Involving Communities in place in appropriating ICTs for their developmental need

Module One

Overview

The Development Practitioners' Notes to ICT for Development

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Learning objectives

At the end of this lesson, you will be able to:

- Outline the basics of sustainable development;

- Outline a business case for information in sustainable development;

- Outline why ICTs are an appropriate tool for providing information in sustainable development projects

- Understand how the rest of this course is going to achieve critical task of involving communities in place in appropriating ICTs for their sustainable development needs.

- Understand why it is important to involve communities in place in appropriating ICTs for their developmental needs; and for lesson two

- Evaluate your capacity of being able to identify appropriate ICT4D software application;

Introduction and Overview

The main goal of development agencies and practitioners (i.e. governments, multilateral development organizations, NGOs, donors, parliamentarians, extension workers, community leaders, policy makers, planners and civil society organization) is to improve the quality of life of communities in place. Development practitioners need to utilise all available tools that promise to contribute towards improving livelihoods of marginalised communities. ICT is holds such a promise, thus there is a growing groundswell of initiatives seeking to apply ICT in the development agenda. The emerging requirement for development practitioners to practice sustainable development has created immense demand for prompt access to reliable information so as to monitor and evaluate compliance to sustainable development practices. Information and Communication Technology for Development (ICT4D) is an emerging disciple that holds great promise for addressing the information demands of implementing sustainable development interventions. The challenges for implementing ICT4D are many and varied. The following are some of those challenges:

- **Stakeholder Engagement.** Development organizations and workers have established that development projects stand a higher chance of adoption by communities in place (including grassroots) if the communities are involved throughout the process of identifying, planning, implementing and monitoring and evaluating development interventions. Major barriers exist in involving communities in place (including grassroots) in the development process of software applications that solve the developmental needs of community members. This program of study will provide you with simple Participatory Rural Appraisal (PRA) tools to engage grassroots during the identification, planning, development implementing and monitoring and evaluating ICT4D software applications.
- **Appropriate Applications.** Identifying suitable software applications that can provide relevant information to development projects is a daunting task. The challenge of identifying relevant applications has also plagued the private sector for a long time. Approaches that have been developed in the private sector are not only complicated and fail to consistently deliver acceptable returns, but are also inapplicable to environments that include stakeholders from grassroots constituencies. In this e-learning programme we shall unveil simple approaches that will enable you to develop information models that clearly specify the information needs of your development program. By adopting these tools, you will be

empowered to always identifying software applications that fit your development project. The approach learnt is applicable across a wide range of development interventions.

- **Structures.** Software has traditionally been developed and applied in the private sector. Successfully developing, implementing and supporting software in business relies on the existence of organizational and human resources structures that have technical and business skills required to support conversations around software development. Such structures hardly exist in the environments where ICT4D applications are expected to operate. This e-learning programme will assist you to build innovative public sector structures that reach deep into grassroots communities served by the ICT4D applications you will develop. Such structures are useful for supporting conversations during design and operations during system usage and in validating data to be processed by the ICT4D application.
- **Maximising resource utilization.** The scarcity of financial and human resources in development projects is well understood by development practitioners. The challenge of maximum utilization of ICT4D investment is plagued by the scarcity of resources. This e-learning program will develop your skills to re-use investments in one ICT4D project across a broad range of sustainable projects within the same grassroots communities.
- **Software Developer Skills.** Software developers have developed their own business language that is not easily understood by business people who use business software to accomplish business tasks. Businesses are experiencing major communication barriers when dialoguing with software developers and as a result, the software delivered to business by software developers lacks the functionality and flexibility expected by business. This is a consequence of the differences in business and software languages. This communication gap is known as the business/IT divide. Efforts to close the business/IT divide are progressing mainly through finding tools for bridging the divide. Development practitioners who have tried to communicate with software developers face the same communication dilemma experienced in the private sector. However the tools used to address the business/IT divide in the private sector are not suitable for use in the public sector. Consequently there is a need to develop new tools for bridging the divide between development practitioners and software developers. This e-learning resource will introduce you to new and appropriate tools for improving communications between development practitioners and software developers.

