Policies for equitable access[1]

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Executive summary

Considerable changes have been made in the way people access information and communications technologies (ICTs), especially after the introduction of the internet and mobile phones. More people have access to ICTs than ever before, but still the majority of the population is on the wrong side of the communications revolution.

The provision of universal and affordable access is a key challenge for today's ICT policy-makers in developing societies. But despite pressure from multilateral and bilateral donor agencies on governments to privatise monopolies and liberalise markets, and the formulation of broad-based ICT policies by states, progress toward universal access to ICTs has been very slow. State-run telecommunications systems have often not functioned very effectively, failing to provide access to the broader public. Although liberalising the mobile sector has improved access to communication services dramatically, cellular communication tariffs remained high. The cost of mobile handsets was also high for the majority of the poor to purchase and use them.

Regulatory frameworks in developing countries have not been effective, largely due to institutional arrangements that seldom provide regulators with autonomy, independence and legitimacy. It has been difficult to formulate, implement and enforce effective universal service strategies due to a lack of specialist expertise, and the inability of the regulators to challenge powerful incumbents and operators. Where available, universal access funds were not disbursed efficiently. Policies that promote pluralistic content have also not been successful due to strong government and private sector interests in the media.

There is a growing interest in backbone infrastructure and submarine cables in the developing world, particularly in Africa, although the political, economic and regulatory differences in most countries pose major challenges for meaningful cross-border interconnection and policy harmonisation.

This issue paper is one of a series of four on aspects of equitable access to infrastructure commissioned by the Association for Progressive Communications (APC). It argues that well-balanced public policy is a precondition for addressing the universal access gap. It discusses the issues at stake, strategies that have been undertaken, and interventions needed to make equitable access a reality in developing societies.

1. Equitable access: Key challenges

Access to ICTs has been the cornerstone of public ICT policy generally. ICT policies that promote equitable access have considerable impact on broader development goals such as education, ensuring access to health services, land and natural resources, and the well-being

and empowerment of the population. But despite good policy intention, several challenges remain in achieving the goal of equitable access.

Global ICT access gap

Even though considerable progress in increasing access to ICTs has been made, the majority of the world's population is still isolated from the opportunities offered by the global information and knowledge revolution. International Telecommunication Union (ITU) data shown in Table 1 indicate that about 97% of the African population did not have access to a fixed-line telephone, a computer, or the internet in 2005. The situation has only improved slightly in 2008 with 93% of the population without access to fixed-line telephones and 95% without access to the internet.

Table 1: Distribution of access

Region	% of world population	% of population without access to mainlines	% of population without access to mobile	% of population without access to computers	% of population without access to the internet
Africa	14%	97%	85%	98%	96%
Americas	13.5%	67%	47%	65%	66%
Asia	60%	84%	77%	94%	90%
Europe	12%	60%	15%	69%	68%
Oceania	0.5%	63%	31%	50%	47%
Source: ITU, *Measuring the Information Society 2007*, ICT Opportunity Index and World Telecommunication/ICT Indicators.					

Geographic, social, economic and skills divide

The access divide enumerated above can be delineated along the contours of geography (rural/urban), gender, physical disability, the economic divide (which involves race, caste and class) and skills (education), as described in Box 1.

Box 1: Geographic, social, economic and skills divide

I   ICT policies for equitable access need to respond to the following inhibitors to access:

- *Geographic divide: Besides communications infrastructure, people in underserved locations often lack access to basic infrastructure such as electricity and roads. Policies must address the extension of communications infrastructure to rural areas through sector reform, and pave the way for private sector participation and public-private partnership-led innovations.*
- *Gender divide: The majority of women in the developing world do not have access to ICTs and are often the last to get connected due to economic, cultural, social and political factors. Policies for equitable access should promote women's access to and use of ICTs, speak to their specific concerns, including employment opportunities, and improve their representation in decision-making fora.*
- *Physical disability: Many people are excluded from ICTs due to disability. Appropriate policies need to consider issues of physical access, and the development of relevant information, amongst other things.*
- *Economic divide: Communications are not a financial priority for about one–third of the world's poor that earns less than USD 1 a day. This segment of the world's population will not be able to benefit from opportunities provided by ICTs without innovative approaches that promote affordable access.*
- *Skills: The majority of the world's poor lack the skills to use the most recent technologies. Moreover, much online content is inappropriate to their content needs. Policies need to ensure their access to a combination of advanced and traditional technologies to meet different skill levels and content requirements.*

