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Telecommunication Policy and Regulation for Women and Development (1)

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Abstract:

This paper examines the issue of whether or not the needs and interests of the majority of women who live in poverty are likely to be addressed by current legislative and regulatory measures designed to achieve universal access to telephone service in South Africa. The paper highlights the enabling aspects of the policy and legislative framework to equalise gender relations in the telecommunication sector in South Africa. Particularly, it identifies the empowerment and advancement of women in telecommunications and the ownership and control of telecommunications services by persons from historically disadvantaged groups, as enabling aspects of the Telecommunications Act of 1996.

The author concludes that while current measures may positively affect the lives of a relatively small percentage of women through their inclusion in the ownership and control of new companies or from increased employment opportunities or promotion previously denied them in this male dominated sector the current measures are deficient. This is firstly because current policy and implementation strategies do not effectively address issues of affordability. Secondly, the technical features of the network are presumed to be neutral with respect to cost (and price) considerations, masking their class and gender bias. Finally, insufficient attention has been given to seeking innovative ways of addressing women's information needs which are assumed, from technology design through to service offerings, to be the same as those of men and particularly businessmen.

The paper continues to explore possible policy and regulatory strategies that can be pursued under existing conditions within the telecommunications sector in South Africa and in other developing countries to enable the sustainable development of women in society. It is argued in the policy and statutory requirements to promote universal and affordable service to women and that the developmental potential of telecommunications should positively affect the lives of women. From a developmental point of view, the objective of universal service has the potential to be a powerful enabler for a wide range of women. Given that rural women in South Africa, as in other parts of the developing world, are the worst affected by poverty, any strategy to provide universal access and ultimately service, on the grounds of the right to information and potential for social and economic development, must target this most marginalised group.

Introduction

This paper attempts to identify the linkages between targeted gender policies and development with specific regard to telecommunications. It examines existing legislative and regulatory mechanisms in South Africa aimed at empowering women to participate in the mainstream telecommunications sector. It assesses whether such mechanisms have the potential to improve the lives of the majority of South African women. Implementation strategies are then proposed to enable historically marginalised groups in developing countries, such as women, to participate in the telecommunications sector and reap its

benefits. It addresses the importance of access and affordability as central issues in developing countries where the vast majority of citizens are not currently consumers of communications services. It suggests that in the longer term the uncritical acceptance of the costs associated with deployment of public networks needs to be critically examined and regulated to ensure that the evolution of public networks serves the needs of all citizens. In the shorter term, the telephony subsidies required in law to be provided by the Universal Service Fund to needy people, should be targeted at rural women in order to optimalise their impact. Such strategies implemented in conjunction with other health, education, agricultural and small business development initiatives on the ground have the potential to improve the lives of the vast majority of South African women and other marginalised groups.

Policy and Legislative Framework

The African Information Society-Gender Working Group (AIS–GWG) has identified a number of features which ICT policies should reflect to redress the historical invisibility of women (2). These include the integration of gender into ICT policy so that it can improve the quality of life of all citizens rather than ignoring segments of the population and returning to deal with them once general policies are in place. ICT policies should also be integrated with other policy areas to ensure that efforts towards sustainable development are co-ordinated and cohesive.

Policies, the Group contends, should be flexible, enabling and feasible if they are to allow planners to adapt to changing conditions and reach achievable transformation goals. Policies should be appropriate to their contexts 'to ensure that they are formulated on the basis of the conditions they seek to transform, entrench or challenge'. Policy should ensure that the emphasis on the development of effective technologies and infrastructure includes consideration of the needs of women and do not further entrench gender disparities.

As those who are affected by policies are best able to represent their interests, mechanisms and practices must be developed to ensure the participation of women together with all other citizens in policy formulation processes. AIS-GWG specifically cautions against reactive policy which tends to rather take account of women's need which result from gender inequity, rather than 'transformative, engendered policy (which) would seek to take account not only of women's position and their practical requirements, but how they can gain the power to advance their position and perform a variety of additional roles beyond those traditionally assigned to them'. Policy should ensure that human resources are developed in a gender conscious way so that the full range of expertise is developed among women and so that all the human resources available to a country are fully optimised.

