

Chapter 14

Integration of ICTs in Radio Programs (II- RP) for Environmental Awareness for Peasant Farmers of Rural Zambia

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ABSTRACT

The radio was the most and only reliable media capable of disseminating remedial information for methods of curing and preventing the outbreak of animal and crop diseases. However, this mode of media faced the challenges of majority of peasant farmers not owning radios, and as a result, they did not access such services. In addition, the distance among the peasant farmers hindered people sharing such resources. Nevertheless, the mushrooming owning of mobile phones by the majority of peasant farmers made information sharing possible. It was in view of that that the integration of ICTs on radio programs, in this work abbreviated as II-RP, was envisaged to disseminate remedial information to peasant farmers in remote areas of Zambia. The II-RP, a mobile built system, allowed farmers and agriculture officers to share the awareness information and sensitization of methods of farming.

INTRODUCTION

The Integration of ICT's on Radio Programmes, in this work abbreviated as II-RP is envisaged to disseminate remedial information to peasant farmers in remote areas of Zambia. Such information is vital to alert farmers and to quickly apply necessary technology for preventive measures. The II-RP architecture

DOI: 10.4018/978-1-7998-7297-9.ch014

is demonstrated in Figure 1 and it has the following functional components: SMS Service Provider, Mass Media, NAIS Core, Commuter, and Wireless.

Currently the Radio, Television, Newspaper and Newsletter are media channels used by National Agriculture Information Service (NAIS) to disseminate information to farmers. The Radio is the mostly used media channel to disseminate information to farmers. Existing wireless cellular networks that have been installed by Mobile Service Providers are utilized by the Mobile System. The major mobile service providers in Zambia are Airtel, Mobile Telecommunications (MTN) and Zambia Telecommunications (ZAMTEL).

Statement of the Problem

The major problems that affect the rural farming industry are as follows: first the outbreak of animal and crop diseases; second, the plague of insects that cause a lot of damage to the crops; third, lack of farming skills; and fourth, lack of information on the rainfall patterns. From these outlined problems, the peasant farmers do not have remedial and preventive information to combat such hazardous circumstances. They have very little means of communicating to the National Agriculture Information Service (NAIS), an organization which has farming experts such as the District and Provincial Agriculture Information Officers (DAIO/PAIO, respectively). These trained officers are employed to give peasant farmers valuable information across all kinds of farming activities. However, the major communication means which is through radio is not very effective to reach out majority of the rural community who cannot utilize such facilities due to inadequate radio frequencies and coverage. Only a few remote areas can access radio coverage and be able to listen to the agriculture programmes where farmers are educated on how to manage animal husbandry, and crop growing. In this way, farmers do respond by filling-in the forms to give their reports, in form of feedback, about the problems they are experiencing them. Thereafter they send these reports to NAIS through Post Office and it takes weeks or some months to reach the intended offices. The whole communication process becomes cumbersome as this in-turn the feedback from NAIS reaches the farmers after a long time. However, these days, the Internet Service Providers (ISPs) have installed towers even across some rural sectors. In that way they have provided adequate mobile coverage to the rural community. In addition, the majority of the rural community own mobile phones. This is supported by Furuholt and Matotay (2011) who pointed out that these days even the poorest peasant farmers own mobile phones. Therefore, developing an agriculture mobile application would be beneficial as many peasant farmers are going to access the system for their own mobile phones. Such applications can be integrated into radio systems that would aid an effective communication to the NAIS workforce. It is in view of this, the Integration of ICT's on Radio Programmes (II-RP) was envisaged to build a mobile system which would be available and accessible to remote peasant farmers. As discussed earlier, this was necessitated by the fact that the Government had installed mobile networks coverage in most parts of remote areas. In that way the II-RP would integrate the mobile and radio technologies to develop a system which would be accessed with those on remote areas.

The Objectives of the II-RP

The II_RP model was developed in accordance with the following objectives:

- Design and build the II_RP functional system.

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