, 'becoming little more than on-air juke-boxes' (Girard, 2003). Established stations with a commitment to news and developmental programming

genuine community radio initiatives. However, money *is* at the core of what makes a radio succeed or fail, and so, due to space limitations discussion is limited to financial issues.

were obliged to cut costs. This pattern can already be seen in Africa, where national multimedia groups with holdings in print, television, internet and radio are already squeezing out local radio, with a corresponding lowering of standards of content.

Apart from advertising, there are four other basic funding options for radio, one is international aid and loans, the second is community-based income-generation (including diaspora revenues), the third is patronage and the fourth is state aid.

International grants, given either bilaterally or through NGO intermediaries, are what sustain - or help to sustain - a large proportion of rural and shanty-town-based community and associative radio stations (AFRRI, 2008 b.). In theory this is not sustainable in the long-term, as donors' funding cycles rarely last longer than five years. However, community radio managers are often adept at building relationships with a number of different donors and trying various strategies such as turning core support into 'programme sponsorship' or 'capacity-building' - thereby in effect sustaining a station for many years on donor money. On this point, Linje Manyozo (in AFRRI, 2008 a.) makes the following perceptive comment:

'It is often the case that communities own the rural radio structure (equipment, identity, name), but their access to quality and community-centred programming relies on funding from donors - who, in reality, own the station's "community-ness" and sustainability.' (p. 9)

Some recent experiences with loans are interesting. The Media Development Loan Fund⁶⁰ is a non-profit investment fund providing low-cost financing to independent news media in emerging democracies. Since 1996, it has extended about \$15 million in low-interest loans and program-related investments around the developing world and the former Soviet bloc - 50 projects to date. It is funded by the Canadian, Dutch, Swedish and Swiss governments, OSI-New York, and the Mott, MacArthur and Eurasia foundations. Senegal, South Africa and Zambia have so far been the only countries in Africa in which MDLF has clients so far. For example, in December 2006, MDLF provided a loan to *Groupe Avenir Communication* in Senegal, publisher of *Le Quotidien*, to finance equipment for its all-news and information radio station.

Some stations manage to raise a significant portion of their budget through community-based schemes of various kinds. This can include small levies on radio club members, announcements, fund-raising by diaspora communities outside Africa, income from spin-offs like cyber-café and other schemes like vegetable gardens and livestock raising in the radio precincts. Other costs such as building-maintenance may be met through voluntary contributions of community labour and materials. For example, seven community radios established by Développement et Paix in Katanga, DRC, four years ago are now 50% self-sufficient thanks to local income-generating schemes⁶¹. Radio Kayes in Mali, manages to meet most of its running costs through contributions made by Malian migrant workers in France (Myers et.al, 2004). Radio Maendeleo in the DRC, having received a Vsat internet connection through the Panos Institute, now acts as a local internet service provider, and charges local NGOs in Bukavu for their connections to the system⁶².

The third option is patronage which manifests itself most blatantly in politicians buying and sustaining radio stations, in order that they promote their party political line. One example is the chain of several radio stations called 'Radio Liberté' in DRC, which are owned by the (now outlawed) presidential candidate, Jean-Pierre Bemba and his MLC party. Although the

⁶⁰ See www.mdlf.org.

⁶¹ Personal communication, Serge Blais, Développement et Paix, Kinshasa 23rd April 2008.

⁶² Various personal communications, Kizito Mushizi, Radio Maendeleo, Bukavu.

patronage option may be 'sustainable' it is hardly conducive to truthful and balanced journalism. The only way out of the patronage system is finding alternative business models and running a radio station along sound editorial and managerial lines.

The fourth option - and this is only available to some types of radio in some countries - is state aid. For example, South Africa has the Media Development and Diversity Agency (MDDA), which is a quasi-governmental media support agency set up by the South African government to help struggling small and community media and partly funded by international donors.

Despite all these options, the aim of financial sustainability remains elusive for most of the African radio sector, particularly those offering minority language programmes, community services, serious news and educational and developmental programmes. The reality is that some degree of international and/or state funding is probably always going to be necessary for 'pro-poor' radio.

2.f. The question of behaviour change

As discussed above, there have been some recent initiatives to pull together 'evidence' about radio's impact in development. That said, it is important to take a step back and to acknowledge that there is still fundamentally an *assumption* being made here, namely that radio actually 'works', and that radio can actually change people's behaviour in positive directions.

How exactly radio influences human behaviour, whether increased knowledge leads to behaviour change, what behaviour change *is*, when change can be said to have happened, how long it may take and whether it will then be sustained, are all contested areas. There are various schools of thought among both theorists and practitioners. Some, for example would prefer to look at changes in power, inclusion and ownership as opposed to changes in behaviour, be it at individual or societal level (Panos London 2008). A few of the various theories include 'social learning theory', 'communication for social change' approaches, 'social marketing' and so on⁶³. There are various academic institutions and educational NGOs which adhere to, or promote, one or other approach.

