

# Instructional Videos

on

## Sustainable Land Management Practices

Background Research and User Manual



**developed by WOCAT for IFAD**

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# Introduction

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The document at hand serves as andragogy for the production of instructional videos on sustainable land management (SLM) practices for knowledge dissemination about SLM to smallholder farmers and other land users. The primary target group of the instructional videos are illiterate people which will be reached through intermediaries such as extension service, advisory service, project implementers, project planners or others.

This document is a draft version and a work in progress developed by the World Overview of Conservation Approaches and Technologies (WOCAT) for IFAD in a pilot project on 'Transferring Knowledge from Land User to Land User through Audio-Visual Messages – Exploring the Potential of Instructional Videos'. Alongside the written document five prototypes of instructional videos on three SLM technologies (Conservation Agriculture, Stones Lines and Riparian Zone Protection) and two SLM approaches (Self-help Group and Water Resources Users' Association) were produced. The content of the andragogy was adapted based on the experiences made and insights gained during the production process of the five prototypes. Two draft videos were evaluated in two focus groups in Kenya, one together with farmers and another with stakeholders from GOs (mainly rural extension, Ministry of Agriculture and Ministry of Water) and NGOs. Furthermore, several focus group discussions were held at IFAD to evaluate the prototypes.

The document is divided into two volumes. Volume 1, the background research, looks at existing projects and literature on rural development and the use of video. It investigates different approaches, advantages and disadvantages of the use of audio-visual material and methods. Volume 2, the user manual, elaborates on the concept of instructional videos, describes the practical implementation including the necessary information on the selection of SLM practices, the video structure, storyboard and interviews and includes information on the post-production process.

Volume 2, the user manual, needs further refinement after testing the production of instructional videos in several countries in collaboration with local stakeholders.

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Vol. 1

**Background Research**

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## Introduction

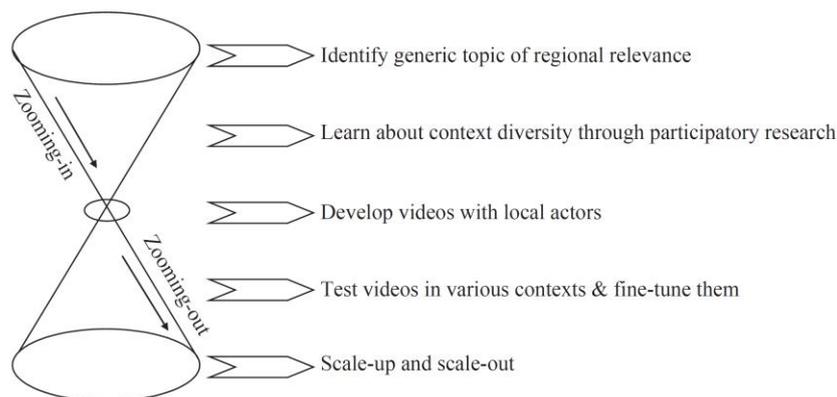
Since the early 1900s ethnographic film has been applied as a research method in cultural anthropology becoming later on part of a subfield in anthropology, visual anthropology. In the 1970s the Canadian Don Snowden pioneered the introduction of film as a tool in the development field. He enabled communities to define their own needs and lead their own processes of social and environmental change through the use of video in a pilot project on Fogo Islands.<sup>1</sup> From that point onwards the process of using media technology as a tool in participatory community development was called the FOGO Process. In the 1990s the Indian NGO Deccan Development Society<sup>2</sup> started to introduce film, especially participatory video, in its rural development programs. As their programs gained attention from the international development community the use of film was introduced in various development projects around the globe (e.g. ActionAid Sierra Leone (2002), Mhando, M. (2005), Nathaniels, N.Q. (2005)).

## Existing approaches

Even though video nowadays is applied in many different development programs and projects the way it is being used is rather poorly documented. There clearly exists a certain trend on the use of participatory video and less focus is given to the use of video for educational or training purposes. Three approaches stand out and are described more in detail: a) the 'zooming-in zooming-out' approach developed by Van Mele (2006, 2010), b) the participatory video approach used amongst others by Lunch and Lunch (2006) and c) the visual problem appraisal (VPA) approach described by Witteveen and Enserink (2007, 2010).

