

USING INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS) TO PROVIDE INFORMATION TO FIGHT POVERTY, DISEASES AND IGNORANCE AMONG RURAL WOMEN IN ZAMBIA

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ABSTRACT

Background: *In today's information society, Information and Communication Technologies (ICTs) can be potentially used for provision of information to fight poverty, diseases and ignorance among rural women in Zambia. Even though much has been documented about ICTs and development, few researches have been conducted to closely examine the link between ICTs and provision of information to fight poverty, disease and ignorance among women in rural Zambia.*

Aims: *This paper aims to ascertain if ICTS can be used to provide information to fight poverty, diseases and ignorance among women in rural Zambia.*

Methodology: *This was a desk research based on published literature including previous studies on the role of ICTs in combating poverty, disease and ignorance.*

Results: *The findings reveal that the status of rural women in Zambia is low. Although they constitute the majority of the Zambian population, they are the majority of the poor. They remain ignorant about various issues in society and are also more vulnerable to major disease. The findings reveal that information plays a decisive role in alleviating poverty among rural women. It also results in an informed citizenry and a healthy populace. The findings further reveals that rural women's information needs range from traditional, personal to development oriented information. Therefore, they should be provided with information in all aspects of their social lives. The study has also established that women play a crucial role in the development process. Specifically, the study reveals that women play three significant roles in society: productive, reproductive and socio-political roles. Although women's economic contribution is vital to future generations and the economy, the findings reveal that women experience greater difficulty than men in securing essential resources and basic resources such as health and nutritional services, education, physical and financial capital and land. Additionally, they lack appropriate information which is critical to enhance their contributions in all aspects of development on a continuous basis. They remain uninformed about many issues that affect them and their development. The study has also established that radio and television can be used to provide rural women with information to fight poverty, disease and ignorance due to their ability to transmit information and opinion instantaneously with great apparent authority and direct to the homes.*

Conclusion: *It is clear from the findings that women require information that will allow them to create efficiencies and build an income. Therefore, information*

providers should consider using ICTs to provide rural women with information to fight poverty, diseases and ignorance.

Keywords: Information needs, Information seeking behaviour, Economic development, Zambia, Information and Communication Technologies, Rural women, Poverty reduction, Information provision, Health information.

1.0 INTRODUCTION

ICTs have the potential to provide rural women in Zambia with the much needed information to fight poverty, diseases and ignorance. Information is power and therefore, has the potential to empower women to overcome poverty, diseases and ignorance. Information can also enable women increase their productivity, efficiency as well as incomes. Such information could include health information on, agricultural information and information on self development and that which can change rural women's state of knowledge, values, beliefs and attitudes. Provision of such information to women is critical because they form the majority of the poor population in Zambia yet they are key players in the development process. By providing relevant information to rural women, their living standards will greatly improve and they will be able to participate actively in the development of this nation. ICTs such as radio and television are a tremendous force to reckon with in as far as provision of information is concerned to rural women. While a number of studies have examined the relationship between gender and ICTs, few have investigated the link between ICTs and provision of information to rural women in Zambia to fight poverty, diseases and ignorance. In fact, Chifwepa (1997) observed the lack of comprehensive surveys that document information [provision] services to rural areas in Zambia. This clearly demonstrates the need for more surveys to be conducted on uses of ICTs to provide information to fight poverty, disease and ignorance especially among women in rural Zambia.

2.0 A COMPARATIVE ANALYSIS OF RURAL VS URBAN WOMEN WITH REGARD TO POVERTY LEVELS

According to statistics from CSO (2006), poverty is more prevalent, deeper, and more severe in rural areas (78%) than urban areas (53%). Therefore, the status of rural women in Zambia is low because even though they are the majority in rural areas (Republic of Zambia, 2009), they are among the poorest of the poor. CSO affirms that households with high poverty rates in rural areas are, on average, larger, female-headed, and have high effective dependency ratios. As compared to urban women who are mostly employed in the industrial sector, rural women are predominantly employed in the agricultural sector. Yet, they tend to have lower access to land, credit, and training facilities and have little or no control over food crops. Their incomes tend to be lower than those of urban women. 96.2% of the urban households have access to health facilities compared 94.4% rural households. In fact, CSO points out that urban households are more advantaged in terms of access to all the facilities such as education and health than rural households. Chronic malnutrition, poor health status, and low levels of education affect 47% of the rural poor households as compared to 41% of the urban households. Generally, more women in rural areas than in urban areas face an array of health issues related to their reproductive roles. They tend to

have poor nutrition, low access to clean water and sanitation and less access to medical care (CSO, 2006).