Although the purpose here is to signal there is a debate rather than to enter into it, it is possible to bring out a few basic, common sense, 'knowns' about radio and its power to impact human behaviour.

Firstly, it is safe to say that radio can rarely - if ever - influence behaviour and sustain behaviour-change on its own. Normally, when one looks at a successful radio initiative there is invariably some additional influence of field agents, radio clubs, teachers, field workers or medical personnel helping the process along, and/or a mix of media, such as visual support to radio messages through posters, newsletters and the like (AFRRI, 2008).

Secondly, radio seems to have less direct influence the more media-rich the context, and the more sophisticated and media-literate the audience. To take the negative example of Rwanda; it is generally agreed that *RTLM*, the extremist-Hutu hate radio, had the influence it

⁶³ For a good summary see a paper by Silvio Waisbord, 2001, Family Tree of Theories, Methodologies and Strategies in Development Communication: Convergences and Differences, Rockefeller Foundation/Communication for Social Change (CFSC) Consortium <http://www.comminet.com/pdf/familytree.pdf>

did partly because there were very few alternatives to that station at the time: all telephone lines were down, and there were no other sources of information apart from RTLM and the government-controlled station, ORINFOR (also Hutu-power controlled) (Frère, 2008)⁶⁴.

Thirdly, the more interactive, entertaining, engaging or compelling the radio content, the more likely it is to have an impact. This is thought to be partly because it encourages interpersonal dialogue (Scheepers et.al., 2004). Now that audiences can participate more and more in radio programmes and can even produce their own radio content, through new ICTs, the potential for empowerment and enrichment is greater. Dramas are especially effective for engaging audiences, and long-running series and soap-operas (edu-tainment) ensure audience loyalty and regular listening (AFRRI, 2008). Sustained and regular listening seems to be more crucial for behaviour change than exposure to a specific radio campaign (AFRRI 2008).

Finally, if the radio station and/or the programme-maker is not trusted in the first place, no messages, however compelling, will get through. Audiences have got to trust the message-sender before they trust the message. Therefore, serious radio stations guard their reputations for impartiality precious, as they know that if they lose that, they lose listeners (and ultimately revenue). Likewise, a local radio will only be credible if it is genuinely interactive and inclusive and will be judged accordingly by its local audience who will abandon it, if not (Myers, 2004).

⁶⁴ It is important to emphasise that not all Hutus were extremists, nor were they all behind the hate messages in the media that preached Hutu power. Indeed many thousands of moderate Hutus died in the genocide alongside Tutsis.

3. Future prospects for radio and development in Africa

3.a. *Technology convergence*

As far as can be predicted, FM would appear to still have a solid future in Africa. Digital Audio Broadcasting (DAB) is already being called into question in the Northern hemisphere and is unlikely to be adopted by African state broadcasters in the foreseeable future (Balancing Act 2008). But given that the future will surely be as digital in Africa as it is in the rest of the world, it may well be that the new radio receivers that pick up audio from Wifi signals, to enable listening to radio stations online, will evolve, come down in price, and become much more common⁶⁵.

As we have seen (see section 1h above), the combination of radio and mobile phones is currently producing some exciting new programme formats and opportunities for interactivity, audience voice and social activism. What can be predicted about where the convergence of radio and mobile phones might lead in future?

A survey of recent projects in Latin America by Girard (2008 a.) indicates that use of SMS messages among community radio stations is still at an early stage - and no doubt the same is also true of Africa. In most stations SMS use is informal (although more developed in North than Sub-Saharan Africa). The few cases identified of community stations making more complex use of SMS messages have accompanied political crises or natural disasters and have usually been donor-financed.

But there are a variety of tools available which community radios - if they had the appropriate computers and software - could use to enhance their service to their audience, for example broadcasting messages to dozens or even thousands of mobiles advising people of a special programme or an important community activity and using keyword response - such as when a listener sends the word "news" the station replies with a text message with current headlines (Girard, 2008). Perhaps because of the need for computer technology, there are few, if any, experiences of complex uses of SMS by community radio stations in the developing world without external funding and technical support, even though the financial and technical resources required are minimal. It is perhaps understandable that radio stations will take some time to devise strategies for using the technology. Other reasons could include the limitations of 160 characters per message, users who do not know how to use SMS (Girard, 2008) and the fact that African radio culture is predominantly 'live'.

In 2004, a report by the Gamos consultancy predicted

'In the future, voice telephony will converge with digital services, so mobile phones will enable access to a range of data based services. In the longer term, handheld devices will combine features of radio, television, camera, mini computer (PDA) and phone. These will ...offer almost limitless opportunities for delivering services tailored to the needs of the poor' (Scott et. al., 2004).

However, mobile phones with built-in FM radios are still surprisingly rare in Africa, in the author's experience⁶⁶. This may be because they cost more than the average phone and because those who do invest in a mobile phone - normally those of middle income, not the poor - will normally have radio receivers in their households already. Cell-phones that can receive the internet and which allow listening to streaming internet radio stations do now

⁶⁵ See, for example, <http://www.gizmag.com/go/4073/> for an article about one model of such a device.