### *'zooming-in zooming-out' (ZIZO) approach*

The idea of the ZIZO approach is to consider both regional and local relevance when developing videos. Information from different organizations nationwide is collected to understand which stakeholder is doing what and where. Then, a zoom in to a particular case or area takes place in order to examine local innovations. The ZIZO approach is based on the following five principles:



The zooming-in zooming-out approach, Van Mele et al. (2010:77)

According to Van Mele et al. (2010:77) the videos produced based on the ZIZO approach are both regionally relevant and locally appropriate as emphasis is placed on the principles

<sup>1</sup> Snowden, D. (posted in July 1999). Eyes see; ears hear. Memorial University, Newfoundland, Canada. [www.fao.org/waicent/faoinfo/sustdev/cddirect/cdre0038.htm](http://www.fao.org/waicent/faoinfo/sustdev/cddirect/cdre0038.htm)

<sup>2</sup> <http://www.ddsindia.com>

underlying the technology and not only on the technology as such. In addition, the videos present various options on how a technology is applied in different contexts.

Furthermore, Van Mele et al. (2005:86) emphasize that in order to be able to scale up and use videos in other regions it is important that the chosen topic is appealing, the speeches in the video are clear and visual clues are applied to facilitate understanding.

Van Mele (2006:134) also suggests that the use of the same video on different continents is feasible. He makes reference to a video from Asia applied in Africa where “the common need for improved seed health along with visually strong images helped to bridge the communication gap to a large extent”. As farmers are sharing similar values around the world cultural differences are of less importance. Moreover, the fact that farmers in other parts of the world face similar difficulties and are able to solve problems independently serves as additional source of motivation for farmers watching a video (Van Mele et al. 2010:85).

### *Participatory video (PV) approach*

Participatory video is a particular video method which enables people to document and share their knowledge and experiences based on their own perspectives. PV creates strong messages as it presents in a lively way a personal “inside view” (Lunch 2004) and can therefore be applied not only for local knowledge creation and dissemination but also for sharing local know-how in a global network where all stakeholders learn from each other. PV is a scriptless video production process where capacity building within communities stands in the foreground. Iterative cycles of shooting and reviewing guarantee that the main objective of PV, the creation of videos that communicate people’s stories in a way that they think is appropriate, is fulfilled.

PV is based on the principles of participatory and action research. According to a definition by Dick (2002) “Action research is a flexible spiral process which allows action (change, improvement) and research (understanding, knowledge) to be achieved at the same time. The understanding allows more informed change and at the same time is informed by that change. People affected by the change are usually involved in the action research. This allows the understanding to be widely shared and the change to be pursued with commitment”.<sup>3</sup> The participants of a PV project are hence not only the owners of information but at the same time the transmitters as well as the receivers. Participatory research is similar to action research as it aims to break down the distinction between the researchers and the researched through the participation of the latter in the process of gaining and creating knowledge. Thereby research is not only seen as a mere process of knowledge creation but also as education and development of consciousness and mobilization for action (Gaventa 1988:19).

Especially in the field of development and cooperation PV is a tool that is becoming more and more popular as it can be easily applied to various environments and settings: for improved knowledge management – as a facilitator of horizontal and vertical communication and learning; in the evaluation of complex problem situations; in the evaluation of running and concluded projects; in community mobilization for action, and much more.

The process of a PV project generally includes five steps (Lunch 2004): 1) people learn how to use video equipment through games and exercises, 2) they identify important issues in their community with the help of a local facilitator and plan how to show this on video, 3) they create short video messages in local groups, 4) they present the footage to the wider community, enabling an exchange of ideas and perceptions, and 5) they share the results with other actors. As people are capturing on film their personal situations and efforts to improve these, a basis for reflection within the community about internal capacities and ideas is being created and links between community members are strengthened. The process of PV therefore has great potential to stimulate local innovation processes.

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<sup>3</sup> Dick, B. (2002). Action research: action and research. [http://www.uq.net.au/action\\_research/arp/aandr.html](http://www.uq.net.au/action_research/arp/aandr.html)

### *Visual problem appraisal (VPA) approach*

The VPA approach is a film-based strategy originally developed for the international classroom aiming to enhance the analysis of a complex problem. The VPA enables stakeholders to share their views and opinions through filmed narratives with a wider audience of policy and decision makers. Different perspectives and problem perceptions are articulated using film. The VPA has a clearly defined program which leads from problem exploration and stakeholder consultation to proposed action. The program is carried out by producing two documentaries, numerous filmed stakeholder narratives, a printed facilitators' guide and a workbook for participants (Witteveen and Enserink 2010).

## **Use of audio-visual material: advantages and constraints**

Video is appealing to many people and adaptable to many situations. It can be highly persuasive as it captures the moment an event is happening and **reproduces a real time situation**. Furthermore, playback can happen immediately and scenes can be reproduced without change in content. Video therefore gives a certain guarantee that the learning content will be conveyed in the same way over and over. If extension workers have to train farmers on a range of topics and video is applied, no control is lost about what is being taught.