What are ICT4D Software Applications

We have already indicated that identifying appropriate ICT4D software applications is problematic. Development practitioners have been using ICTs in development for quite some time mainly for word processing and spread sheet computations. Most development funding agencies require their country managers and field staff to compile progress reports and project budgets regularly. Consequently most development practitioners carry laptops and tablets that have the latest versions of word processing, spread sheet and e-mail software. However such software is utility software that is applied across all industries to improve communication and office productive. Such software does not qualify to be called ICT4D software despite being widely utilised in development projects. ICT4D software applications are computer programs that are applied directly on core activities of development interventions. This is software that collects and processes data in order to generate information that support the operational activities of the development program. Increasingly, ICT4D software is expected to interact directly with grassroots mainly through mobile devices like cell phones and tablets. The following are just a few ICT4D software applications:

- E-government solutions
- Systems for supporting income generating projects
- ICTs in combating Aids, poverty and social ills like gender based violence

- ICTs for supporting sustainable value chains in agriculture
- ICTs for fighting corruption
- ICTs for supporting humanitarian interventions
- ICT applications for improving civil society participation in democracy
- ICTs for involving grassroots in the inclusive management of minerals
- ICTs for fighting climate change.

Sustainable Development

The origins of development practices are the "reconstruction" themes adopted by America and Europe post World War II. The reconstruction approach claimed that economic growth leads to prosperity, which in turn leads to human development. The engine for economic prosperity is underpinned by national agendas that prioritize private sector as the driver of economic growth. The World Bank, through the International Monetary Fund (IMF) has been promoting economic policies based on "reconstruction themes". Countries have implemented Structural adjustments programmes advocated by the IMF with very limited success. The Asia financial and the global economic crises of the 1990s and 2008 respectively have brought the wisdom of IMF policies under extreme criticism and spurred the quest for developing other promising development models. Sustainable Development has emerged as a practice that offers greater chances for improving livelihoods and countering the inequitable distribution of wealth and the degradation of the environment. It is beneficial to develop a common view of sustainable development since we are going to focus on a multi stakeholder approach that involves grassroots in the development and implementation of ICT4D software applications in sustainable development projects. Advances in science has uncovered that some forms of economic activities, for example those that prioritize private sector as the sole player in development, lead to negative impact on the environment. Most production and consumption behaviors engender practices that generate waste in volumes that are harmful to the environment. Such production and consumption patterns lead to pollution of water, air and depletion of other natural resources. Climate change and pollution makes planet earth inhabitable for future generations. However controlling these harmful activities negatively impacts prospects for immediate economic growth. The visions of an earth which is dangerous to all forms of life as we know them has propelled multilateral organizations to sponsor the research for win-win developmental approaches that promote economic activities that though the lead to the reduction of poverty as a strategy for under writing social stability also avoid those economic activities that harm the environment. Sustainable development promotes human development activities that are at the intersection of economic development, social development and environmental sustainability as shown in Fig. 1.

Fig 1: Sustainable Development

The prospects of exploiting mineral deposits found in a wetlands might seem irresistible to poor states. However the harmful effects of such an activity, effects which might lead to climate change, ensures that developed countries are motivated in engaging is assisting the poor country make more tough decisions that will lead to prioritizing sustainable development over economic expediency. Sustainable development generates global interest in all developmental activities from every part of the world since climate change respects neither political nor prosperity boundaries. Climate Change enables irresponsible local economic activities in any part of the world to potentially to generate economic catastrophe in another part of the world. This is has motivated developed countries promote donor funded climate change mitigation interventions in under developed economies. Free flow of information between all parties is a prerequisite for combating climate change. ICT4D can play a big role in capturing data and disseminating information for sustainable development to all local and global stakeholders.

Information and sustainable development

We have indicated that combating climate change requires global dialogue which will create coalitions across political, social and economic divides. The interrelationships of calls for action and responses across the globe require monitoring and evaluating multiple interventions, criteria and perspectives. The domino effects of impacts of multi theme development actions require processing large volumes of data to promote informed decision making. Those involved in development projects will attest to the paucity of development information at both micro and macro levels.

Developments in ICTs, especially the migration to mobile platforms (i.e. cell phones and tablets) have opened up immense opportunities collaborations involving local and global stakeholders in implementing insightful information value chains that support informed decision making at global levels. Furthermore, the connectedness and interrelationship of local activities to global impact calls for all stakeholders, including grassroots to be active participants in collecting data and evaluating impacts of actions on the local environment.