⁶⁶ As with many issues of technology convergence, a survey on this specific subject needs to be done.

exist⁶⁷, but these are still not at all widespread in Africa, since they require subscriptions to GPRS or 3G networks. Current low-end 3G handsets cost between US\$174-260 but are coming down in price (Balancing Act 2008). Sub-Saharan Africa is yet to see widespread 3G networks. At the moment only South Africa, Namibia, Angola, Nigeria, Kenya, Sudan, Tanzania, Uganda, Zimbabwe, Egypt, Libya, Tunisia and Morocco have one⁶⁸.

Podcasting was recently hailed at the World Electronic Media Forum as a technique that would

"[give] radio a wonderful renaissance... [in a context] where radio and television would dissolve, merge and proliferate on the numerous new platforms made possible by the technological revolution" (Fritz Pleitgen⁶⁹ in WEMF3, 2007).

Podcasting as a means to reach the poor with audio content in 'any time any place' form, has been experimented with by radio stations in Peru and in Sri Lanka (Kothmale again), but not yet in Africa, it would seem. However, the Peru experience, though billed as 'podcasting' was in fact an interesting mix of audio formats which involved transmitting voice files from central points out to local telecentres via the internet, and - in areas served by local radio - setting up links so that stations could broadcast the 'podcast' material⁷⁰. Where there were no radio stations, audio files were either played over loudspeakers or recorded onto CD or cassette tape and distributed. With better internet connections in Africa, podcasting may become a way to circumvent the restrictions of regulation and licencing, from which radio suffers, but on the subject of podcasting generally, Girard remarks 'unfortunately we are still waiting for real world examples' (Girard, 2008, b.)

Web-based news agencies aiming to provide downloadable audio content on development issues to radio stations could work, in theory, but such projects should learn from the negative experience of Simbani (see above, section 1h) which was probably over-ambitious and could not sustain itself once its main funding (through DFID's CATIA programme) came to an end. As yet, most African stations are not ready or able to pay for content, so there are few alternatives to such web-based subscription services being donor-funded for the foreseeable future, as is the case for Interworld Radio and other online resources already mentioned.

3.b. Urbanisation and its implications

Africa has traditionally been regarded as a predominantly rural continent, but this is changing. Most countries on the continent are now urbanising at a rate that is three times faster than in the developed world (Balancing Act 2008). What are the implications for the evolution of radio in this context?

Because it can be powered by batteries, and due to its cheapness and portability, radio is particularly associated with rural information provision. A look at the statistics at the top of this paper shows that TV tends to gain ground when a country's population becomes more urbanised. On a fairly conservative projection, television ownership across 40 African

⁶⁷ See, for instance, 'Internet on your phone' <http://comunica.org/radio2.0/archives/54>

⁶⁸ <http://www.3g.co.za/content/view/39/33/>

⁶⁹ President of the European Broadcasting Union

⁷⁰ In this case, information useful to local grape and livestock farmers, see http://www.scidev.net/en/science-communication/pod-ready-podcasting-for-the-developing-world.html?utm_source=link&utm_medium=rss&utm_campaign=en_sciencecommunication

countries will grow from just over 46 million in 2007 to just over 54 million in 2010 (Balancing Act, 2008). This is primarily due to availability of electricity, but also due to changing lifestyles (i.e. more leisure and more disposable incomes associated with middle-classes in towns). For example, TV ownership in Angola's capital, Luanda, is at 96 percent of the population as compared to only 85 percent for radio, with mobile phone ownership coming a close third (79 percent) (Balancing Act, 2008, and see above section 1.a.). Looking at daily media habits, on a typical day, 69 percent of Luandans will watch TV, 74 percent will listen to radio and 1 percent will consult the internet (Balancing Act, 2008). These kinds of figures are not just limited to a capital like Luanda, enriched with oil wealth, but are also reflected in the sprawling shanties of Kinshasa (DRC), a city of 8 million people, where recent surveys have shown that around 40 percent of *Kinois* regularly watch TV (DFID, 2007).

Access to other new technologies, notably the internet and mobile phones, come with increased wealth and urbanisation. Will all these changes leave radio out in the cold?

The advance of TV and other media must be viewed in perspective. Despite TV becoming more widespread, the BBC AMDI research found that TV's growth over the last five years has been less dramatic than radio (BBC WST 2006:22). Furthermore, media trends in Europe and North America have shown that radio does not get supplanted by TV, but rather finds its place alongside other media and largely retains its audience, partly because it is free at the point of use and it is a medium used while driving and multitasking. While the average daily number of hours of usage may decline in favour of TV (or indeed the internet), the actual usefulness and contribution of radio to people's lives does not necessarily diminish.