Urban women and children have better nutritional status than children in rural areas. Only 47.8% of children in urban areas are stunted compared to 56.6% of children in rural areas. Access to safe water is higher in urban areas (89%) than in rural areas (43%). More rural households (76.8%) than the urban households (59.8%) use pit latrines. More households in urban areas (49.3%) have access to electricity than those households in rural areas (3.2%). Maternal mortality rates are high among rural women who are in most cases ignorant of free ante-natal services. Further, access to land for rural women is a big issue in Zambia (CSO, 2006).

The scenario given above is a clear indication that rural women are among the vulnerable in Zambia who require appropriate information to raise their status in the Zambian society. In fact, provision of information to rural women is a major global concern. Primo (2003) ranks the problem of inadequate [information provision] to women as the third major problem facing women globally after poverty and violence against women.

3.0 INFORMATION NEEDS OF RURAL WOMEN

The information needs of women as highlighted by Dasgupta (2001) are highly influenced by diverse factors such as social (*i.e.*, caste, class, urban/rural, literate/illiterate, educated/uneducated); economic (*i.e.*, employed, unemployed, employed in organised sector, employed in unorganised sector, self employed, housewife); and familial norms and hierarchy (*i.e.*, parenting, child care, health, household needs, family planning, legal security, crime and safety, mobility, migration). These factors also influence their information seeking patterns. Furthermore, different categories of women have different types of information needs.

Urbis Keys Young (2002), however, suggests that women's information needs are ever-changing, as reflected in changes in personal, financial, social and family circumstances; their information needs and information-seeking behaviour is, therefore, highly situational and often determined by such factors as age, socio-economic status, level of education, family circumstances and ethnicity among other things. Olorunda (2004) adds that women's information needs vary and include personal, health, financial, spiritual, professional, and economic. Since women need to sustain themselves and their families, they require information concerning their social and economic environments. Given the above scenario, it is clear that women's information needs are recognised in practically all spheres of social life as outlined by Momo (2000) in the table below:

Table 1: Women's Information Needs

Social sphere	Information need
Education	Basic education or better, training
Health	Hygiene, disease prevention (e.g. HIV/AIDS) and treatment, family planning techniques to lower fertility rates, reduce early pregnancies, decrease infant and maternal mortality.
Agriculture	Improved seed selection and cultivation, irrigation, fallowing techniques, post harvest technologies, food conservation.
Environment	Environmental disasters and crises (e.g. droughts, floods), techniques for management and conservation of the environment and soil.
Law	Human rights and obligations (to protect against all forms of violence such as sexual, physical, social and professional).
Economy	Commercial activities (e.g. international market trends, exchange rate fluctuations, market prices, prices of goods and services and bank transactions).
Professions	Training (e.g. refresher course), seminars, meetings
Society	Formulation of associations and professional groups
Culture	Cultures, vestiges (i.e. of villages, towns, country), traditional practices, modern life.
Tourism	National, regional and world affairs
Politics	Participation, expression

Source: Mulauzi and Albright, 2009

4.0 THE ROLE OF RURAL WOMEN IN DEVELOPMENT

Women play a significant role in the development process in any society. They comprise more than half of human resources in many regions (Reddock, 2000). Recognising and affirming women's importance in development, the Committee for Economic Development (CED) (2003: 2) states that:

“Nothing, arguably, is as important today in the political economy of development as an adequate recognition of the political, economic, and social participation and leadership of women.”

Nevertheless, women's actual and potential contribution to economic and social development is often undervalued and often not reflected in economic statistics in many developing regions. In addition, much of women's work remains unpaid yet they tend to work longer hours than men.

Specifically, women play three significant roles in society: productive, reproductive and socio-political roles (Touwen, 1996). As producers of food, women according to ECD (2003) form the backbone of the world's agricultural labour force. They constitute the majority in food production. In fact, half of the food grown all over the world is produced by women. Thus women make up 67% and 70% of the agricultural labour force world wide and in developing world respectively. In Africa, women produce between 60-80% of food. While in Zambia they account for 70% of labour in agricultural production (Civil Society for Poverty Reduction, 2006).

