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INTEGRATING LOW-COST VIDEO INTO AGRICULTURAL DEVELOPMENT PROJECTS

A TOOLKIT FOR PRACTITIONERS

BY JOSH WOODARD, FHI 360, APRIL 2012

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The original concept came from discussions between Judy Payne (e-Business Advisor and ICT Advisor for Agriculture) and Josh Woodard at FHI 360, with input along the way from numerous USAID missions and implementing partners. It is the result of conversations with an increasing number of Feed the Future (FTF) and other USAID-funded projects that are struggling to effectively integrate information and communication technologies into their work with farmers. Many of these projects expressed interest in using low-cost video, although few of them had the know-how to do so on their own.

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ABOUT FACET

FACET is funded by USAID's Bureau for Africa, Office of Sustainable Development, Economic Growth, Environment and Agriculture Division (AFR/SD/EGEA). The project works closely with USAID's Economic Growth and Trade unit (USAID/EGAT), USAID missions, as well as implementing partners, governments,

and the private sector to provide technical assistance to better enhance the competitiveness and trade in the agriculture sector across Sub-Saharan Africa. Designed to be interactive and collaborative, FACET provides technical assistance to improve competitiveness and productivity across agriculture sub-sectors through the use of ICTs as tools to enhance the functioning and competitiveness of agricultural value chains and facilitate trade in agricultural products across Sub-Saharan Africa.

To achieve its objectives, FACET has two components:

- Knowledge sharing across missions regarding sustainable and scalable approaches to using ICT to increase the success of Feed the Future activities.
- Short-term technical assistance to projects to help them improve their uses of ICT, especially in ways that may be helpful to other projects as well.

Numerous briefing papers and application profiles produced by FACET, along with other resources related to ICT and agriculture, can be accessed online at: http://www.ICTforAg.org. USAID-funded agriculture projects working in sub-Saharan Africa can request short-term technical assistance by contacting the FACET team directly at facet@fhi360.org.

ABOUT THE AUTHOR

Josh Woodard is a program officer in FHI 360's Information Technology Applications Center and has managed the FACET project since its inception in 2009. He has been experimenting with video and other forms of low-cost ICT tools for more than a decade. Josh has facilitated workshops on the subject for rural schools in Indonesia, local project staff in Macedonia, Farmer to Farmer implementing partner staff, and high school students in Washington, DC. Prior to joining FHI 360, he worked for Thailand's Board of Investment, researching and writing articles on industries targeted for investment promotion and value chain enhancement, including agriculture and ICT. As a Peace Corps volunteer in a rural community in Thailand, he also worked closely with farmer groups to help them improve the marketing of their products and to employ computer-based accounting systems.

ACRONYMS

COCO	Connection Online | Connect Offline
FPS	frames per second
FTF	Feed the Future
GMO	genetically modified organism
HD	high definition
ICT	information and communications technology
ICT4D	information and communications technology for development
IVR	interactive voice response
POV	point of view
PV	participatory video
PVP	portable video player
RCT	randomized controlled trial
SWOT	strengths, weaknesses, opportunities, threats
USAID	U.S. Agency for International Development
VCD	video compact disc
VVC	Video Viewing Club
ZIZO	zooming-in, zooming-out

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INTRODUCTION

For thousands of years, farmers have had extremely limited access to information sources, which has consistently reduced agricultural productivity. Agriculture is fundamentally important to human existence, not only so the population can eat, but also because the majority of the world's poor engage in agriculture.

To maximize their productivity and earnings, farmers need a complicated mix of information resources for accurate and actionable information on topics such as planting methods, inputs (such as seeds or fertilizers), weather, disease, and markets to improve their yields and profit. Information can lead to synergies and cooperation between farmers, resulting in strengthened farmer organizations, such as cooperatives, associations, and self-help groups. It is important to remember, though, that information alone may be insufficient. Farmers also need linkages to other players in the value chain, including savings and credit providers, input dealers, aggregators, and individuals involved in markets, storage, and transportation. Without these linkages, information alone may have limited impact in boosting the earning and productivity of farmers.

Traditionally, farmers relied upon inherited practices and their personal networks for this information. The introduction of agricultural extension agents who bring expert knowledge directly to the fields of smallholding

farmers over the past century in sub-Saharan Africa vastly improved upon these informal networks, but the method is expensive and difficult to scale. Whether informally through friends, publicly funded agricultural extension programs, or private agri-dealers, farmers rely on expert information to successfully cultivate their land. This need for expert information is more important than ever in the 21st century if farmers are to successfully adapt to quickly changing climates and market demands.

For agricultural development practitioners, the challenge is often how to best deliver this information to farmers. We know that agricultural extension services delivered through face-to-face training and demonstration plots results in improved farmer productivity when they are well executed. Many agricultural development projects have increased the number of farmers served by leveraging their trainers through a variety of train-the-trainer approaches, such as training "expert" farmers or farmer associations to train other community members. These approaches can be effective, but they risk potentially diluting the clarity of the message.

Complicating this further is the fact that the most efficient and cost-effective way to deliver information to farmers often varies not only from region to region, but also from person to person. While some farmers may be more likely to act on information they receive from an agricultural extension agent, others might be more comfortable with advice from friends or farmers of a similar background. Recognizing this complexity, therefore, it is important to consider a wide range of options for sharing agricultural information with farmers. Perhaps more so than ever, modern information and communication technologies (ICTs) provide farmers with the opportunity to have their voices heard. This is a break from traditional methods of sharing information, which were essentially one-way, top-down channels from providers to the farmer. Modern ICTs present an opportunity to better align information to the needs and interests of individual communities.

New ICTs — especially mobile technologies — also create a tremendous opportunity for communicating in a personalized manner to individual farmers on a massive scale, though they can often be difficult for rural, low-literate farmers to understand and use. Also, the myriad new technologies available are difficult to assess and evaluate. Some of these technologies, like radio, have been around in one form or another for decades. Others, like mobile phones, computers, and video have only recently begun to appear in any noticeable concentration in rural communities around the world, particularly in sub-Saharan Africa.

WHAT IS THE PURPOSE OF THIS TOOLKIT?

USAID projects and other implementing organizations provide training to farmers and other parties along the agricultural value chain on a wide range of topics. This toolkit is designed to help these projects and organizations use low-cost video to augment the traditional agricultural development activities and extension services they are providing. It is important to stress that this toolkit does not assume that video media is the most appropriate solution for disseminating agricultural information. Rather, given its growing accessibility due to the increasing availability of low-cost digital video cameras and editing software — and the increasing use of video media in donor-funded agricultural development projects — this toolkit aims to enable practitioners to develop a more systematic approach to using low-cost video as one of the mediums through which they share information with farmers.

WHY SHOULD YOU CONSIDER USING LOW-COST VIDEO?

Using low-cost videos within your agricultural development project can be an effective way for increasing the scale of your activities by leveraging the expertise of local experts and farmers for a broader audience. Since

LOW-COST VIDEO is defined here to mean short, modular videos that are produced by local players using basic equipment and often free editing software.

It is important to always consider the total cost, quality, and potential benefit of any video intervention. For example, a low-cost video that costs $2,000 to produce but only impacts 200 farmers may be less cost effective than a $10,000 professionally produced video that impacts 1,500 farmers.

Your final decision regarding how to structure any use of video should be made based on the likelihood of achieving your objectives, balanced by cost and quality, and not just one of those criteria taken in isolation.

the videos may be created in the field by your staff, the cost will be lower than professionally produced videos, and the turnaround time from concept to final product will likely be much faster. Given the cost and time benefits, you will also likely be able to create many more videos than you would be able to do otherwise. Also, if you find that one of your videos is not having the desired impact, it is much less expensive to create a newer, more effective video than it would be using a professional videographer. Last, producing videos with local stakeholders will likely increase local ownership of content, empower local farmers by giving them a voice, and increase local exposure to ICT tools. Of course, it takes more than just providing hardware to achieve any of these things. By the time you have finished using this toolkit you will not only be able to create low-cost videos, you will be able to incorporate a structured and effective low-cost video activity into your agricultural development project.

WHAT IS THE INTENDED AUDIENCE OF THIS TOOLKIT?

The primary audience of this toolkit is USAID implementing partners and other development organizations that are using or planning to use video to enhance their agricultural and rural development project impacts.

Although a number of different video production models exist, this toolkit focuses specifically on low-cost video created by local field staff, farmers, and local experts. Preference in the toolkit is given to creating content that farmers may find helpful in their everyday work rather than creating cinematic masterpieces. That said, you will still likely find value from this toolkit even if you are planning to hire a production company or professional videographer to produce your videos.

By the time you have finished using the toolkit, you will have developed an implementation plan for integrating video into your agricultural development work.

WHAT WILL I FIND IN THIS TOOLKIT?

There is no one-size-fits-all solution or approach to using low-cost video. What works well in one context or situation could fail to generate interest elsewhere. As such, this toolkit will not provide you with a prescribed model. Instead, it aims to guide you through a series of questions that will help you and your team to design a low-cost video activity that best suits your own objectives, beneficiaries, and project realities. To facilitate this process, each Component of this toolkit begins with learning objectives and ends with critical success factors that you will need to consider when implementing your activity.

The toolkit is divided into the following six components:

- **COMPONENT 1: How is low-cost video currently being used in agricultural development?**
  This Component provides an overview of some of the ways that video is currently being used in agricultural development, particularly for extension services. It includes illustrative examples from organizations both in Africa and elsewhere, along with contact information, websites and other resources that you can use to learn more about a given approach.

- **COMPONENT 2: Is low-cost video an appropriate way to achieve our objectives?**
  Before you begin using low-cost video, it is important to assess if video is really one of the most appropriate means to address the objectives you are trying to achieve. Once you decide that video is an appropriate means, you will need to determine which type of video is best suited to your context and objectives (i.e., low-cost,

professional, etc.). It is also important to assess whether you currently have the capacity to work with video, and if not, what steps you can take to develop that capacity. This Component will guide you through a process of assessing the appropriateness of a variety of ICT and traditional solutions to determine if video is, indeed, a good fit based on your own organizational, technical, and financial capacity.

- **COMPONENT 3: How can we create our own agricultural extension videos?**
  This Component will help you to identify who you will want to train and determine what capacity they will serve in the process. It includes suggested techniques for producing videos that meet a baseline quality standard, with a focus on drafting, recording, and editing your video. Finally, it includes suggested techniques for lowering barriers to entry so that your team is more likely to produce its own videos, including simple ways to provide incentives for video production. It is not meant to be a comprehensive technical guide on how to create videos, although technical tips and references are included.

- **COMPONENT 4: What is the best way to disseminate our videos?**
  The means through which you disseminate your videos will vary depending on your target audience and the local context. It is important to develop a dissemination process that is appropriate to the context you are working in if you want to maximize the likelihood of the videos having an impact. Otherwise, even the best videos could end up being relegated to the virtual dustbin. This Component includes suggestions for different dissemination methods, including both technical and social considerations. It will help you to assess which method(s) might be most appropriate for your needs and how to use continuous feedback to improve your dissemination approach.

- **COMPONENT 5: How can we track the impact that our videos are having on farmers?**
  Once videos have been produced and shared, it is important to learn how they are being used and what, if any, impact they may be having. This Component highlights various ways that you can track video usage and measure impact. In addition, it includes suggestions for how to capture farmer feedback to better inform the creation of new content development.

- **COMPONENT 6: What are the technical considerations we need to keep in mind?**
  There are a number of technical choices that need to be made before you can begin shooting or disseminating any video. This Component includes overviews of the different types of low-cost video recording devices, their strengths, weaknesses, and examples of situations for which they may be most appropriate. It also covers peripheral devices, editing software, and other important technical choices. This section will not make recommendations for the best devices. Instead, it aims to inform you of likely technical considerations, so that you can assess what is most appropriate for your situation.

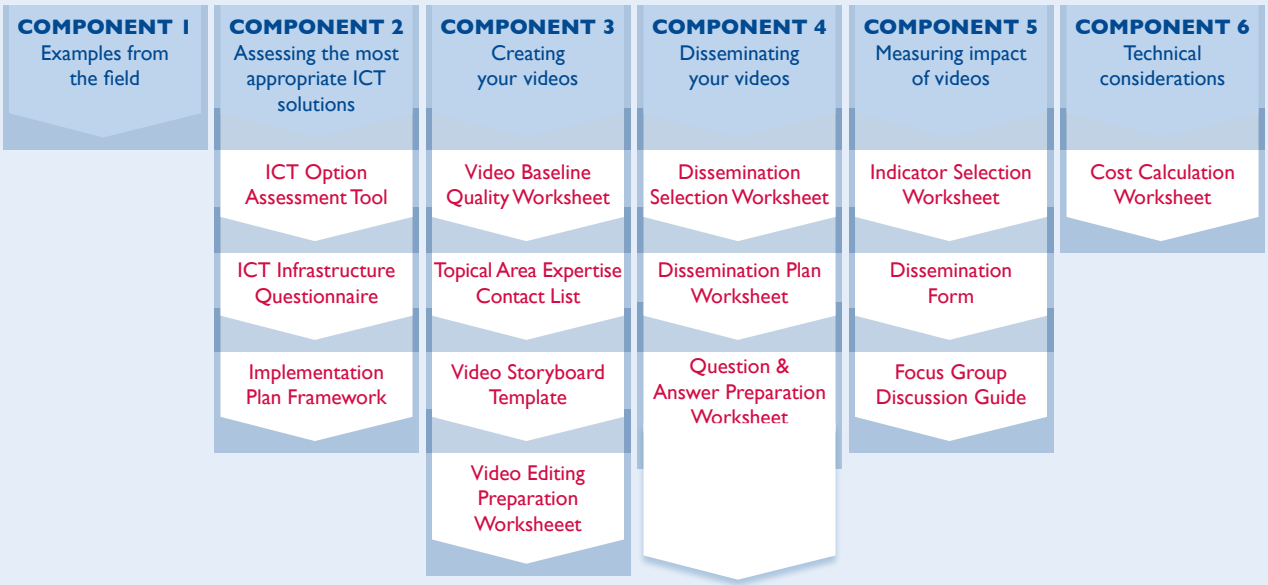
HOW SHOULD I USE THIS TOOLKIT?

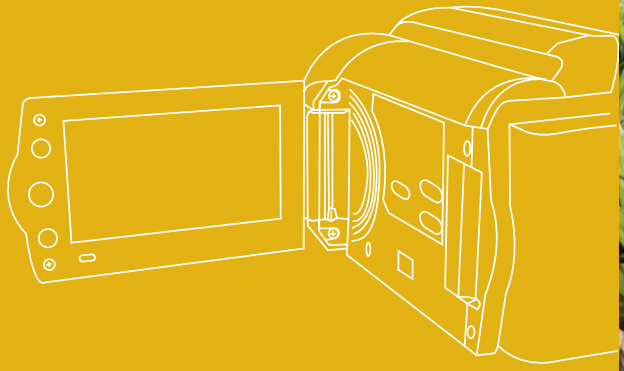
In each Component, you will find helpful worksheets and templates, which are also included in soft copy on the accompanying DVD. These are meant to help you tailor the design of your implementation plan to your specific situation. It is recommended that you read each Component sequentially prior to implementing any video activity. Doing so will enable you to develop a detailed plan that is more likely to address most of the issues you will encounter during implementation. That is not to say that your plan should remain static. Once you have begun to implement your activity,

you may find that certain assumptions you made have changed or that the realities of implementation are different than you had imagined. That is perfectly normal and to be expected. Make sure to revisit your plan along with relevant Components throughout the implementation phase and revise it as necessary.

If you have already started implementing an activity with farmers using low-cost video prior to reading this toolkit, first write down the main challenges you are experiencing. Then, read through the toolkit (or relevant Components) with these in mind and make adjustments to your current activity as appropriate. Before making any significant changes to what you are already doing, you may want to consider conducting a small pilot activity with your intended beneficiaries to ensure that the changes will actually address the challenges you are facing.

Component and Worksheet Overview





HOW IS LOW-COST VIDEO CURRENTLY BEING USED IN AGRICULTURAL DEVELOPMENT?

This Component provides an overview of some of the ways that video is currently being used in agricultural development, particularly for extension services. It includes illustrative examples from organizations both in Africa and elsewhere, along with contact information, websites and other resources that you can use to learn more about a given approach.

COMPONENT GOALS

BY THE TIME YOU HAVE FINISHED THIS COMPONENT YOU WILL:

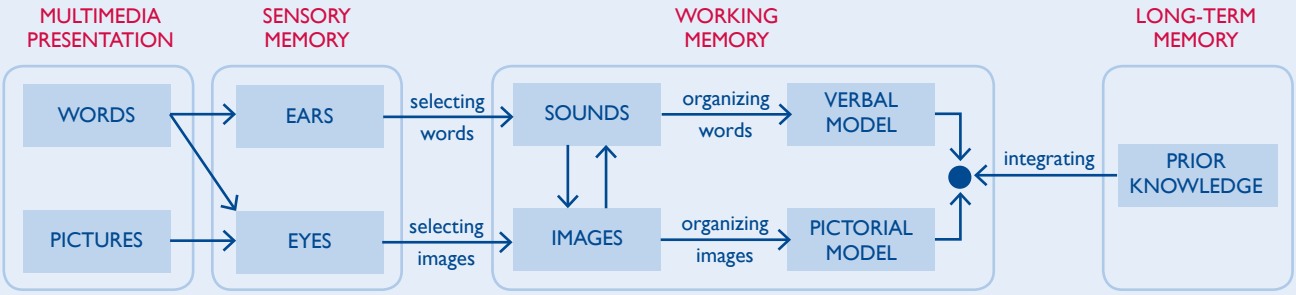
✓ *Understand how video is currently being used in agricultural development, particularly for extension services.*

For more examples of ICT4D project failures or to find a FAILFaire near you, check out: http://failfaire.org/

IT IS NOT UNCOMMON for development practitioners to find themselves enamored by the latest technology. Most of us know of at least a project or two that discovered that, for one reason or another, the technology that they thought would be a game changer ended up as an absolute failure. FAILFaires, which provide an opportunity for international development practitioners to share information about unsuccessful mobile and ICT interventions, have sprung up as an opportunity to learn from what went wrong. Video is no stranger to such failure. A common anecdote goes something like this: "We gave our beneficiaries video cameras, but they never used them. I'm not exactly sure why." The truth is that effectively using video for development is never as easy as simply handing out cameras.

Rather than focusing on all of the ways that video has failed to live up to expectations, this Component will provide a snapshot of some of the organizations that have demonstrated success using video without having to invest massive amounts of resources. Although not a panacea, when done right, video has proven to be a powerful way to share a wide variety

Figure 1: Depiction of cognitive theory of multimedia learning[1]



[1] Mayer, R. E. & Moreno, R. (2000). A Learner-Centered Approach to Multimedia Explanations: Deriving Instructional Design Principles from Cognitive Theory. [http://imej.wfu.edu/articles/2000/2/05/index.asp. Accessed on February 17, 2012].

of agricultural information with farmers. The impact of multimedia, such as video, on learning has even been supported by research. Richard Mayer, a cognitive psychologist at the University of California, Santa Barbara has done extensive research on the benefits of multimedia learning — specifically of audio and visual inputs — on recall (See figure 1 on preceding page).

Videos produced by each of the organizations highlighted below are included on the accompanying DVD.

Since the sector is rapidly evolving, this is not meant to be a comprehensive list, nor is it meant to suggest one approach over another. It is important to remember that each situation is unique, so what has worked in one project may not always transfer to a different context or environment. Although not all of the examples provided here are using low-cost video or working directly with farmers, they should at least provide you with a general understanding of some of the possibilities that currently exist for using video to enhance agricultural development activities and extension services. They should also prove helpful as you work on developing your own implementation plan throughout the course of this toolkit.

DIGITAL GREEN

WHO ARE THEY?

Digital Green is an international NGO registered in the U.S. and India that uses a mediated model to disseminate targeted agricultural information via digital media to small-scale and marginal farmers in India. To date, their partners in India have produced more than 2,000 videos and worked with almost 90,000 farmers. They are also working in partnership with iDE Ethiopia to bring their system to farmers in Ethiopia as well. They work in partnership with existing extension systems, NGOs, and the private sector, which helps them to establish scale, generate trust, and leverage domain expertise. Their system is based on a hub (district-level) and spoke (village-

level) model, with multiple spokes benefiting from each nearby hub. All videos are locally produced using low-cost equipment and primarily follow a facilitated training format with farmers and experts directly explaining the topic to the viewer.

The Digital Green system consists of four primary elements:

1. Using a participatory process for local video production;
2. Employing a human-mediated instruction model for video dissemination and training;
3. Deploying a hardware and software technology platform to exchange data in areas with limited internet and electrical grid connectivity; and
4. Utilizing an iterative model to progressively address the needs and interests of the community using both web-based analytical tools and interactive voice response (IVR) phone-based feedback channels.

WHAT TECHNOLOGIES ARE THEY CURRENTLY USING?

Digital Green uses pocket video camcorders to record videos with wireless microphones and tripods to maintain audio and video quality. They primarily use Windows Movie Maker for editing, with some more advanced sites using Sony Vegas. Finished videos are disseminated to community members via small, hand-held projectors called pico projectors. In the past, they also made use of DVD players and televisions to play their videos. They also employ a phone-based IVR system and online/offline web-based data management and analytical tools to collect farmer feedback and to measure impact.

HOW DO THEY PRODUCE THEIR VIDEOS?

Videos are produced at the local level by a trained team of 4-6 video producers in each hub. The community video producers work in pairs to create 6-8 videos per month with farmers throughout different villages in

their district. The videos are approximately 8-10 minutes long and feature a variety of topics including testimonials and demonstrations of improved production techniques, market linkages, and government schemes. Given the variability of local agricultural and environmental resources, videos tend to focus on techniques that are either improvements or possible alternatives to current practices. All video topics are selected to correspond with topics that are already being promoted by its partners through existing extension systems. Digital Green's partners also employ domain experts to review each video to ensure the accuracy, clarity, and quality of all content.

WHAT ARE THEIR AVERAGE COSTS AND HOW ARE THEY FUNDED?

Digital Green views its work primarily as a public good, and therefore relies on grant funding for most of its technology development and training-of-trainer activities. They also work with their partners to institutionalize business models to support recurring costs. In India, Digital Green estimates that Rs. 2 (roughly US$0.04) per farmer per week covers the recurring costs of the system, primarily facilitator compensation. They further estimate that Rs. 4 per farmer per week would also cover the capital costs of the system in addition to facilitator costs. These fees are based on a minimum of 90 participating farmers per village in a year. Payments vary across partners, but this model seems to be gaining traction in India.

HOW DO THEY DISSEMINATE THEIR VIDEOS?

All of the video content created by each Digital Green hub is uploaded to a YouTube channel and also is available via an advanced search mechanism on the organization's website. District-level hubs, which tend to be partner offices, serve as distribution centers for the 100-500 local villages (or spokes) in their district. Within each village, a facilitator with a pico

Check out Digital Green's virtual guides on video production and video dissemination on YouTube.

http://www.youtube.com/watch?v=C8IJrvlTEqs

http://www.youtube.com/watch?v=tag3hL74AJg

projector serves between 6-8 groups of 10-20 farmers. Groups served tend to be existing women's self-help groups or farmer clubs. Screenings are held with each group on a regular schedule in the evenings each week.

To increase the likely adoption of new farming techniques or approaches, all screenings are facilitated and include a discussion with farmers about the content of each video afterwards. Digital Green has also found that introducing video to a community in a particular sequence can pique interest and increase adoption. They use the following sequencing system when starting in a new village:

1. Entertaining clips, such as a women's group singing folk songs, to attract an audience;
2. Testimonials and interviews with progressive farmers who share the concepts and experiences associated with the practices;
3. Brief highlights of a broad spectrum of the practices that they plan to promote;
4. Comparative demonstrations with progressive farmers that visibly — often humorously — show the benefits of the practices;

5. Familiar farmers from the local vicinity (preferably, the same village) attempting the practices; and
6. Experts detailing concepts and step-by-step instructions for using each of the practices.