Another aspect of radio in Africa is that it caters uniquely for many different local language groups - something TV and the internet do not - and probably will never do. Not only does it give minority language groups news and information in a language they can understand, without the need for literacy, but it also gives these groups a voice and a means of expression for their own culture, which, again would be more difficult and expensive by any other means. Let us not forget that there are at least 1,350 indigenous languages⁷¹ in Sub-Saharan Africa and that many women, especially those vast numbers who have missed out on schooling, tend to speak their local tongues rather than colonial languages like English, French or Portuguese.

Despite the trends towards urbanisation, it must be recalled that Africa is *still* a predominantly rural continent. The UN's Population Division estimates that in 2010, the urban population south of the Sahara will be 37.3 percent and by 2050 it will be 60.5 percent⁷². Furthermore, Africa is still, unfortunately, a very poor continent and seems to be remaining stubbornly so (see, for example, Collier 2007). Radio being a medium within relatively easy reach of the poor will therefore - sadly in some ways - remain relevant for the foreseeable future.

3.c. International donors

In 2005 Adam Rogers, Chief of the Communications and Public Information Unit of the United Nations Capital Development Fund (UNDP), did a survey about development communications among 154 UN officials, NGO representatives, consultants, representatives

⁷¹ Source: Wikipedia

⁷² See World Urbanization Prospects 2007 <http://esa.un.org/unup/p2k0data.asp>

of bilaterals and other members of the aid world. He found that 'development communication is not sufficiently appreciated by decision and policy makers in development organizations' and that the main reasons for this were 'a deficiency of empirical indicators on which policy makers can base their budgeting decisions and a lack of effective communication between those that advocate for development communication and those at the top of the organizational hierarchies' (Rogers, 2005).

Since then there are signs that the picture has improved somewhat and there have been a number of international initiatives that have brought media development - a major part of which effectively means radio - into the spotlight, both as part of the 'good governance' agenda and as part of the drive to create a 'World information society': for instance, the World Summit on the Information Society in 2003 and 2005; the Global Forum for Media Development in 2005; the World Congress on Communication for Development in 2006; the BBC's Africa Media Development Initiative in 2006; the Polis conference at the London School of Economics in 2007⁷³ and the subsequent creation of the Africa Media Initiative this year⁷⁴. There have also been several significant policy papers and pieces of research which have made the case for donor support to communications and media development (See for instance, World Bank 2002; GFMD (eds.) 2006; UNECA 2006, World Bank's 'Rome Consensus' 2007, Panos London, 2007 and DFID, 2008).

It can be said that radio which at one time was regarded as the 'poor cousin' of the newer ICTs has been brought back into the ICT family, largely due to a recognition that the poor, when they seek information or a voice, make no such distinctions and that radio's future will converge with those of other mass-media and other digital platforms and devices. Precisely how much aid money has been invested in radio for development in recent years has not been calculated, but current ongoing media-support and ICT programmes must be worth several billion US dollars worldwide. For instance the Gates Foundation currently has worldwide ICT support strategy worth approximately US\$100m; the network of Open Society Foundations worldwide spend up to US\$500m annually on democratisation initiatives, a large proportion of this being on media support; USAID, the biggest bilateral funder of media initiatives worldwide spends over US\$50m on media development annually (2004 figs., but reportedly growing year on year); the EU has an envelope of €3 billion Euros to support democratic governance in ACP countries 2008-2013, some of which will include access to information; the UK's DFID has various large media support programmes across Africa, for instance approximately US\$11 million for the DRC's media, alone; the World Bank has a 'Dev Comm Division' and a new five-year programme on Communication for Governance and Accountability (CommGap) worth approximately US\$10m; UNESCO's annual media assistance budget is about US\$16m; and if the African Media Initiative gets fully funded it will be spending US\$136m over the next five years (Myers and Grant, 2007, based partially on figures from Becker and Vlad, 2005).

Where future donor funding for radio will go is hard to predict. With world aid budgets on the rise and the case for communications having now largely been made, aid flows to radio could well increase, particularly if it is seen as a key part of promoting good governance and accountable states. On the other hand, with most donors now distracted from the

⁷³ See *Development Governance and the Media: The Role of the Media in Building African Society* March 2007 Conference report by Charlie Beckett and Laura Kyrke-Smith www.lse.ac.uk/polis

⁷⁴ AMI was launched in May 2008 and is the fruit of the BBC AMDI research (2006) and consultations hosted by the UN Economic Commission for Africa called STREAM (Strengthening Africa's Media), backed by DFID and Gates Foundation (among others). An African led initiative, AMI is now looking for \$136m, and is thought highly likely to attract donors (see article by Guy Berger: <http://www.thoughtleader.co.za/guyberger/2008/05/01/wanted-136-million-to-grow-african-media/>)

governance agenda by the multiple crises of food, climate change and counter-terrorism, securing donor support for radio may continue to be a challenge.