All tasks associated with food production are largely performed by women. For instance, food processing for household consumption and marketing, which is a time and labour consuming task is largely performed by women in many regions. In addition to food processing and marketing of the agricultural produce, women are largely responsible for food security (Booth and Potais, 2000). The CED (2003) points out that small scale trading in some countries by women in the informal sector can account for 30-50% of GDP. Through food production and trade, women are able to earn extra income for their families thereby contributing to national production (CED, 2003:5). However, women's income is often controlled by men in the household.

Furthermore, women make substantial contributions in both industrial and export trade. They provide cheap labour in the majority of manufacturing industries and make significant contributions to the growth of export markets of manufactured products. The CED observed that "in the contemporary era, no strong export performance in manufacturers by any developing country has ever been secure without reliance on female labour" (CED, 2003:5). Despite enabling women to attain personal independence, greater physical mobility and perhaps removing the obstacles associated with gender and other forms of male dominance, women tend to have insufficient skills due to their low levels of education, health and training in organised labour force. Consequently, they tend to be lowly paid and underrepresented in these low wage positions (CED, 2003:5).

Moreover, women account for a considerable portion of entrepreneurs, retail traders and services in many underdeveloped countries. As entrepreneurs, women tend to be largely responsible for running small business enterprises often specialised in traditional activities such as food preparation, dyeing, printing, photocopying, tailoring, selling and handicrafts than their male counterparts. In retail trade and services, women account for a considerable amount of labour. While in service employment such as teaching, women also comprise a large portion of labour in many regions (CED, 2003). Although such tasks are less profitable and often require the use of simple technologies, women tend to make substantial contributions to the development of the economy through these income generating activities.

The reproductive role of women is perhaps also one of the important areas of women's contributions to the development of any society. It is not practically at all for any society to develop without human resources. Women give birth to human resources, the leaders of tomorrow and indeed the future generation. Women are largely responsible for nurturing children often in large numbers in many African countries (CED, 2003). Nurturing of children from childhood to responsible adult is a demanding responsibility which is mainly executed by women. This is one of the reasons why women seldom find time to work in paid jobs. The responsibility entails providing for the basic needs of families. Such needs include food, health, education and nutrition and general survival of the household. Women tend to be principal providers of these basic needs. They spend a large proportion of their incomes on basic needs and general well-being of the family.

Women especially in African countries are largely responsible for gathering energy for cooking and heating and for fetching water cooking, drinking and other uses. These tasks are time and labour consuming and involve walking long distances for

several hours in search of fuel or water. In most cases, women also take the responsibility of preparing food for the family taking into consideration the dietary needs of every member of the family. Food preparation has to be done several times in a day, hence it's also a time and labour consuming task (Booth and Protais, 2000, CED, 2003, Huyer, 2004).

Women also constitute the majority of the electorate partly due to the fact that they are the majority of the population in many regions including Zambia. However, the percentage of women as leaders of governments, in parliament and public service remains relatively low. Discrimination against women is the major impediment to women's active participation in politics.

Taking into account all of women's work: productive, reproductive and socio-political, one can arguably claim that women's economic contribution increases spectacularly and generally surpasses men's contribution. Yet women in general experience greater difficulty than men in securing essential resources and basic resources such as health and nutritional services, education, physical and financial capital and land (CED, 2003). Above all, women lack appropriate information which is critical to enhance their contributions in all aspects of development on a continuous basis, (UNECA, 1999). Therefore, they remain uninformed about many issues that affect them and their development (Zambia Association for Research and Development (ZARD) (2007). Given the opportunity, women's contributions to the overall development process could increase substantially (CED, 2003). ICTs are some of the tools women can seize to access development information to create efficiencies and build an income.