Limitations to market-based approaches

The early experiences of dismantling telecommunications monopolies in Latin America, Europe and the US, and the structural adjustment programmes of the World Bank and the International Monetary Fund (IMF), were influential in driving reforms in the communications sector in most developing countries. The reforms involved the revision of policy and regulatory frameworks, the separation of postal from telecommunications services, the enactment of sectoral laws, creating autonomous regulatory agencies, the privatisation state-
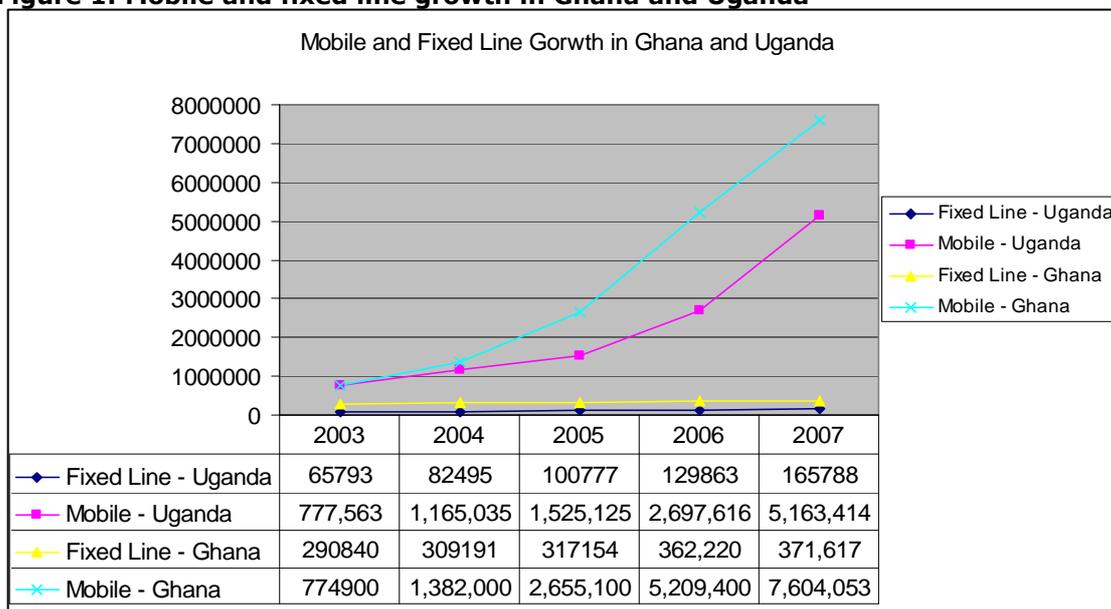
owned telecommunications operators, and the liberalisation of the mobile and internet sectors.

Most of the reforms in the 1990s emphasised privatisation as a means of improving the efficiency of underperforming operators.[3] However, the imposition of a free-market environment onto already inequitable conditions in developing countries has frequently reinforced the iniquitous status quo rather than resolving the equity challenge.[4]

The issues that arose from the market-led approach can be summarised as follows:

- *The transfer of fixed telephone services from public monopoly to private hands did not automatically improve service penetration in developing countries. Empirical evidence from 30 African and Latin American countries between 1984 and 1997 reveals that privatisation was negatively correlated to the penetration of fixed telephone lines and connection capacity.[5] In most cases, the reform process ended up with the transfer of public monopolies to dominant private sector operators. Evidence from Ghana and Uganda shows that these countries did not achieve extended fixed-line penetration, although teledensity was boosted through mobile penetration (see Figure 1).*

Figure 1: Mobile and fixed line growth in Ghana and Uganda

Mobile and Fixed Line Gorwth in Ghana and Uganda

	2003	2004	2005	2006	2007
Fixed Line - Uganda	65793	82495	100777	129863	165788
Mobile - Uganda	777,563	1,165,035	1,525,125	2,697,616	5,163,414
Fixed Line - Ghana	290840	309191	317154	362,220	371,617
Mobile - Ghana	774900	1,382,000	2,655,100	5,209,400	7,604,053

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[3] Harsh, E. (2000) Privatization Shifts Gears in Africa. *Africa Recovery* (April).