4. Research issues, priorities and questions

It is widely agreed that Africa is probably the least researched of regions, in terms of media in general. The BBC's AMDI notes:

"... systematic and reliable data on the [media] sector is underdeveloped or non-existent. There is a lack of robust research, on a continental scale, demonstrating what is and is not working in the attempts by many players to strengthen African media. The lack of reliable information has been a factor constraining private and public (donor) investment" (BBC WST 2006:13)

Specifically on radio, it is valuable to understand better the state of play of 'traditional' radio, as this will help us improve our understanding of the potential impacts that can be had from enhancing the medium with the use of ICTs. Knowing how radio is used, and what the constraints are to its growth, will ultimately affect how much priority is given to supporting the use of ICTs in radio, and determining what types of information it is best suited to. It also helps improve understanding of the relative importance of using ICTs vs traditional media in projects with an information dissemination component.

That said, the research challenge can be broadly divided into need for baseline data; for impact evidence; and the need for forecasting future trends.

4.a. Need for baseline data

Statistical information about radio stations and audiences, is, as noted above, hard to come by. For instance, the WB's most recent World Development Indicators on ICT (World Bank, 2007) do not include information on radio usage. UNESCO should be the obvious source for radio statistics, but, here again, the data currently available for Africa (in fact for the whole world) is disappointing: unavailable, out of date or, in some cases wildly inaccurate⁷⁵.

As noted above, **complete and up to date directories** of media in Africa do not exist. The World Radio Television Handbook (WRTH) and to a much lesser extent the Association of International Broadcasters make some attempt, but both fall far short of providing a complete picture. Mediafrica.net has the best publicly available database on radio in Africa, but even this is incomplete, partly because of the ever-changing nature of the radio scene and partly because regular updating incurs costs. There is an obvious need for research and constant updating in this area for the benefit of investors, donors, practitioners, business with a view to advertising, content providers with a view to reaching specific markets, and other media organisations interested in potential partnerships. Such a database would ideally list all radio stations (state, public, community and commercial) with station format, target audience and size, management contacts and transmitter power and footprint⁷⁶.

Country or region-wide **quantitative audience surveys** exist (often destined only for commercial use and not publicly available) but **radio consumption patterns in most rural areas of sub-Saharan Africa** are still very under-researched because of the extra costs involved in gaining access to physically remote communities, training researchers from a low base, and other barriers such as language and literacy. Audiences in war-torn, difficult-to-

⁷⁵ See, for instance, UNESCO's Statistics on 'Broadcast Institutions and Public Channels' <http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx?ReportId=857> where it would seem to suggest that DRC's radio stations number more than 8,000....

⁷⁶ The author is grateful to David Smith of Okapi Consulting for this particular research suggestion.

access countries and sub-regions are also particularly badly represented in surveys (e.g. Somalia, DR Congo, Northern Uganda) as well as countries with tightly controlled communications environments like Zimbabwe, Eritrea, Tunisia, Libya and Algeria for obvious reasons. Needless to say, such audience research always needs to be disaggregated by sex and age.

Mapping is required of different types of radio stations (community, state, commercial etc.), ownership patterns and how they are changing (expanding/ reducing in number) over time, and in which regions. The extent to which **local regulations or laws** promote or stifle the establishment of radio stations, their location and the audience they serve is not fully understood or mapped, either.

We also need more information on **existing patterns and trends in technology-access** by radio stations (numbers of radios online, numbers streaming their audio signal, numbers accessing and using mobile phones, satellite and other digital technologies). Coupled with this, we need more data about **how broadcasters are using newer ICTs** and new facilities like telecentres, and the extent to which new technologies (e.g. mobile phones) are being used in on-air programming, for capacity-building and for networking between stations and within the profession. Other spin-offs of convergence need investigating, for instance the number of African radio journalists who are blogging, promoting citizen journalism, pod-casting and net-casting and where they are. We need to know how much use broadcasters are making of open-source soft and hard-ware. Perhaps there are yet other, innovative ways in which radio broadcasters are taking advantage of digital technology? If so, the questions are obvious: where, what, who, how, when...and with what impact?

Qualitative baseline **data about African radio audiences** is also in short-supply - particularly among the poor, the rural, the youth and the female audience. Often radio stations themselves do not have this data and act on intuition and assumptions without targeting their audiences properly. Reasons for audiences' media choices; their information-seeking behaviour; how, where and when they hear and listen to the radio, and their aspirations in relation to radio, media and new technology in general are not well understood.

Providers of content are also an under-researched area - particularly governments and civil society.

- how are African governments using radio and to what purpose?
- is radio being used to promote or explain development policies and how ?
- when radio gives voice to populations how do local and national government agents and departments respond?
- what are the different ways that radio station and civil society organisations are working together to produce content?

4.b. Need for impact evidence

As noted in section 2.a. above, one of the challenges of assessing radio's impact is devising the best research methodologies and frameworks to attribute effects to causes - so some work still needs to be done on **devising indicators, field methods and analytical tools** for rigorous evaluations, and to road-test some of the existing methodologies. A related need is for **more monitoring and evaluation to come from neutral sources** rather than from implementing agencies and donors themselves, who, rather uncomfortably, seem to dominate the available literature at the moment. There is a lack of documented experience

and understanding of **scaling-up pilot projects** and moving from proof-of-concept to large-scale development.