5.0 USING ICTS TO PROVIDE INFORMATION TO FIGHT POVERTY, DISEASES AND IGNORANCE AMONG RURAL WOMEN

Numerous studies demonstrate that ICTs have the potential to meet the information needs of individuals, particularly rural women. Gerster and Zimmermann (2003) demonstrate the potential of ICTs in facilitating the creation, storage, access, management and dissemination of information by highlighting four key features of ICTs:

1. *Interactivity*: ICTs are effective two-way communication technologies. They provide instantaneous transmission of information to and from individuals, organisations and nations at large.
2. *Permanent availability*: Individuals are not limited by time and location to access and use ICTs. ICTs can be accessed at any time.
3. *Global reach*: ICTs can be accessed and used from anywhere in the world by anyone regardless of colour, race, sex, class, culture, religion, language thereby reducing the world into a global village (Munyua, 2000).
4. *Reduced costs*: Many of these ICTs provide easy, inexpensive and rapid means of generating, accessing, storing, disseminating, transmitting and communicating huge amounts of information worldwide (Yumba, 2002).

The capacity of ICTs to enable global, rapid and efficient exchange of information and knowledge, and to facilitate instantaneous communication across distance seems to hold out vast opportunities to address the crucial information, knowledge and

communications dimensions of persistent poverty, diseases and ignorance among rural women in Zambia.

Poverty: As already mentioned above, poverty is one of the major problems facing rural women in Zambia. McNamara (2003) and Chigunta (1998) perceive poverty as having insufficient access to food, education, health care, shelter, adequate income, clean surrounding, sanitation and safe drinking water and lack of power. The poor not only lack material and financial resources but also opportunities to transform their resources (i.e. labour, skills, experience and physical resources at their disposal) (McNamara, 2003). Additionally, Chigunta explains that poverty is a condition of life characterised by malnutrition, illiteracy, disease, high infant mortality and low life expectancy. The Creative Commons Attrition (2005) also adds that poverty includes powerlessness, voicelessness, vulnerability as well as fear. It also entails being deprived of basic capabilities and the lack of natural resources, employment, land and credit, political participation, services and infrastructure. Above all, poverty is seen as being deprived of the information required to participate in the wider society, at local, national or global level (Creative Commons Attrition, 2005). According to McNamara (2003), the poor lack various kinds of information such as information about resources, tools and processes for them to be more productive; new opportunities to increase their income and improve their livelihoods; markets and prices and about the availability and reliability of persons and institutions on which they depend in their economic exchanges. They also lack communication opportunities vital to their lives and livelihoods.

It is clear from the available research that the majority of rural women are in the situation described above. In fact, they face the worst form of poverty in today's Information Society-*Information poverty*. If left unattended, it would exacerbate the poor living conditions of rural women. Women should be provided with information to bridge the information gap. This demonstrates the need for policies and mechanisms that encourage greater information flows to rural areas.

There has been widespread experimentation in recent years with ICTs as tools that can be used to combat poverty and promote sustainable development. One of the reasons according to McNamara (2003) for the high degree of excitement in the last decade about the potential of ICT to combat poverty and promote sustainable development is that it is possible to discern an information, communication or knowledge component of virtually every development challenge. Supporting the above assertion, the World Bank (2000) contends that ICTs presents unprecedented opportunities to combat poverty by providing relevant information that can help individuals create earnings, opportunities, improve access to basic services or increase the impact of education and health interventions. In addition, ICTs boost the productivity of individuals and firms, both by permitting greater outputs for a given input of scarce resources and by making available new information and knowledge about processes, products, techniques and markets (McNamara, 2003). McNamara (2003) further points out that ICTs can be used to provide information and knowledge to rural women not only about rights, services and opportunities, but also crop prices, new farming techniques and new markets. Moreover, ICTs can be used to provide information and knowledge that can assist rural women to make unassailable policies, choices and decisions.

ICTs can facilitate good information and knowledge flows and easy communications that would empower the rural women to access efficiency-enhancing technologies and processes (and the innovations imbedded in them) and time-saving and productivity-boosting technology that would save their scarce resources (labour, time, money, land, water, and other resources) (McNamara, 2003). McNamara explains that in information-poor environments such as rural areas, the poor are not only deprived of the benefit of rapidly expanding global knowledge on health, agriculture, environmental management, and other issues vital to their daily lives but also opportunities to develop new skills that can give them new opportunities, and of the empowerment that comes with understanding the functioning of their societal and governmental institutions and their roles and rights within them. In fact, the rural poor are also deprived of the opportunity to share their own, often extremely valuable, centuries-old local knowledge, and to reap benefit from that knowledge, while also benefiting from the traditional knowledge of other poor communities (McNamara, 2003).