HOW ARE THEY MEASURING IMPACT?

Digital Green uses a robust COCO (Connection Online | Connect Offline) database to track a variety of data using user-defined dashboards. This system allows anyone, from anywhere in the world, to get real-time information about things such as number of screenings held each day, average number of attendees, average time to produce a video, and farmer adoption/experimentation rates.

Preliminary research conducted by PRADAN and VARRAT, two of Digital Green's partners in Orissa, India, found that integrating the Digital Green model into existing extension services lowered the cost of adoption from $10-18 per instance to $3-4. In addition, a preliminary and limited sample analysis found that within eight months of deploying the Digital Green system, the average cumulative increase of income rose by $242 per farmer in a cluster of villages in Orissa. They are now in the process of planning a more rigorous evaluation of the impact of their system using a large-scale, multi-intervention, randomized controlled trial.

WHERE CAN I GO TO LEARN MORE ABOUT DIGITAL GREEN?

Digital Green shares a wealth of information on their website at http://www.digitalgreen.org. They also have fully downloadable versions of their Quality Assurance Framework and Standard Operating Procedures, which provide a detailed explanation of their model from start to finish. Although based in India, Digital Green also offers in-depth trainings on how to implement their approach internationally. For more information, contact contact@digitalgreen.org.

WORLD COCOA FOUNDATION VIDEO VIEWING CLUBS (VVCS)

WHO ARE THEY?

The World Cocoa Foundation originally established the Video Viewing Clubs in Ghana under the Sustainable Tree Crops Program (STCP), which ran from 2006-2011. Over the course of the program, 95 VVCs were established, reaching more than 2,500 cocoa farmers. The videos are a mix of narrative, facilitated farmer interviews, and narrator-led instructional content.

WHAT TECHNOLOGIES ARE THEY CURRENTLY USING?

Videos were recorded using professional camcorders with external microphones and full-size tripods. Dissemination was done using televisions, DVD players, and a generator to power the equipment.

HOW DO THEY PRODUCE THEIR VIDEOS?

The program employed a master trainer who worked with a team of eight trainer farmers to develop the scripts, act, film, and narrate video clips. A total of 11 videos were developed sequentially based on a technical manual used at farmer field schools. Scripts were developed post-shoot so that they could be translated into other languages and subtitled as necessary.

WHAT ARE THEIR AVERAGE COSTS AND HOW ARE THEY FUNDED?

The World Cocoa Foundation estimates that it cost about $78 per farmer to train using the VVCs. This includes the cost of training a facilitator, viewing equipment (e.g., televisions, video players, generators), and other

miscellaneous club implementation costs. It does not include the cost of producing each video, which is estimated at roughly $12,000 per episode. Through the end of 2011, the program was funded by international government and private-sector sources.

HOW DO THEY DISSEMINATE THEIR VIDEOS?

Viewing clubs meet on a weekly basis for roughly three to four months and consist of approximately 20-25 members. Each session is mediated by a facilitator who engages farmers in discussion on the content of the videos.

HOW ARE THEY MEASURING IMPACT?

The program administered a formal survey to 32 randomly selected female program participants and 30 control female farmers at the end of its pilot phase in 2008 to assess changes in adoption, knowledge diffusion, and perception of the VVCs. Although the survey did not find any significant differences in the adoption rates or yields between the control and treatment groups, it did find a significant increase in knowledge of improved practices.

WHERE CAN I GO TO LEARN MORE ABOUT VVCS?

The World Cocoa Foundation can be found online at http://www.worldcocoafoundation.org, although at the time of print they had relatively little information available on the VVCs. For more information, contact Ethan Budiansky, Cocoa Livelihoods Program Manager, at Ethan.Budiansky@worldcocoa.org.

AGRO-INSIGHT

WHO ARE THEY?

Agro-Insight is an enterprise based in Belgium that creates highly polished videos using a team of professional or locally trained videographers. Videos are well-researched and scripted in advance, and primarily in a narrator-led instructional format with some farmer interviews.

Their model is based on the zooming-in, zooming-out (ZIZO) method, which considers both local and regional relevance when developing videos to maximize the number of farmers likely to be impacted by each video. The ZIZO approach revolves around five key principles:

1. Identify a generic topic of regional relevance;
2. Learn about context diversity through participatory research;
3. Develop videos with farmers and local field workers;
4. Test videos in various contexts and fine tune them; and
5. Scale-up and scale-out.

WHAT TECHNOLOGIES ARE THEY CURRENTLY USING?

Agro-Insight uses professional camcorders and full-sized tripods to record video, and clip microphones to ensure high audio quality. All of their videos are edited using Adobe Premiere Pro, which is a high-end video production program. The most recent version at the time of writing is CS5.5, which costs $799 retail and requires at least 2GB of RAM and an Intel® Core™2 Duo or AMD Phenom® II processor.

VIDEO-MEDIATED FARMER-TO-FARMER LEARNING FOR SUSTAINABLE AGRICULTURE

Agro-Insight conducted a scoping study for SDC, GFRAS, and SAI Platform on the production, dissemination, and use of farmer training videos in developing countries in mid-2011. The study included research, expert interviews, and an online survey with 500 respondents from research institutes, universities, and NGOs. The final report entitled, *'Video-mediated farmer-to-farmer learning for sustainable agriculture'* is an interesting read for a broad perspective of how video is being used for agricultural extension, various production and dissemination methods, some impact to date, and challenges and opportunities for the future. Although the report was written through the lens of Agro-Insight's own approach to video, the report is still a worthwhile read for projects that plan to venture into video development. A full version of the report can be accessed online at: http://agroinsight.com/downloads/articles-divers/Farmer-to-farmer-video-FINALREPORT-Van-Mele-2011.pdf

HOW DO THEY PRODUCE THEIR VIDEOS?

Videos are created with the input of local farmers, who assist with identifying topics, providing input for script development, and demonstrating practices. The actual recording, editing, and publishing of videos is done by Agro-Insight staff or by locally trained counterparts. All of their videos are scripted and translated into English, French and multiple local languages (depending on demand).

WHAT ARE THEIR AVERAGE COSTS AND HOW ARE THEY FUNDED?

The price of a video produced by Agro-Insight varies depending on the complexity of the topic, scale, location, logistics, and length of the video. Its corporate clients include international research and development agencies, donors, and universities.

HOW DO THEY DISSEMINATE THEIR VIDEOS?

Dissemination methods vary based on the local partner, although the primary means of distribution are through the internet, video compact disc (VCD), and DVD. Agro-Insight's videos are also distributed through the Access Agriculture website at http://www.accessagriculture.org.

Large-scale dissemination (e.g., 20,000 multi-language DVDs) is done at regional and national scales through a targeted media campaign and a concerted action of mapping stakeholders. Agro-Insight videos are also broadcast on national television and promoted and used by rural radio stations.

Facilitation is not built into their distribution system, although facilitated viewing groups have been set up by farmers, NGO staff, or extension workers on an ad hoc basis.

HOW ARE THEY MEASURING IMPACT?

Agro-Insight has its own team of experts to conduct impact assessments for its clients, which include econometric approaches, technography, sustainable livelihood analysis and participatory evaluation. Given the diversity of research objectives and approaches used for each assessment, it is not possible to provide an overview of all of their research here. All of the Agro-Insight's impact studies, however, have been published in scientific journals and can be downloaded from their website.

WHERE CAN I GO TO LEARN MORE ABOUT AGRO-INSIGHT?

More information on Agro-Insight can be found on their website at http://www.agroinsight.com/. About two dozen of the extension videos they have produced can be viewed directly through their website, as well as numerous publications related to their work on farmer-to-farmer video. For more information, contact info@agroinsight.com.

INSIGHTSHARE

WHO ARE THEY?

InsightShare is an organization based in the UK that focuses on participatory video (PV), which is a set of techniques used to involve groups or communities to shape and create their own videos. They work with development agencies, NGOs, and research institutions to help create their own PV activities and have helped to establish community-owned People's Video Hubs in nine countries across the world, including Cameroon, Kenya, and South Africa. Although their videos are not focused exclusively on agricultural topics, they have worked with farmers in several countries.

Their approach uses experiential learning, including games and exercises, to help participants rapidly learn how to create their own videos. InsightShare's PV methods value local knowledge, seek to build bridges between communities and decision makers, and empower people to exercise greater control over decisions affecting their lives.

They have also developed a practical guide to using PV entitled, Insights into Participatory Video: A Handbook for the Field, which is available to download for free in English, French, Spanish, and Russian on their website at: http://insightshare.org/resources/pv-handbook. This handbook is a must-read for anyone interested in using participatory video in their projects.

WHAT TECHNOLOGIES ARE THEY CURRENTLY USING?

InsightShare's participatory video projects typically employ "pro-sumer" camcorders and other basic video production equipment (e.g., tripods, microphones, headphones, etc.). The cameras used are of high quality, but the primary considerations are ease of use and ability to attach an external microphone and headphones. A current favorite camera for InsightShare is

the Canon HV40, a reliable and high-performing camera that is at the top end of the price scale at $1,200. Less-expensive cameras sometimes used are typically priced around $700-$900.

Videos produced by participants through InsightShare's projects tend to be edited on Apple laptops (MacBook Pro or MacBook) using either Final Cut Pro (professional editing software) or iMovie (Apple's equivalent to Windows Movie Maker), depending on who is editing and how much training time is available. The 'hubs' that have been developed by InsightShare over the last three-to-four years all use MacBook Pro laptops with Final Cut Pro software.

HOW DO THEY PRODUCE THEIR VIDEOS?

Participatory video places representatives of the 'community' (e.g., a village, town, interest group, profession, etc.) in control of all aspects of video production as a tool for exploring, investigating, understanding and communicating an issue or subject. InsightShare's process seeks to create safe and supportive spaces within which the power of video can be harnessed to unlock knowledge, understanding, abilities, passions and perspectives that can be shared with one another and, in turn (and if appropriate), with the wider community and beyond.

Participants undertake every role in the production process, from devising storyboards, to operating the camera, to presenting or interviewing, and typically all of the post-productions processes as well, although editing may be undertaken by the facilitator(s) in collaboration with the participants. Whether the mouse (controlling the editing software) is in the hands of the participants or the facilitators, it is the group as a whole that decides what to include or exclude, in which sequence to place images and sound, and ultimately what story or narrative is being told. A rigorous participatory 'paper editing' process is always undertaken with the entire group to enable a consensus around these crucial decisions prior to any actual cuts being made.

WHAT ARE THEIR AVERAGE COSTS AND HOW ARE THEY FUNDED?

InsightShare undertakes projects for a wide range of NGOs and agencies as a consultant, providing participatory video facilitation skills and capacity building trainings across a bewildering array of countries, communities, and themes. InsightShare also delivers its own participatory video projects through grants from a range of trusts and foundations, typically in partnership with local or national NGOs or CBOs with whom they have an established and trusted relationship. Costs vary depending on the scale and the duration of the projects being delivered, from short-term projects delivered over two to four weeks, to long-term capacity-building programs and 'hub' development projects that span two to three years.

HOW DO THEY DISSEMINATE THEIR VIDEOS?

Local screenings are central to most participatory video projects and are typically organized to ensure the maximum opportunity for the wider community to attend. The screenings often take place in a central community location and are timed so that they do not to interfere with other key activities in the working day or broader calendar (e.g., harvesting periods). Video projectors and public address systems are regularly used to create a cinema screen on a sheet or wall, although televisions with additional speakers are also used when necessary.

Depending on the needs of the audience and the participants (as authors and owners of any materials produced), the videos from these projects are copied to DVD, VHS, CD-ROM and/or uploaded to the internet for broader dissemination. In general, the dissemination strategy follows the aims and objectives of the participants creating the content, and the needs and preferences of the audience being targeted.

HOW ARE THEY MEASURING IMPACT?

InsightShare's participatory video projects often incorporate a range of monitoring and evaluation techniques from the outset. The principle domains often center on impacts to the immediate community and the participants themselves in recognition of the personal, inter-personal and local orientation of participatory video as a tool for change. Facilitators deploy many different participatory monitoring approaches throughout the process, and invite participants to take an active role in interrogating and evaluating the process, its delivery, and outcomes. Partners and clients are also engaged with evaluations of projects and the long-term monitoring of impacts and outcomes for the individuals and communities involved, as well as on any issues approached.

WHERE CAN I GO TO LEARN MORE ABOUT INSIGHTSHARE?

InsightShare's website (http://www.insightshare.org) includes an overview of their approach to PV, details on the services they provide, case studies, resources, and participatory videos on a range of topics created by partner projects over the years. For more information, contact info@insightshare.org.

The following example does not work specifically with farmers or agricultural extension services, although it may also be of interest to you as you begin planning your own activity.

ONE MEDIA PLAYER PER TEACHER (OMPT)

WHO ARE THEY?

OMPT is an initiative by a U.S.-based nonprofit organization called Polder, Inc. Polder offers development organizations low-cost, portable, and self-powered audio visual equipment, along with learning resources and trainings on using low-cost video. They also conduct field trials on equipment in challenging conditions typical in the developing world. Their team can make recommendations on the most appropriate technology solution to meet the needs and environment that you are working in.

WHERE CAN I GO TO LEARN MORE ABOUT OMPT?

OMPT can be accessed online at http://www.ompt.org/. Their website includes information on their recommended technology solutions, and techniques and best practices for producing and disseminating video. For more information, contact Matt York at myork@ompt.org.

NOTES


2

IS LOW-COST VIDEO AN APPROPRIATE WAY TO ACHIEVE OUR OBJECTIVES?

Before you begin using low-cost video, it is important to assess if video is really one of the most appropriate means to address the objectives you are trying to achieve. Once you decide that video is an appropriate means, you will need to determine which type of video is best suited to your context and objectives (i.e., low-cost, professional, etc.). It is also important to assess whether you currently have the capacity to work with video, and if not, what steps you can take to develop that capacity. This Component will guide you through a process of assessing the appropriateness of a variety of ICT and traditional solutions to determine if video is, indeed, a good fit based on your own organizational, technical, and financial capacity.

COMPONENT GOALS

BY THE TIME YOU HAVE FINISHED THIS COMPONENT YOU WILL HAVE:

- ✓ *Decided if video is an appropriate option to achieve your objectives.*
- ✓ *Developed a draft implementation plan for your video activity.*

WHEN USING TECHNOLOGY IN A DEVELOPMENT PROJECT, it is not uncommon to start with a technology solution in mind and then determine how to best use it to achieve our objectives. While this may result in the successful application of technology, it can also be highly limiting because it locks us into viewing the challenge through whichever technology lens we have chosen. As the old saying goes, 'if all you have is a hammer, everything looks like a nail.' This is why it is important to first assess which option — whether video or another method — is the most appropriate to address the challenges you are trying to overcome or objectives you are trying to achieve.

To do this, we need to take a step back. Instead of accepting video as a foregone conclusion, this Component will guide you through a process of assessing the appropriateness of a variety of ICT and traditional solutions to determine if video is, indeed, a good fit based on your own organizational, technical, and financial capacity. It is possible that another ICT solution, or a more traditional solution, may be even more appropriate in your situation. If that is the case, you will be thankful to determine that before you have invested the time and resources into video. Conversely, if you determine that video is appropriate for your situation, the process will provide a foundation from which to build your own work with video.

HOW DO WE ASSESS THE APPROPRIATENESS OF DIFFERENT ICT OPTIONS?

To start, you will want to write out your objective. It might be helpful to discuss this with your project team first to make sure that everyone has the same understanding of what you are trying to achieve. Depending on how broadly you have defined your objective, certain options may be more or less appropriate for different purposes or type of information. For example, information about agronomic practice may

be best communicated through visual means (e.g., demo plots, video, face-to-face exchanges), whereas price and weather information may be better provided using mobile phones or bulletin boards. Similarly, a public awareness campaign may be best done through mass media, whereas training may be best accomplished through mediated exchanges with farmers.

It is best, therefore, to make sure that your objective includes the type of information you plan to provide and the purpose of providing that information. Rather than saying, 'Improve agricultural extension services for smallholder farmers in Mali,' which could include dozens of specific activities, you might want to consider something more specific, like: 'Increase productivity of smallholder farmers in Gao region of Mali through expanded access to information on best farming practices.'

Once you have agreed upon your objective, it is important to lay out the context in which you are working. Although you have already most likely mapped out this context as part of your broader project design, it is helpful to do so again here, with a particular focus on the profile of your typical target beneficiary and the current ICT infrastructure in the area where you will be working. This information will be helpful when completing the **ICT Option Assessment Tool** found later in this Component.

Determining the profile of your typical beneficiary will help you to assess which ICT solutions will likely be most appropriate to their needs and capacity. For example, if your typical beneficiary is illiterate, then using SMS text messages to disseminate information to them may have limited impact, even if there is high mobile phone penetration in the area where you are working. Below is a list of questions that you may want to consider asking about your beneficiaries.

NOTE

If you have more time and the available resources, you may want to consider using the **ICT Infrastructure Questionnaire** found in the component worksheet section to survey a selection of beneficiaries you are working with. This will help you paint a more complete picture in response to the last question in the list on the following page. Not all of the questions on the questionnaire may apply to your situation, so you should select only the most relevant ones.

SAMPLE QUESTIONS:

- What is the average age of your typical beneficiary?
- What is the average level of education?
- What is the average level of literacy?
- What is the average socioeconomic status?
- What are their primary crops/commodities?
- Are there any cultural considerations or local beliefs that should be kept in mind?
- How do people tend to share information?
- What times of the day are people normally available?
- Where do people tend to congregate?
- Do most farmers participate in farmer or community groups?
- What types of ICT do people generally have access to?
- What is their level of knowledge of and comfort with each of these?

Think about each of these questions and write down your answers as a group on flipchart paper. Remember, the aim is to create a profile of a typical beneficiary. This may not apply to all of the farmers you work with, but it should generally apply to most of them.

Once you have finished answering these questions, you can synthesize your answers into a more concise profile like the one that follows.

Age	40 – 45
Education level	6th grade
Literacy level	Basic literacy. Limited time spent reading.
Socioeconomic status	Subsistence, smallholder farmer
Primary crops	Staple crops (maize, potatoes, onions, beans)
Local beliefs	Significant esteem placed in elders
Information sharing	Mostly word of mouth. Storytelling by elders.
Availability	Mostly in the evenings after sundown
Main points of congregation	Local market, village leader's house
Group participation	Monthly participation in farmer co-op meetings
ICT profile	Enjoys TV, although limited access. Access to a basic mobile phone. Owns radio, listens to it daily. Limited access to electricity.

Using this information, the next step is to use the **ICT Option Assessment Tool** to determine the most appropriate means of achieving your objective given your local context. This tool is basically a modified strengths-weaknesses-opportunities-threats (SWOT) analysis that will help you to consider the potential benefits, costs, and staff capacity for each option. When considering strengths and weaknesses, it is

important to keep your beneficiary profile at the forefront when making your determinations. Often what may appear to be a strength when considered through our own lens of experience may have either limited impact or be a weakness given the local context. For staff capacity, make sure to consider both local and home office capacity. This should include both technical capacity and time available. You might find it helpful to divide technical capacity into four classifications, as follows:

None	No current capacity
Limited/basic capacity	Can use basic features
Intermediate capacity	Able to use most features, but limited ability to train others
Advanced capacity	Able to create/manage content and train others

Identifying your local and home office capacity in advance will help to determine whether it is possible for you to proceed with using a given ICT option even if all other signs point to yes. The fact that your staff may have only limited capacity does not, in and of itself, mean that you should not proceed. You may be able to hire external support or pay for technical training for your staff to bring them to a level where they are able to implement your proposed activity. In addition, the remaining components of this toolkit have been designed so that they can be used by both local and home office staff to develop their own capacity specific to using low-cost video and training others. Like any technical skill, it will require practice and experimentation first, but it is not as daunting a process as it may seem.

You can use these capacity considerations, along with equipment, material, and other potential costs, to help you determine whether the likely total costs of a given option fit within your available budget.

Based on your responses to these criteria, you should be able to determine which option is most appropriate. You may find that more than one option appears appropriate for achieving your objective. If this is the case, you may want to consider piloting activities using each appropriate option to determine which one actually achieves the greatest impact. Alternatively, complementary strategies can be used to further enhance outcomes. For instance, if you determined that both video and radio were appropriate options, it may be that using both mediums to reinforce messaging is the most effective option of all — assuming that you have the capacity and budget to do so. Regardless of which option you choose, you should build in a way to evaluate your methods to refine them over time.

A completed, sample **ICT Option Assessment Tool** has been included on the following page to give you an idea of what it may look like. A blank copy has also been included at the end of this Component. Before you write anything on the template, you may find it helpful to brainstorm ideas with your team so that you have more space. After you have made your final determination, consider sharing it with colleagues or other stakeholders who were not involved in the process to ensure that it makes sense to them. Ask them to evaluate your assessment by double checking assumptions you have made and providing their own recommendations for improvements. Use their input to strengthen your assessment.

OBJECTIVE: INCREASE PRODUCTIVITY OF SMALLHOLDER FARMERS IN GAO REGION OF MALI THROUGH EXPANDED ACCESS TO INFORMATION ON BEST FARMING PRACTICES

	ICT OPTION					
ASSESSMENT CRITERIA	**Basic cell phone (voice + text)**	**Radio / Podcasts**	**Smart phones/ tablets**	**Video**	**Web**	**Other: Billboards**
Strengths of each option	Most farmers have access	High penetration, used by most farmers	Portable, large screen	Most farmers already enjoy watching TV and videos	Currently none in this case, as there is virtually zero internet access	Relatively easy to produce and distribute
Weaknesses of each option	Limited literacy levels	No project access to community radio, currently no mp3 players in community	Zero hardware penetration, concerns about network capacity	Currently TVs only exist in a couple of places in the community	Internet access extremely limited	This has been tried before with limited impact
Current staff capacity	Advanced	Intermediate	Limited	Intermediate, May need to involve training from home office	Advanced	Advanced
Potential costs	Would need to purchase or develop MIS program	Could be done by purchasing mp3 players for community	Would need to purchase devices and provide training on use	Would need to purchase devices and provide training on use	Would need to purchase computers and satellite internet	Cost of billboard rental and materials
Is this an appropriate option? Why?	No — due to limited literacy	Yes — for podcasts/ mp3 players, likely broader outreach than model plots or extension agents	No — lack of staff capacity and penetration	Yes — farmers enjoy this medium, likely broader outreach than model plots or extension agents	No — currently no internet access	No — have already tried this option with limited results

Adapted from a table originally developed by Mark Bell and Judith Payne for the USAID-funded MEAS project (2011), which can be found online at: http://measict.weebly.com/extension-and-ict-options.html

HOW CAN WE PLAN TO IMPLEMENT OUR ACTIVITY?

Once you have finalized your assessment, you may find it helpful to create a more detailed plan for carrying out your activity. One way to do this is by using the Implementation Plan Framework included in the worksheet section at the end of this Component. It will contain much of the same information you have already compiled, but it is designed to help you outline a roadmap for your activity that can be used as a common point of reference for all of your staff and partners. Unlike some planning tools that you may be accustomed to using, this one is likely different in that it starts with the desired consequences, or the 'Why?'

Using this framework you will develop an implementation plan for your video activity that focuses on outcomes, context, and beliefs, in addition to the mechanics of what, who, and how. It also builds in consideration for measuring impact directly from the start of your activity.

Before you read the rest of this toolkit, you should draft an initial implementation plan together with your team as a starting point. You will want to allot at least two hours for this activity to provide enough time for brainstorming and discussion. Make sure to use the framework from left to right. This will help to ensure that all of your decisions related to the mechanics and measurement of your activity are derived from your desired outcomes. As with the other exercises above, you are encouraged to use flipchart paper during this process so that you have enough space to write out everyone's ideas.

As you work your way through the rest of the toolkit, you are encouraged to improve and expand upon your initial draft based upon what you learn along the way. By the time you have finished using the toolkit, you should have a final implementation plan that you can use to guide your video activity.