[4] Gillwald, A. (2002) Policy and Regulatory Challenges of Access and Affordability. In Mansell, R., Samarajiva, R. and Mahan, A. (eds.) (2002) *Networking Knowledge for Information Societies: Institutions and Intervention*. Delft: Delft University Press. www.lirne.net/resources/netknowledge/gillwald.pdf

[5] Wallsten, S. (1999) An Empirical Analysis of Competition, Privatization, and Regulation in Africa and Latin America. World Bank. econ.worldbank.org/docs/553.pdf
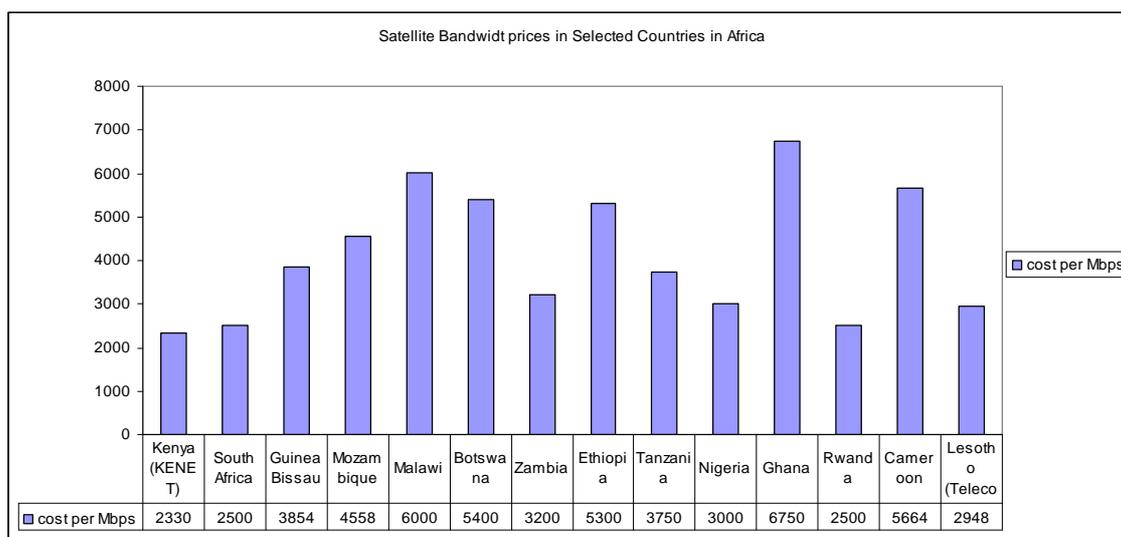
Source: Regulators

- *The sequencing of liberalisation and privatisation had different outcomes for different countries. Some countries went straight to a fully liberalised sector, while others privatised incumbents while granting them exclusivity (i.e. monopoly) periods of five to ten years. Exclusivity had a negative impact on network roll-out.*
- *Countries that did not privatise their incumbent fixed-line operator after 1999 faced serious challenges in attracting finances following the financial downturn in the beginning of 2000. Those that did not privatise performed worse than those that introduced private sector participation in the fixed, mobile and internet segments.*
- *Although the liberalisation of the mobile sector has improved access to communication services, cellular communication tariffs have remained significantly high. This has had a positive impact on government tax revenues and operator profits, but a chilling effect on equitable access in rural areas. For example, in Uganda the mobile operator MTN was rated the top tax payer in the year ending 2007 with UGX 174 billion (USD 100 million). However, despite such high government revenues, access in rural areas did not improve.[6]*
- *Liberalisation in the internet sector did not lead to an automatic increase in the number of users or bring the costs of access down. While most countries allowed private internet service providers (ISPs) to operate, the majority upheld policies that limited access to national gateways to which ISPs connected. Some countries like Ethiopia still maintain a monopoly over internet services.*
- *The most significant challenge to internet diffusion in the developing world has been limited access to affordable bandwidth. Satellite bandwidth in Africa costs between USD 1,500 and USD 7,000, while fibre circuits from Africa to the US or Europe cost between USD 2,000 and USD 5,000 per Mbps per month. Cross-Atlantic links between North America and Europe can now be obtained for USD 2.5 per Mbps per month.[7] Since GDP per capita in sub-Saharan Africa is as much as 100 times lower than industrialised nations, the real bandwidth cost is very high. Figure 2 shows satellite bandwidth costs at the end of 2006 for selected African countries.*

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[6] F. F. Tusubira, email communication.