Ignorance: The rural populace according to Issa (2005) are characterised by such features as wide spread ignorance. The dictionary meaning of ignorance is “lack of knowledge or information about something” (Hornby, 2006: 741). Rural women lack knowledge or information on so many issues. For instance, they in most cases lack information and knowledge on existing laws (e.g. abortion laws) including their rights and obligations i.e. their freedoms and entitlements such as equal rights and influence in key decisions, right to speak and to be heard, right to equal participation in decision making, right to equal pay and for equal value, right to access land, right to live free from violence and right to equitably access education and skills (Gender in Development Division). Thus in most cases, they tend to be unaware of how they can protect themselves against all forms of violence such as sexual, physical and social. Due to limited information and knowledge among other things about human rights issues, women suffer great injustices and their rights are violated (Mulauzi & Albright, 2009). Even though they constitute the majority in food production, rural women are also ignorant of modern methods of improving the agricultural production and other ways of self development (Nwagha, 1992).

Rural women further tend to be ignorant about diseases and treatments as well as health promotion and protection, preventive health care, determinants of health and access to health care and family planning techniques to lower fertility rates. In the field of environment, rural women tend to be ignorant about techniques required for management and conservation of the environment and soil. Rural women furthermore, lack information on how to go about forming an association or cooperative society. In politics, they lack information on how to participate in elections. ICTs can provide that information (McNamara, 2003).

Given the above scenario, one cannot deny the fact that rural women require information to fight ignorance and contribute positively in the development of our nation. Effective provision of information to rural women could increase their ability to be informed on the above issues including on current issues and be able to make informed decisions and choices. Kenney (1995: 35) observed that “a better informed...public is far less inclined to accept dictates from the high that affect their day-to-day lives.”

Diseases: Good health among rural women in Zambia is often lacking. Rural women in Zambia as mentioned somewhere above are more vulnerable to major diseases such as HIV/AIDS, tuberculosis and malaria. Other common diseases include cholera and diarrhoea diseases. The mortality rates are high among pregnant rural women due to mainly lack of information on safe motherhood. Similarly, infant mortality rates are also high. In order for rural women to have good health, health information provision is cardinal. Rural women not only require health information for themselves but also for their children and other members of the family.

ICTs have the potential to make major impacts in improving the health and well being of rural women and marginalized populations and promote sustainable development. (Chetley, 2006). Chetley further opine that if used effectively, ICTs have enormous potential as tools to increase health information flows and the dissemination of evidence-based knowledge and advance equitable healthcare access. In fact, they can be used to provide information and knowledge about basic hygiene, health issues and resources (McNamara, 2003). A study conducted by Musoke (2005) reveals that when provided with health information, women used it in the prevention and treatment of diseases, know the causes of illness, promote good health, make decisions, make choices, overcome constraints and misconceptions, cope with illnesses, support the community/self-help, change behaviour, change attitude, participate in information awareness raising and for general health knowledge. This is illustrated in figure 1 below:

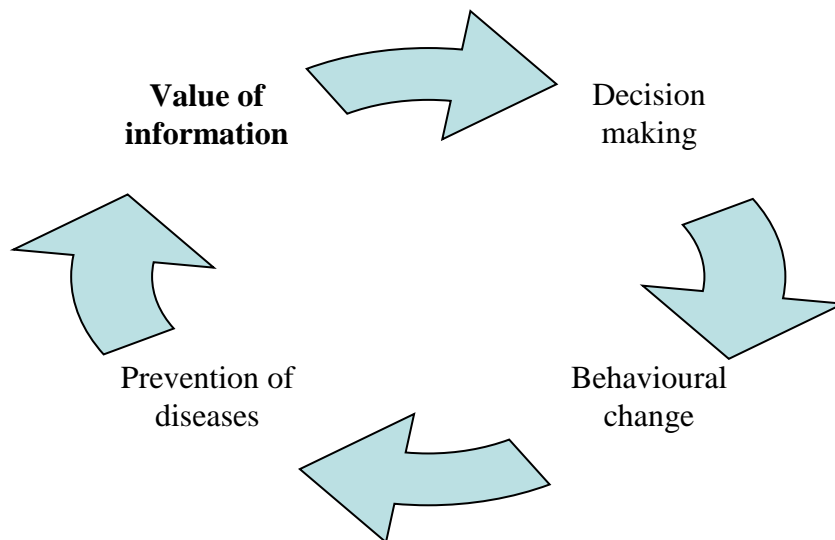


Figure 1: The value of information

Chetley (2006) affirms that ICTs have clearly made an impact on health care through:

- *Improved dissemination* of public health information and facilitated public discourse and dialogue around major public health threats
- *Enabled remote consultation*, diagnosis and treatment through telemedicine
- *Facilitated collaboration and cooperation* among health workers, including sharing of learning and training approaches
- *Supported more effective health research* and the dissemination and access to research findings

- *Strengthened the ability to monitor* the incidence of public health threats and respond in a more timely and effective manner
- *Improved the efficiency* of administrative systems in health care facilities

According to Chetley, this translates into savings in lives and resources and direct improvements in people’s health. Chetley further opine that in Peru, Egypt and Uganda, effective use of ICTs has prevented avoidable maternal deaths. In South Africa, the use of mobile phones has enabled TB patients to receive timely reminders to take their medication. In Cambodia, Rwanda, South Africa and Nicaragua, multimedia communication programmes are increasing awareness of how to strengthen community responses to HIV and AIDS. In Bangladesh and India, global satellite technology is helping to track outbreaks of epidemics and ensure effective prevention and treatment can reach people in time.

It is particularly in rural areas that electronic information delivery mechanisms can compensate to a significant degree for the poor conditions of rural women in Zambia. As long as the levels of poverty remain high among rural women, as long as women remain ignorant about various issues in society and remain more vulnerable to major disease, their potential to contribute to sustainable development will not be realised. The role of information in the fight against poverty, diseases and ignorant can be summarised as in figure 2 below:

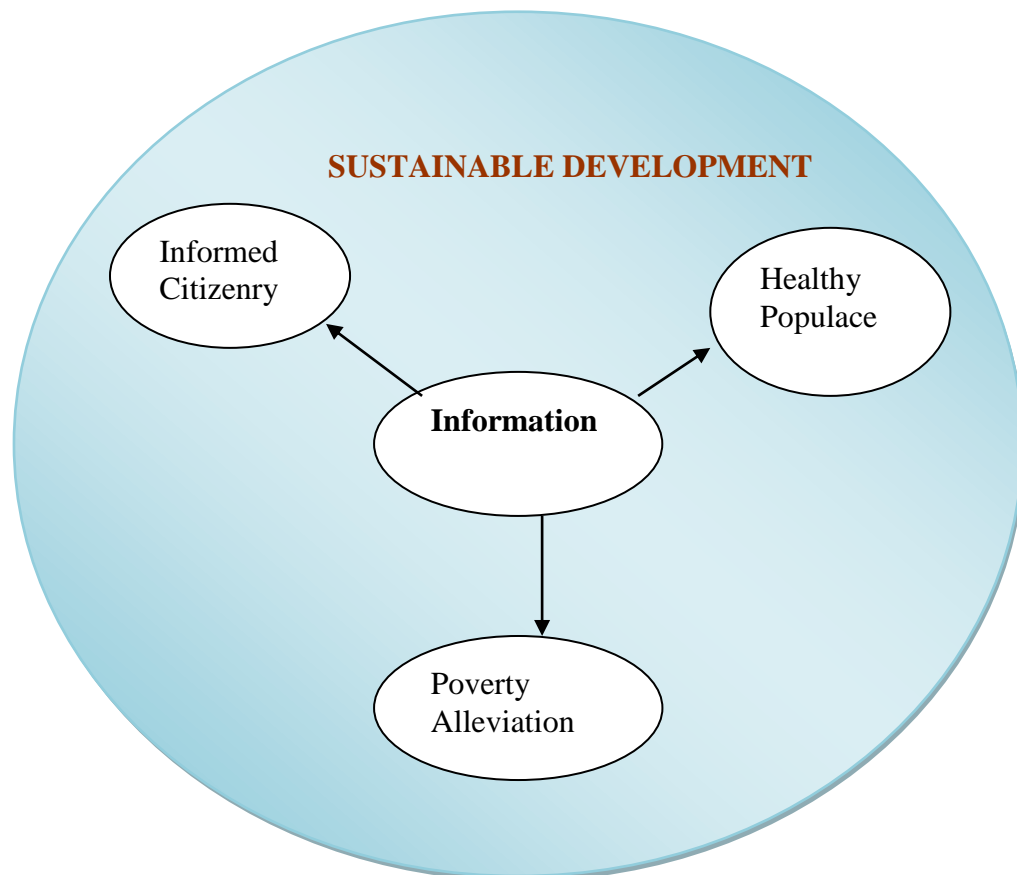


Figure 2: The role of information in the fight against poverty, diseases and ignorant