The Fig 2: provides a framework for utilizing ICTs to contribute towards providing information within the food security value chain.
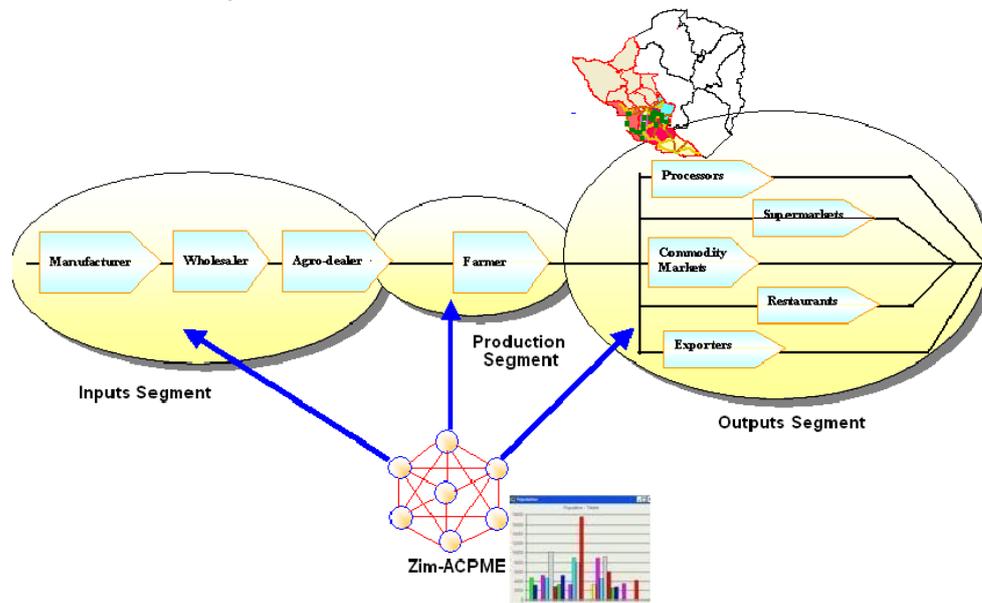

Fig 2: Information Value Chain in Food Security

Stakeholders like Agro-Dealers and Farmers can be **_grassroots communities in place_**. Their participation in the Information Value chain requires them to generate and consume information about availability of inputs, demand for inputs, forecasts of harvests, weather conditions, and impact of farming technologies on biodiversity and yields and availability of transport, to name but a few examples of critical information for food security. All actors need to generate and consume information. Any group of actors who form a weak link render the entire value chain ineffective. This example provides a business case for the investing in participatory and inclusive approaches to information management across the entire developmental value chain. Software applications in ICT4D are the appropriate media for hosting information for supporting sustainable development. The notion that ICTs are an unnecessary luxury for grassroots has passed "_best before use date_". The time has come for ICTs to become an integral component of sustainable development rather than as afterthought. Development practitioners have to raise the bar for applying information in

development by moving beyond spread sheet and word processing applications. It is time for software applications in development to directly touch the lives of beneficiary communities. From discussions so far, it should be becoming evident that for ICT4D applications to deliver value and generate stakeholder uptake they should fulfil the following key criteria:

- Demonstrate improved service delivery through access to information about the development process and activities
- Foster greater social participation by all stakeholders, including grassroots.

Development practitioners have already solved the monumental challenge of involving grassroots in the dialogue about improving their livelihoods. Successes at this level provides invariable "lessons learnt" for the participatory identification, planning, development and implementation and monitoring and evaluating ICT4D software applications.

Are you using ICTs to improve livelihoods?