[7] Jensen, M. (2005) *Open Access: Lowering the cost of international bandwidth in Africa.* Johannesburg: APC. www.apc.org/en/system/files/open_access_EN.pdf

Figure 2: Satellite bandwidth costs in selected African countries

Satellite Bandwidt prices in Selected Countries in Africa

	Kenya (KENET)	South Africa	Guinea Bissau	Mozam bique	Malawi	Botswa na	Zambia	Ethiopi a	Tanzani a	Nigeria	Ghana	Rwand a	Camer oon	Lesoth o (Teleco
cost per Mbps	2330	2500	3854	4558	6000	5400	3200	5300	3750	3000	6750	2500	5664	2948

Source: Balancing Act, *African Satellite Markets*, June 2006

Regulatory institutions and frameworks remain weak

Regulatory frameworks in developing countries have often not been effective as they do not provide regulators with the necessary autonomy, independence and legitimacy. Regulation has tended to be reactive rather than proactive and policy-makers and regulators have lacked capacity to implement innovative reform agendas.

Reforms in broadcasting sector produce mixed results

Broadcasting is by far the most important source of information in the developing world. Convergence between communication technologies (such as mobile platforms and the internet) and broadcasting makes policy challenges around issues such as broadcasting content, access rights, and the development of backbone infrastructure on which content rides critical.

However, reforms in the broadcasting sector lagged far behind those in the communication sector due to strong government interest in broadcasting. Amongst other things, the reforms have involved the transformation of state broadcasters into genuine public-service broadcasters, the introduction of private-commercial broadcasters and the establishment of community broadcasters. There have been many efforts to establish independent broadcasting regulators, and in some cases merging them with communications regulators. However, the progress towards an independent and pluralistic media has been mixed.

Global regimes are not responsive to equitable access

Global regimes have direct implications for equitable access. For instance, ISPs located in developing countries bear disproportionate costs for international circuits compared to their counterparts in developed nations.

So far the influence of developing countries in global decision-making fora has been uneven due to:

- *A predisposition of international regimes towards the interests of multinational private sector companies and developed countries.[8]*
- *A lack of commitment of policy-makers to coherent ICT policy.*
- *Inadequate technical and policy-making capacities at national levels.*
- *A lack of coordination between different ministries and stakeholders that participate in global issues.*
- *The sheer number of meetings and the cost of participating in these fora.*

Although developing countries send delegations to many global fora, they are poorly represented and lack the capacity to influence the agenda, to evaluate the outcomes taking domestic challenges into account, and to implement decisions.[9] Participation in global ICT decision-making requires regional caucusing[10] and strong regional cooperation, yet regional institutions remain very weak when it comes to ICT-related negotiation at international levels.

2. Practical strategies

A number of practical strategies to promote equitable access have been proposed and are being implemented by government, civil society, and international development institutions. These include:

- *Universal access strategies*
- *National e-strategies*
- *Advocacies for content, applications and skills*
- *Advocacies for access rights*

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[8] CohenT. and Gillwald, A. (2006) The Ambiguities of Participation in the Global Governance of Electronic Networks: Implications for South Africa and Lessons for Developing Countries. Paper presented at the 34th Telecommunications Policy Research Conference, Arlington, VA, USA, September 2006.

[9] Commonwealth Telecommunications Organisation and Panos London (2002) *Louder Voices: Strengthening Developing Country Participation in International ICT Decision-Making*. London: CTO/Panos.

www.cto.int/downloads_cto_news/23_2_final_report.zip

www.panos.org.uk/briefing/birth_rights_files/686_CTO_report.pdf

[10] Gillwald, A. (2002) Strengthening Participation by Developing Countries in International Decision-making: Case Study of South Africa. link.wits.ac.za/research/SA-CTO-P.pdf

- *Regional infrastructure strategies.*

Universal access policies and strategies

"Universal access" means that everyone should be within reasonable distance of a telephone (the definition of "reasonable" is left to each country to decide).[11] Universal access policies and strategies have been introduced by governments and international development aid agencies to redress the problems of market failure and to achieve universality, affordability and equity in underserved areas. The mechanisms for achieving universal access vary from one country to another, depending on the prevailing market structure (see Table 2).