5.1 Using radio and television to provide information to combat poverty, diseases and ignorance among rural women

ICTs such as radio and television have been recognised as valuable ICTs that can be used to provide information to the rural poor including rural women. Etebu (2009) points out that rural people have information needs that are not satisfied by existing information provision mechanisms such as libraries. In view of this, this paper recommends the use of radio and television to provide rural women with desired information. In fact, radio and television have been used as fundamental medium for providing and accessing useful information for the majority of the rural masses for some time. Their ability to transmit information and opinion instantaneously with great apparent authority and direct to the homes, has been consistently exploited by governments, pressure groups and commercial groups ever since. It is therefore, important that information providers use ICT facilities such as radio and television to provide the much needed information for rural women in Zambia.

The World Bank (2000) describes the television as the most potent medium and a near universal domestic source of information, entertainment and social interaction in many nations world wide including Zambia. It is this great potential to empower individuals such as women that should compel information providers to use the television to provide rural women with the much needed information. In addition, the Creative Commons Attribution (2005) observed that radio is by far the most widely used electronic medium in rural areas and in the provision of useful information to the poor partly due to its strength of ubiquity. People can listen to the radio while performing other activities such as working in the fields. In fact, a survey involving 21,000 farmers enrolled in radio-backed farm forums conducted in Zambia revealed that 90% of the farmers found the programmes relevant (Creative Commons Attribution, 2005). The above affirms the fact that if radio and television is used to provide information, it is possible for rural people to access and use it. In fact, the findings of Mulauzi & Albright (2009) reveals that women use radio and television to access information on current issues including health, agriculture, education, good governance, gender issues, environment, water and sanitation and agriculture. Thus numerous radio programming initiatives have been introduced in many parts of the world with the aim of providing information to rural communities. This clearly indicates how viable ICTs such as radio and television can be in terms of information provision to rural women.

The ability of radio [and television] to reach many people makes it possible for the majority of rural masses including women to benefit from the information including those who are not accessible by road or in terms of print (Leach, 1999). In addition, radio and television is cheaper, accessible and provides cost effective means of providing and accessing information and communication for self development as well as national development (Greenberg, 2005). Radio and television also overcomes barriers to infrastructure, language and skills to operate and use it (Gerster and Zimmermann, 2003) and is more appropriate and adaptable to the local needs (McNamara, 2003). Radio content is cheap to create and cheap to consume, and neither the creators nor the consumers of radio content need to be able to read or write due to the oral nature of radio. It is possible to transmit radio and television content in local languages (Githaiga, 2005).

However, Leach (1999) observed that the ability to reach many people and its broadness does have negative consequences. People lack confidence on information from a radio due to its invisibleness. Additionally, it is difficult for people to understand what they are told to do on the radio. In fact, there is no one to ask if one encounter difficulties. The other limitation of the radio linked to interactiveness is that “there is no feedback facility...rural people do not have phones to call in...” (Leach, 1999: 78).

6.0 CONCLUSION AND WAY FORWARD

As the country strives to achieve gender equality, it is imperative to continuously improve on the living standards of women including those residing in rural Zambia. The development of this nation largely depends upon the maximisation of all available resources and the government realises that women are an invaluable resource as they constitute the largest number of the country’s population (Republic of Zambia, 2009). Women can actively participate in the development process only if they are empowered with the required relevant information to improve their livelihoods. As the studies have revealed, ICTs such as radio and television are recommended as effective mechanisms which information providers can reckon with to provide relevant information to rural women. Providing rural women with vital information is recommended as an effective means that could assist them improve their standards of living and their economic status. However, this requires for the broadening in scope of initiatives to link the various geographical areas of Zambia with radio and television coverage to enable broad masses of rural Zambians access both radio and television broadcast material. Rural women should also overcome technophobia and take advantage of these technologies and use them to access the desired information.

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