Video can be used to reach a great number of people and **disseminate information on a large scale simultaneously**. It overcomes literacy barriers by using powerful images and contextualizing the situation on the ground. At the same time, with the development of modern technology, particularly smartphones, more and more people are able to produce, disseminate and watch videos independently. Different viewpoints can be captured with video and distributed to a variety of viewers, from community members to policy makers, through means of new media.

Traditionally, agricultural information was shared with farmers through top-down channels from provider to farmer. Modern communication technologies such as video enable communication on the same level, **from farmer to farmer**. This gives farmers the opportunity to have their voices heard and hear the voices of others whereby the information can be adapted to the needs and interests of the community. As Coldevin (2003:6) mentions, video has become the principal medium for supporting participatory farmer training in many FAO rural development projects due to its numerous advantages compared with other mediums.

Lie and Mandler (2009:vi) emphasize other advantages, they write that "video attracts rural people's curiosity, it overcomes the hurdles of illiteracy and, most importantly, it sits comfortably with the narrative culture that prevails in most developing countries". It can therefore be applied effectively in regions **where oral traditions predominate** for learning and decision-making.

If a video is going through a post-production process its content can **be manipulated** in such a way as to enhance the intended message and emotionalize the audience. This at the same time can be a constraint as the interests of certain parties might influence the editing process and the messages produced might represent only the views of a particular powerful minority.

Additional **disadvantages** of the use of video are the high expenses involved if professional equipment is used and the delicacy of the material itself. Furthermore, the production of a video is time-consuming and therefore costly; time is requested for preparation, realization and post-production activities. The production of quality videos needs a certain expertise which has to be acquired through trainings. Poor quality videos without clear message may not be worth the effort.

In rural areas with poor electricity and low TV penetration video loses its advantage as a mass medium and can only be utilized if video screenings are organized.

Finally, the development of the video content and format (narrative and visualization) requires thorough preparation. As video has a language in itself the visual literacy of the target audience, the ability of people to interpret images through which certain information is

presented, has to be studied and understood in advance of creating a storyboard. The audio-visual language of the video has to match with the audio-visual language abilities of the target audience.

## Use of video in education

Using video as an educational tool is inspiring and engaging for students. They are able to use both visual and auditory senses in order to learn new concepts. People with a variety of learning styles are reached, especially visual learners. The old saying 'a picture is worth a thousand words' holds true for the application of video in education. By using video, reality is brought into the classroom and authenticity added to the learning context.

Moreover, due to its visual appeal, video helps to increase students' motivation. Greenberg and Zanetis (2012:22) write that numerous studies show that "learners are more motivated to interact with educational content when the content uses narrative storytelling, uses some degree of personalization, or offers some degree of control over how the content is accessed."

Through visualization and demonstration video helps learners to understand complex processes and concepts which are difficult to explain by the use of texts and graphics. The learning process is enhanced as the concept is seen in action. As both visual and auditory senses are applied students can process information quicker fostering the learning of new material.

Video turns tacit information into a vivid description by using moving images and stories. Storytelling is a powerful communication tool attracting attention and activating imagination. By applying video in an educational setting a common experience is produced for students stimulating reflection and encouraging group discussion.

As with increasing age the attention span of learners is reduced, video can be used as a source of instructional variation in a teaching curriculum helping to grab the attention and imagination of adult learners (Kiraly 2011).

Greenberg and Zanetis (2012:5) summarize the pedagogical impact of video with the following three concepts:

1. Interactivity with content
2. Engagement
3. Knowledge transfer and memory

The key principle is the interactivity with the content whereby the learner interacts with the visual content verbally, by note taking, thinking or applying concepts. When the learner becomes drawn in by the video engagement occurs. Interactivity and engagement begin in the feeling side of learning. Once engagement occurs, a process of knowledge transfer and memory happens.

The result is a combination of affective and cognitive development leading to retention and knowledge transfer.

## Use of video for knowledge sharing in rural areas

Videos created for farmers do usually not reach the end-user directly and intermediaries are necessary to disseminate the videos. It is therefore important to define from the onset whether a particular video can be used as a stand-alone tool or whether additional facilitation is needed. **Facilitation** might increase the adoption of a certain practice shown in the video. In addition, a facilitator helps to emphasize the main issues covered in the video, can pose and answer further questions and lead a discussion with the audience as well as gather

feedback. Moreover, if the local conditions vary from those shown in the video the audience can discuss possible **local adaptations** with the facilitator. Due to the important role of intermediaries in disseminating the videos it is essential to assess the relevance and attractiveness of the video together with the intermediaries and make sure that they are convinced about the usefulness of applying it.