CRITICAL SUCCESS FACTORS

- Select the most appropriate ICT option.
- Know your target audience.
- Develop a well-thought-out plan.

The following pages include a sample of what a completed plan might look like. This sample is for illustrative purposes and is therefore not too detailed. Your final plan will likely be more thorough than the sample. Remember, though, that this is not meant to be a step-by-step process for how you will implement your activity, but rather an overarching framework for you and your team to use. Take some time to review the sample and try developing your own draft now before continuing to the next Component.

DECISION MAKING & PLANNING FRAMEWORK

1. WHY? DESIRED CONSEQUENCES: IMMEDIATE, MID-TERM AND LONG-TERM OUTCOMES & RESULTS	***What changes do we want to achieve by the time the project is over?*** ***Immediate changes/results?*** Farmer groups will be able to share knowledge and best practices with their members. ***Mid-term changes/results?*** Farmer groups and their members have created learning products that they can share with each other. ***Long-term changes/results?*** Positive changes in farming practices of farmers who use these products.
2. CONTEXT? SITUATION & CHALLENGES; • BARRIERS TO OVERCOME; • ASSETS & OPPORTUNITIES	***Characteristics of the situation in which we work? Barriers to overcome?*** Farmers groups that we work with are all rural. Access to electricity is sometimes sporadic. ***Characteristics of the target audience that we seek to help?*** Limited to no prior experience with technology. Many beneficiaries seem to enjoy watching TV shows and videos when they have access to them. ***ICT assets already present in the community?*** Most farmers groups have access to a TV and VCD player. Access to basic feature phones is common, although smart phones are extremely limited. ***Opportunities that exist within the environment and system that we can leverage?*** Enjoyment of TV shows and a strong tradition of storytelling can be leveraged to create engaging learning products using video.
3. BELIEFS? CORE PRINCIPLES GOVERNING OUR DECISIONS & ACTIONS	***What development principles and non-negotiable values do we have to consider in how we implement our approach?*** Any learning products must be locally driven and created by the farmers and farmer groups themselves.

Adapted from a framework originally developed by Eric Rusten at FHI 360

CONTINUED →

DECISION MAKING & PLANNING FRAMEWORK CONTINUED

4. WHAT? TECHNICAL APPROACH	***Given our responses to sections 1-3, what approach will we take to best achieve our desired consequences?*** We believe that peer-created instructional videos are an effective way to share knowledge and best practices with farmers in a way that is engaging and likely to have impact. Videos will be shown to farmer groups on a weekly basis with facilitated discussion using a hub-spoke model.
5. HOW? CRITICAL STRUCTURAL ELEMENTS, REQUIRED EQUIPMENT	***How will it be implemented?*** *Training and technical support* We will conduct a one-week workshop for district officers, farmer group representatives and select farmers on techniques for effectively creating story-centered instructional videos. District officers will also attend a one-week workshop on how to distribute them to their members. Additional technical assistance will be provided by the local technical lead on an on-going basis. *Dissemination* Videos will be housed at district offices and disseminated weekly at farmer group meetings. As most farmer groups already have access to TVs and VCD players, dissemination will primarily be done via a VCD library, supported by pico projectors in communities without access to DVD players. *Required equipment* We will need to purchase at least 1 pocket camcorder and accessories for each district hub. Pico projectors will be purchased as necessary.
6. WHO? ESSENTIAL ACTORS	***Who will be responsible for implementing this?*** The project's local technical lead and home office project director will be responsible for overseeing all technical support and training. District officers will be responsible for facilitating video screenings with support from the local technical lead as necessary.
7. ARE WE THERE YET? INDICATORS AND MEASURES OF SUCCESS, ASSESSMENT METHODS	Our primary indicators will be the number of videos produced, the number of farmers who have viewed them, and the percentage change in knowledge and practice. We will carry out baseline surveys with farmers to gauge their knowledge and practices at the start. Endline surveys will then be conducted after 6 months from the first video release to assess any change, disaggregated by whether or not they have created or viewed any videos and their frequency of participation. This will enable us to measure whether or not there is a correlation between viewing the videos and positive changes in knowledge and practice.

NOTES

2

WORKSHEETS

ICT Option Assessment Tool

ICT Infrastructure Questionnaire

Implementation Plan Framework

ICT OPTION ASSESSMENT TOOL

OBJECTIVE:

ASSESSMENT CRITERIA	ICT OPTION					
	Basic cell phone (voice + text)	**Radio / Podcasts**	**Smart phones/ tablets**	**Video**	**Web**	**Other: Billboards**
Strengths of each option						
Weaknesses of each option						
Current staff capacity						
Potential costs						
Is this an appropriate option? Why?						

Adapted from a table originally developed by Mark Bell and Judith Payne for the USAID-funded MEAS project (2011), which can be found online at: http://measict.weebly.com/extension-and-ict-options.html

ICT INFRASTRUCTURE QUESTIONNAIRE

QUESTIONS	OPTIONS	ADDITIONAL DETAILS/ INFORMATION
What types of computers are being used? • How many computers do you have? • How many are currently operating? • How old are they? • How do you primarily use this device? (play games, word processing, accounting, etc.)	• Desktop • Laptop • Netbook • Thin client • Low-cost PC – Classmate, XO, etc. • Tablet – iPad, Samsung Galaxy, etc. • PDA • eReader – Kindle, Nook, etc.	
What operating system is being used?	• Windows XP, ME, Vista, 7, etc. • Mac OS • Linux – Ubuntu, Red Hat, CentOS, SUSE, etc.	
What type of internet connection is being used? • How fast is your connection? • Do you have any bandwidth restrictions? • Is your connection set up for a single user or multiple users? • How many computers are connected to the internet? • How do you primarily use the internet (social media, news, educational resources, etc.)?	• Dial-up • ISDN • DSL/ADSL • Cable • WiFi/WiMax • Cellular (GPRS, EDGE, EVDO, G3, etc.) • Satellite - VSAT	

CONTINUED →

ICT INFRASTRUCTURE QUESTIONNAIRE

QUESTIONS	OPTIONS	ADDITIONAL DETAILS/ INFORMATION
What type of mobile phone do you use/have access to? • When did you buy it? • Is it pre-paid or post-paid? • If it is pre-paid, how frequently do you change SIM cards? • Does it cost you to receive SMS messages? • How do you primarily use this device (inbound/outbound calls, SMS, etc.)? • Do you receive agricultural information on this device? If so, explain:	• Basic phone • Feature phone • Smart phone	
If you have a smart phone, what operating system does it have? *(Note: the user may not know the answer to this question, so the enumerator will need to know how to check)*	• iPhone • Android • BlackBerry • Windows Mobile • Symbian • Other	
What is your primary source of electricity? • How reliable is your electricity source? (i.e., How frequent are blackouts? How many hours can you use it before power runs out?)	• Public utility • Generator • Solar • Other	

CONTINUED →

ICT INFRASTRUCTURE QUESTIONNAIRE

QUESTIONS	OPTIONS	ADDITIONAL DETAILS/ INFORMATION
If you own a radio, what type is it? • How it is normally powered? (battery, solar, crank) • How do you primarily use this device (news, entertainment, educational shows, etc.)? • Do you receive agricultural information on this device? If so, explain:	• AM/FM • Shortwave • Satellite	
If you own a TV, what type of connection do you have? • How do you primarily use this device (news, entertainment, educational shows, etc.)? • Do you receive agricultural information on this device? If so, explain:	• Broadcast • Cable • Satellite • None (used only with video player)	
If you own a video player, what format can it play? • How do you primarily use this device (watch movies, educational videos, etc.)? • Do you receive agricultural information on this device? If so, explain:	• DVD • VCD • VHS	

CONTINUED →

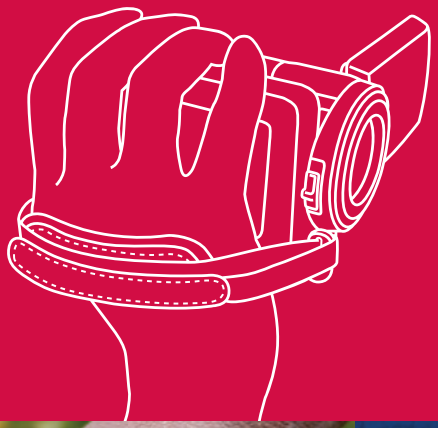
ICT INFRASTRUCTURE QUESTIONNAIRE

QUESTIONS	OPTIONS	ADDITIONAL DETAILS/ INFORMATION
If you own an MP3 player, what type of display does it have? • How do you primarily use this device (listen to music, educational programs, etc.)? • Do you receive agricultural information on this device? If so, explain:	• Screenless • Small screen (1-2 lines of text) • Standard screen (monochrome or color?)	
Do you own/use a gaming system? If so, what type? • How often do you use it?	• Playstation (1, 2, or 3) • Xbox or Xbox 360 • Nintendo (Wii, GameCube 64, Super, NES) • Handheld (Nintendo DS, Sony PSP, etc.) • Other	
Other: *(This is for additional information that you may want to collect specific to your project.)*		

IMPLEMENTATION PLAN FRAMEWORK

1. WHY? DESIRED CONSEQUENCES: IMMEDIATE, MID-TERM AND LONG-TERM OUTCOMES & RESULTS	***What changes do we want to achieve by the time the project is over?*** ***Immediate changes/results?*** ***Mid-term changes/results?*** ***Long-term changes/results?***
2. CONTEXT? SITUATION & CHALLENGES; • BARRIERS TO OVERCOME; • ASSETS & OPPORTUNITIES	***Characteristics of the situation in which we work? Barriers to overcome?*** ***Characteristics of the target audience that we seek to help?*** ***ICT assets already present in the community?*** ***Opportunities that exist within the environment and system that we can leverage?***
3. BELIEFS? CORE PRINCIPLES GOVERNING OUR DECISIONS & ACTIONS	***What development principles and non-negotiable values do we have to consider in how we implement our approach?***
4. WHAT? TECHNICAL APPROACH	***Given our responses to sections 1-3, what approach will we take to best achieve our desired consequences?***
5. HOW? CRITICAL STRUCTURAL ELEMENTS, REQUIRED EQUIPMENT	***How will it be implemented?*** *Training and technical support* *Dissemination* *Required equipment*
6. WHO? ESSENTIAL ACTORS	***Who will be responsible for implementing this?***
7. ARE WE THERE YET? INDICATORS AND MEASURES OF SUCCESS, ASSESSMENT METHODS	

Adapted from a framework originally developed by Eric Rusten at FHI 360



3

HOW CAN WE CREATE OUR OWN AGRICULTURAL EXTENSION VIDEOS?

This Component will help you to identify who you will want to train and determine what capacity they will serve in the process. It includes suggested techniques for producing videos that meet a baseline quality standard, with a focus on drafting, recording, and editing your video. Finally, it includes suggested techniques for lowering barriers to entry so that your team is more likely to produce its own videos, including simple ways to provide incentives for video production. It is not meant to be a comprehensive technical guide on how to create videos, although technical tips and references are included.

COMPONENT GOALS

BY THE TIME YOU HAVE FINISHED THIS COMPONENT YOU WILL HAVE:

- ✓ *Identified the baseline quality standard for your videos.*
- ✓ *Thought about who will be involved in your video production process.*
- ✓ *Understood the basics of every step of the video production process.*

WE HAVE ALL SEEN VIDEOS that are painful to watch, ones with disjointed storylines, poor audio, distracting transitions, and dizzying camera motions. You may even have the experience of similar videos being created by projects you have worked on. Compared to high-quality videos you have seen created by professionals, this may have led you to believe that it simply is not possible to create low-cost videos. In reality, not only is it possible to make quality videos on a budget, it is not as difficult as it may seem. The key, however, is providing the video-making team with enough guidance so that they are able to create effective videos without professional support. By effective videos, we are not talking about cinema quality, but rather a baseline quality that is engaging and accessible to your intended audience.

Before you begin creating any videos, you should first identify the purpose of your videos and their baseline quality standard. A good starting point for establishing your baseline standard is to define what a video should look like to be useful for your audience. This is best done keeping in mind specific criteria, such as:

With your team, determine which criteria are most appropriate to your situation. You may decide to use the criteria listed above or add/remove criteria. Write down each of your criteria classifications into the **Video Baseline Quality Worksheet**. A soft copy of this template is included on the accompanying DVD in case you need to make any changes. Alternatively, you can recreate the worksheet directly onto flipchart paper. Then discuss with your team what your expectations are for achieving a baseline or bare minimum in each area. A sample, completed worksheet is included below as a reference.

Sample Video Baseline Quality Worksheet

CRITERIA	BASELINE STANDARD
Video Quality (How was the video's stability? Framing? Lighting? Editing?)	At least 90% of all shots are clear, well lit, and stable. No overly distracting scene transitions or camera angles.
Audio Quality (How clear was the sound? Was there background noise?)	All dialogue can be heard. Volume level throughout video is roughly consistent. Background noise and wind is present, but does not distract from the dialogue.
Story Structure (Does the video flow? Does it have a beginning, middle, and end?)	Video has a beginning, middle, and end. Scenes generally flow from one to another.
Message Clarity (Is it clear what message the video is trying to convey?)	It is clear what the objectives of the video. Message is not abstract or confusing.
Engagement (Did the video capture your attention? Did it engage your thinking?)	The overall look of the video and content is engaging. If played to an audience of ten farmers, a minimum of nine of them are engaged and watch the video from start to finish.
Learning (How well did you learn how to perform the activities covered in the video?)	Video provides enough information to enable a viewer to reasonably understand how to carry out the process highlighted on their own or are informed enough to be able to seek out specific resources to enable themselves to eventually carry out the process.

It is possible that once you begin actually creating videos and sharing them with farmers that some of your baseline standards will change. That is fine. The important thing is that everyone on your team is clear about what is expected of them so that they can create effective videos for your activity.

This process will also enable you to determine if it is possible to create videos with your staff and local partners or if you require professional support. For example, if your baseline standard is beyond what seems reasonable for your staff or partners, you may want to consider professional support. This may be especially necessary if you are planning to conduct a mass media or public awareness campaign, which may require a higher level of quality to meet broadcast television standards.

WHO SHOULD CREATE THESE VIDEOS?

More often than not, people fail to create effective videos because of poor training and unclear video standards. Do not let someone's lack of prior experience be your sole determining factor in whether they are able to create videos. Farmers, rural teachers, and field staff -- often without prior experience -- are successfully creating videos in countries around the world.

A great starting point is to determine whether logistics or resource restrictions predetermine some of your decisions and which individuals should be involved. For instance, there may be a limited number of field staff or farmers available to take part in your activities. If you have decided to work in multiple villages in a district, you will want to determine first what structure is most appropriate for your own budget and the technical realities on the ground. If none of the villages you will be working in have computers, then you will probably need to consider doing all editing in the district town or the next nearest place with access to a computer. Also, if you have purchased only one camera per district, you will likely need to base your videographer in a central location.

At the very minimum, you will need at least one person involved per local area that you are working in. This would assume that this individual is responsible for all storyboarding, recording, and editing. Ideally, though, you should aim to have at least two to three trained individuals on all elements of the video creation process in each local area. These do not need to be people who are focused full-time on video creation, but experience has shown that they should have at least three days of time available per video created; this is based on one day for storyboarding, one day for recording, and one day for editing. As a general rule of thumb, editing one minute of final video takes about one hour of labor. Depending on the initial capacity of your team, it may take much longer than this. Initially, therefore, you may want to assume five or six days per video to be safe.

iDE Ethiopia staff learn how to use pocket camcorder at Digital Green training in Ziway, Ethiopia.

Having more than one person who is trained in the process is beneficial for three main reasons. First, staff will be able to test ideas on each other, which will likely result in a better end product. Second, it enables you to split their time worked on each video so that they can continue with their other job responsibilities. Finally, if one of your trained staff leaves, you do not need to worry about all of your technical capacity disappearing.

After making these logistical considerations, another important determining factor should be their interest and track record. Someone who is excited and interested in creating videos may learn faster than someone who is participating out of obligation. Additionally, if someone has a track record for learning and challenging themselves, they may be more likely to take on this new challenge.

Given that predicting the best candidate is not an exact science, you may also want to consider training more people than you actually need. For example, if you have decided that you need five people to work on your video production team, you might want to invite 10 people to any training you provide. This will give you an opportunity to observe everyone during the training before making your final selection. You may find that

some people more naturally take to editing, others more naturally to storyboarding, and so on. Also, if any of the individuals you select to be on your video production team does not work out, you will have trained backups ready to step in.

iDE Ethiopia staff practice recording at Digital Green training in Ziway, Ethiopia.

You should also choose members of your video production team to check the accuracy of the content in each video. Although members of your production team will likely have a background in agriculture, they will not be experts on every topic you plan to feature. Identify who can help you with this process. If you do not already have topical area experts on staff, you will want to identify external experts or resources that you can use for this process. An easy way to organize this is to draw up a list of experts including their name, topic area expertise, and contact information. A basic template for this list entitled, **Topical Area Expert Contact List** has been included at the end of this Component for your use.

Determine a process with each of these experts in advance to define how you will contact them and what is expected of them in terms of information and response time. If you are working with external experts, you should also determine if you will need to provide them with any compensation for their work. The list of experts may include local, regional, and national-level experts. These expert lists should then be distributed to each of your video production teams so that each of them knows who they can contact to check accuracy on a given topic. The contact list template also has a section for 'additional information.' This is where you can enter notes that may be of use to your team, such as 'needs at least two weeks to respond to requests,' 'requires payment,' or 'not available more than once per month.'

Do not forget to use your beneficiaries (i.e., farmers) as a resource as well. Consider engaging farmers in all stages of the video production process. Not only can this be empowering for the farmers, but it can also be a valuable way of increasing local engagement with your activity. This may

also increase the chances of sustaining your activity beyond your project, since farmers who participated in the process will likely feel a sense of ownership over the content and its validity.

WHO SHOULD BE FEATURED IN OUR VIDEOS?

In addition to your video production team, you will need to decide who will be featured in your videos. This will ultimately depend on which style of story you decide to use in a given video (see story style list under the Storyboarding section below for more details). Your videos may include your own staff or topical area experts who conduct interviews or provide direct instruction.

Most of your videos will likely include farmers. Deciding upon which farmers will appear in your videos depends on your video's topic, learning objectives and style, among other factors. If your topic is related to a success story or best practice, you will likely want to ask a farmer who has had success with that practice to star in your video. Using actual farmers is much more authentic than casting actors, and will likely resonate more with your intended audience. You will also want to make sure that you use a diverse cast of farmers across your different videos, looking at gender, scale of farm, local language, etc. Over time, this will help to ensure that your pool of videos appeals to diverse audiences. Be sure to check the local reputations of any farmers you plan on including in your videos. If a farmer has a poor reputation among your target audience, other farmers will be less likely to listen to the message even if it could be useful to them.

When approaching a farmer to ask for their participation, explain exactly how the video will be used and why you are asking them to participate. If you are going to be disseminating the videos beyond the immediate community that created them, you will want to make sure that the farmer

is aware of this. If customary or advisable under local law, you should also consider creating a consent form that you can ask all individuals who appear in your videos to sign — or their parents, in the case of minors. Consent form text can be fairly basic, such as:

> *"I agree to allow [insert name] and/or its partners to publish, copyright, and use videos and/or pictures of me for informational purposes. I understand that these videos or pictures may be published without restriction. I understand that I will not receive payment or other compensation for use of this material."*

Another approach that has been used is to record consent via video instead of using written release forms. You can do this by recording a member of your staff explaining why you are creating the video and how it will be used to the farmers who will appear on camera. If you choose to use video consent, make sure that you save all of your video consent clips both on your computer and backed up on an external device or in the cloud.

It is also important to make sure that whoever you have selected to appear in a video is comfortable with being on camera. You may find a very knowledgeable expert or successful farmer who just is not the right fit for the camera for whatever reason. This could be due to a number of factors, such as an overly reserved personality, a sleep-inducing monotone voice, or a speech pattern/accent that is difficult for most viewers to follow. Depending on how much time you have to help your subjects prepare, you may have to pass over recording individuals who are not camera-ready. If you do use someone who is not camera-ready for one of your videos, it may end up negatively affecting the overall impact of your video — even if the content is exceptional.

WHAT IS REQUIRED TO CREATE EFFECTIVE VIDEOS?

As mentioned earlier, this toolkit will not provide thorough details on how to train your team to create videos. Much of this information has already been created in more detail elsewhere, so it would be redundant to recreate it here. It will, however, include all of the major considerations you will need to make to structure your video.

Quality technical training manuals and curricula on video creation that you may want to consult for more details or specific activities include:

InsightShare's Participatory Video Handbook (http://insightshare.org/resources/pv-handbook)

Vimeo Video School (http://vimeo.com/videoschool)

MediaCollege.com (http://www.mediacollege.com/video/)

Youth Channel's Documentary Curriculum (http://www.youthchannel.org/files/YC_DocCurric.pdf)

Digital Green's Standard Operating Procedures (http://digitalgreen.org/sop/)

Witness's Video Advocacy Resources (http://www.witness.org/training/resources)

STORYBOARDING

The first part of the process to producing your own videos is creating a storyboard. A storyboard is important because it enables you to sketch out what your video will look like and what content it will include. This is different from a script, which is an extremely detailed, line-by-line outline of a video. Storyboards provide the overall gist of each shot and serve as a general guide to your video production team and subjects. A clearly written storyboard will save time during script writing, recording, and editing and reduce the likelihood that you will forget to record important elements. If you are planning to eventually subtitle or dub your videos into other languages, it will be necessary to have a script as well. This can be done either in advance of recording your video or after the fact by transcribing the dialogue in your video for translation.

When creating your storyboard or script, it is important to make sure that the content that you plan to include in your videos is accurate. If your videos are inaccurate, not only will they fail to achieve their objectives, but they may also lead to a loss of credibility, reducing the likelihood that farmers will want to watch other videos you have created. The best way

The length of each video depends on your learning objectives and target audience. Consider this, though: the "10-minute rule" purported by some researchers, educators, and filmmakers claims that most people tend to lose their attention after 10 minutes. Based on this rule, you should aim to keep your videos to no more than 10 minutes each.

This does not mean that all of your videos should be 10 minutes. The length of each video should be dependent on the overall learning objective. Some more discrete objectives may only need a few minutes to convey, while more complex processes may require 10 minutes or slightly more.

An added benefit to creating short, modular videos is that they are easier to update. If you need to change a 10-minute video, it will take you a lot less time than updating a segment of an hour-long video.

to do this is to make sure that you have researched your content and consulted with topical area experts to make sure that you are accurately conveying your message. You may find that using a simple checklist such as this helps to ensure that all videos are properly fact-checked:

- ✓ Research topic of video you plan to record
- ✓ Consult with topical area expert to confirm the accuracy of the process you plan to highlight
- ✓ Develop storyboard based on this input
- ✓ Share storyboard with topical expert, field officers, and/or local partners for their feedback
- ✓ Edit storyboard as necessary based on feedback

Storyboard templates vary, but they generally include video and audio directions, scene diagrams, and other details such as running time, location, and materials required. A **Video Storyboard Template** is included in the worksheet section of this Component. This template includes three primary segments in addition to the header information about the video: video, diagram, and audio. The video column provides instructions to the cameraperson about the type of shot they will use in each scene and what the focus should be. The diagram column is a drawing of what the scene will look like from the perspective of the camera. Finally, the audio column

includes notes on the dialogue and other audio during each scene. If you are going to be interviewing a farmer for your video, the audio should include the questions that you plan to ask to facilitate the discussion.

Feel free to create your own template based on what works best for your needs. Some people prefer to exclude the diagram segment of the storyboard. Others prefer to include information on who authored each storyboard or the topic type of the video to facilitate categorization. No matter what else you change, always be sure to include your learning objective(s) on your storyboard. This is important for your video production team to understand, but it is also helpful for tracking how well your audience understands your message. If, for instance, your learning objective is for farmers to understand improved seed storage techniques, but most farmers who watch the video come away with a completely different message, then it is likely that you may need to re-work your storyboard and re-shoot the video.