The Group emphasises that policies should be explicit about the fact that women are not a homogenous grouping so that it is clear which policies will benefit which women. Finally, effective policies should require the development of monitoring and evaluation processes in which gender evaluation is embedded, to provide indicators against which the outcomes of policy can be assessed.

A review of policy developments in South Africa over the last few years demonstrate that many of the features of good policy identified above have been met, if somewhat unevenly. At the level of implementation though gender has not been mainstreamed into the activities of regulators and operators. The policy and legislative framework, which established the South African Telecommunications Regulatory Authority as a statutory institution, includes a number of enabling aspects, with regards to making access to communication more equitable, equalising gender relations and drawing previously denied groups of people into the sector - not only as recipients but as active participants.

It is a clear policy aim of both the White Paper on Telecommunications and the Telecommunications Act of 1996 to address the inequalities of the past. As such, with regard to the beneficiaries of certain

new policy decisions such as human resource development programmes and ownership and control, the White Paper states:

> ‘Besides referring to those who were disadvantaged by the apartheid system in the past, the term "disadvantaged" also applies to those South Africans who have been historically disadvantaged through discrimination on the grounds of gender and/or disability. In the context of telecommunications, the severe disadvantage experienced by the members of rural communities under apartheid should receive special attention.’

That the policy instructs state agencies to pay special attention to the historically disadvantaged – which specifically includes race, gender and disablement as criteria – is testament to the participatory processes that lead the introduction of the legislation. Among the stakeholders who participated in the formulation of the legislation were representatives of organised labour, the disabled and women in addition to the usual industry stakeholders.

It is important that the central principles of such social contracts between stakeholders – government, labour and other civil society groupings - are agreed and concluded prior to the development of regulations or granting of licences. The central object of the Telecommunications Act in South Africa is the regulation of telecommunication matters in the public interest. Assessing the public interest invariably means weighing the achievement of such social objectives as universal access or gender equality against market, or more specifically, profit imperatives. Besides the technical and industry related aspects requiring regulation, the objects of the Act specifically include such social components as the promotion of universal and affordable service; encouragement of ownership and control of telecommunication services by persons from historically disadvantaged groups; development of human resources in the telecommunications industry; and promotion of the empowerment and advancement of women in telecommunications. Despite this enabling framework, the mainstreaming of gender remains difficult at the implementation level.

Gender equity should also not be assessed solely by the number of women who have entered the sector in various capacities. The steady entry of women into the work force - and particularly into the information and communication technology sectors - in the last few decades has been referred to by Manuel Castells as the feminization of the labour force. He contends that the organisation man of the industrial era, characterised by stable long-term career employment, has been replaced with the flexible women of the information age. While women have been able to take advantage of the new opportunities in the information process industries, they are systematically placed in positions below their education and skills. ‘Networking allows increasing responsibility of women workers, not de-skilling them but using their skills without corresponding compensation.’ (3)

Regulatory Tools

Regulatory frameworks and public processes

The regulator in South Africa, SATRA, is developing a regulatory framework to promote the empowerment of Historically Disadvantaged Individuals, including women, through a public hearing process. Such a framework provides a consensual basis on which to formulate regulations to guide and instruct the implementation process.

Licensing

In order to redress past imbalances the process of including groups who have historically been marginalised in society and the sector has already got underway through the granting of

telecommunications and spectrum licences, which have required demonstration of ownership and control by historically disadvantaged individuals (HDI), including women. Until 1997, there was not a single spectrum licence owned by a black person or by a woman, from what can be ascertained from the records. Empowerment is now a criterion used, along side technical compliance and financial competence, to determine the basis on which licences should be awarded.

There is always however the danger that regulatory intervention of this kind does not always have the intended consequences. According to Business Map, identifiable black empowerment deals in the information and telecommunications industries were around R4, 5 billion for the period 1996 to 1998 (4). Empowerment through the ensuring of ownership and control by historically disadvantaged individuals, however, has come under serious scrutiny in the last few years with the information communications technology sector coming under particular focus. As ownership by historically disadvantaged individuals has become concentrated in the same hands, the notion of empowerment is being challenged. It has been argued that few have built businesses organically, few have built operational capacity in particular investments and few have built capacity in their investment vehicles. Many empowerment arrangements have been of questionable empowerment value and have been criticised for having a zero based effect on employment, skills and opportunities.