A particular benefit of the use of video in rural development is the fact that certain processes can be shown in fast forward and there **is no need to wait for a process** to happen in real time. The practitioner or extension worker can therewith save a lot of time which often is a major constraint.

An important consideration when producing videos for knowledge sharing in rural areas is the choice of the **video language**. If a local language version is produced there might be less dependence on the facilitator, however, at the same time, regional dissemination of the video might be limited. The appropriateness for the end-user must be clearly understood from the onset and, if necessary, a voice over in various local languages produced.

Furthermore, in order to enhance the effectiveness of the use of videos they should be part of a larger capacity building strategy or program and constitute one element of an overall process.

## **Examples of video projects and video sharing platforms**

A number of existing video sharing platforms and training videos were chosen for studying, however, given the large number and variety of videos on the web, this is only a small selection and the following description is not exhaustive whatsoever.

### *Access Agriculture*

The international NGO Access Agriculture ([www.accessagriculture.org/](http://www.accessagriculture.org/)) is developing and promoting agricultural training videos in local languages. The agricultural training videos are all available online on the Access Agriculture website and downloadable if the user is registered. The videos are available in many local languages and new translations in other languages can be requested. The majority of the videos are from Africa with some good examples from Asia. If the criteria set by Access Agriculture are fulfilled users can submit their own videos which are then made available on the website. A new tool called Agtube is being developed to enable users to upload agricultural training videos following less strict criteria. Access Agriculture also offers trainings on the production of farmer-to-farmer videos.

Access Agriculture creates videos with input of local farmers in e.g. the identification of topics, script development and the demonstration of practices on the ground.

Some observations on the agricultural training videos produced by Access Agriculture:

- A great advantage is that videos are produced and available in numerous local languages.
- In all videos an easy to understand language is used.
- Some of the videos can be classified as instructional videos and a replication of the practice guided by the video seems feasible. Other videos seem to serve the purpose of changing behaviour regarding particular aspects and raising awareness.
- Animations and hand-made drawings are well integrated into the video.
- Farmers/land users are not the protagonists of the videos, the narrator forms the focal point, the videos are therefore narrator-led. The majority of the explanations are made by the narrator, only short statements of farmers or other stakeholders are included.
- Videos do not follow a particular format, each video is produced differently.

## *Digital Green*

Digital Green ([www.digitalgreen.org](http://www.digitalgreen.org)) is an organization based in India disseminating agricultural information to farmers using digital video. Digital Green works with a number of partner NGOs and operates based on clearly defined so-called 'standard operating procedures'<sup>4</sup>. Digital Green is working with mediators at the village level who use locally produced videos to motivate and train community members in adopting new and improved practices and technologies. The Digital Green approach is based on four steps: 1) a participatory process for video production, 2) a human-mediated learning model for video dissemination and training, 3) a technology platform for data exchange in areas with limited connectivity (electrical and internet), and 4) an iterative model to address the needs and interests of the community.

Digital Green focuses on the production of participatory videos, the videos are shot by community members who are trained to use pocket cams. Small groups of community members then participate in weekly video screenings mediated by a facilitator which offer a platform for learning, reflexion and discussion.

The Digital Green website hosts a video library with over 2500 videos available online. Search options with different search criteria facilitate access and selection of relevant videos. As videos are produced and edited by community members with simple pocket cams they are of rather low quality and don't follow a standardized format. Videos are mainly produced in local languages. Digital Green has developed a system to track each video's reach, feedback of farmers and the adoption of featured practices and technologies.

## *Insightshare*

Insightshare ([www.insightshare.org](http://www.insightshare.org)) is a UK based organization leading in the field of participatory video. Insightshare is applying participatory video in different projects worldwide to foster community engagement and build bridges between communities and decision makers. Their handbook 'Insights into Participatory Video: A Handbook for the Field' (2006) offers guidelines for the implementation of a participatory video project. Insightshare covers a myriad of topics of which agriculture and is just one. All videos produced can be viewed online on the website.

## *The waterchannel*

The waterchannel ([www.thewaterchannel.tv](http://www.thewaterchannel.tv)) is an open source platform supporting education and awareness on water by making video material available online. The waterchannel hosts over 1500 videos arranged in different categories uploaded by users worldwide.