It is important that your video has a clear beginning, middle, and end. Depending on the story style you use, the specific content in each section may vary. Generally, though, your video should always introduce the challenge being faced, the proposed solution, the process for implementing the solution, the result, and any other pertinent information. Also, always be sure that your message is clear and that it is relevant and meaningful to your audience's lives.

A sample storyboard excerpt may look something like this:

Video Storyboard Template

TITLE: Triple Bagging Cowpea Seeds

RUNNING TIME: 9 minutes

LEARNING OBJECTIVE: Viewers will be able to improve how they store cowpea seeds

MATERIALS REQUIRED: Cowpea seeds, plastic bags

LOCATION OF SHOOTING: John Okueye's farm

PREPARATION REQUIRED: Gather materials, coordinate time with Mr. Okueye

VIDEO	DIAGRAM	AUDIO
Wide shot of farm. Transition mid shot of farmer complaining to his friend that he has lost another bag of his cowpeas.		Dialogue along these lines: *"I cannot believe that I lost another bag of cowpeas. What can I do to prevent this?"*
Close up on bruchid-eaten cowpeas while farmer runs his hands through what is left.		Farmer explains how he lost his seeds, when he noticed what happened, and how he had stored them.
Mid shot of friend crouched down next to farmer. Close up shots on actors when speaking.		Friend: *"I used to have the same problem as well, until I learned about a cheap way to reduce this infestation…"* Farmer: *"Really? How does it work?"*
Mid shot of actors crouched down. Actors stand up and continue talking. Mostly close up shots on actors when speaking, although some mid shots when dialogue is more quickly back and forth.		Friend: *"It is called the triple bagging technique"* … goes on to explain process.

There are six main story styles that you will likely consider using to convey your message. Although other styles do exist, these are the most commonly used for sharing agricultural information:

- **NARRATED** – A narrated story includes a voice-over narrator who describes what is being seen on the screen. This style is most frequently used if you plan to use the video you are shooting to create multiple language versions. It eliminates the need to dub over the audio of subjects in the video.
- **FACILITATED** – Facilitated stories are used primarily in videos that include interviews with farmers. The facilitator may be either on screen or off screen, and their role is to facilitate the discussion with the subjects being filmed. This style is most frequently used for farmer success stories or best practices.
- **NARRATIVE** – Narrative stories (not to be confused with narrated stories) embed the learning objectives into a narrative, rather than being explicitly instructional. Some research has shown that we are hardwired to enjoy this type of story, and as a result narrative stories may be more effective at engaging audience attention.[1]
- **DIRECT INSTRUCTION** – Direct instruction is generally one individual speaking directly to the camera about how a certain process is performed. It is most commonly associated with cooking shows, but may be effective for communicating certain agricultural learning objectives.
- **FLY ON THE WALL** – This style is not so much a story as it is a voyeuristic view of something that has happened. A video using this style may be a recording of a workshop that you edit and share.
- **COMBINATION** – Some videos use a combination of styles. For instance, part of a video may be narrated, while part of it is facilitated.

[1] See, for example, "The Secrets of Storytelling: Why We Love a Good Yarn" by Jeremy Hsu in the Scientific American. [Accessed online at: http://www.scientificamerican.com/article.cfm?id=the-secrets-of-storytelling on 3/20/12]

SUGGESTIONS FOR LOWERING THE BARRIERS TO ENTRY

The process of storyboarding is likely to be new to your staff and some of them may consider it to be tedious and boring. Try to make sure that your storyboard template includes only information you will actually use. Including superfluous information will likely make the process even less appealing to your staff. Consider introducing small incentives, such as a monthly "Most-popular storyboard" or "Best peer-reviewed storyboard" award to recognize the hard work of your storyboard authors. This could be as a simple as providing winners with a certificate or small prize.

Deciding on which style or styles is best for your videos will depend on your audience and your learning objectives. Some learning objectives may be too complicated to communicate using certain styles, while other learning objectives may lend themselves to one style over another. The most important thing to consider is what style your audience enjoys most and what is likely to best convey your message. A great way to test this is to create a few short two-to-three-minute videos on the same topic using different styles. You can then screen each video to different sample groups of farmers who are representative of your target audience. Afterward, ask participants from each group to tell you what the learning objective of the video was and whether they enjoyed the style it was presented in. You can use this information to guide what style or styles you will use to create your full-length videos.

When creating your storyboards, it is important to remember to not make your stories overly formulaic. If all of your videos follow the exact same style and have the exact same story structure, you will likely lose the

interest of your audience over time. Most people will find it difficult to stay engaged in videos that are completely interchangeable. Some variety will keep your videos engaging and will be more likely to achieve their learning objectives.

RECORDING

Once you have created your storyboard, you can begin recording your video. To prepare for this moment, you'll need to make sure that your video production team has had ample time experimenting with and practicing how to use the equipment you will be using and peripheral devices, such as tripods and microphones. For instance, if you are using a pocket camcorder, your team will likely not need more than 15 minutes to learn how to use all of its onboard features. For standard or "pro-sumer" camcorders, however, you may need a half day or more simply to learn the basics.

At a minimum, you will want to make sure that your team understands the most common types of shots, framing, focus, lighting, stability, sound, and timing. In addition to reading about each of these here, you should encourage your team to practice them on their own. It is also helpful to encourage them to watch television or movies to see if they can identify different techniques that are used.

DIFFERENT TYPES OF SHOTS

There are dozens of different shot types that videographers use when composing their shots. For the purposes of simplicity, we will only discuss the most common shot types that you will likely use when creating your videos.

WIDE SHOT – An extreme wide shot shows the subject's surroundings and is generally used to establish your scene. Closer wide shots (or long shots) generally show the full body of the subject.

MID SHOT – Captures the subject from the waist up and roughly approximates how you would normally view a person when talking to them. The mid shot is considered a comfortable, emotionally neutral shot.

CLOSE UP – Close ups generally refer to shot that include the subject's face. Unlike wide and mid shots, close ups tend to convey the emotional state of the subject.

OVER-THE-SHOULDER – These are generally used when recording a conversation between two people to establish relative location to each other.

POINT-OF-VIEW (POV) – This is a shot that shows the subject's perspective, so that the viewer is seeing what the subject would be seeing.

CUTAWAY – Cutaways are generally shots of anything other than the subject that can be used during editing as "B roll," which is supplemental footage that adds extra relevant information, mood, or meaning to a sequence. In addition, this type of footage can be used to cover up a technical glitch within a scene by cutting away in place of the flawed video while keeping the original scene audio.

FRAMING

Effective shot framing can engage your viewer and help to illustrate mood or emotion. Like anything, the ability to effectively frame shots will improve with practice. Some of the basics that you will want your team to start mastering are:

- **RULE OF THIRDS** – This states that you should try to imagine your shot divided into thirds, both horizontally and vertically. Rather than placing your focal point in the center of the shot, you should place it one-third or two-thirds of the way down or across the frame. For example:

- **HEADROOM/LOOKING ROOM** Related to the rule of thirds, this refers to the amount of space you have above someone's head or in front of them. Generally speaking, you should have a modest amount of space above your subject's head or in front of them in the direction they are looking. A lack of headroom or looking room can appear claustrophobic and be uncomfortable to watch.

YES

NO

- **SCREEN CONTINUITY** – When recording two subjects in conversation, never cross beyond the back of any of the subjects. This is also known as the 180 degree rule. It says that you should imagine a 180-degree semi-circle running between your two subjects and never position your camera outside that semi-circle while recording. If you move to the other side of this semi-circle, it will result in your subjects appearing to switch positions on camera. The subject who was on the left will now appear on the right, and vice versa. If you are shooting from several places along the semi-circle, you should also consider marking the ground (using rocks or twigs, for instance) at each location so you can always return to the same spot. You can also mark your subjects' places if they will be moving out of them between shots. This will ensure that your shot perspective is always consistent.

- **SHOT ANGLES** – There are three primary types of shot angles that you will use:

STRAIGHT

The most common is the **straight angle**, which is an eye-level shot.

LOW

Low-angle shots are shot below eye-level looking up. They can be used to make the subject appear larger, more powerful, imposing, or in charge.

HIGH

High-angle shots are taken from above eye-level looking down. They can be used to make the subject appear diminutive, vulnerable, or powerless.

- **CAMERA MOVES** – This relates to the motion that you make with the camera. There are three basic types of camera moves:

Pan – This is when you move the camera along a horizontal axis.

Tilt – This is when you move the camera along a vertical axis.

Zoom – This is when you move closer to or farther away from the subject. Generally speaking, you should try to avoid using the digital zoom that comes with most pocket camcorders, since it can lead to an overly pixilated video. In lieu of this, consider moving the camcorder closer or further away from the subject between shots.

FOCUS

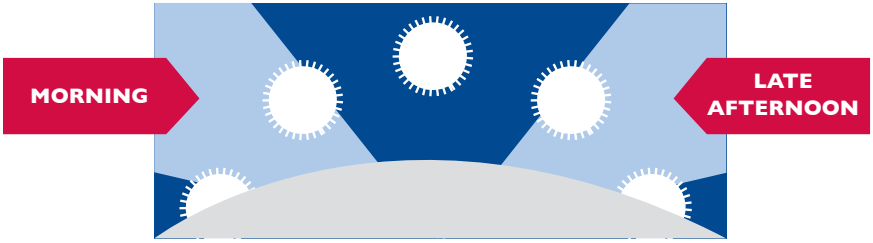
If you are using a pocket camcorder, you likely will not have any manual focus control. Since the camcorder will automatically focus, it is important to make sure that it is focusing on your intended subject. If not, you may need to adjust your shot type or angle until the camera comes into focus on your subject. If you are using a camcorder that has manual focus, read the manual to understand how it works. Then experiment focusing on a variety of subjects at various distances from your lens.

YES

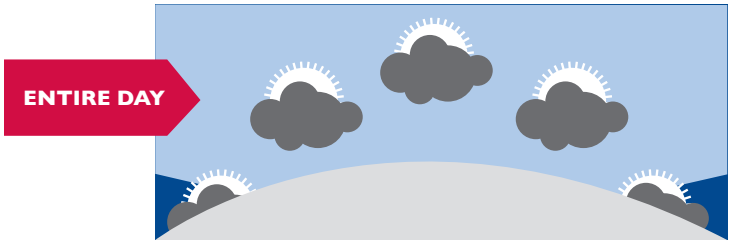
NO

LIGHTING

As much of your recording will likely take place outside and you will most likely not have lighting equipment, you'll want to make sure that you have sufficient natural lighting.



If it is **sunny** out, the best times to shoot outdoors are in the morning or late afternoon. When the sun is directly overhead, it can cast unflattering shadows on the faces of your subjects.



If it is **overcast**, you will likely be able to record throughout the day provided that there is enough ambient light to illuminate your subjects.

Try to avoid shooting directly in the direction of the sun. This will result in your subject either being too dark or the background being too bright, neither of which make for compelling video. You may also experience this when recording a subject with a window in the background. If you notice that your subject is not properly exposed, try either moving the position of the camcorder or that of the subject until it returns to normal.

STABILITY

An unsteady video not only screams out amateur, but it can also be extremely distracting. The best way to address this is to use a tripod. If you are unable to find a tripod, you can reduce some of the effects of a shaky hand by firmly holding the camcorder and then bracing your arms against your sides. This is not as effective as using a tripod, but the difference between using this technique and simply holding the camcorder with your arms outstretched is instantly noticeable.

A tripod works best to steady your recording.

SOUND

The microphone on pocket camcorders can be very sensitive. Even when using an external microphone, be careful when shooting outdoors or in noisy environments—the camcorder will likely pick up a lot of background noise in those cases. When using an external microphone, always make

Always make sure the microphone is working BEFORE you start shooting.

SUGGESTIONS FOR LOWERING THE BARRIERS TO ENTRY

One of the easiest ways to lower the barriers for recording video is by allowing your trainees to explore using the camcorders on their own. If you are overly controlling of the camcorders, they may doubt their own capacity for handling them. Encourage experimentation, sharing, and collegial feedback. The more they are able to use the camcorders to record video, the more comfortable they will become—and the better-quality video they will be able to produce.

Also consider creating your own video on how to use the camcorder that they can refer to as an illustrative guide (see the accompanying DVD for an example of a "how-to" video created for rural schools in Indonesia without access to tripods to help them create effective videos.).

Finally, as with storyboarding, consider exploring ways to promote positive competition and recognition for high-quality work.

sure to check that it is functioning at the start of each session. If your camcorder enables you to monitor audio in real-time, then you can use a headset to confirm that audio levels are acceptable during recording. Otherwise, make sure to periodically review the clips you have recorded while you are on location to ensure that the audio quality is acceptable. Nothing is worse than having recorded hours of video, only to find out once you are back in your office that the microphone was not working or the background noise was too distracting. More information on specific external microphone options can be found in **Component 6**.

3 SECONDS

Use 3-second buffers before and after scenes.

TIMING

Make sure that you include buffer space at the beginning and end of each clip you record. The easiest way to do this is to begin recording three seconds before you give your subjects the sign to begin the scene, and then to stop recording three seconds after they have finished the scene. During these buffer periods, instruct your subjects to be quiet so that the only audio that is recorded is ambient sound. This will greatly facilitate editing of each clip, and will ensure cleaner audio and visual edits.

EDITING

Editing videos can be an extremely complicated and time-consuming process if you want to produce a highly polished, professional-looking product. It does not have to be this way though. Using freely available editing software, you can produce decent-quality videos without weeks or months of training. More specific information on software that you might consider using can be found in **Component 6**. Rather than discussing any particular editing software here, this section will focus on specific steps that you can take to make sure that you are able to edit a decent final product.

ORGANIZING YOUR CLIPS

Before you begin editing, the first thing you will want to do is develop a naming and filing system for organizing all of your clips. Since you will likely have recorded dozens of video clips for any final video, you want to make sure that they are well organized and that you can easily find what you are looking for. For example, you may want to name all clips related to your introduction as Introduction1, Introduction2, and so forth.

As part of the organization process, you should also watch all of the clips you have recorded and select the footage that you are likely to use. This part of the process might not be the most fun, but it is a necessary task if you want to ensure that you end up selecting the highest-quality and most relevant clips you have recorded for your final video. You can use the **Video Editing Preparation Worksheet** to keep track of which clips you think you will use and how. On the next page is a short example of what that might look like:

CLIP NAME	USE/DISCARD	TIME CODE (START/END)
Introduction1	Consider using as B-roll	00:01:01.02 – 00:02:02.13
Introduction2	Discard	
Introduction3	Consider using as intro scene	00:00:00.29 – 00:02:35.18

As you watch each clip, you should write out the name you have given it. In the Use/Discard column, you should write how the clip is worth using or if it should be discarded. Any clips that you have coded as 'discard' should be moved into a new folder on your computer called 'Discarded' or some similar naming convention. You can delete this folder once you have finished editing your final product, but in the meantime keep it in case you change your mind about any of your discards.

For the videos that you have marked as 'use' or 'considering using' you should also make note of the beginning and ending time code for the segment of video within the clip you want to use. The time code will normally be displayed in your editing program as HH:MM:SS.FF, meaning hours:minutes:seconds.frames. For example, a time code that reads 00:01:01.02 means one minute, one second, and two frames. If you are viewing your video clips in your video player or basic editing software, it is possible that it will only display minutes and seconds. If so, you can just record the minute and second time code for each clip. This will save you time when you go back to edit each clip since you can advance directly to the point in time that you want to start from and end at. Some editing programs, such as Windows Movie Maker, allow you to trim clips directly in your video timeline without altering the original file. If you are using a

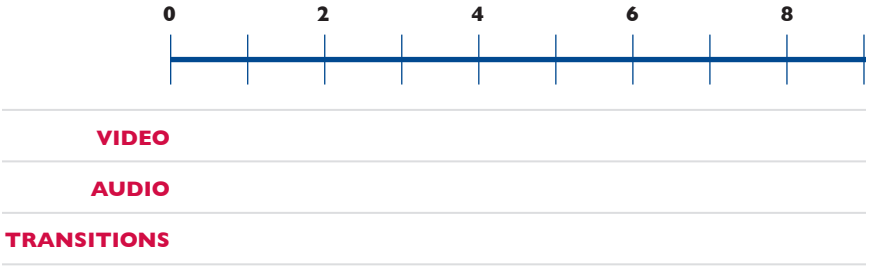
program that requires you to save any changes you make when trimming a clip, always make sure to 'Save As' so that you do not lose your original, full clip. This way you will still have the original in case you want to go back later and include additional footage from that clip.

ROUGH EDITING

Once you have finished this process of identifying and trimming clips to use, you can begin to lay out your selected clips onto a timeline. This step of the editing process is known as the rough edit. There are two ways to carry out this step. This first is to do a paper edit, which means that you write out the order of each clip, any transitions, and any additional audio. The other option is to use the timeline in your editing program to manipulate and edit your clips directly.

The benefits of doing a paper edit first are that it can be done on flipchart paper in a group so that your entire team is able to provide input. In addition, depending on how powerful your computer is, you may find that doing a lot of back and forth directly in the editing program's timeline slows down your computer to the point of frustration. Certainly, however, if your computer is powerful enough, then laying out your timeline directly in the editing program can save you time compared to doing a paper edit first.

If you decide to do a paper edit, the easiest way is to lay out flipchart paper or use a whiteboard to write out your timeline. A basic paper edit layout might look something like this:



A NOTE ON AUDIO

You may be tempted to use popular music in your videos. Music can often be distracting, especially if its audio levels are too high or if it is playing as a backdrop to dialogue.

Beyond the technical considerations, even if your video is not being sold for a profit, you must obtain the legal right to use copyrighted music in your videos. If you plan to use any music, first make sure that you have the right to use it or that the music is freely available for use without a special copyright.

For more information on legal sources of music for videos visit Creative Commons online at: http://creativecommons.org/legalmusicforvideos

Once you have laid out your timeline, you would proceed to write down the names of each video clip you want you to use in order along the timeline, doing the same for any additional audio or transitions you want to add. You will find that this process is very similar to what editing looks like in your editing software.

A NOTE ON VIDEO TRANSITIONS

Video transitions can be effective for facilitating flow between clips, but they should be used only in moderation. Too many transitions or a wide variety of transitions can be distracting. Only use transitions when they enhance your video. Remember, you do not need to use transitions between every clip.

TIGHT EDIT

After you have finished your rough edit and all of the pieces of your final video are in place, you should tighten up your video by making additional adjustments to your video, audio, and transitions. This is also the time to add any titles you plan to use. The tight edit should be done directly in your video editing program.

The first thing that you should do when you begin editing your video on your computer is ensure that you save your project in your editing program. By creating a project you will be able to open your video-in-progress where you left it so that you can take breaks during editing and shut down the editing program. This will also allow you to go back and make changes to your video months later if you need to update something. Like all computer programs, make sure that you save your project often while you are working on it. Video editing programs can demand a lot of resources from your computer, and it is not uncommon for them to freeze or crash on occasion. Losing what you have worked on can be extremely frustrating and demoralizing, so make sure it does not happen to you or your team by saving often.

MASTERING

The final step of the video editing process is to master your video. This step is taken after you have finished your tight edit and are ready to finalize your video. Before you master your video, make sure to watch it in your video editing program from start to finish a couple of times to confirm that you are satisfied with it. If you notice anything that you are not satisfied with, go back and make the appropriate adjustments.

Once you are ready to master your video, you should select the appropriate option in your editing program. In Windows Movie Maker, for example, this option is called 'Save Movie File,' although in other editing programs it has other names, such as 'Export Video' or 'Render Video.' The program you are using will also ask you how you want to save your video, including the file type, aspect ratio, display size, and frames per second. You will want to select settings appropriate for your primary method of dissemination. If you are not sure what the appropriate settings are, check the user manual of your primary dissemination device or see if you can do some research online. Otherwise, you can just use the default settings.

If the program you are using does not allow you to master your video in a compatible format, there is no need to worry. You can always use a file conversion program (described in **Component 6**) to convert your video to the appropriate format after the fact. Although file conversion may lead to quality degradation, the difference should be negligible to the untrained eye on almost any dissemination device you will be using. When you do a test screening of your video using your dissemination device, you should be able to identify whether it plays correctly. Tell-tale signs of incompatibility are video or audio that jumps, is out of sync, or simply fails to play at all. If this happens, you can always re-master or re-convert your video using another configuration.

If you plan to add subtitles to your video, they should be incorporated at the point of mastering. There are two types of subtitles:

Softsubs – are subtitle files that you can upload along with your video onto websites like YouTube.

Hardsubs – are subtitles that have been directly "burned" onto your final video file.

More information on how to create your own softsubs can be found in **Component 6**.

CRITICAL SUCCESS FACTORS

- Establish baseline quality standards.
- Select the right people to do the work.
- Produce quality videos that meet farmer needs.

Vimeo Video School

Jing

SUGGESTIONS FOR LOWERING THE BARRIERS TO ENTRY

Video editing can be more tedious than people might initially expect. Encourage your team to stick with it and continue to practice. It will become easier and faster with time. You can also encourage them to watch training videos such as those at Vimeo Video School, or you can create your own training videos using free programs like Jing (http://www.techsmith.com/jing.html). Jing allows you to record narrated video of your screen so you can create your own videos on specific steps of the process in local dialects to share with your staff. Finally, as was suggested with storyboarding and video recording, creating some sort of positive incentive to further encourage your team might be helpful.

NOTES

3

WORKSHEETS

Video Baseline Quality Worksheet

Topical Area Expertise Contact List Template

Video Storyboard Template

Video Editing Preparation Worksheet

VIDEO BASELINE QUALITY WORKSHEET

CRITERIA	BASELINE STANDARD
Video Quality (How was the video's stability? Framing? Lighting? Editing?)	
Audio Quality (How clear was the sound? Was there background noise?)	
Story Structure (Does the video flow? Does it have a beginning, middle and end?)	
Message Clarity (Is it clear what message the video is trying to convey?)	
Engagement (Did the video capture your attention? Did it engage your thinking?)	
Learning (How well did you learn how to perform the activities covered in the video?)	

TOPICAL AREA EXPERTISE CONTACT LIST TEMPLATE

NAME	AREA OF EXPERTISE	CONTACT INFORMATION	ADDITIONAL DETAILS
John Smith	Animal Husbandry	01-4535081 (mobile) Jsmith56@yahoo.com	Only available with 2 weeks advance notice

EXAMPLE

VIDEO STORYBOARD TEMPLATE

TITLE: _____

RUNNING TIME: _____

LEARNING OBJECTIVE: _____

MATERIALS REQUIRED: _____

LOCATION OF SHOOTING: _____

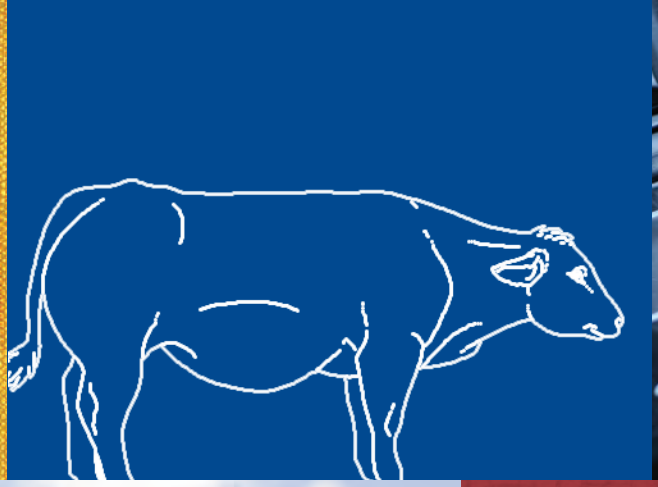
PREPARATION REQUIRED: _____

VIDEO	DIAGRAM	AUDIO

VIDEO	DIAGRAM	AUDIO

VIDEO EDITING PREPARATION WORKSHEET

CLIP NAME	USE/DISCARD	TIME CODE (START/END)



4

WHAT IS THE BEST WAY TO DISSEMINATE OUR VIDEOS?