Experience to date is that aspirant historically disadvantaged licensees are predominantly male and the regulator will need to be vigilant in its evaluation of applications to ensure the inclusion of women and the disabled in shareholdings of licensees. A recent report on empowerment done for the South African Independent Broadcasting Authority on Black Economic Empowerment (5) said that while most licensees claimed to be meeting gender representation requirements there were few women in senior editorial or executive management positions. Furthermore, while women's investment groups were part of the bidding consortia for licences there were very few entities left that represent women shareholders specifically.

Regulators in the communications sector with specific mandates to encourage the participation of women in the sector will need to investigate specific strategies aimed at supporting women owners and managers. In addition, affirmative procurement policies adopted by government, or required of parastatals and operators in the sector, have not gone very far to encourage the development of small, medium and micro-enterprises, specifically those involving women.

Licensing requirements on the incumbent

Telkom's PSTN licence requires that it comply with a number of public interest conditions, which may impact on women as users of their services. The licence has to fulfil with limited resources the, sometimes contradictory, policy intentions of achieving universal service without compromising the cutting edge requirements of the established business and residential market.

What is captured in the licence is the central purpose of the strategic equity partner deal namely, that the network is doubled within five years and Telkom is prepared for competition. However the company is not permitted to double the network only where it is most profitable for it. The licence requires that Telkom provide services to priority customers such as schools, hospitals, libraries and local authorities. In addition, they are required over the five years of their exclusivity to ensure that over 3000 villages without service are serviced. Failure to meet these targets will result in Telkom incurring substantial penalties but it has the incentive of a sixth year of exclusivity if it exceeds its targets.

Additionally, they have pay telephone obligations; free emergency services and special services to people with special needs, such as the blind or hard of hearing. Service targets were also set against a number of indicators including customer faults reported, percentage of faults cleared within 48 hours,

serviceability of pay phones and customer waiting lists, for both business and residential areas; directory obligations and at a reasonable charge, voice directories in the languages predominantly used in that region; publication of charges and procedures for customer complaints.

Perhaps one of the most important regulatory mechanisms under a monopoly situation is price regulation through the setting of tariffs. As the author shall demonstrate, affordability is one of the major factors inhibiting the penetration of telephones in South Africa. It has been claimed that in some months, churn as a result of termination of service, is greater than the number of lines being rolled out. The realities of the tariff re-balancing to bring charges in line with costs as Telkom prepares for competition, however, means that while international call costs are plummeting, local calls are being subsidised less and less by international calls and it is these hikes that hit the poorest hardest.

The cellular operators are also required to comply with a range of community service obligations; general consumer orientated provisions such as price regulation and codes of practice. However, the contribution made has been dismal considering the magnitude of their resources. Besides some of the applications of 'community phones' being questionable, the obligation to roll out community telephones was linked to their projected penetration, the medium term projections being met within their first few years. In addition, the mobile cellular operators have used the implementation of their community obligations primarily as an opportunity to profitably expand service, such as setting up phone shop franchises in areas which are not the most underserved. While this is not a negative development in itself it does not address either the spirit or the word of the information programme of the Reconstruction and Development Programme (6), or the Green and White Paper on Telecommunications commitment to communication access or to internationally accepted notions of public interest obligations.

Reporting statistics

Licences granted by SATRA also require that the winning applicant, based on their promise of performance, demonstrate the success with which they have met their human resource development targets on an annual basis. The importance of the regulator developing a substantive database with the ability to disaggregate statistics cannot be emphasised enough. Any regulator, to be effective and to measure gains against reliable benchmarks, should require disaggregated statistics on the number of historically disadvantaged people, on the basis of race, gender or disability, are employed at different levels within the organisation and the number of promotions and opportunities provided to such groups of people including training and reskilling, etc. Where figures do exist they are often global figures which are not useful. If 1000 women are employed in a company of 2000 and all are domestic workers or secretaries, this is unlikely to be a contributing factor to gender equity.