## *Deccan Development Society (DDS)*

The Deccan Development Society ([www.ddsindia.com](http://www.ddsindia.com)) is an Indian NGO working with voluntary women's village level associations. As mentioned above the NGO is one of the pioneers in applying video in rural development programmes. In order to give a voice and way of expression to illiterate disadvantaged women DDS is training women on the use of video and audio technologies. The trained women have shot over 100 movies so far.

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<sup>4</sup> Standard Operating Procedures, Digital Green, April 2013, Version 4.0. <http://www.digitalgreen.org/sop>

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Vol. 2

**User Manual**

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# Instructional Videos: the concept

## Aim, purpose and target group

Instructional videos capture existing knowledge on SLM practices in an attractive and simple way whereby enabling communication in a personalized manner to individual farmers and other land users (herders, forest users etc.) on a medium to large scale.

The protagonists of the videos, the smallholder farmers/land users, are explaining and demonstrating the implementation, functionality and benefits of SLM technologies or approaches to other **smallholder farmers/land users**, the target audience of the videos. Special attention is given to the development of videos that suit illiterate farmers/land users. All steps of the narrative are visualized to enhance the understanding for the SLM practice and its implementation. Language and wording are simple in order to ease comprehension.

The **primary objective** of the farmer-narrated instructional videos is to serve as an audio-visual guide for the implementation of SLM practices and motivate smallholder farmers/land users to replicate a particular SLM technology or approach on their fields. The protagonists of the videos, the farmers/land users, show the steps for a successful implementation of the SLM practice and explain other relevant details such as the benefits of the practice or the adaptation to climate change. The direct personal insights shared and demonstrations offered by farmers/land users are used to share knowledge in an authentic way, from the field, and enhance the interest of fellow farmers/land users.

As knowledge and instructions are captured with video the information can easily be disseminated to other areas or regions where the SLM practice could be implemented.



Instructional videos on SLM practices are **not a standalone tool** but a knowledge product which is part of a **larger training package** including a written documentation of SLM practices which includes further details and data on the practice.

Furthermore, experiences have shown that in most cases there is a **need for adaptation** and for a certain flexibility to fit the SLM practice to the specific local situation. Therefore, the advisory services, project implementation professionals or other intermediaries that use the videos play an essential role to assist farmers/land users in adapting the practice to their particular context.

To conclude, the ultimate aim of the instructional videos is to change the behaviour of farmers/land users creating incentives and guidance for changing existing land management practices or introducing new ones.

Applying the categories mentioned by Lie, R. and Mandler, A. (2009:6) the instructional videos are produced

- for **capacity building** (video for rural learning and video for the exchange of experiences and reflection), and
- for **stakeholder engagement and action**.

At the same time, however, selected footage from instructional videos can be edited differently and used

- for the creation of video trailers for **awareness raising and advocacy** in SLM, and
- for **reporting and data collection** about SLM practices.

## Application and dissemination

As mentioned above instructional videos do not serve as a standalone tool but are used as part of a training package on SLM practices. In the approximately 10-minutes long videos not all information can be included wherefore it is important to either supplement the videos with a written document – such as for instance the WOCAT 4-pages case study documentation (see below) – or, if the farmers/land users are illiterate, to combine them with an oral presentation.

Intermediaries from advisory/extension service or from projects apply the videos in extension trainings, meetings of agricultural cooperatives or community gatherings and transmit the information to the end user, the farmer/land user.

Each video screening is followed by a discussion where the audience reacts to the video, discusses the content, asks questions, comments and shares personal views and experiences. These discussions also serve as a platform to talk about necessary or potential local adaptations. The discussion is led by a moderator familiar with the SLM practice and local context.

After each screening the audience should have the possibility to watch the videos again if desired. It should be ensured that the videos are accessible for the farmers/land users in a way or another, e.g. as a hardcopy (DVD) at the office of the cooperative or extension service where the video can be watched, or, if internet is available, can be seen online or sent as a movie file. In addition, the use of smartphones for watching videos is becoming more significant.

### The internet

There are different obstacles that prevent the end user, the smallholder farmers/land users, to directly access the instructional videos independently if made available on the internet. First, the person might not know where to look for the videos or second, how to apply the videos in a particular context and third, the internet connection might simply be non-existent or too weak. In addition, the videos might not be available in the right language.

Further testing on the ground with extension service staff and projects in various contexts is necessary in order to identify the various elements of a training package including instructional videos and assess their potential to disseminate knowledge on SLM.