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[11] Panos London (2004) *Completing The Revolution: The Challenge of Rural Telephony in Africa*. London: The Panos Institute.

Table 2: Different approaches to universal access

Market structure	Mechanism to achieve universal access	Advantages	Disadvantages
Monopoly	Monopoly incumbents rolling out infrastructure through cross-subsidies	Easy to manage (e.g. no inter-connection challenges)	Incumbents are inherently slow and have a poor track record in network roll-out Cross-subsidies distort the market and are unsustainable
Mixed monopoly and competition	Universal service obligations	Obligation can enforce operators to roll out services in rural areas A large sum can be collected if tied to revenues	Could place undue obligation on operators Difficult to enforce May not have significant impact in cases where access is overtaken by technological choices
	Access deficit charges	Cross-subsidisation between operators Paid to designated universal access operator	Unpopular with new operators Difficult to administer Lack of clarity in internal accounting for subsidised operators to determine the exact amount for cross-subsidy
	Universal access funds	Effective means to improve access No need for external funding	Bureaucracy could stifle the utility of the funds Need good understanding of the needs of underserved areas
Full competition	Market forces	Can be used to extend access where it is profitable	May leave some pockets of society unconnected

Universal access funds have grown in popularity in recent years. Their objective is to enable communication services to be established in rural and/or isolated regions, by granting subventions to cover the costs and high initial investment. For example, in Chile government subsidies equivalent to less than 0.5% of total telecommunications revenue, allocated through competitive bidding in 1995, mobilised twenty times as much private investment while extending basic telephone access to rural areas. The programme brought service to about a third of the rural population.[12]

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[12] Peha, J. M. (1999) A Market-Based Mechanism for Universal Service Obligations. In Proceedings of the 27th Telecommunications Policy Research Conference (TPRC), Alexandria, VA, USA, October 1999, Section 10, pp. 41-55.

However, it is often difficult to formulate, implement and enforce effective universal service strategies due to the lack of specialist expertise and the inability of regulators to challenge powerful incumbents and operators. As a result, overall progress in universal access has been slow and the funds are generally under-spent.[13]

Key public policy issues of universal access have been:

- *Expanding access to broadband networks and services to maximize the social benefits of the internet. This requires a broader definition of universal access, and looking beyond just access to and affordability of basic telephony.*
- *Encouraging private investment in backbone and wireless broadband infrastructure.*
- *Minimising costs (and subsidies) by encouraging community-based innovations.*
- *Introducing e-rates (discounted tariffs) for expanding access in schools, libraries and other public areas of interest such as rural health care centres.*
- *Encouraging champions and social entrepreneurs to innovate.*
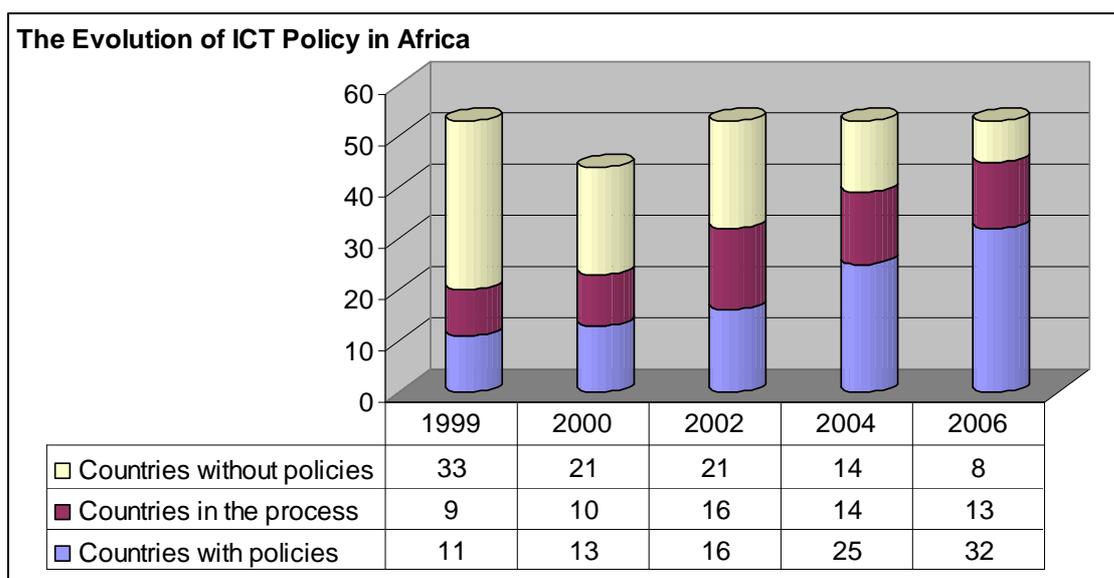
National e-strategies