The collection, processing and dissemination of statistics are in fact the only basis for validating strategies and the way to benchmark results. With sound statistics inaccurate generalisations can be avoided and incorrect assumptions challenged. Without regulatory obligations to furnish statistics there is in many cases, especially in many of our countries with a poor or non-existent history of census data, no primary source of data to gauge developments.

The introduction of such measures, particularly concerning gender however, should not be seen purely as social reengineering solely based on democratic commitment to equality. There is a strong industrial imperative, as we move towards information-based economies, which constantly require increasingly skilled people. There simply are not enough. A recent year long telecommunications sector needs analysis, commissioned by the South African Government, identified the need for over 6000 engineers, South Africa produces less than 500 a year. The point is that from an economic development perspective, countries cannot afford to ignore the human resource potential of over half of their population.

As the legislation currently stands these are licence requirements and contributions that would be over and above the financial levy the operator would be required to pay to the Human Resource Development Fund. This fund, intended only for the telecommunications sector, has now been overtaken by national skills development legislation. Every company is required to contribute a 1% levy of their total wage bill to their Sector and Education Training Broad.

The Employment Equity Act further requires that, on a national scale, companies move towards gender and racial equity in their employment practices. Both these pieces of legislation are widely viewed as testimony of the power of the unions and they have likewise been criticised for creating an unfriendly investor environment.

From Policy to Implementation: A Strategy for Telecommunications Development

However, the enabling mechanisms of ensuring the entry of marginalised groups, such as women, into various levels of the sector will only affect the lives of a relatively small percentage of people. The inclusion of women in the ownership of new companies or the slightly larger number that might benefit by increased employment or promotion opportunities previously denied them in the telecommunications sector may in time be significant. However, it will not impact on the lives of the large majority of women - certainly not as producers of telecommunications and as long as the vast majority of citizens in developing countries are not consumers of communication services, only marginally as users.

It is for this reason that the author wishes to explore the developmental possibilities that telecommunications can offer and which could positively affect the lives of the majority of people. To optimise such efforts, the author further argues that the allocation of the limited resources available for such efforts should be targeted at women.

Much of the thinking behind policy and implementation strategies for the telecommunications sector is based on the need for economic investment and growth. While this is clearly a necessary condition for development it is not a sufficient condition. There is a substantial body of international evidence to demonstrate that increased Gross National Product rates often do not equate with improved levels of poverty or reduced income distribution gaps.

In line with having among the most skewed income distribution in the world, South Africa has one of the most skewed teledensities. At the time of the transition from white majority rule to democratic governance in 1994, historically white South Africa had a teledensity of over 50%, teledensity in the rural areas is in the order of 1%, with total teledensity at less than 10%. These figures have improved with the introduction of the new telecommunication regime to 42% of people having service in their homes and over 80% now having access to telephone services within 30 minutes of their homes. Racial disparities are still wide with 82% of white South Africans having a telephone in their home while only 18% of black people have a telephone service in their homes (7). However, with strong access policies over the last few years, universal access for black people has risen to 74% with urban figures as high as 93%. Rural figures are still very low however. While universal access has risen to 56% among black people in non-urban areas, in contrast to the 84% of white people living in rural areas with telephones in their homes only 5% of black people enjoy service in their home. These rural areas, like most developing countries, are populated predominantly by women and children. Like many other countries, but compounded by apartheid legacies such as migrant labour, the vast number of these rural households are headed by women.

Universal access and women

The objective of universal service is probably the most important of all the above mentioned enablers for

women from a developmental point of view. Despite not specifically referring to women, the promotion of universal access and service has the potential to be a powerful enabler for the mass of women. Given that rural women are historically the worst affected by poverty, the obligation to provide universal service at affordable rates, must imply a consideration of this most marginalised group of society.

This is not to ignore the needs of urban women or the poor more generally. In South Africa around 37% of the population, around 17 million people, survive below the poverty line and of these about 11 million live in rural areas (8). (It should be noted that the datum lines used for such studies are relatively arbitrary and substantially more people are likely to be living in absolute poverty). The point being that throughout the world but particularly in the Third World, the poor are disproportionately located in rural areas and more likely to be women and children (9).