Coupled with this lack of tools, there is a lack of **socio-political analysis** of the kind of difference radio is expected to make as a platform for participatory communication - specifically how effectively do radio stations improve debate, what difference does debate make to development, what exactly does 'empowerment' consist of and what is radio's contribution to it? What are the impacts, both positive and negative, of community radio when it is exclusive to one ethnic or linguistic group? Perhaps the gains of including some groups are outweighed by the negative impact of excluding others?⁷⁷

There are few academic journals and no single repository or clearing house for research on media in Africa, and nothing specifically on radio and development. Thus there is still a **general need for collation of data**, experience and evidence; peer review of research; dissemination of findings; and for streamlining and making best possible use of research-findings, once gathered.

Research that looks at **new and innovative ways of using radio**, and innovative policies that promote its use and the **impact of technology convergence** on the radio sector and on development is still scanty, as discussed above.

Furthermore, the following areas are often claimed-for, but have not been convincingly or rigorously researched:

- ways that radio broadcasting can reduce **corruption and state capture**
- ways that radio broadcasting can influence **public policy agenda-setting**
- role of community radio and other public-service radio broadcasting in **pro-poor policy-making and service provision**
- role of community/local radio in **reaching the chronically poor** and 'hard to reach' (i.e. those living with social discrimination, with insecurity, the remote and spatially disadvantaged, and those with limited citizenship⁷⁸)
- the role of local and community radio in fostering public debate and local ownership of poverty reduction processes - such as Poverty Reduction Strategy Plans (PRSPs)
- the ways in which radio can provide the best **cost-benefit ratios** in terms of information provision and participation in development projects.

There has been some work on radio's role in influencing behaviours in the traditional development areas of health, food production, education, natural resource management etc., but more rigorous work could be done on the real effects (if any) of developmental messages carried by radio, by **more neutral institutions** than hitherto. Analyses of the **relative merits and capacities of public, private and community radio** to reach the poor is needed. Research attempting to measure the **long-term impact** of a radio project or a series of projects is also scarce.

After almost two decades of **donor assistance** - particularly investment in training in the radio sector - there been no systematic documenting of this experience, asking, for example:

- has assistance resulted in overall improvements in journalistic and broadcasting standards?

⁷⁷ The author is grateful to Kitty Warnock of Panos London and Adel El Zaim of IDRC North Africa for these research suggestions.

⁷⁸ See *Chronic Poverty Report 2008-9 Escaping Poverty Traps* from the Chronic Poverty Research Centre, UK <http://www.chronicpoverty.org/cpra-report-0809.php>

- has journalism training had wider social impacts and, if so, what and where?
- overall, are regulatory decisions fairer than before assistance was given?
- has assistance to the radio sector improved the capacity of civil society to have a voice?

4.c. Need to forecast future trends

Technology is changing fast and seems to be enhancing rather than replacing radio in Africa. **How populations are likely to use and experience radio in the future**, as more computers, mobile phones and internet connections inevitably become available in Africa over the next decade, is the overarching question. More work could usefully be done now to predict future trends and to (try to) prevent investment in inappropriate technologies. For example:

- what future, if any, is there in satellite radio broadcasting (like WorldSpace)?
- what future, if any, is there in digital audio broadcasting?
- what future is there in solar and other alternative energy sources for radio stations and radio receivers?
- what are the time-frames and potential impacts of internet-based broadcasting?
- on what kinds of devices are Africans most likely to be accessing audio information twenty years from now?
- what potential is there for open source software and open hardware approaches for radio broadcasting?

As we have seen, the nature of radio content is changing as democracies gradually take hold and African economies become more liberalised. The final big, overarching question for the future is: **where is public-service broadcasting going** in this context? Specific questions here could include:

- will the community/local radio bubble burst? If so, what future for pluralism and diversity in broadcasting in Africa?
- what future for state broadcasting in delivering pro-poor content?
- what is the influence of international radio (BBC, VOA, RFI etc.) within the mix of radio on offer in any one country and to what extent is it stifling the next generation of good quality domestic radio production?
- could the commercial radio sector fulfil a more public-service remit in future, and if so, how?
- is local regulation and legislation likely to favour pro-poor radio in the future (particularly community radio) and what are the ways international donors can support it to do so?
- is there a role for open content and creative commons licences schemes in encouraging the development or enhancing the quality of radio content?

Finally, but all-importantly, research is needed into **revenue streams** and how pro-poor radio can develop existing sources of income, generate new ones and develop corresponding **new financing and business-models** to sustain itself into the future.