The interest in ICTs has been exceptional in recent years, both at national and international levels. International declarations such as the World Summit on the Information Society (WSIS) Plan of Action have made explicit commitments to the integration of ICTs in national development plans, and to broaden access to communications. Governments have responded to the challenge of integrating ICTs into development plans by crafting e-strategies that encompass a national vision and commitment to ICTs, action plans and the institutional frameworks for coordinating ICT programmes and implementing ICT projects.

There has been an emphasis on developing e-strategies over the last decade. For example, in Africa, the number of countries that developed e-strategies rose from 11 in 1999 to 32 in 2006 as shown in Figure 3. Caribbean countries have gone through similar exercises in ICT policy-making. In the 1990s, many governments attempted to target informatics development, which focused on building capacity to deliver ICT services in the global market. The Asian efforts in e-strategies were led by countries such as Singapore and Korea, which have achieved universal service targets. India focused on the ICT service sector and China on the export of ICT products.

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[13] New possibilities are emerging in developing countries. As the Mabahir Pun story shows (www.nepalwireless.net/people.php), wireless technologies and social entrepreneurship aided by public policy can go a long way in promoting equitable access.

Figure 3: The evolution of ICT policies in Africa

The Evolution of ICT Policy in Africa

	1999	2000	2002	2004	2006
☐ Countries without policies	33	21	21	14	8
■ Countries in the process	9	10	16	14	13
■ Countries with policies	11	13	16	25	32

Source: United Nations Economic Commission for Africa

However, some of the e-strategy outcomes leave much to be desired. While a few national e-strategies like those in Asia (Singapore, Korea, Malaysia) showed good results, replication has proved more difficult in the face of the constraints of human and institutional capacity and the lack of long-term finance.[14] There has also been a disconnect between reform processes and national e-strategies. E-strategies generally ignored the impact of ICT sector reform on national information infrastructure and the necessity of innovations in universal access for improving links to remote and underserved areas. There has also been limited linkage between domestic policies and regional efforts to harmonise regulation and create competitive market structures. Coupled with limited built-in monitoring and evaluation, and a lack of cooperation in sharing information about failures and success, e-strategies often remain ineffective.

Advocacies for content, applications and skills

Civil society has been active in advocating for access to appropriate content as a key equitable access challenge, and for the formulation of policies around content and applications.

Content policy issues that have been addressed by civil society organisations (CSOs) include:

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[14] Wild, K. (2003). A global overview of e-strategies – making the link with poverty and the Millennium Development Goals. Discussion paper for the 5th Session of the United Nations ICT Task Force, Geneva, 12 and 13 September 2003. wsispapers.choike.org/global_overview_strategies.pdf

- *The generation, preservation and spread of socially and economically relevant and culturally sensitive information to the user. This has been a key policy issue in broadcasting and print media, and has extended to concerns over internet content.*
- *The accessibility of content in local languages and content that responds to local culture, values, history and heritage.*
- *The availability of public information and content produced by government.*

Civil society has also been active in encouraging countries to adopt policies for the exploitation of free and open source software (FOSS) for education, research and the delivery of public services. Public policies on FOSS can increase access to information and provide alternative and open platforms for the development of various applications for social and economic development that ultimately facilitate equitable access. Countries like Brazil, Singapore, India, Germany and South Africa have already adopted policies that encourage the local development of open source solutions and use of open standards.