## Participating local stakeholders

The development of instructional videos foresees the involvement of the following local stakeholders which play a key role for a successful filming mission.

### *Local partner organization and expert*

The development of instructional videos is closely organized and coordinated with a local partner organization, for instance a research institute, a branch of the ministry of agriculture, or an NGO. The partner organization is introduced to the concept of instructional videos and well aware of the requirements needed on the ground for the realization of the filming mission (e.g. eloquent farmer available for several days, implementation of SLM practice can be demonstrated by farmer, adequate filming location (not too remote, representative for the area, SLM technology in 'good condition' etc.)).

The selection of the SLM practices made in advance of the filming mission (see below) is being discussed with the local partner organization and a final selection of the practices, potential filming locations and protagonists made jointly.

A local expert (e.g. extension worker, SLM specialist), preferably working for the partner organization, who can also act as translator - if translation is necessary - forms part of the filming mission and joins the production team at all stages of the production.

It is important that the local expert is familiar with and well understands the functioning, implementation, benefits etc. of the SLM practice(s) to be filmed to give the necessary guidance to the film team as well as the farmer.

#### **Establishing an alliance**

Building a sustainable alliance with the partner organization and ensuring a feeling of shared ownership over the final product is crucial as in most cases the partner organization will be the stakeholder to disseminate the instructional videos, organize screenings and make the videos available in hard and soft copies for smallholder farmers/land users.

Preferably, the local expert knows and suggests a number of farmers/land users who could act as potential protagonists.

The video structure and storyboard described below are discussed and refined together with the partner organization and the local expert. Other experts or field staff might join the discussion to give further feedback.

Both the partner organization and the local expert are consulted for the review and comments on the draft version of the instructional videos once the footage has undergone initial post-production.

#### *Farmer/land user - the video protagonist*

The farmer/land user features as protagonist in the instructional video which is based on the experiences and knowledge he/she is sharing and demonstrating. Finding and selecting the right protagonist is challenging (see also part 3).

The personality and eloquence of the farmer/land user are crucial for the production of an appealing video. Furthermore, the farmer/land user should be happy about the way his land looks like, proud of and satisfied with the outcomes of the SLM practice, e.g. the harvest. Otherwise, if the land is not in good condition or well prepared/cultivated the farmer might not feel comfortable to show all his plots of land. Also, he might be less convincing in explaining the SLM practice if the outcomes haven't been truly satisfactory.



#### **Selecting the cast**

If several videos are produced in an area or region it is important to make sure to select a diverse cast of farmers/land users taking into consideration for instance gender, the local language, the size of the farm or whether the farmer/land user belongs to a cooperative or association. In addition, it should be discussed with the local partners whether the selected protagonist has a good reputation in the area, otherwise a dissemination of the video to farmers/land users in the region might be difficult.

The protagonist is taking an active role in the refinement of the storyboard. Together with the local expert and filming team the functioning and implementation of the SLM practice is discussed and jointly assessed what is being filmed, how and where. The topics of the interview are shared with the protagonist in order for him/her to prepare for the shooting. However, the single interview questions are not talked over beforehand as otherwise the protagonist reacts less spontaneously during the interview and authenticity is lost.

## Community representative(s)

Depending on the local context it might be necessary to give an introduction of the filming mission to certain local representatives or the head of the community in order not to create disapproval within a community. The involvement of community representatives should be discussed with the partner organization and local expert.