The means through which you disseminate your videos will vary depending on your target audience and the local context. It is important to develop a dissemination process that is appropriate to the context you are working in if you want to maximize the likelihood of the videos having an impact. Otherwise, even the best videos could end up being relegated to the virtual dustbin. This Component includes suggestions for different dissemination methods, including both technical and social considerations. It will help you to assess which method(s) might be most appropriate for your needs and show you how to use continuous feedback to improve your dissemination approach.

COMPONENT GOALS

BY THE TIME YOU HAVE FINISHED THIS COMPONENT YOU WILL:

- ✓ *Have selected the dissemination option(s) you will use.*
- ✓ *Have developed a dissemination plan.*
- ✓ *Be able to prepare your staff to facilitate video.*

WHEN THINKING ABOUT VIDEO DISSEMINATION, the philosophical question, "If a tree falls in the woods and no one is around, does it make a sound?" comes to mind. This is because while creating quality videos is important, if they are not seen by your target audience, for all intents and purposes, they do not exist. Choosing the right method to disseminate your videos, therefore, is of utmost importance to achieving your objectives.

Local farmers participate at a mock video dissemination with iDE Ethiopia staff.

When we talk about dissemination, we are referring to the process through which the videos you create reach their intended audience. There are a number of different ways that you can disseminate your videos, none of which are necessarily mutually exclusive. You may find that either a singular method or a combination of methods is most appropriate for reaching your target audience.

This Component assumes that you have already identified your target audience in advance. The content here will still be useful if you have not identified your audience. It is recommended, however, that you tailor your dissemination methods to your audience rather than selecting your audience based on the method you want to use. For a more in-depth analysis of different dissemination devices that can be used for agricultural extension, read the comparative landscape study led by D-Rev in 2011 on devices for agricultural extension.[1]

It is important to keep in mind that men have traditionally been the primary recipients of agricultural extension services in most countries. Studies have shown that, when women are provided equal access to resources, it benefits overall household productivity.[2] The 56th session of the UN's Commission on the Status of Women, which was held in

[1] Full versions of the reports included within this study can be accessed online at: http://d-rev.org/projects/accessforagriculture.html

[2] See reports from the International Food Policy Research Institute entitled, "Women: The Key to Food Security" and from the OECD entitled, "Women's Economic Empowerment," which can be accessed online at http://www.ifpri.org/sites/default/files/pubs/pubs/ib/ib3.pdf and http://www.oecd.org/dataoecd/50/60/47561694.pdf, respectively.

2012, also highlighted the need to facilitate smallholder women farmers' access to extension services, increase the number of women extension agents, and provide training on gender equality issues to male and female extension agents.[3] You will want to consider whether cultural norms restrict male-female interaction or if men tend to dominate community-level activities. This will determine whether you should hold mixed-gender video screening groups or if you will need to meet in gender-specific groups, as well as who should facilitate those groups. Implementers of USAID-funded projects should also consult the USAID Gender Equality and Female Empowerment Policy, which was released in March 2012.[4]

When selecting your audience, it is recommended to work with existing groups, such as farmer associations, cooperatives, or women's groups, rather than attempting to form your own group. This will make coordination easier, since you will be working with an established entity. If it is not possible to work with existing groups, you can establish your own screening groups in your target communities. The best way to do this is to determine where farmers already commonly congregate, such as agri-dealers or warehouses. When setting up your own group, be sure to explain to the groups you will work with exactly what your objectives are, how frequently you would like them to meet, and how long each screening will likely take.

The process of setting up independent screening groups will require additional groundwork on your part. Consider working with community leaders or farmer representatives to identify interested farmers. You may also want to use flyers and community broadcast outlets to advertise. Remember, though, that certain dissemination methods are limited in the

[3] A summary of the draft conclusions from the United Nations' Commission on the Status of Women's 56th session can be found online at: http://www.un.org/womenwatch/daw/csw/56sess.htm

[4] The full policy can be found online at: http://usaid.gov/our_work/policy_planning_and_learning/documents/GenderEqualityPolicy.pdf

number of people they can reach at one time given their display size. Make sure that each group you establish does not have more members than can be supported by the dissemination method you will be using. Also, it is best to enlist farmers who are interested in participating over an extended period of time. This will result in more useful data collection regarding individual farmer change. Otherwise, if farmers come and go at random intervals, it may be more difficult for you to track impact on each farmer.

WHAT ARE THE DIFFERENT DISSEMINATION METHODS WE CAN USE FOR OUR VIDEOS?

Once you have identified your target audience, you can determine which video dissemination method is most appropriate for your needs. This section will look at eight of the most common methods of video dissemination:

1. Pico projectors
2. Tablet computers
3. Mobile phones
4. Television and video players
5. Computer centers or telecenters
6. Direct distribution of VCDs/DVDs
7. Broadcast television
8. Websites (streaming or download)

Before deciding upon which method is best for you, you will want to determine which method or methods are most likely to reach your target audience, and whether you have the capacity (both time and money) to use that method. You can use the **Dissemination Selection Worksheet** at the end of this Component to help you with that process. If it looks familiar, that is because it is a modified version of the **ICT Option Assessment Tool** in **Component 2**.

The following is a description of each of the eight methods and how they can be used to disseminate agriculture-related videos. Specific information on the hardware requirements and estimated costs for the first four methods listed here can be found in **Component 6**.

PICO PROJECTORS

PHOTO CREDIT: AAXA

Pico projectors, which are also known as pocket or hand-held projectors, are hand-held projection devices. They generally come with internal memory and are bright enough to project 20-to-40 inch displays. Unlike standard projectors, most pico projectors have insufficient brightness for use in a normally lit room; therefore, they are best used either at night or in a room with limited ambient light. Their size and the fact that they are battery-operated makes them effective for disseminating videos to groups of 10 to 25 people in communities without convenient access to electricity.

TABLET COMPUTERS

Tablet computers are becoming increasingly popular due to their portability, long battery life, and ease of use. They can very easily and quickly be pre-loaded with videos that can be shared with farmers. Their limited screen size, however, means that they are best used by no more than two to three farmers at a time to watch videos. This method is most effective for disseminating videos in extremely small groups either on farmer visits by field officers or when farmers visit a specific location (such as a cooperative or an input supply store). If you are planning to use it for other purposes as well, such as data collection, then a tablet could potentially be a worthwhile tool for dissemination. For example, Sustainable Harvest Coffee Importers is using tablets with coffee cooperatives to assist with traceability and supply chain management. In addition to this, they are using the tablets to share training videos with farmers when they bring their beans to the co-op. More information on their approach can be found online at http://www.sustainableharvest.com/.

Alternatively, if your field officers already have laptop computers for their work, you could consider using the laptop to demonstrate videos in the same way you would use a tablet.

MOBILE PHONES

By the end of 2012, it is estimated that there will be more than 700 million mobile subscribers in Africa out of a population of about one billion people.[5] Although there are still farmers without mobile phones and communities without cellular signals, the growing ubiquity of mobile phones is becoming the new world reality. Moreover, a growing number of these phones are capable of receiving

[5] BBC News, Africa's mobile phone industry 'booming' (9 Nov 2011) [Accessed online http://www.bbc.co.uk/news/world-africa-15659983 on 3/20/2011]

and playing videos. That said, the limited screen size of most video-capable phones likely to be owned by smallholder farmers means that this method is probably not currently effective for broad dissemination. If a significant number of your target beneficiaries do have video-capable phones, this method may be worth exploring for awareness campaigns and for reinforcing agronomic messages that you are already disseminating using other methods.

TELEVISION AND VIDEO PLAYERS

Until a few years ago, a number of organizations disseminated videos by transporting televisions, video players, and gas generators to villages for local screenings. Other organizations have placed televisions and video players aboard mobile video vans that they drive from village to village. Given the cost of investing in a vehicle and ongoing fuel expenses, these options may be less cost-effective than other options, especially given the variety of small and affordable alternative dissemination devices now on the market. One option that you may want to consider is portable video players. These devices generally have screens between three and 10 inches and built-in DVD players. Some models also include USB and SD memory card inputs for playing videos.

If televisions and video players are already locally available in the community you are working in, however, they can be a cost-effective method for disseminating videos. Many newer televisions even have USB and SD memory ports, which would eliminate the need to burn DVDs or VCDs. If you do use locally available televisions, make sure that they are located somewhere that is accessible to your beneficiaries. Also be sure to check their input and output options beforehand to ensure you have the correct cables and equipment available to show your videos on them.

COMPUTER CENTERS

It is possible that the communities you plan to target have internet-connected, community-run computer centers or "telecenters." If you have access to these centers, they can make for a good dissemination point. In Ghana, for example, the International Institute for Communication and Development (IICD) established multimedia centers for farmers to share information on agriculture and health. Among the services offered, these centers work with farmers to develop agricultural information videos on a selection of topics, which they share with farmers directly at the centers. More information on this work can be found online at http://projects.iicd.org/project/206/.

If you decide to disseminate your videos at a computer center, you will want to make sure that the set up is appropriate for your needs and that the center is accessible to your target audience during hours that are convenient for them. It is likely not cost effective to establish your own computer center solely for the purposes of disseminating videos.

DIRECT DISTRIBUTION OF VCDS/DVDS

Some projects with limited staff on the ground have found that distributing VCDs or DVDs directly to farmers is the most effective way to disseminate videos. This can be done in several different ways. One way is to send copies directly to farmers or to farmer organizations (such as cooperatives or associations). If you send them directly to farmer organizations, you may also consider sending them a basic curriculum or workbook to guide them on

how to best use these videos with farmers. Much of this material can be directly adapted from this toolkit. Another option is to sell copies of your videos in local markets. This can be coupled with economic growth activities that may be operating in the area.

BROADCAST TELEVISION

If you have access to broadcast television in the country or region where you are working, it could potentially enable you to reach a much wider audience than other methods. This option is highly dependent on the local broadcast regulatory environment and your access to local television stations. Some countries may also have local, community television stations that broadcast to a relatively small local area. It is worth exploring this option, especially if your primary audience lives within the coverage area of the community station. With the expansion of digital television in some countries, the number of available channels will increase, which could also create opportunities for disseminating videos on niche channels dedicated specifically to agricultural topics.

Of course, you would first want to make sure that your target audience has access to television and whether they would likely be watching it during the time slot you are allotted. If not, then despite its potential of reaching a wide audience, it is probably not the most appropriate option for reaching your target audience. If you do use broadcast television, you should consider building some level of interactivity into the videos, such as providing a number that farmers can call for more information or inviting farmers to participate in a mobile phone poll using an SMS short code.

WEBSITES

Popular video-hosting websites such as YouTube and Vimeo allow you to host your videos online for free. Given limited access to the internet in many of the communities you will be working in, this is most likely not going to be an effective primary method for dissemination. Even so, posting your videos online can be a great way to reach unintended beneficiaries who have access to the internet and to share information about your work with potential supporters and collaborators. Before posting any videos online, however, make sure that you have the consent of any farmers appearing in the videos. Also, because the internet may be foreign to some of the farmers you work with, make sure that you explain exactly what it is and that their videos will be accessible to anyone in the world.

REINFORCED MESSAGING

Although each of these methods has been highlighted individually, it is always important to consider how you can use multiple methods to enhance learning outcomes. These secondary methods can be used to reinforce your messaging more effectively than a singular method. You should also consider non-video methods for reinforcing messages, such as SMS reminders, flyers, or community-based radio. Secondary methods that can be directly controlled by the farmers (such as mobile video, SMS, flyers, or tip sheets) may be particularly helpful as references that farmers can use while they are trying out a practice on their own in the field.

The research of Hermann Ebbinghaus and others has shown that spaced repetition of information is critical to increasing the likelihood of establishing and recalling long-term memories. If you have the capacity and resources, you might want to test the effectiveness of different secondary methods by deploying them with a random selection of farmers who have

watched your videos to test whether their recall of information is higher than farmers who were only exposed to the primary method. Of course, recall alone does not translate to adoption or impact, but it is an important part of the equation.

TO FACILITATE OR NOT TO FACILITATE?

It is important to consider whether or not to facilitate your disseminations. Although it may seem easier and less expensive to disseminate your videos without the use of a facilitator, you can potentially miss out on a number of very important benefits that make facilitation worth the investment. Some of the main benefits of facilitating your dissemination are:

- Facilitators can answer farmers' questions if anything is unclear in the video or if they are interested in learning more.
- Facilitators can provoke discussion on specific elements of the video, increasing the likelihood that farmers will think critically about what they have just watched and therefore remember it more clearly.
- Facilitators can track attendance, information on videos shown, questions asked, and practices tried and adopted by farmers.
- Facilitators can provide specific follow-up information and support to individual farmers after screenings.

CONTINUED →

- Facilitators can encourage farmers to share with and learn from each other.
- Facilitators are better suited to understand the local dynamics and how best to work across a cross-section of individuals in a community.
- Facilitated learning has been shown to improve learning outcomes in adults.

Despite the benefits of facilitated dissemination, there are some genuine cost implications involved. There are a couple of steps you can take to reduce associated costs to the point where they will be almost negligible, especially in relation to the benefits gained:

- You can work within existing systems or structures. For example, conduct dissemination at regularly scheduled farmer organization meetings or embed it within existing extension visits.
- If you are unable to facilitate viewings through your staff or partners, provide guidance or training to farmer organizations on how they can facilitate their own viewings, or include discussion questions directly in your videos.

WHICH VIDEO DISSEMINATION METHODS ARE MOST APPROPRIATE FOR OUR SITUATION?

Now that you have finished reading about potential dissemination methods, take some time to discuss which methods are best for reaching your target audience and achieving your objectives. Like you did with the **ICT Option Assessment** in **Component 2**, gather your team and local partners together to discuss the strengths, weaknesses, and capacity needs of the different options. If you are unable to gather everyone together at the same time, consider speaking directly with farmers and local partners. This can be done either through informal conversations, or through more structured exchanges, such as focus groups or surveys.

There is no need to consider all of the eight options highlighted above. Only consider those that would be realistic methods to pursue. For example, if you already know that you cannot broadcast your videos on television, then you can ignore that option during this exercise. Once you have decided which options are worth considering, write them down in the columns at the top of the worksheet.

Make sure that you consider the following questions as part of this process:

FOR PROJECT STAFF (INCLUDING LOCAL PARTNERS)

- How and where are we currently interacting with farmers?
- How much time does staff have available for dissemination?
- Can dissemination activities be incorporated into other activities or systems (i.e., during regularly scheduled visits with farmers)?
- Does staff have the technical capacity to implement each option? If not, what will it take to prepare them?
- What are the general types of costs that will be necessary for each option? Are any of these clearly outside of our available budget?

FOR FARMERS

- What sources currently provide most of your information?
- Do you have access to television or mobile phones that are internet and video-capable?
- Are you interested in watching videos to learn about agricultural practices, etc.?
- When are you most likely to participate?
- Of the following options [insert options you are considering], how likely do you think you are to participate in each one? Why?

Through this process, you should be able to narrow down one or two dissemination methods that seem most appropriate to your situation. Once you have decided upon the method(s) you will use, consider what your dissemination structure will be. In other words, how will videos and other information flow? It is important to determine this in advance so that everyone is clear about what the structure will be before you begin any dissemination.

The most popular structure is the hub-and-spokes model. Under this model, all videos and information are collected and housed in a main hub. This is often a district office that is central to the villages — or "spokes" — you will be working with. You would likely have at least one person working on this activity at the hub, and individual field staff responsible for one or more spokes. Although videos may be created at the village level, they are all sent to and stored at the hub by local field staff. The same is true for any data or information that is collected during the village-level disseminations. This enables you and your field staff to have access to all of the videos and information created in multiple villages (or spokes). Each hub can then feed into your central office or higher-level hubs, so that ultimately everyone has access to the same information.

Another model is a purely centralized structure whereby all videos and information are collected directly by a main office. In this case, your central office staff would be responsible for all dissemination and data collection. This model works best when you are working in a small geographic area in the immediate vicinity of your central office, or if you are disseminating through broadcast television.

A less-common model is the completely localized structure. Under this model, all content is created and collected at the village level. This is more appropriate if your primary objective is to empower local farmers to create and manage their own videos through participatory processes. Under this structure, each village is responsible for its own processes, and they may (or may not) feed all content up to your field offices. From a data-collection perspective, this can be an inefficient structure, although its benefits on local empowerment can be tangible.

Consider each of these structures in light of your overall objectives and capacity. Do not feel bound by any one particular structure. Think creatively about what will best serve your situation. It could be that another type of structure not mentioned here would be most appropriate for your purposes.

You can use the **Dissemination Plan Worksheet** at the end of this Component to map out your overall dissemination plan, including the exact steps of your dissemination process, the timeline for each step, who will be responsible, and what, if any, materials are required. The sample dissemination plan provided on the next page can serve as a guide.

Sample Dissemination Plan

PRIMARY DISSEMINATION METHOD: Pico projectors

SECONDARY METHOD(S): Local bulletin boards

FREQUENCY: Bi-weekly, every Monday from 6-7pm

LOCATION(S): Angoche district, Nampula, Mozambique

FACILITATION METHOD: Each session will be facilitated by district field officers assigned to respective village

DISSEMINATION STRUCTURE: All videos will be stored at the district office as well as on YouTube. Field officers will pre-load videos onto pico projector at the district office. All data collected from farmers during the facilitation will be submitted by the field officer to the district office manager for input into the database.

REQUIRED STEPS	TIMELINE	PERSON(S) RESPONSIBLE	MATERIAL NEEDED
Meet with farmer associations to gauge interest and availability	3/1 – 3/15	Logistics coordinator	Information sheet about program
Create at least 4 videos before dissemination launch	3/1 – 3/30	Agronomy expert, district program officer	Video equipment
Plan for field officer training	3/7 – 3/15	Training officer, district program officer, logistics officer	N/A
Identify farmer groups for practice dissemination	3/12 – 3/15	Logistics coordinator	N/A
Provide training to field officers on dissemination techniques	3/16 – 3/20	Training officer	Training materials
Field officers practice dissemination	3/20 – 3/22	Training officer	Evaluation forms

CONTINUED →

REQUIRED STEPS	TIMELINE	PERSON(S) RESPONSIBLE	MATERIAL NEEDED
Establish viewing schedule with farmer associations in 6 villages	3/22 – 3/30	Logistics coordinator	N/A
Conduct disseminations	4/1 – ongoing	Field officers	Dissemination equipment
Evaluation of dissemination approach and field officers	7/1 – 7/15	Training officer, district program officer	Evaluation forms
Make improvements based on findings of evaluation	7/15 – 7/30	Training officer, district program officer, field officers	N/A

HOW CAN WE PREPARE OUR STAFF TO FACILITATE VIDEO DISSEMINATIONS?

Now that you have planned your dissemination, you are ready to start training your staff on how to disseminate your videos directly to farmers. For the purposes of this toolkit, we will focus specifically on facilitated disseminations with farmers, since that will likely require the greatest amount of capacity development.

When selecting your facilitators, it is best to choose individuals who are already known and trusted in your target communities. These may be extension agents or field officers who are already working with your target audience, farmer organization representatives, or community leaders. If you need to hire someone solely for the purposes of dissemination and facilitation, you will want to make sure that they are able to connect with and relate to your target audience. Regardless of whom you choose to facilitate your disseminations, you will want to make sure that they are prepared. Viewers may associate an unprepared or unqualified facilitator

with the accuracy of the video content, which may lead to a loss of credibility. Rightfully so, the farmer may think, "If the facilitator is this unprepared, how do I know that what they are talking about in the video is correct?"

The following are activities that you can use to help prepare your staff to be facilitators. If you are using this toolkit on your own, read these activities and try your best to work through them independently. Most of these are adaptations of activities used by Digital Green during its dissemination trainings.

ACTIVITY: VISIONING

OBJECTIVE: *Facilitators recognize the importance of understanding their audience's perspective.*

One of the first things you should consider doing with your facilitators is a visioning exercise. Ask them to take 15 or 20 minutes either individually or in small groups to put themselves in the position of their target audience. Remind them that they should respond how they think the farmers they will be working with will respond. Guiding questions might include:

- What are my needs?
- What are my personal goals?
- Where do I want to be in five to ten years?
- What do I need to achieve those goals?
- Why am I participating in the video screenings?
- What do I expect to gain from participating in the video screenings?

Instruct participants to write down their answers on flipchart paper. Ask each group or individual to present their responses to the larger group. Once everyone has finished, facilitate discussion with the group by asking them:

- What common themes did you notice from the different responses?
- What is your role in helping the farmers to achieve their goals and meet their expectations?
- What will that look like? What specifically will you do to facilitate this?

During the discussion, remind participants of the importance of their role in facilitating learning using the points in the box, To facilitate or not to facilitate? Most farmers will be participating because they feel that it will help them to achieve their personal goals. The role of facilitators is to make sure that each screening has value for the farmers and is relevant to their needs. Point out that it is vital for them to know their audience before any dissemination. They have the power to facilitate learning, but if they do not understand why each farmer is participating, then they will likely fail to fully engage them.

ACTIVITY: THE POWER OF QUESTIONS, *Part I*

OBJECTIVE: Facilitators learn the power of open-ended questions for guiding exploratory learning.

Questions can be extremely powerful tools for engaging participants and facilitating learning, but they can also limit discussion and impede learning — whether deliberately or not. A good facilitator, therefore, needs to be a master of questioning. The purpose of this activity is to help participants to better understand the power of using open- and closed-ended questions.

An open-ended question is one that cannot be answered by a "yes," "no" or specific piece of information. They are designed to encourage a meaningful response based on the respondent's own thoughts or feelings. Closed-ended questions are exactly the opposite. They are questions that call for specific responses, often without requiring any reflection.

Start by asking participants to stand in a circle. Ask if anyone in the group can define what an open-ended question is, followed by what a closed-ended question is. Is everyone in agreement? If not, facilitate discussion to explore the meaning of each term.

Once they have agreed upon a definition, the facilitator should ask for a volunteer to ask one open-ended and one closed-ended question to another participant. That participant should answer the questions and then ask one open-ended and one closed-ended question to someone else in the circle, and so on until everyone has participated.

Once everyone has participated, ask the participants how they felt when responding to each type of question. What is the value of each type of question? Describe some circumstances when you might use one over the other?

During the discussion remind the participants that it is important to use open-ended questions when facilitating discussions with farmers during dissemination. The facilitator is there as a resource, but also to encourage farmers to share their own experiences as they relate to videos shown. At the same time, closed-ended questions are also useful for wrapping up discussions or gathering specific pieces of information. It is important that a good facilitator recognize the power of each type of question and use them appropriately.

For some more practice, ask participants to think about and/or write down five pairs of open-ended and close-ended questions. For example, one pair could be "How do you feel about marriage?" and "Are you married?" Encourage them to share their questions with each other to make sure that everyone has a solid understanding of both types of questions.

ACTIVITY: THE POWER OF QUESTIONS, *Part II*

OBJECTIVE: *Facilitators learn the importance of responding to all questions asked.*

Display an image that is unfamiliar to your participants — such as an abstract painting — and ask them to write down as many questions as they can think of in three minutes. Once they have finished, ask them to share their questions with the group. When the last person has finished, go to break without making any mention of their questions.

Come back from break. Ask participants how they felt about the exercise. Most will likely express frustration that you wasted their time without acknowledging or responding to their questions. Apologize and explain that this was meant to illustrate the importance of responding to any questions asked by participants. If they ignore a farmer's question during a video dissemination, that farmer may feel equally frustrated and be less likely to participate in the future. Let them know that it is okay to not know the answer. They should tell the questioner that they are not sure, make a note of their question, and let them know that they will try to find an answer and get back to them. Then make sure to actually follow up.

ACTIVITY: SAY WHAT?