Michael Todaro points out that more than 70% of the world's poorest people are women and that comparative studies indicate that across the Third World, women and children experience the hardest deprivation. 'Women and children are more likely to be poor and malnourished and less likely to receive medical services, clean water, sanitation or other benefits.' (10)

The lower earning capacity of women through lack of access to education, formal sector employment, social security and government employment programmes ensure the marginalised position of women throughout the Third World. The poorest segments of the Third World populations live in households headed by women who generally have less education, lower income and higher fertility than male headed households.

Rural women have less access to the resources necessary to generate stable incomes and are often subject to laws and practices that compromise their earning potential. In addition, household income on its own is an inadequate measure of individual welfare because distribution of resources within the household may be very uneven. 'Existing studies of intra-household resource allocation clearly indicate that in many regions of the world, there exists a strong bias against females in areas such as nutrition, medical care, education and inheritance.' (11)

This bleak picture of lives of the majority of women in the Third World is echoed in the research where the South African telecom regulator commissioned DRA Development (12) consultants to determine the beneficiaries of the subsidies from the Universal Service Fund to needy people referred to in the Act.

Accessibility and affordability

Drawing on the 1996 census figures, this research, found that roughly 35% of all households in South Africa are female-headed and the poverty rate among these is over 60%. This is considerably higher than the rate of 31% in male-headed households.

There are at least four factors at play here:

- Female-headed households are more likely to be in the rural areas where poverty is concentrated
- Female-headed households tend to have fewer adults of working age
- Female unemployment rates are higher and
- The wage gap between male and female earnings persists.

Average wage income in these households is about one-third of the average wage income in male-headed households. As a consequence of these factors, female-headed households tend to be more heavily reliant on remittances and state transfer income (pension and grants) than male-headed households. The irregular and uncertain nature of remittance income increases the vulnerability of female-headed households (13).

Few of the marginalised women referred to by these statistics will have the resources to take up the services promised by the target in the Telkom PSTS licence to double the network within their period of exclusivity and that 1,6 million of these new lines be placed in under-serviced areas. It is for this reason that the issue of accessibility has to be accompanied by that of affordability.

International studies (14) suggest that basic telephony should cost a household not more than 0.7% of its total income. The most recent figures available for South Africa suggest that the total spent by all households on telephony is 2.87% of monthly income. (This is made up of an expenditure of 0.65% on rentals and installation and 2.22% on calls). It is unlikely in the SA situation that we will manage to realise telecommunications expenditure at less than 1% of the total household income. Realistically, telecommunications expected expenditure, as a percentage of household income, needs to be anticipated between two and three percent.

Results of numerous studies undertaken by DRA Development show that after a lead-in time of seven months, households spend an average of between R21 and R30 per month on telecommunications. Given the commitment to tariff rebalancing and an anticipated increase of 25%, it could be said that the minimum a household needs to spend on telephony each month would be around R30.

Using 2% of household income allocated to telephony and an expenditure of R30 as a benchmark, then 44% (3.8 million) of all households could be said to be unable to afford to utilise a telephone. This percentage rises to 69% or just over 6 million households if monthly expenditure is set at R70. This means that 60% of all households would not even be able to afford to rent a telephone at R49.59 p.m. Thus, on current available data, only 3.7 million households (42%) can afford to install and maintain a telephone without any assistance.(15)

Supply-side intervention - network and technology deployment

This raises the issues of cost and affordability. Affordably accessing rural areas in developing countries could impact positively on the lives of rural women and children. The matter of affordable access, however, needs to be addressed both from an examination of the nature and associated costs on the supply side in addition to support for users on the demand side. While universal service has been on the agenda of governments and regulators throughout the world, the issues underlying the high cost of networks and affordability of services are often ignored. The concept of universality in the European Community applies mainly to geographical coverage and non-discriminatory access than affordability of access (16). Robin Mansell argues that the trend in public network design is towards the location of costly intelligent components within the network as telcos attempt to meet the requirements of the relatively small number of big telecom customers. ‘The public network is not being designed in the light of the minimum, technical conditions for universal networks which are found in the rhetoric of policy makers and the suppliers and large users.’ (17)

In South Africa too, statistics to highlight the disparities in access to the public telecommunication network are constantly on the lips of politicians, regulators and operators - and the associated question of affordability of basic and advanced telecommunication services is a priority on the national agenda. The focus however, is usually on the significant levels of poverty in the country, or the high infrastructural costs of rolling out services, or the economic and political problems associated with

rebalancing tariffs. Seldom does this debate reveal the fundamental determinants of uneven network development that exist throughout the world and which are not particular to South Africa's unique past.