# Instructional videos: in practice

## Selection of SLM practices

### Option 1: Use of WOCAT tools and documentation

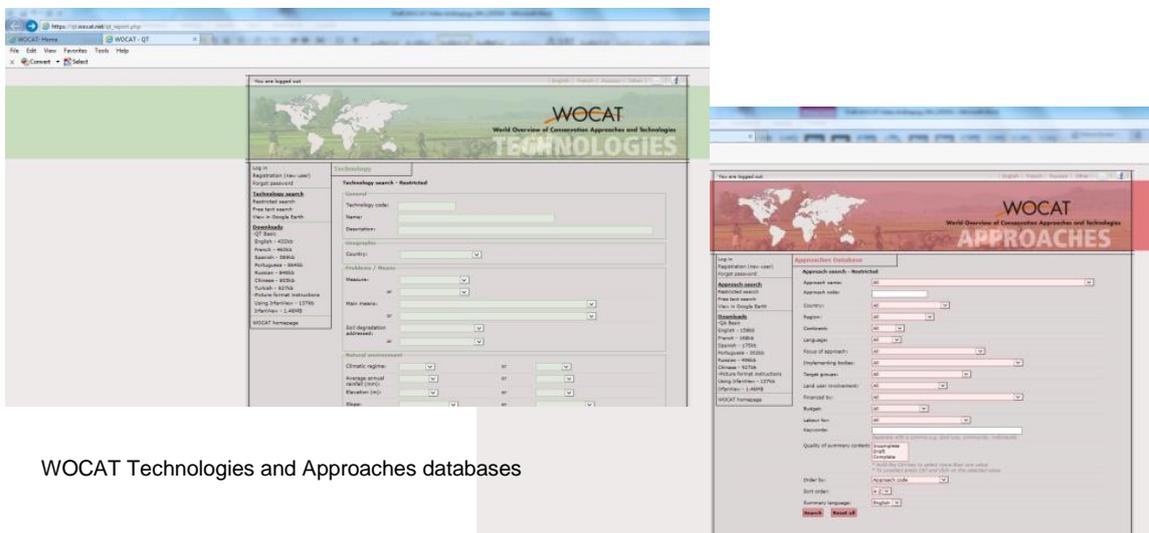
The WOCAT database ([www.wocat.net](http://www.wocat.net) → knowledge base) is divided into three parts: the technology, approach and mapping database. The WOCAT technology and approach databases serve as the basis for making a selection of SLM practices to be documented with video. The databases have a search function which enables to inquire for practices either per country or by using other categories such as land use type, climatic regime or soil degradation addressed.

### SLM Technologies and Approaches

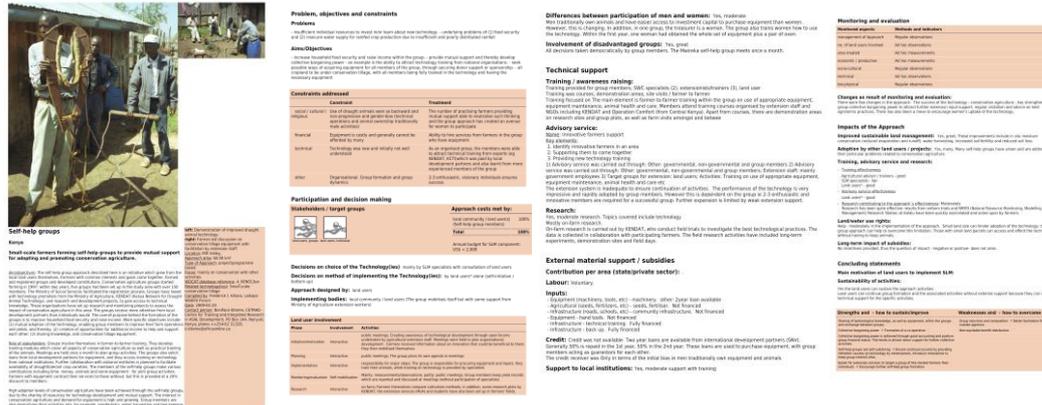
WOCAT divides SLM practices into SLM technologies and SLM approaches. Together, the corresponding technology and approach describe a SLM strategy within a selected area.

A **SLM technology** is the physical practice in the field which helps to control land degradation and enhances productivity in the field.

The **SLM approach** describes the ways and means of support that help to introduce, implement, adapt, and promote the technology on the ground.

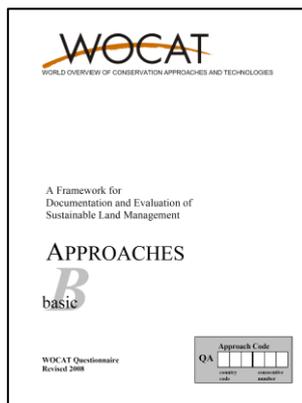


For each SLM technology or approach a case study documentation (see example below) can be extracted from the database. This standardized documentation offers all necessary information to understand in detail a particular SLM technology or approach.



Example of case study documentation

If an instructional video is done on a SLM practice that is not yet included in the WOCAT database it is strongly recommended to first document the practice using the WOCAT questionnaires on technologies (QT) or approaches (QA) ([www.wocat.net/en/methods/case-study-assessment-qtqa/questionnaires.html](http://www.wocat.net/en/methods/case-study-assessment-qtqa/questionnaires.html)), enter the information into the respective WOCAT database and extract the case study documentation.



WOCAT Questionnaires on technologies (QT) and approaches (QA)

As a result, all relevant and necessary information on the SLM technology or approach is collected and displayed in an attractive, standardized and easy to read format. This helps not only to thoroughly understand and study the SLM technology or approach in advance of the filming but also to plan the filming mission and draft the storyboard and interview questions.