OBJECTIVE: *Facilitators learn the importance of actively listening and responding to their audience.*

Actively listening to someone can be increasingly challenging these days as we have more distractions in our lives. As facilitators, however, your staff will need to be able to hone and practice this skill. If they do not appear to be listening to a participant when they ask a question or speak, they may interpret the facilitator's actions as uninterested or disrespectful.

Begin by asking participants to define active listening. Then ask how many of them use active listening in their everyday lives. Now put them to the test. Divide them into groups of two. Ask one person in each group to tell their life story to their partner. Everyone should stay in the same room so they will have to listen past the background noise. After a couple of minutes, bring everyone back together.

Ask the listeners how well they felt they were able to listen to their partner's story. Then ask the speakers to share how well they felt the listener was actually listening to them. If there is a disconnect between the answers, ask participants why they think that is so.

You can then provide them with a few helpful tips on active listening:

1. **PAY ATTENTION** – Look directly at the speaker, avoid being distracted by your own thoughts or the environment.
2. **SHOW YOU ARE LISTENING** – Provide verbal and nonverbal cues that you are listening.
3. **PROVIDE FEEDBACK** – Paraphrase what has been said, ask clarifying questions, and summarize comments. All of these will help to confirm that you understand the speaker correctly and show the speaker that you are genuinely engaged in the conversation.

In the same groups, switch roles. The original listener should now tell their life story to their partner. The new listener should use the active listening techniques you have shared with them. Remind them not to focus too much on what those techniques are, because it could end up consuming their focus. Repeat several times in different pairs so that participants have ample time to practice.

ACTIVITY: IT'S ALL ABOUT PERSPECTIVE

OBJECTIVE: *Facilitators recognize the impact that experience and focal point have on shaping perspectives.*

Many of us trust in the universality of our visual perception. In other words, if you gather a dozen people in a room and show them a picture of a rose, they will likely all agree that it is a rose. According to psychologist Richard Gregory, however, this is not always the case. His theory of top-down processing theorizes that our brains determine what we see based on past experience. This means that, in theory, two people can see the exact same thing but interpret it as something different. Although our perceptions are generally accurate, occasionally our brains make the wrong assumption.

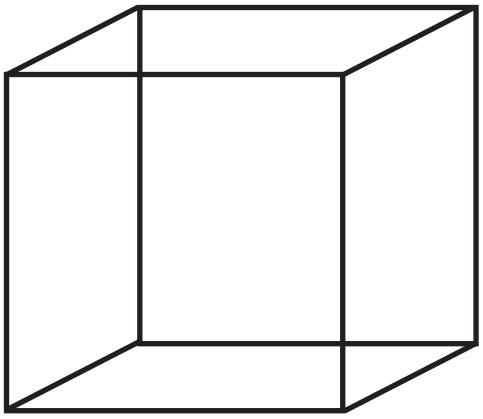
Whether you believe in Gregory's theory, it is still worth mentioning the impact of divergent visual perception. This point can be illustrated through a few different optical illusions on the following page. Depending on one's point of focus, a different image will appear.

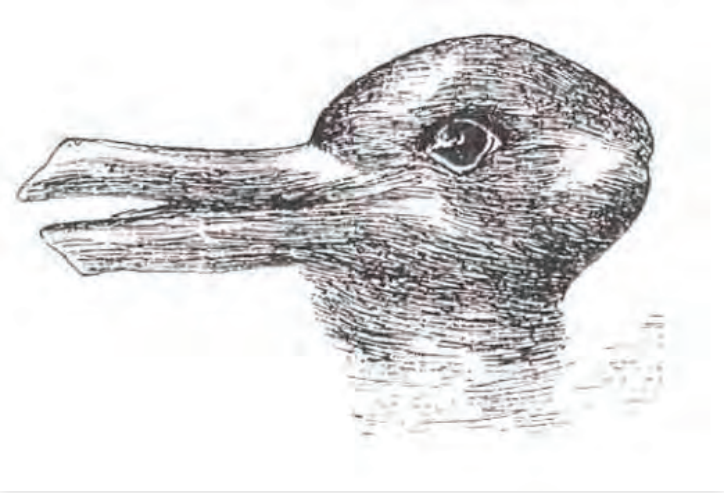
Present one of these images to the group. Ask them what they see. Divide them into groups based on what they see. If everyone sees the same thing, challenge them and say that you see the opposite image. Ask each group to try to convince the other group that they are right.

Give participants five minutes to carry out their debate. If no headway is made, inform the participants that they are actually both correct. The image changes depending on where our eyes are focused. This is important to recognize because sometimes a dozen different farmers may watch the same video and come away with different interpretations. As a facilitator, you need to recognize when this is happening so that you can guide your audience to a common perception. This may be through providing additional contextual information or by re-watching the segment in question to clarify the intention of the video. It is also important to realize that farmers may interpret what they see in the video based on their own

Clockwise from left:

- Necker cube
- Old lady, young woman
- Duck, rabbit





experiences. Recognition of this will help your facilitators to explore ideas further with participating farmers. Otherwise, the participants will continue to talk past each other like the two groups which each saw a different image.

ACTIVITY: INCLUSION AND EXCLUSION

OBJECTIVE: *Facilitators recognize the importance of including all participants during disseminations.*

As a facilitator, it is important to ensure that all participants are equally included during your disseminations. Despite our best intentions, it is natural to sometimes inadvertently exclude someone from a group who is different. That difference could be something as simple as being more soft-spoken or being a latecomer to the conversation.

One way to illustrate this point is to ask for a volunteer to facilitate a discussion among the group about genetically modified organisms (GMOs) and their place in local agriculture. In preparation beforehand, separately approach two participants without the knowledge of the other participants and ask for their help as volunteers. You should ask one participant to strongly take the opposite opinion on the issue as the majority of the group. This is to ensure that there is some dissent in the group. Ask the other participant to step out of the room at the start of the activity without saying anything to anyone, and not to return for 10 minutes. When they return, they should sit with the group but not say anything unless called upon.

Ask participants to sit in a circle and begin their discussion. Keep notes of what you observe. Does the facilitator make an effort to include all participants? How about the latecomer? If participants team up on the dissenter, does the facilitator do anything in response?

After 15 minutes of discussion, thank everyone for their participation and request to end the discussion. Ask everyone how they felt about this exercise? Did they feel like they were included in the conversation? If not, why? What might the facilitator have done differently to include them?

Point out your own observations and share with participants why it is always important for the facilitator to make sure that everyone is included. If the facilitator did a good job at including everyone, make this known as well. Remind everyone to be consciously aware of inclusion and exclusion while they are facilitating. If someone feels excluded, they may be more likely to stop attending in the future. Their lack of participation can also take away from the diversity of the discussion and the potential for collective, exploratory learning.

ACTIVITY: LEARNING TO USE THE EQUIPMENT

OBJECTIVE: *Facilitators learn how to appropriately use and manage the equipment.*

It is possible that the individuals you have selected to help disseminate your videos may not be familiar with the dissemination devices you have chosen to use. Even if they are familiar with the device, they may not have ever used it for video dissemination. You should provide ample opportunity for all of your facilitators to practice using the equipment, including:

- How to turn it on/off
- How to charge and replace the battery
- How to set it up
- How to load videos onto the device (if necessary)
- How to play and navigate videos
- How to troubleshoot issues (such as system freeze)

They will have more opportunity to use the equipment when they practice disseminating, but it is always best for them to familiarize themselves with the devices as much as possible beforehand.

ACTIVITY: RECOGNIZING THE PHASES OF BEHAVIOR CHANGE

OBJECTIVE: *Facilitators learn how to recognize and support farmers in each phase of behavior change.*

Each farmer will react differently to the information in a given video. The facilitator needs to be adept at recognizing where each farmer is in the process of behavior change so that they can tailor their support appropriately.

From its experience working with farmers in India, Digital Green has identified five distinct phases of behavior change.

- **RESIGNATION** – Farmer rejects the information presented in the video and the need for change.
- **EXPLORATION** – Farmer expresses interest in the information presented and how it works.
- **EXPERIMENTATION** – Farmer begins to experiment with the processes shown in video.
- **ACCEPTANCE** – Farmer accepts that the processes are worth adopting.
- **ADOPTION** – Farmer adopts the processes.

After you have shared this information with your participants, divide them into five groups and assign each group a different phase. Give the groups 10 minutes to discuss and write on flipchart paper facilitator strategies for supporting farmers in the behavior change phase they have been assigned.

Once they have finished, invite each group to present their experience to the larger group. Afterwards, facilitate discussion on what has been presented. Does anyone have any other ideas besides those presented? Present the following ideas on the roles that a facilitator should play:

- **RESIGNATION** – Facilitator should listen to farmers and accept their feelings, and should try to identify the root cause of resistance to see if there is any additional information they can provide.
- **EXPLORATION** – Facilitator should work with farmer to prepare a plan to support the farmer in exploring the process.
- **EXPERIMENTATION** – Facilitator should be supportive and provide help as needed.
- **ACCEPTANCE** – Facilitator should be supportive and provide help as needed.
- **ADOPTION** – Facilitator should continue to be supportive and explore if farmers are willing to share their experiences with other farmers, either through a video or other means.

If any of the roles that were defined by the groups are different from the ones listed above, discuss why that might be so and come to a final decision about the role of a facilitator during each phase.

HOW CAN OUR FACILITATORS PREPARE TO DISSEMINATE VIDEOS?

Once your facilitators have had enough time to practice the facilitation techniques provided above, you can begin to prepare them for actual dissemination. Before any dissemination, it is crucial that the facilitator has watched whatever video they will be screening and that they fully understand its learning objectives and core message. Selecting the right video is also extremely important. Whenever possible, you should only

select videos that are relevant to the audience's skill set, circumstances, interest, and planting season. For instance, if your farmers do not grow wheat, a video on wheat is probably not going to be of value to them, unless they have expressed interest in growing wheat beforehand. Also, if it is currently the planting season but you play a video on harvesting, it might not be the most-timely choice. Consider something related to planting instead.

It is also important for the facilitator to anticipate what questions farmers might ask about the video so that they are prepared with answers. One way of doing this is by simply listing all of the questions the facilitator (and any available colleagues) can think of and then ranking them based on their probability and importance. You can use the **Question & Answer Preparation Worksheet** to facilitate this process. Going through this process will help to ensure that facilitators are as prepared as possible in advance of each dissemination.

You are also encouraged to develop a checklist of the steps that your facilitators will need to complete before each facilitation. This will ensure that they are well prepared and help to minimize difficulties. The specifics of your checklist will depend on your dissemination process, but it may look something like this:

- ☑ Confirm screening time and location with group.
- ☑ Watch video to prepare.
- ☑ Prepare answers to potential questions.
- ☑ Check equipment and accessories.
- ☑ Prepare any documentation you need.
- ☑ Pack up all equipment, accessories, and documentation.

You should also prepare your facilitators for what the general structure of facilitated dissemination will be like. This will vary based on your own approach, but it will roughly be structured as follows:

1. Facilitator welcomes farmers.
2. Facilitator introduces the video to be played and explains why it was selected.
3. Facilitator plays video (pausing if necessary to answer questions).
4. Once video is complete, facilitator leads discussion with farmers.
5. Before finishing discussion, facilitator summarizes main points of video and discussion.
6. Facilitator records attendance and any other information being tracked.
7. Facilitator thanks participants and confirms next video screening time and location.

Each screening may take up to an hour for each 10-minute video after all of the other steps are taken into consideration. It is important for the facilitator to inform the group of the total amount of time needed in advance so that there are no misunderstandings about what is expected.

Once you have reviewed all of this with your facilitators-in-training, they are ready to begin practicing dissemination. Make sure that each facilitator has an opportunity to practice and receive feedback from their colleagues before they are assigned to begin live dissemination. Practice dissemination can be done in two ways: in front of their colleagues or in front of a group of volunteer farmers who will not be participating in ongoing dissemination. It is recommended that you first provide opportunities for practice in front of colleagues before moving onto practicing with farmers.

HOW CAN WE ENCOURAGE THE CONTINUOUS GROWTH AND IMPROVEMENT OF OUR FACILITATORS?

From the time you begin practicing dissemination, you should build in a feedback loop to encourage improvement. The best way to do this is to establish criteria for effective dissemination together with your team before practice starts, so that everyone understands how they will be rated. This will help them to perform their tasks in accordance with clear expectations and also enable you to provide them with constructive feedback based on those criteria.

A modified version of an evaluation form that is used by Digital Green, called the **Dissemination Observation Form**, is provided at the end of this Component. Whatever you decide to use should be based on your own objectives, but this will give you an idea of how another organization is evaluating its facilitators. For example, rather than a grading system, you may want evaluators to write their comments and observations on the form, or perhaps you prefer a combination of grades and comments.

During the training phase, you should have all facilitators-in-training complete your evaluation form each time one of their colleagues is practicing disseminating a video. Once they have completed their dissemination, solicit feedback from the group on what they liked and what they thought could be improved. This process of continuous feedback during the training stage will enable your facilitators-in-training to internalize what is expected from them and how they can achieve those expectations.

You may also want to consider soliciting feedback from farmers who participate at practice dissemination screenings. This can be done using the same evaluation form, an abbreviated version, or through a facilitated discussion. If facilitating a discussion, it is best to include other facilitators-

in-training as well so that farmers see that providing feedback is a natural part of the process and that they will not be judged by what they say. This feedback from farmers can be invaluable in helping your facilitators-in-training to adequately adjust their approach to meet the needs of a typical audience.

CRITICAL SUCCESS FACTORS

- Audience is clearly defined.
- Appropriate method for engaging your audience is selected.
- Staff are well-prepared and receive ongoing feedback.
- Disseminations are facilitated.
- Messaging is reinforced through other media.

You should also encourage each facilitator to complete their own self-evaluation form after each dissemination they facilitate, both during training and as part of the actual dissemination activity. This will enable them to measure their own progress and continue to strive for self-improvement. This does not need to be something that they submit or share with their peers or supervisor.

Once you have begun actual dissemination, it is helpful to periodically ask facilitators and other project staff to attend their colleagues' disseminations to provide feedback. This will enable facilitators to learn from each other and further improve their own techniques. Scheduling for this should be built into your dissemination plan. It is important that facilitators understand that this exercise is not intended to catch them doing anything wrong, but rather a structured and continuous activity focused on improvement. You should also consider occasionally soliciting feedback from farmers about the dissemination techniques used by your facilitators. This will show that you value their input and will also help your facilitators to adapt their techniques to better suit the needs of their audience. More details on creating a farmer feedback loop can be found in **Component 5**.

NOTES

4

WORKSHEETS

Dissemination Selection Worksheet

Dissemination Plan Worksheet

Question & Answer Preparation Worksheet

Dissemination Observation Form

DISSEMINATION SELECTION WORKSHEET

OBJECTIVE:

ASSESSMENT CRITERIA	DISSEMINATION OPTION					
Strengths of each option						
Weaknesses of each option						
Current staff capacity						
Potential costs						
Is this an appropriate option? Why?						

DISSEMINATION PLAN WORKSHEET

PRIMARY DISSEMINATION METHOD: _____

SECONDARY METHOD(S): _____

FREQUENCY: _____

LOCATION(S): _____

FACILITATION METHOD: _____

_____

DISSEMINATION STRUCTURE: _____

_____

REQUIRED STEPS	TIMELINE	PERSON(S) RESPONSIBLE	MATERIAL NEEDED

QUESTION & ANSWER PREPARATION WORKSHEET

INSTRUCTIONS: *Rate importance and probability of questions as low, medium or high. Prepare responses for any questions that are rated high importance and probability, medium importance and high probability, or high importance and medium probability.*

You can use the final column (Asked?) to record whether the question was actually asked, if you would like to track this information.

QUESTION	IMPORTANCE	PROBABILITY	RESPONSE	ASKED?

digitalGREEN

DISSEMINATION OBSERVATION FORM

PAGE 1/2

OBSERVATION DATE: _____ **FACILITATOR:** _____

VILLAGE, DISTRICT: _____

OBSERVER'S NAME: _____

S/N	PHASES AND STEPS WITHIN A DISSEMINATION/SCREENING	GRADE
Introduction		
1	Did the facilitator put participants at ease when initiating the screening?	
2	Did the facilitator engage in initial discussions with participants that appeared natural?	
3	Did the facilitator make the screening environment comfortable for participants?	
4	Did the facilitator share her/his purpose for coming?	
5	Did the facilitator invite feedback on the last video shown and experiences related to adoption?	
Preparing Attendees for the Screening		
6	Did the facilitator share information about the background of the lead farmer and why his/her initiative has been chosen to be screened here?	
7	Did the facilitator share why this group has been chosen to view this video?	
Facilitating Collective Exploration		
8	Did the facilitator engage in a purposefully led conversation rather than a question/answer session?	
9	Did the facilitator actively listen to participants?	
10	Did the facilitator maintain eye contact with participants while speaking with them?	
11	Did the facilitator help participants explore subject matter by using open-ended questions?	
12	Did the facilitator encourage participants to share their experiences on the subject?	
13	Did the facilitator encourage silent participants to express their views?	
14	Did the facilitator involve all the participants by allowing them to ask questions?	

CONTINUED →

DISSEMINATION OBSERVATION FORM

S/N	PHASES AND STEPS WITHIN A DISSEMINATION/SCREENING	GRADE
Facilitating Collective Exploration (continued)		
15	Did the facilitator help participants to adequately explore each subject area before moving to the next one?	
16	Did the facilitator summarize the discussion before moving to documentation and closure?	
Documentation and Closure		
17	Did the facilitator help participants generate ideas and explore options for adopting the approach or technology shown in the video?	
18	Did the facilitator wrap up the discussion by thanking participants for their time and participation?	
19	Did the facilitator record attendance and other documentation?	
Overall grade (this is a cumulative grade for all four stages)		

Signature

Grading:

5 — EXCELLENT

4 — JUST ABOVE EXPECTATIONS

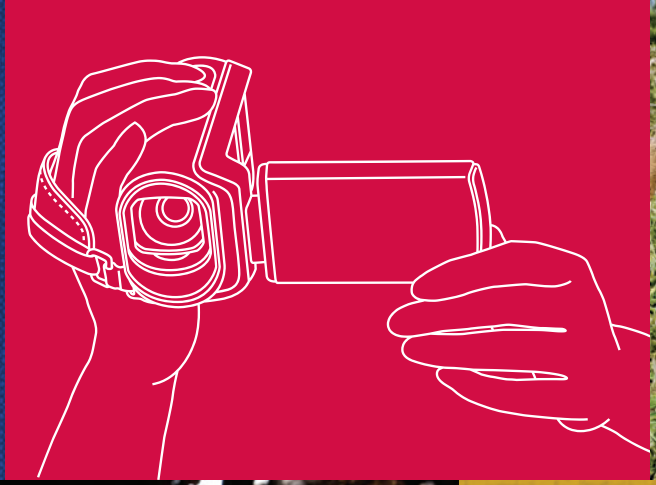
3 — MET EXPECTATIONS

2 — BELOW EXPECTATIONS

1 — UNACCEPTABLE

Comments:

This form has been modified from the version that is used by Digital Green.



5

HOW CAN WE TRACK THE IMPACT THAT OUR VIDEOS ARE HAVING ON FARMERS?

Once videos have been produced and shared, it is important to learn how they are being used and what, if any, impact they may be having. This Component highlights various ways that you can track video usage and measure impact. In addition, it includes suggestions for how to capture farmer feedback to better inform the creation of new content development.

COMPONENT GOALS

BY THE TIME YOU HAVE FINISHED THIS COMPONENT YOU WILL:

- ✓ *Have determined what your indicators will be and how you will collect information.*
- ✓ *Know how to incorporate farmer feedback to improve your approach.*

THE QUESTION OF HOW TO MEASURE THE IMPACT that your videos are having on farmers is bound to be an important one. Not only will you want to know this information yourself so that you can determine which approach is having the greatest impact, but you also will likely have to report this information to donors. Some of the information you track may be pre-determined according to established donor indicators, but more likely than not, you will need to decide upon the most appropriate indicators of success with your project team. Choosing the right indicators is crucial to ensuring that you are appropriately capturing the information you are interested in for assessing impact.

This Component assumes that your available resources and staff capacity for conducting ongoing monitoring and evaluation are modest. It will not cover more resource-heavy approaches, such as conducting randomized controlled trials (RCT) to measure impact. While such approaches can certainly be very robust, if you are planning to use an RCT or other intensive approach, you will likely already be working with an expert — or team of experts — who can guide you through the process.

WHAT INFORMATION SHOULD BE COLLECTED?

To determine what data you should be collecting, the first thing that you need to ask yourself is what you want to achieve. You should have already begun this process with your Implementation Plan. Together with your team, ask yourselves what success will look like. Work together to identify indicators that are directly related to your desired consequences and that, when achieved, will illustrate that your desired consequences have been met.

One of the indicators that you are likely to capture is the number of farmers exposed to your videos. While this information can be useful in gauging farmer interest over time and comparing turnouts in different

locations you are working in, it is a poor indicator of impact. Simply showing up to watch a video does not mean that the video has had any effect on the farmer's life or agricultural practices. Try to look for indicators that show some level of change has occurred. These could be indicators related to improved farmer income, changes in farming techniques, or increased knowledge of specific subjects, to name just a few examples.

You should also determine what success will look like for each of those indicators. If, for example, one of your indicators is a change in farming techniques, how will you define successful achievement of that indicator? You may consider any farmer who has adopted the new technique for more than one planting cycle as a success, or you may count anyone who has experimented with the technique. Based on how the indicator is defined, you should also set a target for your activity, such as 25% of farmers who watch a video end up adopting the technique that is showcased.

If you are able to compare this data to farmers who have not been exposed to your videos, it will likely be even more helpful for illustrating impact. A prime example of this is change in income, which may vary due to positive or negative economic factors unrelated to your project. If the average farmer who watches your videos sees their income increase by 25% over a set period, but the average change of similar farmers not participating is 30%, the videos might not be a significant factor affecting income. On the other hand, if non-participating farmer income only increases by 5%, it may mean that your videos are having a positive impact.

As part of the process of developing your indicators, you may find it helpful to create your own *theory of change*, which explicitly states your assumptions about how your work will lead to the changes you seek to produce. A theory of change will also help you to map out exactly what intermediary accomplishments you will need to meet to achieve your overall goals. One exercise that you may find useful is to create a chain linking your strategy to your objective via necessary outcomes.

For example, if your strategy is to use low-cost videos to share agronomic information with farmers, and your objective is to increase the productivity of farmers, your theory of change might look something like this:

STRATEGY	Share agronomic information with farmers using low-cost video
INTERMEDIARY OUTCOME	Farmers have increased knowledge of improved agronomic practices shown in videos
INTERMEDIARY OUTCOME	Farmers have experimented using improved agronomic practices shown in videos
LONG-TERM OUTCOME (OBJECTIVE)	Farmer productivity has increased when compared to baseline productivity level

Once you have mapped out your theory of change, your team can use it as a starting point to discuss which indicators they think should be measured as part of your video activity. Write each indicator on flipchart paper. You may also want to write down why each indicator you have identified is important. Once you have finished this exercise, discuss each indicator as a group and decide how to label each one using one of the following tags:

- **ESSENTIAL** – This indicator needs to be measured.
- **IMPORTANT** – This is an important indicator, but not essential.
- **NOT IMPORTANT** – This indicator might be interesting, but it is not important to your donor, your project team, or your beneficiaries.
- **NOT POSSIBLE** – This may include an indicator that is essential or important, but that you do not have the resources or capacity to actually measure.

You may also find it helpful to use the **Indicator Selection Worksheet** at the end of this Component to help you to organize your team's decisions. The worksheet also includes sections for 'How?', 'Who?' and 'What?' so that you can begin to think about how these indicators will be measured, who will measure them, and what your targets will be. An example of what a partially completed version of this worksheet might look like is included below.