The issue of tariff rebalancing – the bringing in line of charges and costs – for example, is usually presented solely as a neutral and sound accounting principle residing in the unquestionable givens of 'best practice'. Little is said however of how these costs are derived, why they are as high as they are, who these infrastructural investments will most benefit or who are most likely proportionally to carry the burden of payment.

As Mansell argues, in most cases the public interest priority of public network design that meets the needs of all potential customers and offers a common public infrastructure that incorporates a set of minimum technical conditions, is assumed to inform the decisions on network design and technological deployment. (18) 'Political, economic, social and cultural factors are embedded in the design and implementation of intelligent networks and the story of how this occurs is necessary to complement studies of corporate strategy, policy and regulatory reform that treat the telecom network as a technical black box.' (19)

The approach to technological innovation arising from this seemingly neutral technical understanding with respect to the design of the public network assumes that its diffusion results in flourishing competition and a declining need for regulation. However, Mansell identifies another view of this process, which sees technical innovation as transforming 'the monopolistic supply arrangements of the past to oligopolitistic markets in which global rivalries increasingly set the priorities for public network development. The result is a continuing need for regulation to safeguard the public interest in access to the public telecommunication network.' (20)

As Mona Dahms and others have pointed out it is assumed that the deployment of telecommunication infrastructure is beneficial to everybody within a local community equally, independent of gender, class, age or ethnicity. Research indicates that women may be restricted from having access to telephones even when they are available in their communities as a result of social, economic, cultural or technological constraints. 'The main point to underline here is that gender awareness is a prerequisite when planning and implementing telecommunication systems that will be beneficial to all users.' (21)

If it is acknowledged that network design includes social and economic as well as technical aspects, the design and implementation of networks will need to include more than technical planners. Specifically as regards women and marginalised women in particular, the only way their needs as consumers and producers are likely to be incorporated in the research and development, planning and implementation of telecommunications is through the inclusion and participation of women in every level and facet of the sector. This is clearly a long- term strategy requiring fundamental shifts in social-cultural behaviour and economic and political practices which will need to be whittled away through the participation of women, or pressure for their participation, in policy formulation, legislation, regulation and operation.

Through such processes, present policies and regulatory institutions may be compelled to ensure that the concept of the public interest informs the design and implementation of the expansion of the public network especially as it seeks to compete with new intelligent networks. Regulatory tools such as pricing and access may need to challenge some of the fundamental assumptions which have informed these practices rather than proceeding on the basis that the technical decisions are neutral and the cost merely reflect these. Rather than presuming that public interest decisions inform the evolution of the public network, regulators should critically engage with operators, suppliers, users and potential customers before sanctioning pricing or access practices.

There are increasing alternatives to the standard one-line-per-household using conventional switching

and transmission technologies. Although the deployment of DECT to rapidly service villages as part of Telkom's roll-out obligation has been a controversial choice of wireless local loop technology, the deployment of such wireless technologies in the public network present opportunities for realising significant cost savings that can be transferred to the consumer. Others have argued for existing networks which service areas which Telkom does not reach, or plans to reach for many years, or at costs much lower than Telkom could offer, such as existing VSAT networks, to be permitted to offer services on a regulated and co-ordinated basis.

Another supply-side solution in South Africa has been the deployment of telecentres established by the Universal Service Agency that reports to the Department of Communications. A recent study by Aki Stavrou and Peter Benjamin suggest that despite the well-intentioned intervention of the state in the provision of telecentres and the expenditure of millions of rands many of them are dysfunctional. A major reason they have identified for this is the lack of entrepreneurial enterprise associated with existing centres (22). There are low levels of service, lack of training in the operation of equipment and management of such an enterprise and centres seldom identify and respond to the needs of the community.