Advocacies for access rights

Civil society has also been an active promoter of communication rights as one of the pillars of human rights. This was advocated for alongside other rights, such as freedom of expression and access to information, the right to privacy, the prohibition against discrimination, the inclusion of marginalised groups, gender equality, freedom of association and assembly, the right to participate in public affairs and the right to enjoy one's own culture.[15]

The debate on communication rights has been expanding in recent years with the concept of "net neutrality" entering global discourse. Net neutrality promotes the concept of users' freedom to access their choice of legal content, the freedom to use applications of their choice, and the ability to attach personal devices to a network within the bandwidth limits and quality of a service plan.

Regional infrastructure strategies

One of the most important strategies has been the roll out of regional backbone infrastructure and submarine cables by the private sector, governments and financing institutions. In Africa, in particular, this is expected to accelerate affordable access to broadband infrastructure. However, the political, economic and regulatory differences in most countries pose major challenges for meaningful cross-border interconnection and speedy implementation of the proposed projects. The policy issues than need to be addressed include open access, multi-vendor ownership and use of the broadband infrastructure,

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[15] APC (2006). *Internet Rights Charter*. rights.apc.org/charter.shtml

business models that facilitate public and private partnerships and fair cross-border connectivity.

3. Support and interventions

The issues at stake, including limited penetration of communications services, the widening digital divide, and a failure of market forces and universal service strategies to achieve the desired level of equitable access, call for substantial interventions to bridge the access gaps. Some of these interventions are listed below.

Evaluation of national e-strategies for their relevance to promote equitable access

Policies on equitable access depend very much on government vision and its ability to implement ICT programmes. The more national ICT policies address universal access issues, the better the connectivity of underserved areas. National ICT policies need to be evaluated and reviewed to make them responsive to equitable access challenges and to enable them to meet technological changes and consumer needs.

Analysis shows that countries focused on an incremental yet organic approach to ICT policy-making – with a focus on building blocks such as national educational capacity, policy and regulation, infrastructure, content and public sector service delivery – have reaped better results compared to others. In Africa, for example, Botswana, Mauritius, Morocco, South Africa and Tunisia adopted this route to differing degrees of success. Mauritius identified ICTs as a way to sustain economic development and promoted the ICT sector as a new economic pillar. It focused on building human resources for the ICT sector and opening its market to foreign investors. Tunisia made education a key entry point for the diffusion of ICTs and the creation of an ICT industry. In 2006, Tunisia topped all African countries in ICT investment – and beat countries such as Brazil, China, Italy, India and Poland – in World Economic Forum rankings.[16] The experiences of Mauritius and Tunisia show that developing ICT policies and e-strategies in a more organic fashion, by relying on local expertise and focusing on building blocks like telecommunications infrastructure, enabling policies, incentives for the private sector, and education, could lead to better results than ambitious and elaborate top-down plans with a shopping list of activities.

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[16] World Economic Forum (2007) *Global Information Technology Report 2006-2007*. Geneva: WEF.
www.weforum.org/en/initiatives/gcp/Global%20Competitiveness%20Report/index.htm

Towards ICT-friendly integrated development policies

Capacity building is also needed to enable policy-makers, regulators and experts to develop the next generation of national ICT policies. These should facilitate equitable access through the seamless integration of ICTs in local development programmes and encourage the active participation of the private sector and community entrepreneurs. An ICT-friendly local development plan could, for example, make sure that fibre optic cable is laid at the same time as road construction or power line projects are undertaken. This would help to lower the cost of construction, since existing roads and sidewalks do not have to be torn up for laying the fibre. It also provides a simple one-stop method of obtaining a right-of-way, rather than requiring approval from numerous governmental agencies and private landowners. Similarly, the construction of new hospitals or schools could take ICTs into account by including all the necessary physical cables and solar panels in buildings so that ICT equipment can be powered up when needed.

Awareness raising

There is a need for making senior policy-makers aware of the advances of broadband technologies, and of trends in promoting affordable access through community-led innovations. Policy-makers need a better understanding of resource mobilisation and investment options and priorities (e.g., public-private partnerships, generation of local resources, stimulating private investment and new sources of investment through policy incentives, as well as national and regional backhaul and distribution networks). They also need insight into how to develop regional and sub-regional approaches and harmonise regulatory frameworks. It is important to ensure that the private sector and civil society participate in capacity-building initiatives and interact with policy-makers and regulators.