INDICATOR	RELEVANCE*	HOW WILL IT BE MEASURED?	WHO WILL BE RESPONSIBLE?	WHAT ARE OUR TARGETS?
Increased farmer income	Essential	Annual household surveys with farmers	Government agents	Farmers see 25% income growth in one year
Adoption of improved practices	Essential	Monthly surveys of farmers	Field officers responsible for dissemination	At least 30% of farmers adopt at least one practice
Increased income compared to farmers not exposed to videos	Important, but not possible due to capacity limitations	N/A	N/A	N/A

** Essential, Important, Not important, Not possible*

This process will hopefully help you to determine not only which indicators you would like to measure, but also which ones are possible to measure. In the example above, although the project felt that having comparative data on income changes of exposed and non-exposed farmers was important, it was not possible given the project's limited capacity. Beware of collecting data that is interesting, but that you ultimately will not end up using. Data collection and processing can be an added burden on your staff, so make sure that you only collect information that will be useful for you.

Another thing that you may want to consider capturing is farmer feedback about your videos and your dissemination methods. This information is not directly related to impact, but can help you to improve your videos and dissemination approach. Questions may include the following:

- Which videos that you have seen do you think were the most effective?
- Which videos did you like least/think were the least effective?
- How can we improve our dissemination approach?
- How can we improve our videos?
- What topics are you interested in that you have not yet seen?
- If you have missed screenings, what are your primary reasons for not attending?

Periodically capturing this information will help you to continuously improve your content and dissemination methods. It will also give participating farmers a stake in your video activity. Rather than being potentially seen as an activity that is being done to them, it will show farmers that your activity is being done for them and with their input. Of course, this does not mean that you need to accept all of the suggestions you are given, particularly when they do not fall within your scope of work or current capacity. Those suggestions that you are able to implement, however, are certainly worth integrating into your activity.

It is important not to assume that one community's feedback is representative of your entire audience. Implementing a single community's suggestions without first checking to see that they have broad appeal

across your entire audience may reduce participation by farmers from other communities. If you are unsure of the appeal of a given suggestion, consider raising it for discussion with a larger number of groups you are working with. You can also pilot test the changes in a couple of screening groups to see how people react. This is worth considering even when an idea does have broad appeal, as sometimes ideas that seem good on paper do not meet expectations when they are implemented.

HOW SHOULD THIS INFORMATION BE COLLECTED?

ACTIVITY INDICATORS

Once you have identified your activity indicators, you will need to consider exactly how you plan to collect your data. Much of this will depend upon the context in which you are working and what information you want to collect.

If you will be facilitating your videos, you can use your screening as an opportunity to collect information from your participants. Digital Green is a good example of an organization that has integrated its data collection into its video dissemination process. At each screening, the facilitator (or mediator, in Digital Green parlance) collects information on the video screened, the location of the screening, the farmers present, whether they expressed an interest in the technique or process showcased, any questions they asked during the screening, and whether they have adopted any techniques or processes showcased in prior videos. A modified version of this form, which they refer to as a **Dissemination Record**, can be found at the end of this Component.

If you are going to screen your videos with the same groups of farmers each time, you might want to consider collecting some baseline information on each farmer when they register to participate, such as:

- Name
- Age
- Sex
- Household income
- Amount of land farmed
- Crops planted
- Total yield
- Where crops are sold
- Specific information on techniques used that you are interested in

You can then re-administer this survey to participating farmers at regular intervals, such as every six months, to track whether there have been any changes over time. Together with information you collect on which videos farmers watch and which techniques they have expressed interest in adopting or experimenting with, you will be able to use this baseline comparative data to measure the impact of your videos on each participant.

It is important to try to incorporate periodic, randomized checks to confirm the validity of the data you are collecting to the extent that it is possible. This is necessary because individuals may sometimes inaccurately self-report. Out of respect to the facilitator, a farmer may say that they are interested in a technique or that they have already begun adopting it, even though they have not. Alternatively, they may have honestly tried to adopt the technique but have adopted it only partially or incorrectly. There

is also the possibility that, for whatever reason, the facilitator has recorded the information incorrectly. Not only will random checks help to identify and correct erroneous data, but they will also help you to identify any challenges that farmers may be having with adopting specific techniques or processes.

How you collect data depends on your staff capacity and availability of resources. The most common approach is to use pen and paper to collect the information. This can be preferable if you do not have the technical capacity or resources to use digital collection methods. If the cost of using a digital method is off putting, consider first assessing what the true cost of paper collection is compared to other methods. Anything collected on paper will eventually need to tabulated, most likely by a staff person who will need to input the information into a database. The cost in terms of staff time and delays in data input can add up over time to more than what a digital method would cost over the same time period, despite the slightly higher initial investment.

Some of the digital options that may be worth considering are:

- **MOBILE PHONES** – The simplest way to use mobile phones to collect data is by SMS using a client application hosted on a server. RapidSMS is one example of a service that uses SMS for data collection. You can use a Java-enabled feature phone or smart phone to collect data even when you are out of network range. Services such as iFormBuilder, EpiSurveyor, doForms, and others offer easy-to-create forms that can be used on mobile phones for free or at reasonable prices. You will want to check with several providers before making a decision to ensure that their services are compatible with your needs and that their prices are within your budget. Some services even include features for recording signatures or participant photos if that information is of interest.[1]

[1] For more information on using mobile phones for data collection, read Melissa Loudon's article on Mobile Phones for Data Collection posted online at: http://mobileactive.org/howtos/mobile-phones-data-collection. Although it was written in 2009, it provides a good overview of the different mobile data collection solutions available and how they function.

- **TABLETS** – Similar to the options available for mobile phones, many of the above providers and others offer forms that are compatible with tablets.
- **LAPTOPS** – If your facilitators already have laptops and if they are not too burdensome to bring with them in addition to other dissemination devices, they could enter data directly into their laptop using offline surveys or a simple Excel spreadsheet.
- **DIGITAL PENS (OR SMART PENS)** – Digital pens are devices that convert handwriting into digital data, which can then be uploaded onto a computer. These can be especially useful if you want to also have original hardcopies of your surveys or data-collection tools. Note that some of these devices require special types of paper to function properly; this can be expensive. Unless you are already using digital pens for other purposes, however, they are probably not worth the investment given the other options available.

A great resource for learning about the latest developments in mobile tools for development is MobileActive. Their mDirectory (http://mobileactive.org/directory) is loaded with case studies, information on mobile tools, research, and how-to guides. Digital Green has also developed a fairly robust open-source database called COCO, which stands for Connect Online | Connect Offline. Since it was specifically built for collecting data related to video dissemination, COCO may be appropriate to your needs as well. More information on COCO, including an evaluation trial and its web-based analytics dashboard, can be found online at http://www.digitalgreen.org/tech/. If you are interested in using COCO for your own data collection, contact Digital Green directly to discuss how it might be adapted to suit your needs.

The process of data collection becomes much more difficult if you are using a non-facilitated dissemination method. If you know the specific groups or farmers that are viewing your videos, you could mail them

the baseline survey and copies of your video screening tracking form to complete on their own. Alternatively, if you are able to send a staff person to each group to facilitate the collection of data on occasion, you might want to consider that as an option. If the mobile phone penetration of the groups you are working with is high enough, you could send requests for information via SMS to each farmer.

If you are uncertain who your viewers are, it becomes a bit more challenging to collect data on them. This will likely be most common if you are using broadcast television or providing your videos on VCD/DVD to people in the community without registering them. One of the ways that you can try to gather data is by including contact information with each of your videos, along with an incentive to encourage people to contact you.

For instance, you might ask viewers to call you to receive a free seed packet, mobile phone credit, or other small gift. Individuals who call in will first need to complete a survey with several questions that you are interested in, including their contact information, before receiving the prize. You can do this by having your staff take the calls, outsourcing to a private call center, or setting up an interactive voice response (IVR) system to guide callers through the survey. Once you have people registered, you can place follow-up calls to assess any change, although given the high churn rate of SIM cards in many countries, your respondents may not have the same phone number by the time you follow up. Another idea is to partner with retailers or cooperatives to distribute the incentives and collect the information from farmers. The downside, however, to any incentive scheme is that farmers may complete the survey just to receive the incentive, which would corrupt the validity of your data. One way to prevent this is to include a couple of questions related to the content of each video in the surveys, although this can become burdensome as the number of videos you have created grows.

Try to think creatively about how you might be able to reach these unknown viewers. Above are just a couple of ideas, but there may be other more locally appropriate ways to identify and follow up with your viewing audience.

However you decide to collect data from your target audience, make sure you have clearly defined your approach in your implementation plan before you begin any video dissemination. Doing so will ensure that your team is well prepared to customize your data collection forms and that processes are in place to analyze the data that you collect. If you wait until after you have started disseminating videos or if you continually revise your plan or questions after dissemination has begun, you may end up with inconsistent data that will be more difficult to analyze for meaning.

FARMER FEEDBACK

Collecting farmer feedback on your dissemination approach, topics and video quality can be done in a number of ways. Perhaps the most convenient, at least logistically, is to gather this feedback during video dissemination sessions. When collecting any feedback from farmers, it is crucial that you explain to participants exactly why you are collecting their feedback and how you plan to use it. You should also let them know that you encourage their open and honest opinions, and that nothing they say will affect their participation in the screenings.

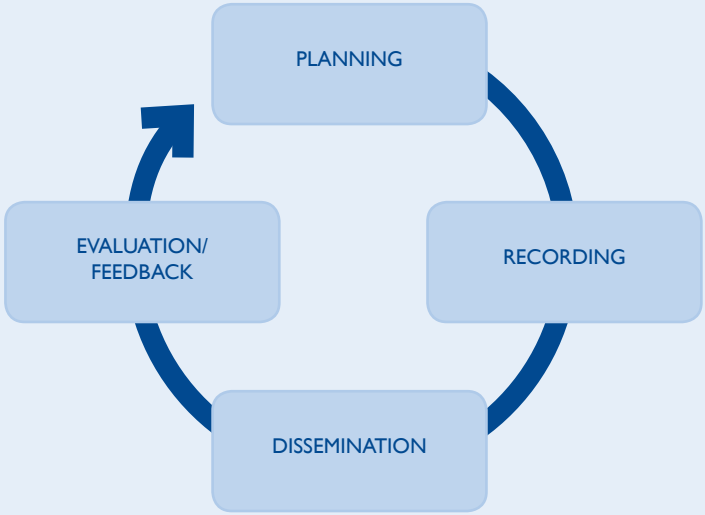
If your farmers have a basic level of literacy, you can solicit feedback using a short paper survey. This should only be done if you are certain that all of your participants have a level of literacy necessary to complete the survey so you do not exclude anyone. If not, you will want to consider soliciting

verbal feedback from participants. This can be done by setting aside time at the end of screening sessions on a regular basis. If you are concerned that participants may not be fully forthcoming with their true opinions in front of their regular facilitator, you may consider asking another member of your team to facilitate this discussion instead. A **Focus Group Discussion Guide** has been included at the end of this Component. This will help to give you some ideas on how to facilitate this discussion, and will be particularly helpful if you decide to conduct a more-structured focus group.

If you do not know exactly who your audience is, collecting feedback will be similarly challenging as it is collecting data against your indicators. You will likely find it easiest to use the same methods for collecting both sets of information.

Building in a farmer feedback loop will enable you to continuously improve your content and dissemination. A simple way of doing this is to ask farmers to rate videos that they watch on a one-to-five scale after each dissemination. Using this data, you will be able to track which videos farmers prefer most, and can even disaggregate the data by gender, location, or other factors. This may be helpful in determining which videos to show to similar audiences in the future, what styles or topics are most popular, and what videos you may need to consider changing. This type of basic rating system can be easily collected during facilitated screenings. You can also use a basic SMS polling application to collect ratings from individuals who have viewed your videos at other locations by including directions at the end of the video.

Illustration of Feedback Loop



Whether collecting simple video ratings or more substantive feedback from farmers through surveys or focus groups, the most important thing is that you use that feedback to improve. You might want to consider holding a quarterly meeting with your staff to present the results of the farmer feedback you have collected. This is a great opportunity for everyone to see what is working, what needs to be improved, and to discuss what specific actions can be taken by your team. When you do make adjustments, share your decisions with the farmers you work with so that they see that you take their feedback seriously.

You should also track the changes that you make over time so that you can compare how the changes you make rate against each other. For instance, you may have decided to increase your use of narrated videos after your facilitated videos received low ratings only to find that the new videos rated even poorer. This might be a sign that you may need to ask additional questions to determine if there is anything specific about your videos that is not resonating with farmers. It may be that the issue is not related to the story style but to some other factor instead.

By continuously collecting and integrating feedback into your work with video, you will be able to improve the relevance that your videos have for the farmers you are working with. Over time you will likely find that these farmers will become more eager to participate and share what they learn with their friends and family. Ideally, this will lead to positive changes in the indicators that you are tracking.

CRITICAL SUCCESS FACTORS

- Establish indicators that measure outcomes and impact, not just outputs.
- Create a feedback loop to integrate farmer feedback and make improvements.
- Collect data using ICT tools where appropriate.

NOTES

5

WORKSHEETS

Indicator Selection Worksheet

Dissemination Record

Focus Group Discussion Guide

INDICATOR SELECTION WORKSHEET

INDICATOR	RELEVANCE*	HOW WILL IT BE MEASURED?	WHO WILL BE RESPONSIBLE?	WHAT ARE OUR TARGETS?

* *Essential, Important, Not important, Not possible*

digitalGREEN

DISSEMINATION RECORD

PAGE 1/2

DATE: _____ **START TIME:** _____ **END TIME:** _____

VIDEO TITLE: _____

VILLAGE: _____

LOCATION OF SCREENING: _____

NAME OF GROUP: _____

FACILITATOR'S NAME: _____

S/N	GIVEN NAME	SURNAME (OR FATHER'S GIVEN NAME)	M/F	ATTENDANCE	INTERESTED*	QUESTIONS & COMMENTS (LIST BELOW)	EXPRESSED ADOPTIONS (VIDEO TITLE, DATE, AREA)	PARTICIPANT SIGNATURE
1								
2								
3								
4								
5								
6								
7								

*** EXPRESSED INTEREST IN TECHNIQUES SHOWN? (YES/NO)**

CONTINUED →

PAGE 2/2

S/N	GIVEN NAME	SURNAME (OR FATHER'S GIVEN NAME)	M/F	ATTENDANCE	INTERESTED*	QUESTIONS & COMMENTS (LIST BELOW)	EXPRESSED ADOPTIONS (VIDEO TITLE, DATE, AREA)	PARTICIPANT SIGNATURE
8								
9								
10								
11								
12								
13								
14								

*** EXPRESSED INTEREST IN TECHNIQUES SHOWN? (YES/NO)**

Facilitator Comments:

Facilitator's Signature

This form has been modified from the version that is used by Digital Green.

FOCUS GROUP DISCUSSION GUIDE

INTRODUCTION

Holding a focus group discussion is a good way to learn about people's interests, perspectives, opinions and knowledge about different topics. Knowing the perspectives, attitudes and desires of your target audience is essential to developing relevant video content, support services, and dissemination approaches.

CREATING AND RUNNING A SUCCESSFUL FOCUS GROUP

The following provides some tips and suggestions for creating and running an effective focus group discussion.

SETTING UP THE FOCUS GROUP

- Ideally, at least two people should be involved in running a focus group discussion. One of these will ask the questions and guide the discussion. The other person, who will sit off to the side, will take notes on the discussion. It is important that the person asking the questions not take notes on the responses. This can be very distracting and will likely inhibit an open and free discussion. If you are unable to find two people, you may consider recording the discussion and then transcribing it later.
- The optimal number of participants in a focus group is 4 to 8. You should have no more than 12 people in any focus group session.
- The focus group meeting should be held in a comfortable and quiet location.
- Information about the purpose of the focus group meetings, the topics that are to be discussed, and how the participants will be selected should be distributed to the community to ensure transparency.
- Each focus group meeting should not last longer than one hour.

FOCUS GROUP DISCUSSION GUIDE

PREPARING FOR THE FOCUS GROUP

- The individuals identified to organize and run the focus group discussions should clearly define the primary objective of the discussion and come up with simple questions that can be used to stimulate a discussion among the individuals invited to participate in the focus group discussion.
- Four to eight primary questions and/or discussion topics should be developed for each focus group discussion.
- If possible, you should arrange for someone who is not the primary video dissemination facilitator to moderate the focus group discussion.
- Be sure to have light refreshments available for participants during the focus group.
- You may also want to have name tags for each participant so that the facilitator can address people directly by name.

CONDUCTING THE FOCUS GROUP

- At the start of the session, the facilitator should greet all of the participants and make sure that they are comfortably situated. The facilitator will then want to review the objectives of the focus group and stress the confidentiality of participants' comments before starting.
- The focus group facilitator should seek to engage the members of the focus group in an open and dynamic discussion and debate about the focus group questions. The facilitator should avoid a simple question-and-answer session. Some of the most important information will emerge when the participants start discussing the question or topic among themselves. One way to do this is for the facilitator to ask one participant what he or she thinks about what one of the other participants has said. Another technique is to ask the group if anyone disagrees with what was just said, or to ask if anyone has a different opinion to share. After being prompted in this way, participants will likely start to engage in an open discussion. The facilitator should encourage participants to provide detailed responses and not just "yes" or "no" answers.

FOCUS GROUP DISCUSSION GUIDE

- During the discussion, the person asking the questions should ask follow-up questions to encourage the participants to provide specific information. It is common for participants to initially respond to a question with very general and broad comments. The questioner will need to ask follow-up questions that will gently push the participants to provide specific responses.
- The facilitator should also ensure that all members of the group participate in the discussion by asking each member to respond to different aspects of the discussion. This is necessary because some participants may feel intimidated or shy about expressing their opinions in the presence of others.
- It is common for participants to take the discussion in a direction that is different from what the focus group was organized for. When this happens, the facilitator should remind the participants why they are there and then follow-up with a new question to return the discussion back to the focus on the topic.

After the focus group discussion is over, the facilitator should thank the participants for taking the time to participate. The facilitator should also explain that the results of the focus group discussion will be written up and shared with your project team to assist with improving the video activity.

The person who took notes during the discussion should immediately write a full report of the discussion. When writing up the report, make sure that participants' names are not linked to comments made during the session. This will ensure that their opinions are treated confidentially. The first draft of this focus group report should be shared with the facilitator, who will add to the report. A final version of the report should include the names of the focus group participants so that the project team can ask them for clarifying information if needed.

This guide has been adapted from the Computer System Sustainability Toolkit: A Practical Guide for Schools by Eric Rusten, FHI 360, 2010.


TC 00:00:00.00
CINE D
HD1080i
ALC
30P
2:27:00
F2.4
MF29
ZOO
6

WHAT ARE THE TECHNICAL CONSIDERATIONS WE NEED TO KEEP IN MIND?

There are a number of technical choices that need to be made before you can begin shooting or disseminating any video. This Component includes overviews of the different types of low-cost video recording devices, their strengths, weaknesses, and examples of situations for which they may be most appropriate. It also covers peripheral devices, editing software, and other important technical choices. This section will not make recommendations for the best devices. Instead, it aims to inform you of likely technical considerations, so that you can assess what is most appropriate for your situation.

COMPONENT GOALS

BY THE TIME YOU HAVE FINISHED THIS COMPONENT YOU WILL:

✓ *Be able to determine which devices, accessories, and software you will use for your video activity.*

NOW THAT YOU HAVE DECIDED how you want to incorporate video into your project, you will need to determine which devices are most appropriate to achieving your objectives. Since the right combination will vary based on each situation, it is not possible to suggest exactly what choices you should make. This Component will, however, help you to understand most of the options available and guide you through the process of making your own determination. These options have been divided into four core sections, as follows:

1. Video Devices
2. Dissemination Devices
3. Peripheral Devices and Accessories
4. Software

All of the information included in this section was accurate at the time of publication, but it is important to remember that video technology, like most other digital technologies, continues to develop at a rapid rate. Before you make any final decision, you are encouraged to do your own independent research into other consumers' opinions and whether there have been any advances in technology that might better serve your technical needs. CNET (http://reviews.cnet.com) is a great resource for both expert and consumer reviews.

You can use the **Cost Calculation Worksheet** in the worksheet section of this Component to keep track of your total estimated cost of equipment, accessories, and software. Although hardware and software costs will comprise only a small portion of the total costs associated with implementing any activity, they can add up. This worksheet will help you to calculate a rough estimate of what these costs will likely be. If your estimated costs are above your available budget, you will need to revisit the scope of your activity or the methods you are planning to use.

The worksheet is divided into five columns:

- **ITEM** – This is the name or type of device, accessory, or software you plan to use.
- **DISTRIBUTION** – This is the scope of distribution for each device. For example, you may plan to distribute video cameras to each district and projectors to each village.
- **# NEEDED** – Based on your distribution plans, this is the total number of items needed for the activity.
- **PRICE PER UNIT** – This is the price per unit of each item.
- **TOTAL PRICE** – This is the number of items needed multiplied by the price per unit.

Once you have listed everything that you plan on purchasing to implement your activity, add up the total price of each item to determine your overall cost. If you are operating a multi-year project, you will want to also consider estimated replacement costs. You should base your replacement rate on prior experience in the country you are working in, since environmental conditions and likelihood of theft will vary. As a general rule, you should estimate that most of your electronic devices will need to be replaced within three years. Other accessories, such as tripods and bags, will likely last much longer.

All price estimates mentioned below are accurate as of March 2012 and based on retail prices in the U.S. Prices and availability may vary in other countries.

VIDEO DEVICES

This section will consider the strengths and weaknesses of the four different types of video devices that are currently most commonly available on the market: pocket (or mini) camcorders, standard camcorders, pro-sumer (or professional consumer) camcorders, and multifunction video devices.

POCKET CAMCORDERS

OVERVIEW Pocket camcorders are small, point-and-shoot devices that have become popular because of their ease of use, size, and cost. Most models are limited to buttons for on/off, recording, volume, and playback, making them easy to use for even a complete novice.

STRENGTHS The biggest strengths of these devices are their ease of use, compact size, and affordable cost. They often also come pre-loaded with basic editing software that can be used for quick and easy video editing. An increasing number of these devices are available in high definition (HD), although their limited chip and lens capacity may inhibit true HD quality.

WEAKNESSES Internal microphones are often of limited quality, picking up most background noise. HD video quality may not be as high quality as video produced on standard or professional models. Most only have low quality digital zoom and limited or no ability to make manual adjustments (focus, white balance, etc.).

CONTINUED →

WHEN MOST APPROPRIATE

Their low cost and functionality make them ideal for use by individuals with no or limited experience, such as farmers, field workers, etc.

THINGS TO CONSIDER

Before settling on a specific model, check for the following specifications:

Audio input (microphone) jack. Given the limitation of their internal microphones, an audio input jack is crucial. This will enable you to use an external microphone to improve audio quality.

Expandable memory. The internal memory of most pocket camcorders is only enough for about two hours of filming. Models with expandable memory slots will enable you to use extra SD memory to increase the amount of filming you can do during one shoot.

Battery type. Most models use lithium ion batteries, although some run on AA batteries. Whatever the case, make sure that the batteries are removable and that they can be charged separately from the device. Charging batteries directly on the device increases the risk of damaging the camcorder in the event of power surges, especially once power is restored after a blackout. Battery life averages about 90 minutes in most pocket camcorders, so having at least two removable batteries and a way to charge the one not currently in use while recording is crucial.

CONTINUED →

THINGS TO CONSIDER (CONTINUED)

Audio connection. Most pocket camcorders record in mono, although a few do have stereo audio. If it is important for you to record in stereo, then you will want to keep this in mind. If you are unsure of the difference between mono and stereo, then you should be fine with either.

Availability. Two of the most popular brands (Flip and Kodak) have announced recently that they will be discontinuing production of their pocket camcorders. This will eventually impact technical support available for their models. Keep this in mind when purchasing either of these brands or even when purchasing from other brands. This is also important to consider if you are purchasing models that are not locally available, as you may need to return them to the country of origin in the event of any technical difficulties.

ESTIMATED PRICE RANGE

Most standard models cost between $100 and $150. Fuller-featured compacts reach around $200. Sony, Creative, RCA, Sanyo, Aiptek, and Zoom are all well-known pocket camcorder brands on the market.