Demand-side interventions – targeted subsidies

Given the limited success of telecentres and that at a conservative estimate, 39% of all households are unlikely to be able to afford a telephone in the near future, without some form of assistance or subsidy, one way of overcoming the most immediate restraint is by subsidising the cost of the service to the receiver as specified in the legislation. Ideally, this is what the establishment in South Africa of the Universal Service Fund (USF) and defining the categories of needy people qualifying for subsidies hoped to achieve.

With regard to allocating and evaluating the beneficiaries of the subsidy, international studies demonstrate that aid to women goes considerably further than aid to men and that the benefits are more widely felt within the family. Educational achievement and future economic status of children are much more likely to reflect those of the mother than those of the father. If female-headed households below the poverty datum line were targeted the multiplier effect may result in significant social gains. To measure this impact it is essential that at the time of introducing such an intervention, or pilot project, the Universal Service Agency should be made responsible for building a database of disaggregated statistics on the numbers of women receiving subsidies and try to track the impact of subsidised services on households.

However, with a R20 million ceiling placed on the USF by ministerial directive, with a maximum contribution of R10 million by Telkom agreed as part of the negotiations for the strategic equity partial privatisation of the telco, the real developmental potential of providing subsidised universal service is severely undermined.

The potential impact of telephone access to women in rural areas is significant however. In addition to the direct benefits of homes being connected to health and emergency services there is sufficient evidence to support the belief that together with other social and economic projects (e.g. access to micro-capital, training projects, etc) telecommunication access can facilitate localised economic growth. It could allow people to gain information on market prices, order goods and services, etc. If this potential for increased economic opportunity can be harnessed in targeted small and micro-enterprise initiatives, the lives of women could be positively effected.

Once the basic infrastructure is there, the potential then exists for the development of value added services. There are a number of successful initiatives in Africa by NGOs for women to exploit the

potential of Internet for information and mobilisation. Flourishing SMMEs run by women exploiting e-commerce applications in Malawi and Cameroon are testimony to its potential. This is not to suggest that telephone access and indeed information and communication technologies arising from this, are instant panaceas for poverty alleviation for women or anyone else. Manuel Castells has summed the dilemma when he says: '…technological discrimination adds to the traditional sources of discrimination by gender, race, level of development and rural/urban bias. Moreover, because technological access is essential for improvement of living conditions and personal development, ICTs deepen discrimination and inequality in the absence of deliberate, corrective policies.' (23)

Furthermore, as Richard Heeks (24) has pointed out, information processing technology is relatively expensive and labour unintensive from a macro point of view and for small/micro-enterprises tend to exceed their information processing needs and budgets.

However, he makes the point that information communication technologies may have a greater role to play in making the poor information providers more than information recipients. Focusing specifically on small and micro-enterprises, he argues that these may have a direct and growing relationship to poverty alleviation.

He warns though that while information deficits are an issue for poor entrepreneurs a prerequisite for making use of information are resources like skills, knowledge and money. Uncontextualised information systems will not meet their information needs. These will only be effective when they complement organic information systems. Intermediaries such as NGOs and government agencies are likely to be needed to bridge the resource and capacity gaps between what the poor have and what they would need to use ICTs. While these intermediaries are a necessary interim mechanism, the poor ultimately will only reap the fullest benefits when they own and control both the technology and its related know-how. (25/P>

While a litany of failures to successfully implement basic and advanced services in the interests of sustainable development can be identified, there are some projects which have targeted women and sought to provide some of the necessary resources identified by Heeks. One of the simplest success stories is the now well-known example of the micro-lending Grameen Bank in Bangladesh which targeted the financing of cellular telephones for women to begin micro-enterprises selling access and time on cellular phones to villagers. In addition to providing convenient access to communication services the women were by and large able to draw sufficient income to live above the poverty line, under which a large proportion of the population in Bangladesh live. An indication of the sustainability of the project is that the number of defaulters on interest payments is minimal.