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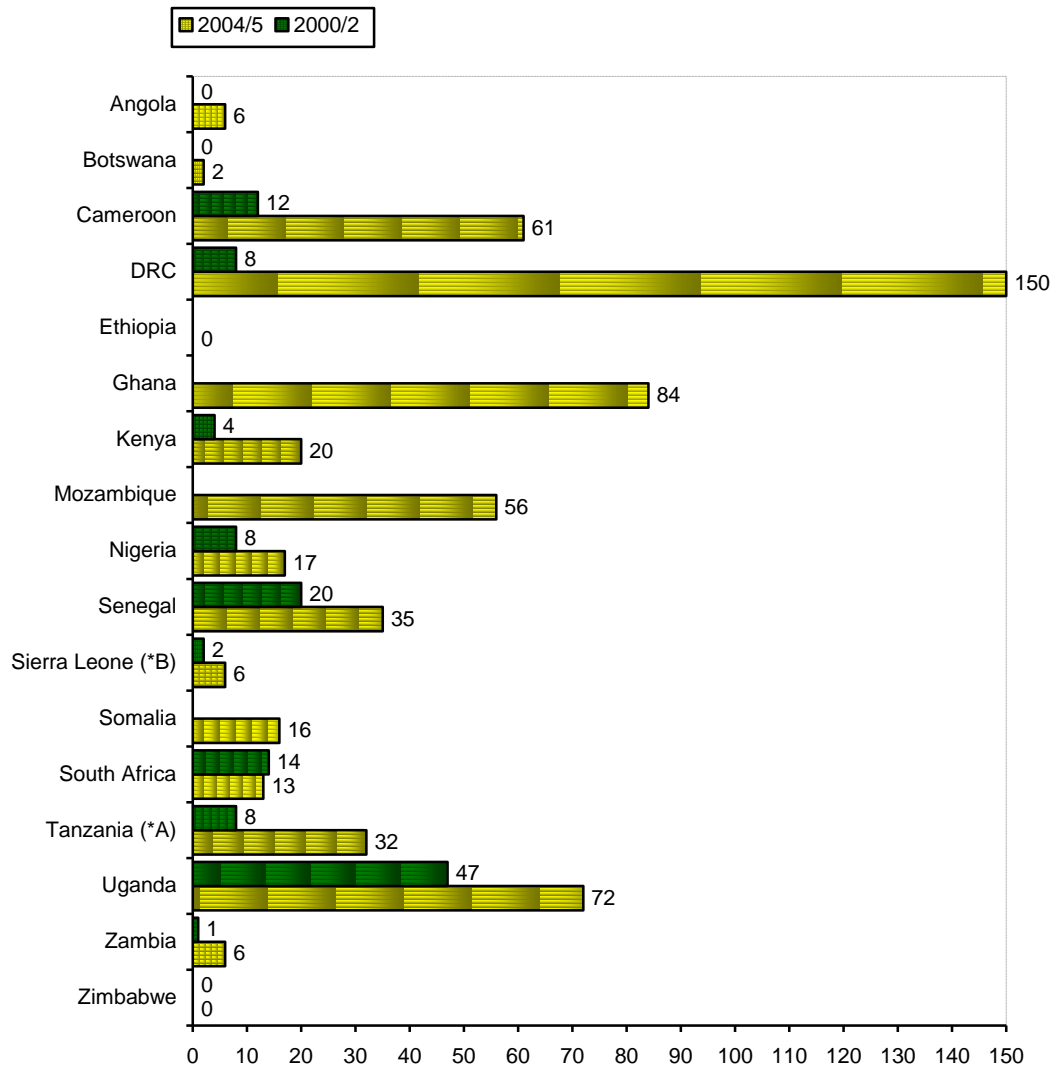
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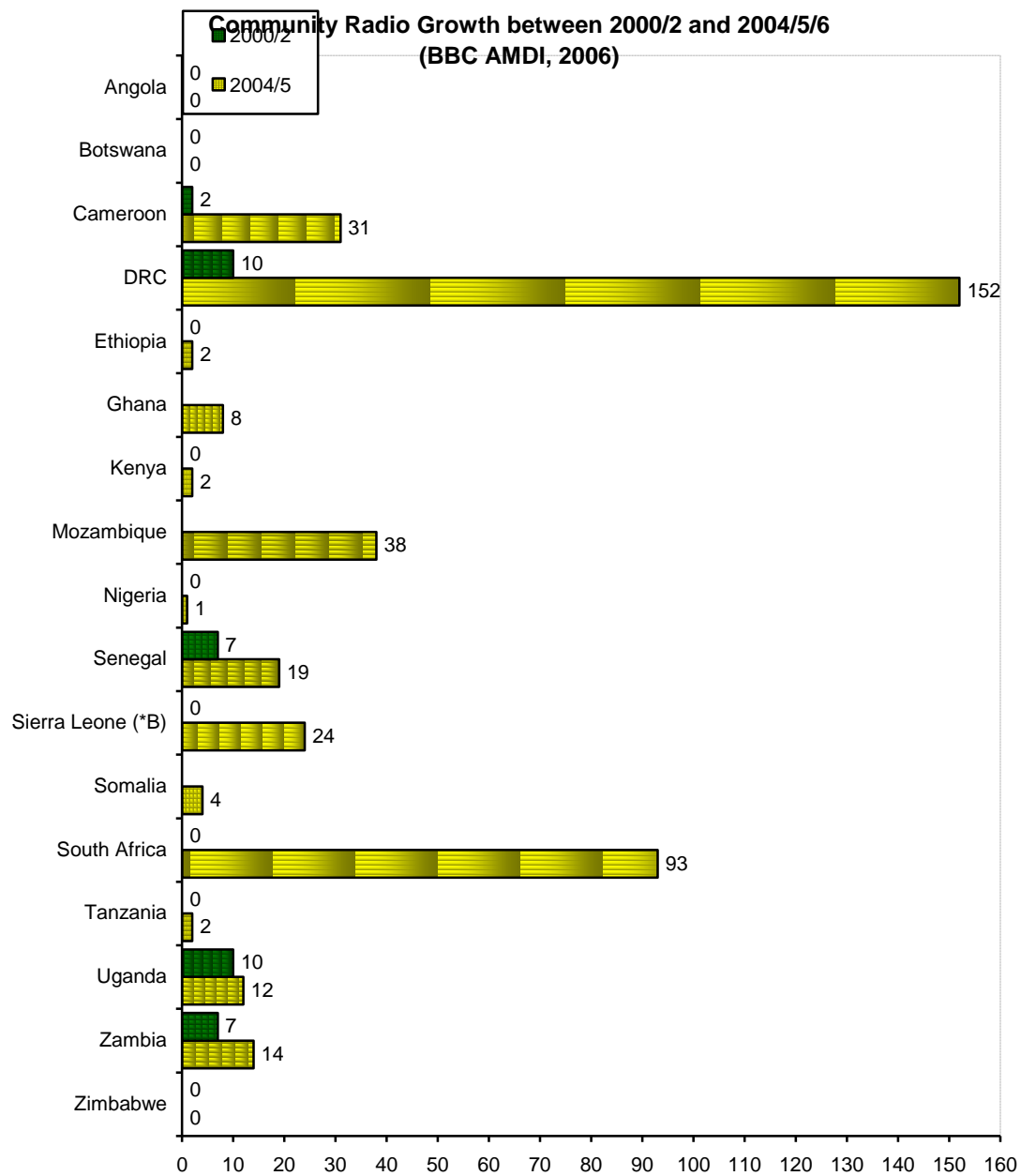
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Annex 1