STANDARD CAMCORDERS

OVERVIEW	Standard camcorders are generally about two to three times the size of pocket camcorders. They tend to have much more robust features than their smaller cousins, including higher-quality video and audio, optical zoom capability, larger screens, and more robust onboard features.
STRENGTHS	Generally speaking, most standard camcorder models will enable you to produce videos that are of a higher technical quality than pocket camcorders.
WEAKNESSES	Although prices vary, they are all more expensive than pocket camcorders. Audio input jacks may not be available on all models. Their additional features may be intimidating to novice users and could actually lead to lower video quality from improper usage.
WHEN MOST APPROPRIATE	Standard camcorders are probably best for use by individuals with at least a moderate level of experience creating video. They are likely not appropriate for use directly by farmers or field officers without in-depth training.
THINGS TO CONSIDER	The diversity of options and features of standard camcorders is expansive. Make sure that you research which model is most appropriate to your specific needs.
ESTIMATED PRICE RANGE	Prices for standard camcorders range roughly between $200 and $1,000 depending on features and quality.

PRO-SUMER CAMCORDERS

OVERVIEW	Pro-sumer camcorders come with all of the features that a videographer could possibly ask for, including wide-angle lenses, full-HD capability, and a suite of onboard features.
STRENGTHS	In terms of video and audio quality, these camcorders are the best you will be able to find short of a movie studio.
WEAKNESSES	The primary weakness from the perspective of most agriculture projects is the price and finding someone skilled enough to operate this type of camcorder.
WHEN MOST APPROPRIATE	Pro-sumer camcorders are most appropriate for use by or under the supervision of an expert videographer.
THINGS TO CONSIDER	To get the most value from a pro-sumer camcorder you should make sure that you have an expert videographer on staff, or at least have access to one to provide your staff with thorough training. This individual should also be able to advise you on the best model for your needs.
ESTIMATED PRICE RANGE	Prices generally range from $1,000 to $6,000 depending on the features and quality.

MULTIFUNCTION DEVICES

OVERVIEW

Currently there are two primary types of devices that are capable of recording video in addition to their other functions: mobile phones and digital still cameras (or digicams).

STRENGTHS

The primary strengths of these devices lie in their growing ubiquity. They may present projects with cost savings if they are already being used locally by beneficiaries and/or staff.

WEAKNESSES

The video and audio quality of these devices is generally lower than any of the other types of camcorders mentioned above. The one exception is digital SLR cameras, which can record high-quality video, although the price and complexity of these are a weakness relative to other devices.

WHEN MOST APPROPRIATE

At the moment, these devices are most appropriate in situations where the project, its partners, or beneficiaries are already using them for other purposes. In terms of mobile phones, most video quality is well below the minimum that will be useful for dissemination. This is certain to change as consumer demand for smartphones with high-quality video functionality continues to grow.

CONTINUED →

THINGS TO CONSIDER	Dedicated camcorders are still your best bet for overall quality. However, if you decide to use a mobile phone or digital still camera for your video activity, you will want to consider the following: **Video resolution.** The resolution should be at least 720p, if not 1080p. Also, look for at least 24 frames per second (fps). **Audio quality.** Internal microphones on these devices are likely to be poor. As with pocket camcorders, make sure that they have an audio input jack for use with a microphone.
ESTIMATED PRICE RANGE	Depends on the device and local availability.

For more information on technical specifications associated with video camcorders, visit CNET for reviews and comparisons. Their camcorder buying guide (http://reviews.cnet.com/camcorder-buying-guide/) and camcorder reviews section (http://reviews.cnet.com/camcorders/) are particularly worth visiting before making any final decisions.

DISSEMINATION DEVICES

As discussed in **Component 4**, there are a number of different ways to disseminate your videos, each with different hardware needs. For the purposes of this section we will focus on only the four methods that require specific hardware to implement. Computer centers or telecenters are not being included here based on the assumption that if you do use this method, you will be working with an established computer center and not purchasing your own equipment. If you are working with a computer center, the *Computer System Sustainability Toolkit* that was originally developed by AED (now FHI 360) is a worthwhile read. It can be found online at http://itac.fhi360.org/resources/computer-system-sustainability-toolkit/.

PICO PROJECTORS

PHOTO CREDIT: AAXA

OVERVIEW Pico projectors are small projectors roughly the size of a pocket camcorder. They generally use lithium ion batteries, have a navigable, internal memory system, and can project an image of up to 50 inches in ideal circumstances.

STRENGTHS Due to their size, pico projectors are extremely easy to transport in the field. They are also cheaper than many other hardware considerations.

WEAKNESSES Most models have a relatively low ANSI lumens rating, meaning that the level of ambient light in the room you are using it in will need to be fairly dim to prevent the projection from being washed out.

CONTINUED →

WHEN MOST APPROPRIATE

Pico projectors are best used for group dissemination in areas without dependable access to electricity, television, and DVD/VCD players, or computers.

THINGS TO CONSIDER

To get the best usage from pico projectors, you will want to consider the following:

Data input. Look for a model with microSD and microUSB ports. This will enable you to load videos onto the projector without connecting it to a computer or the internet. A device with internal memory is also preferable, as it will allow you to pre-load videos directly onto the projector.

Battery type. Since you will likely be using these projectors in areas without dependable access to electricity, you should look for a device with at least 1-2 hours of battery life. Removable batteries that can be charged separately from the projector are ideal for the same reasons explained above under the pocket camcorder section.

Audio out. The internal speakers on pico projectors typically have a maximum volume that is, for all intents and purposes, useless in a group setting. The only way to avoid this is to use external speakers. If the projector does not have an audio out jack, avoid it.

Light strength. You will want to make sure that the projector has at least 10 lumens. Anything less than this will make it almost impossible to use at a viewable resolution. Ideally though, look for a projector with 30 lumens or more. This will ensure that there is enough light to use the projector even with modest levels of ambient light.

CONTINUED →

THINGS TO CONSIDER (CONTINUED)

File extension compatibility. Not all projectors support all file formats. Do not worry too much about this because you can always convert your videos into a compatible format (see software section for more information).

Remote control. Some models include remote controls, which you may prefer for navigating and pausing videos during dissemination.

ESTIMATED PRICE RANGE

Prices range from about $150 to $300 per projector.

One Media Player per Teacher has done a lot of research and experimentation with these devices. More information on their findings can be found online at: http://www.ompt.org/content/video

TELEVISIONS AND VIDEO PLAYERS

OVERVIEW

Televisions and video players (either DVD or VCD) are well-known video dissemination devices. Some newer televisions may also have SD card or USB ports, which would allow you to play videos directly without the need for a video player.

STRENGTHS

Televisions and video players are more common than projectors or computers around the world. Local availability of and access to these devices would reduce the need for the project to purchase its own dissemination equipment.

WEAKNESSES

If not presently available, transporting and powering televisions and video players can be logistically challenging and not cost effective.

WHEN MOST APPROPRIATE

Televisions and video players are most appropriate in circumstances where they already exist within the community you are working in.

THINGS TO CONSIDER

If these devices are already locally available, you will want to consider their location before deciding to use them. You will also want to be mindful of any local power dynamics. For instance, some farmers might be hesitant to watch videos in the house of a wealthy family or politician from an opposing political party. Location neutrality and physical convenience should be your top priority. If you notice that farmers are failing to show up once you have selected a location, you might want to reconsider your options.

CONTINUED →

THINGS TO CONSIDER (CONTINUED)

If these devices are not already locally available and you decide to procure them, you will want to consider a number of logistical factors as follows:

Do you have a secure location to store the equipment?

Do you plan to keep the equipment in one location? If so, is it convenient and accessible to farmers? If not, how do you plan to transport it?

Is the local power source dependable enough? If not, do you have the resources to purchase and power a generator?

ESTIMATED PRICE RANGE

You can purchase a 26-inch LCD television with a USB port for between $220 and $400. If you already have access to a television, you can purchase an inexpensive DVD player for between $30 and $50. Generator prices vary based on local availability, but in general you should expect to pay at least $200 for a basic gas generator in addition to ongoing fuel costs.

PORTABLE VIDEO PLAYERS

OVERVIEW	Portable video players (PVPs) are compact devices that generally have a three- to ten inch screen with a built-in DVD player. Some models also include USB and SD card memory input slots.
STRENGTHS	PVPs are compact and relatively light, so they can be easily transported. Models with SD card input may be more cost effective since you will not need to burn DVDs to disseminate your videos.
WEAKNESSES	Limited screen size. Also, with the increasing popularity of tablets and smart phones, these sole-purpose devices will likely be phased out in the not-too-distant future.
WHEN MOST APPROPRIATE	PVPs are best used when disseminating videos to only two or three farmers at a time.
THINGS TO CONSIDER	The three main things to consider when purchasing a PVP are its price, its screen size, and its input slots. At a minimum you should try to use a device with at least a seven inch screen — although nine inches is preferable — and USB and SD memory input slots.
ESTIMATED PRICE RANGE	Decent-quality PVPs with USB and SD memory input slots and a screen between seven and nine inches can be found for between $80 and $150 per unit.

TABLET COMPUTERS

OVERVIEW	Tablet computers are mobile devices with touch-screen navigation and screen sizes that generally range from seven to ten inches.
STRENGTHS	The touch-screen navigation can be more intuitive to some users than traditional computer navigation. Tablets are also light, easy to travel with, and typically have a longer battery life than laptops.
WEAKNESSES	Tablets are extremely popular and portable, so the risk of theft may be higher than it is with other devices. There is a higher risk of screen damage from repeated use than is the case with other display devices, such as computer monitors or television.
WHEN MOST APPROPRIATE	Given their limited screen size, tablets cannot be viewed by more than two or three people at a time. They are best used in circumstances where it is not possible or necessary to gather more than a few farmers together at a time.
THINGS TO CONSIDER	If you are using a tablet solely for video dissemination, it is probably not a good option given its cost and limited screen size. If you do use a tablet for dissemination to small groups, however, it is recommended that you have a tablet with a screen size of nine inches.
ESTIMATED PRICE RANGE	Most tablets with at least a nine-inch screen cost between $300 and $600. The much-talked-about Aakash tablet (or Ubislate 7) from India will supposedly be available commercially for about $60. Although it will only be available in India, it may be a sign of more affordable tablets on the way.

MOBILE PHONES

OVERVIEW

Mobile phones present a few opportunities for dissemination. They can be used to play videos directly on the mobile phone screen or you can connect the mobile phone to a television or computer monitor. A more recent opportunity involves using the phone as a projector. Although only a small number of phones currently have this feature, the number is likely to grow in the coming years.

STRENGTHS

Mobile phones are increasingly becoming ubiquitous, even in some of the most-remote villages of the world.

WEAKNESSES

Screen sizes are small and current onboard projectors are of limited strength.

WHEN MOST APPROPRIATE

If mobile phone access is common among your beneficiaries, mobile versions of videos may be useful to helpful reinforce messaging. Given their limited screen size, they are likely not useful as the primary point of dissemination. That said, as penetration rates continue to grow, video-enabled mobile phones represent a great opportunity to reinforce messaging with individual farmers through mobile video. Mobile phones with built-in pico projectors could be worth considering for field staff if you provide them with mobile phones anyway.

CONTINUED →

THINGS TO CONSIDER

Before deciding to use mobile phones for dissemination, you will want to consider the following:

File format. If you plan to disseminate videos via mobile phone, you will want to make sure that your videos are in a format that is compatible with your beneficiaries' phones. The most common format is 3GPP (*.3gp file extension). You can use free software to convert your videos into this and other formats.

Screen resolution. The most common screen resolution of phones being used by your beneficiaries is likely to be 240 x 320. Videos played in this resolution, especially those teaching agronomic practices, are likely to be of limited value as the sole point of dissemination. If you are already disseminating your videos on a larger screen using another method, providing farmers access to mobile versions of these videos may be useful for reinforcing messaging.

Projector brightness. Many of the built-in projectors are only six lumens, which is not powerful enough to screen videos to a group. As the technology improves and chipsets become smaller, this is certain to change. A few phones, such as the Samsung Beam, have already broken ten lumens. Make sure to check on this before making any purchase.

Total cost. Before you purchase mobile phones with built-in pico projectors, you should do a quick total cost comparison. Is the price of the device less expensive than buying a mobile phone and a pico projector separately? Is the quality of the projector as high as a stand-alone unit? What is the battery life?

ESTIMATED PRICE RANGE

Prices for mobile phones with built-in pico projectors currently range between $150 and $600 depending on the overall quality and features of the phone.

PERIPHERAL DEVICES AND ACCESSORIES

In addition to video and dissemination devices, you will need to consider a number of peripheral devices and accessories that can be used to help enhance your ability to create and share a quality product.

EXTERNAL MICROPHONE

External microphones will allow you to capture better quality audio than an internal camcorder microphone. The most common types of microphones are omnidirectional and directional.

Omnidirectional microphones record sound from all directions. They are most commonly found in lavalier (or lapel) microphones, which are clipped directly onto the lapel of the person you want to record. The benefit of these microphones is that you do not have to worry about pointing them in the right direction. However, they are also more likely to record background and other ambient noise present when recording. You can minimize this by recording your video in locations without large amounts of background noise (i.e., away from roads, crowds, etc.).

When recording your video, make sure that you turn off any mobile phones in the immediate vicinity. This will reduce your chances of recording any electrical interference with your audio.

Since the microphone is clipped directly onto an individual, if you are recording more than one person, you may need to move the microphone between speakers for each shot depending on whose audio you want to record. You may find it easier to use a wireless lavalier for these purposes, so that your "actors" can easily hand the lavalier back and forth. You can also purchase a "Y-splitter" for microphones that would allow you to plug two microphones into one audio input jack. The downside of using a Y-splitter is that it can increase audio interference and may lead to audio-level mismatches between the two input microphones. If you decide to use a Y-splitter, it is recommended that you experiment to make sure it works with the camcorders and microphones you are using before purchasing them — and additional microphones — in any quantity.

You can find low-end lavalier microphones for around $30 to $50, although a decent-quality wireless lavalier costs closer to $100. Y-splitters can be found for as little as $5.

Directional microphones record sound primarily in the direction they are pointing. There are two primary types of directional microphones: cardioids (meaning they pick up sound in a heart-shaped pattern in front of the microphone) and shotgun (meaning they pick up sound almost entirely straight ahead). Although directional lavaliers are available, they are not recommended, since head movement by the person being recorded can result in their voice being outside of the recording area.

Since most directional microphones are not clipped directly on the subject, they will require that your videographer (or an assistant) is constantly pointing them in the direction from which they want to record audio. They are best used in environments with high background noise, since they are less likely to pick up ambient noise outside of the direction of the microphone than an omnidirectional microphone. For situations when you will be recording in windy conditions, you will want to make sure that the microphone you purchase comes with a windscreen to reduce wind noise.

You can find low-end directional microphones with windscreens for between $50 and $100.

TRIPODS

Tripods are an essential accessory for video production. Although there are techniques that you can use to stabilize your shot without a tripod, there is no replacement for the stability you will get from a tripod. Decent quality 50- to 60-inch tripods can be found for as little as $20. You can also find mini tripods for as little as $2, although these are only recommended for indoor shooting where you will have a steady table to set them on.

SD MEMORY CARDS

If you have purchased a camcorder that has an expandable memory slot, you will want to purchase SD memory cards. Most pocket camcorders have between 32 and 64 gigabytes of expandable memory. Prices of SD memory cards have dropped significantly over the past few years, and you can currently find a 32GB card for about $30-$40 and a 64GB card for $80.

PORTABLE AUDIO SPEAKERS

If you decide to use a pico projector or a tablet for dissemination, you will likely want to purchase portable audio speakers to amplify their sound. Otherwise, there is a strong chance that their internal speakers will not be loud enough to reach everyone in your screening audience. Decent portable speakers can be found for about $20 to $40 a set. When purchasing speakers, make sure to check what their power source is. If you are somewhere with limited electricity, you will want to purchase speakers with rechargeable and removable batteries so you can replace them with a fresh set if they die while you are using them.

OFF-THE-GRID CHARGERS

Ideally, you should base all of your video production and dissemination activities in an office with access to dependable electricity. That way, even if you are recording or showing videos in villages off the electrical grid, you will still be able to make sure that your batteries and replacements are fully charged before heading out. In the event that you expect extended periods of shooting or dissemination in locations that are completely off-the-grid, you may want to consider off-the-grid chargers to recharge your devices. The most likely solution is a solar-powered charger, although you need to be somewhere that receives at least six hours of sunlight a

day to benefit from them. A solar charger with enough electrical output to power most of the devices mentioned in this component will cost you about $100 to $150. Do your research before purchasing any off-the-grid chargers, since not all chargers will give you the same actual level of output even in the same price range.

RECHARGEABLE BATTERIES

Rechargeable batteries are a must, especially if you are working in the fie away from electrical outlets. Consider purchasing rechargeable batteries and chargers for any of the devices you plan to purchase for your video activity. Prices vary based on type of battery and manufacturer.

USB EXTENSION CABLE

Some of the pocket camcorders have short USB plugs that are used connect them to your computer's USB port. The short length of thes plugs can make them difficult to plug in and often puts stress on the camera itself. For about $5 you can purchase a male-to-female USB extension cable to connect your camcorder to your computer witho having to hang the camcorder directly off of the computer.

PROTECTIVE CASE

While some devices come with protective cases, many do not. Make sure to invest in a protective case — even if only a basic padded cloth one — to protect your equipment from the elements and to reduce the risk of contact damage when transporting them. You can also exte the life of tablet computers and smart phones by using transparent screen protectors.

VIDE-ANGLE LENS

lthough not a necessity, you may find that wide angle lenses are useful r establishing a wider field of view when recording your videos. Not all ide-angle lenses work with every camcorder, so you will want to check n compatibility beforehand. You can find a basic wide-angle lens for many of the pocket camcorders from between $25 and $50.

SOFTWARE

To create and disseminate your videos, you will most likely need five types of software programs, including applications for video editing, audio editing, image editing, subtitling, and file conversion. Since the primary focus of this toolkit is low-cost video production, this section includes free software examples for each of these purposes. Each of these programs meets a minimum threshold for quality and is easier or, at least, as easy to use as its commercial counterparts.

Keep in mind that commercial software programs often offer more robust features than free options. For the most part, however, the difference is only noticed by more advanced users. If there are any features that you cannot find from freely available software, you can consider purchasing a commercial program to address those needs. Since computers using the Windows operating system are most common, this section will only highlight programs that are Windows compatible.

If you are new to using any of these programs, search their websites for video tutorials that you can watch. If nothing is available on their websites, try searching for user-created tutorials on YouTube or Vimeo. If you still have not found what you are looking for, try looking on Lynda.com, a website that offers structured software training videos. Access is based on subscriptions, which run at around $25 per month.

Remember to always check the technical requirements for any program you are considering using so you can be sure it will run properly on your computer. Some of these programs — especially video editing software — can be demanding, so you will want to make sure that you have a computer powerful enough to run it. If not, you will need to purchase a computer that at very least meets the minimum requirements for the program in question. These costs should be considered in your **Cost Calculation Worksheet**.

VIDEO EDITING

If you are using a pocket camcorder, many of them already come pre-loaded with video editing software. They are generally extremely basic and allow for simple clip editing and limited transitions. For more robust features, consider using Windows Movie Maker. It is free, easy to use, comes pre-installed on all computers running Windows XP service pack 2, and has a number of useful features. If you are using Windows Vista or 7, you can download a newer version called Windows Live Movie Maker online at http://explore.live.com/windows-live-essentials-movie-maker-get-started.

Movie Maker is not without its hitches though. It is known to freeze on occasion and it is unable to use some video formats. The telltale sign that you are using a video format or codec[1] incompatible with Movie Maker is when you go to save your final product, the time remaining just keeps counting upwards. This can be extremely frustrating if you have finished editing your video only to find out that Movie Maker is unable to master it. A good way to avoid this is to place one of your clips into the Movie Maker timeline and then select 'Save Movie File.' If it is able to successfully process your request and save a new movie, then you know that the file format of your videos clips is compatible.

[1] A codec is software that enables video players to encode/decode digital videos.

More advanced users may be interested in experimenting with Lightworks, an open source, full-feature video editor. It is free to use, although access to a professional version with even more features is available for $60 per year. More information on Lightworks can found be on their website at http://www.lightworksbeta.com/.

If your computers are not powerful enough to run a full-feature video editor, but you are still interested in the extra features, you may want to consider exploring WeVideo (https://www.wevideo.com/), an online video editing platform. As long as your internet connection is stable and fast enough to upload your video clips, you can use WeVideo to edit your videos in the cloud—meaning you can also collaborate on editing videos with staff in other locations. The basic user package is free to use, so you can try it out first before deciding if you want to subscribe to a monthly or annual plan for more frequent use.

To learn more about other potential options, a useful website for video editing software comparisons and ratings is FindTheBest (http://video-editing.findthebest.com/). It currently has information on more than 65 video editing programs.

AUDIO EDITING

If you choose to use Windows Movie Maker or another basic-feature video editing program, your options for audio editing within those programs will be limited. Should you want to do any substantive audio editing or recording to add to your video for voiceovers or dubbing, you will need to use an audio editing program. One of the most robust and user-friendly free versions currently available is called Audacity. It can be downloaded online at http://audacity.sourceforge.net/. A step-by-step tutorial guide for editing and recording basic audio using Audacity has also been included on the accompanying DVD.

Using the same technical process, you can also create your own podcasts using Audacity, which can be distributed to local radio stations or community centers. Radio programming can be used to complement and reinforce messaging that you are disseminating via video. You can either create new content related to your video content, or you can even convert your videos into audio and edit them as mp3 files for distribution.

IMAGE EDITING

Image editing software is really an optional part of the video production process. You will need image-editing software if you want to create graphics or manipulate photographs to use in your video. One of the more robust, free programs is called GIMP (the GNU Image Manipulation Program). It can be downloaded online at http://www.gimp.org/.

SUBTITLING

Subtitling your videos can be a time-consuming process, since it requires someone entering the dialogue (or a translation of the dialogue) manually. That said, there are programs that make the process easier than it has been in the past. Aegisub is one example of a free subtitle editor that will greatly help you with this process. It can be downloaded online at http://www.aegisub.org/.

Basic subtitling with Aegisub is simply a matter of opening your video in the program, setting your font type, typing in your subtitles, and setting the timestamp for each line. After you have finished creating your subtitle, you can export it as a SubRip (*.srt) or SubViewer (*.sub) file, both of which are compatible subtitle formats on YouTube. Once you upload your video onto YouTube, all you need to do is upload the subtitle file under the Captions section. This process is known as softsubbing, because the subtitles are in a separate file from the video. The process of hardsubbing,

CRITICAL SUCCESS FACTORS

- Items purchased are based on what is most likely to help you meet your objectives.
- Items are appropriate for the capacity of your staff.
- Total cost (including necessary support and training) is reasonable within your budget.
- Items purchased are suitable to the local context, including environmental conditions, technical compatibility, availability of local repair, etc.

or encoding the subtitles directly onto your video film, is a bit more complicated. If you are interested in hardsubbing your videos, you can find resources on how to do so online.

FILE CONVERSION

As there is unfortunately no uniform file format for video files, you may find that your camcorder's output is in a file type that you cannot use with your video editing software, or that your video editing software's output is not compatible with your projector. There are a number of free programs that can convert files from one format to another, but the one that we have found to work best is called Format Factory. It can be downloaded online at http://www.formatoz.com/. A basic explanation on how to use it is included in the Audacity tutorial guide on the accompanying DVD.

NOTES

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WORKSHEETS

Cost Calculation Worksheet

COST CALCULATION WORKSHEET

ITEM	DISTRIBUTION	# NEEDED	PRICE PER UNIT	TOTAL PRICE
TOTAL COST OF ALL DEVICES/ACCESSORIES/SOFTWARE NEEDED TO IMPLEMENT ACTIVITY				