Another example of women's participation in state or NGO initiatives is that of the initial telecentre managers programme offered by the Universal Service Agency in South Africa. Half of the nominees for the first telecentres from the identified communities were required to be women, who successfully completed the course out of proportion to their numbers. Although the need for resources to operate these centres was acknowledged and support provided, the actual implementation with regard to the effective contextualisation of centres and their sustainability has been problematic. Specifically, with regard to women the initial selection process has not translated into to the conscious and sustained decision to ensure the participation of women.

Conclusions

While the legislation for the telecommunications sector is enabling concerning the empowerment of women the implementation of strategies and processes to realise this have not been significant. Lessons to be drawn from this are that at the institutional level the state and regulator can provide an example to

the sector of gender mainstreaming in all policy and regulation that in time should reflect in the practice of the industry. At the sectoral level, the regulator can require annual reporting on progress made towards the achievement of national gender equity targets in the areas of shareholding, employment, promotion and training.

The regulator has the statutory mandate to encourage the empowerment of women. To do so effectively it should begin with an analysis of the communication needs of women and encourage research and development to meet them.

The regulator must more critically and dynamically use the regulatory tools of standard setting, pricing and access policies. Minimum technical and administrative conditions of network supply should be adopted together with detailed accounting procedures to ensure open networks that are able to affordably meet the needs of all potential customers.

Together with other agencies, such as the Universal Service Agency, the regulator can implement strategies that target marginalised groups such as rural women or female-headed households and track the social and economic impact of such strategies through pilot or focused community projects.

The regulator can prioritise the allocation of telecommunications resources to ensure that the total package of resources and capacity necessary to successfully utilise basic and advanced communication services for social and economic development are made accessible to educational, health and small business development initiatives targeted at women and other marginalised groups.

As Todaro has argued, any development programmes that fail to improve the conditions of existence for the most marginalised will fail (26 In the longer term any economic growth which does not actively include women will come up against deficiencies in the quality of its human capital. Social investments are more likely to be passed onto future generations if women are actively integrated into developmental programmes. As human capital is the central requirement for growth it would appear that women too are central to meeting development objectives such as universal access and service.

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Footnotes:

1. The original version of this paper was prepared for Telecom 99 held in Geneva 10 – 17 October 1999.

2. AIS-GWG (1999) *Engendering ICT Policy: Guidelines for Action*, AIS-GWG, Pretoria, at 28-31.

3. M. Castells, The Social Implications of Information and Communication Technologies, Report prepared for UNESCO's World Science Report, 1999. http://www.chet.org.za. at 4.

4. Empowerment 1999, Business Map.

5. Empowerment in Broadcasting, Business Map, August 1999

6. The Reconstruction and Development Programme was the guiding policy document of the first democratic government of South Africa led by the African National Congress.

7. Peter Benjamin: Assessment and collation of telephony statistics from October 1998 household survey. See the paper by Benjamin in this edition for further information.

8. DRA Development Report by Aki Stavrou (assisted by Khumbelani Mkhize) 1998

9. Micheal P. Todaro (1997 at 151.)

10. Ibid at 157.

11. Ibid at 158.

12. DRA Development Report by Aki Stavrou (Assisted by Khumbelani Mkhize), A *Telecommunications Universal Service Policy Framework for Defining Categories of Needy People in South Africa*, April 1998, Durban.

13. DRA Development Report at 10.

14. The Benton Institute United States. See http://www.benton.org

15. DRA Development Report at 18-22.

16. Nicholas Garnham (1991) in Mansell, R (1993) *The New Telecommunications*, SAGE, London, at 219.

17. Mansell, ibid at 226

18. Mansell, ibid at 225.

19. Mansell, ibid at 13.

20. Mansell, ibid at xi-xii.

21. Dahms, M: *Gender and Telecommunication Development in Africa*, Africa Telecom 98 Forum, Johannesburg, South Africa, May 1998.

22. Aki Stavrou and Peter Benjamin, Telecentre 2000 Project, http://www.sn.apc.org/community/docs

23. Castells, op cit at 9.

24. Heeks, R. (1999*) Information and Communication Technologies, Poverty and Development,* http://www.man.ac.uk/idpm/diwpf5.htm

25. Ibid at 10.

26. M. Todaro, op cit at 159.