**Commercial Regional Radio Growth between 2000/2 and 2004/5
(BBC AMDI, 2006)**



Annex 2



Annex 3

Three positive examples of radio and development

Radio for Peace-building in DRC

In 2001 DFID made the decision to fund a UN radio station in the D R Congo as the peace talks were about to take place. Radio Okapi, was born out of an alliance between Fondation Hirondelle and the UN mission, MONUC. Hirondelle provided the content and kept an independent editorial line, while MONUC ensured security and a satellite-based transmission system that soon covered the best part of the DRC on FM and Short Wave. Five years later, Radio Okapi is widely credited for having helped unify the country, smoothed the political transition, and contributed substantially to free and fair elections: in a recent study by IMMAR⁷⁹, almost 36% of voters said that Radio Okapi had prompted them to vote. Okapi has an estimated 25 million listeners and 27 local partner radio stations. Okapi is currently funded by UK, Canada, France, Sweden and Switzerland (DFID, 2007).

Radio Improves Governance in Malawi

In Malawi, the Development Communications Trust (DCT)⁸⁰ broadcasts 'village voice' recordings from a network of radio clubs around the country, which report (among other things) on local-level delays, corruption, malpractice, and mismanagement by service-providers, including international NGOs, and local authorities and politicians. These problems are then broadcast on national radio (MBC), and the ministry, individual or organisation responsible is invited to reply on air in a context of a mediated dialogue with the community in question. The DCT says that 70% of radio club problems are resolved satisfactorily after they have been aired nationally. It is currently supported by UNDP, Oxfam and the Malawi national AIDS body (DFID 2008).

Community Radio Station enhances life in a poor region of Mali

Radio Daande Douentza has been broadcasting from the small town of Douentza in Northern Mali since 1993. It serves a semi-arid region of subsistence agriculture - most of the population are poor farmers or herders. The radio station broadcasts many types of announcements, entertainment, local music, development issues, education and community news. About 86% of the local population are regular listeners. When Radio Douentza went on-air, radio ownership in the area is estimated to have jumped by 140%. Save the Children Fund, who studied knowledge about AIDS prevention in the whole Mopti region, found that those exposed to the radio were much better informed about AIDS than other areas outside the radio's range: 70% of those claimed radio as their main source of information. Literacy classes were attended by more villagers after radio announcement, with an increase in attendance of nearly 120% (Myers, 2001)

⁷⁹ Immar Research and Consultancy, 2006, *Etude Médias en RDC* Fondation Hirondelle: Lausanne.

⁸⁰ The DCT was formerly known as the Development Broadcasting Unit (DBU).