Measure your current capacity to use ICTs to improve livelihoods of communities in place:
- Is there a policy for involving grassroots
  - Yes, No, Don't know
- Do Development practitioners drive the identification of ICTs
  - Always, Sometimes, Never, Don't Know
- How many developments programs are imitated with a budget for developing ICTs to support the programme?
  - Total number of Projects developed, Total of those without ICT.
- Which office productivity tool do you use in your office for office productivity
  - Word, Excel, SSPS, don't use a computer
- Where have you used of PRA techniques within your constituency
  - In workshops discussing development project with grassroots, Only learnt it buts never applied them, in developing ICT4D
- How do you practice M&E
  - Use an external consultant, work alone without using ICTs, work alone using ICTs, Work with grassroots without using ICTs, Work with grassroots applying ICTs
- Do you use GIS application within your organization
  - No, yes.
- How do you use GIS project in development projects

- o We use it in the office only; we take GIS out to communities to help in communicating development issues.
- Do grassroots participate during the development of your GIS application
  - o No, Only peripherally (i.e. we consulted them on issues of data capture), They are involved in identifying opportunities for applying GIS in their projects.

The APE Dashboard enables you to measure your organization's maturity in aligning business goals to investments in ICTs. The measures are grouped into Awareness, Practice and Excellence (APE) in Alignment. This evaluates your company's capability to deploy ICTs that contribute towards improving your company's bottom line. Print the Alignment Scorecard (or visit www.execIT.co.za/evalAlign to complete the evaluation on-line) and evaluate your organization's maturity in practicing Alignment. For more explanation on APE evaluation variables and results *click here*.

ID	Criteria	Category	Mark
A	Is there a policy for involving grassroots?	A	
B	Do Development practitioners drive the identification of ICTs	A	
C	How many developments programs are imitated with a budget for developing ICTs to support the programme?	P	
D	Which office productivity tool do you use in your office for office productivity	P	
E	Where have you used of PRA techniques within your constituency	E	
F	How do you practice M&E	E	
G	Do you use GIS application within your organization	A	
H	Do grassroots participate during the development of your GIS application	E	
Total Score			

<u>Fig 3 : APE Scorecard</u>

Instructions on completing the Scorecard

- Score each criteria on a scale of 1 to 5 as follows:
    - 1 = No idea. You do not know your company's position on the criteria,
    - 2 = No or none. The company is not aware of or is not practicing the criteria.
    - 3 = Minimal or partly. There is minimal awareness and part practice/involvement.
    - 4 = Yes. There is a communicated and structured approach to the criteria,
    - 5 = Your organization has attained excellence in the criteria.
- Total up the score and evaluate your organization's capability for using ICTs to improve the bottom line and create strategic advantage as shown in Table 1.

Score	Capability
8	If you are a business executive, your organization has no chance of fully deploying ICTs to improving the its bottom line and create strategic advantage since business leaders like you are not aware of the company's strategic intent to utilizing ICT as a strategic tool for creating relevance and excellence in the market place.
9 to 16	Your organization is not practicing alignment. It is unlikely that it is utilising ICT to improve the bottom line. ICTs are likely to be a significant cost centre.
17 to 24	Your organization has is aware of the environmental conditions for creating strategic advantage. It might have initiated alignment activities but these are very much the early stages but the jury is still out.
25 to 32	Your company has embarked on a structured approach to alignment. It is well on its way to utilizing ICT for strategic advantage. It however might not extract maximum value from ICTs since it might be hounded by the ICT Achilles Heels.
33 to 40	Your company is in the top quartile of Alignment. It is aware of the ICT Achilles Heel and has strategies for managing this risk.

Table 1: APE Scorecard Results

For more explanation on APE and its application in Alignment visit our web site (www.elearninginstitute.biz) . By visiting our site, you will be able to do the following:

- Complete the evaluation form online. This will automatically upload your response into our Business Intelligence engine which will produce a Dashboard giving you visual interpretation of the results.
- The Dashboard further segments your response along key categories of Awareness, Practice and Excellence (APE). APE segmentation gives greater insights into the impact of your

current position and provides customized options that more suited to your environmental conditions. Customized options provide more accurate strategic routes to applying ICTs to improving your company's bottom line.

- Capture and store online (in the cloud or within your servers) your company's AS-IS position, aka the Baseline. You can then use the Dashboard to track your company's progress toward the TO-BE position that represent your future target in the Alignment matrix.

Summary

- Successful implementation of sustainable development programmes requires prompt access to relevant information.

- The availability of adequate information in socio economic development programmes is a major challenge. The application of ICT4D can go a long way towards solving this problem.

- Sustainable development requires tradeoffs between environmental sustainability, social stability and economic development.

- Grassroots must be involved in throughout identifying, planning, developing and implementing ICT4D applications that improve their livelihoods.

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