Ongoing research to understand access gaps

Much of the work on access issues and policy development has been based on ad hoc information and limited research. Analysis is critical to identify where the gaps are, who wants which technology and services, what subsidies are needed, and where. Ongoing research that improves the understanding of access gaps and the impact of policies and regulation on access is essential to guide policy-makers and implementers.

Capacity building for regulators

Sound regulatory regimes are needed to attract investment, promote competition, ensure the timely deployment of advanced services, and foster the application of new technologies to

social and economic development challenges. A favourable policy and regulatory environment is essential for making ICTs more accessible and affordable for citizens, and, by doing this, increasing the potential demand for investors. Good regulation or regulatory legitimacy cannot be achieved without adequate skills, independence, procedural effectiveness and good communication of the results by the regulator. A well-crafted, locally developed and implemented capacity-building effort is needed to enable regulators to:

- *Develop policies that promote competition and enable them to consolidate ICT-sector reform.*
- *Develop and implement policies that respond to regional cooperation in infrastructure development, the need for cross-border interconnection and the deployment of broadband networks.*
- *Design and implement ICT access projects built around community access points with a special focus on women, youth and other marginalised groups.*
- *Design and implement comprehensive national broadband networks that support e-applications, and bring the capacity of incumbents and alternative communications service providers that have spare infrastructure or excess capacity (and rights of way) together.*
- *Develop and implement spectrum management and monitoring strategies that encourage flexibility in spectrum allocation for commercial use, while at the same time encouraging extensive use of spectrum "commons".*

Regulators need to take steps

Regulators need to take steps towards improving universal access by crafting strategies that encourage the private sector and community players to take part in the delivery of ICT services. It is important to consolidate sector reform by encouraging competition with appropriate levels of regulation, and move towards:

- *A second generation of reform that focuses on the consumers' requirements for access to communication, information and knowledge.*
- *Horizontal and convergence regulation that pays attention to content, applications and network infrastructure issues.*
- *Regulation that promotes open access, broadband network deployment and the multiple flavours of wireless technologies that can be used for equitable access.*

Regulators also need to:

- *Promote smooth cross-border interconnection of regional backbones.*
- *Introduce competition and open access to national and regional broadband networks.*
- *Review regulations so that these conform to ongoing technological advancement and growing user demand.*

A regional approach towards infrastructure deployment and policy harmonisation

Regional cooperation can also play a key role in promoting equitable access to ICTs. Regionalism is important for:

- *Encouraging policy and regulatory harmonisation, including sector reform and universal access to ICTs.*
- *Promoting cooperation among countries to create economies of scale and scope in infrastructure development, applications, content services and research.*
- *Supporting the caucusing of countries who are attempting to influence global regimes.*

Regional institutions have been key in developing priorities for different regions in the areas of policy harmonisation and infrastructure development, and in forging collaborations in human resources development. There has been a growing interest in backbone infrastructure and submarine cables in recent years, particularly in Africa. However, the political, economic and regulatory differences in most countries pose major challenges for meaningful cross-border interconnection and policy harmonisation. A significant effort is needed to understand policy and regulatory gaps between different countries, and to address access pricing, cross-border connectivity and licensing issues.

4. Conclusions

The primary goal of ICT policies has been to promote universal access. Yet the progress towards equitable access has been slow. Policy-makers need to provide the necessary leadership and vision, and make sure that policy processes are inclusive. This is necessary so that consensus is reached between civil society and the public and private sector on objectives and approaches to make ICT policies more successful. Equitable access policies need to address the social, economic, geographic, gender and other related divides, as well as content and rights issues. They need to respond to local, regional and global challenges.

Genuine competition is essential for promoting equitable access, and to encourage private sector participation and innovations. However, the market alone will not guarantee equitable access to a standard that meets public interest expectations. The ability to craft policies and regulations that promote public and private partnership remains a critical aspect of universal access.

Policy-makers and regulators need to identify driving forces for promoting equitable access. Key areas of focus include:

- *The development and implementation of national and regional broadband networks through public and private partnerships.*
- *Addressing the challenges of cross-border interconnection through regional policy harmonisation.*
- *Improving the independence and capacities of regulators in this era of convergence.*

More specifically, equitable access to ICT services cannot be attained without the participation of the communities concerned. Leveraging community resources, including organisational, social and leadership capital, is essential to improving access to and the use of ICTs.