### Option 2: Use of other SLM documentation

If another database and/or documentation is chosen for the selection of SLM practices one should ensure that it contains all necessary insights for a detailed understanding of the practice to be filmed.

### Criteria for selecting or excluding a SLM technology or approach

If the instructional video is produced by an organization/project with particular needs and interests to audio-visualize a certain technology or approach for training or other purposes this might be the main criteria for selection.

In addition, however, it is recommended to consider the following elements:

### **Screenability**

Not all SLM practices are screenable. Capturing for instance the steps for implementation of a new terrace system may go far beyond a video project. Other long-term, labour-intensive processes such as the growing of a forest or the construction of a dam are also difficult to capture in limited time.

Generally, SLM technologies are more screenable than SLM approaches as in order to show an approach 'the story behind' needs to be captured in an attractive way which is not always easy. The primary way to do this is in form of interviews with the main stakeholder(s) combined with B-roll footage of the events described. If events/scenes (e.g. gatherings, meetings, trainings) have to be reproduced artificially and do not happen in real time the video might lose its authenticity. In this case it may be more worthwhile to use a written documentation.

### **Replication**

Linked to the screenability is the potential for replication of a SLM practice by farmers/land users if it is shown in a video. Not all practices may be replicable by watching a video. The practice may be too complex to be explained and demonstrated in a 10-minutes video or additional information and assistance on the ground from SLM experts may be needed to implement the practice.

### **Seasonality**

In order to best show the functionality and benefits of a SLM technology or approach one may have to plan the filming mission during a particular season. Furthermore, if the aim is to show a process (e.g. from preparing the soil to planting to harvesting) one may have to organize more than one filming mission throughout the year.

### **Location and accessibility**

One should reflect on possible locations where the SLM practice can be filmed. The location should be attractive, offer a good overview, representative for the practice, not too remote and accessible preferably by car. Furthermore, in some areas filming might be restricted or prohibited.

### **Available time frame**

The time for shooting an instructional video differs greatly depending on the complexity of the SLM practice, the details and processes one intends to capture as well as the remoteness of the filming location. For any practice a minimum of four whole days should be considered. If time is limited one should focus on easier practices with only few steps for implementation to be captured.

### **Available funds**

Depending on the complexity of the practice, the remoteness of the filming location, the composition of the filming team and equipment etc. the costs for producing an instructional video on a SLM practice may vary greatly. Overall costs for the video production should be carefully calculated beforehand as the available funds may influence the selection or exclusion of certain technologies or approaches.

## **Farm (-er) appraisal**

As mentioned above selecting the right protagonist as well as a suitable farm for an instructional video is not an easy task. First and foremost the farmer/land user should be comfortable speaking to a camera being able to transmit the necessary information. In most cases people feel more at ease after having spent some time with the production team and the camera man.

In order to build up the protagonist's trust and comfort and to assess whether a SLM technology implemented on a farm is appropriate for filming a **half-day appraisal visit** is conducted. The production team and local expert are guided through the farm by the farmer/protagonist and assess jointly where which scene could be captured and how. At the same time the production team and expert can evaluate whether the technology is realized nicely and successfully and the steps for implementation can be shown in an instructional video.



If a technology has to be newly constructed in order to show all steps of implementation the construction is organized with the farmer/land user during the appraisal visit. All necessary activities (including additional workers to be hired) and materials needed (animals, tools, plants, seeds etc.) are planned jointly.

The days of shooting are scheduled with the farmer/land user taking into consideration that during a shooting day the protagonist is fully absorbed and not able to carry out other activities (personal or on the farm). Some flexibility is needed as weather conditions may change and shooting has to be postponed.

## Video structure, storyboard and interview

The total length of the instructional video is ten minutes (+/- 3 minutes depending on the complexity of the practice captured) containing:

- 1) a **short introduction**: introduction of the land user, contextualization and problem statement,
- 2) a **main part**: demonstration and explanations, and
- 3) a short **conclusion and closure**.

For structuring the video and putting together a comprehensive storyboard it is essential to understand the SLM technology or approach deeply. For this, as mentioned earlier, the WOCAT case study documentation or any other detailed documentation should be studied beforehand.

Note that the storyboard, different from a script, is not a line-by-line structure of a video. The storyboard serves as a guide for the whole team and includes all essential details of the shooting process.

The four columns of the storyboard include:

- the scene number, based on the structure above
- the timeline, suggesting the length of each section
- the narrative level, outlining the topics to be addressed, and
- the visualization, suggesting what could be captured.

## SLM technology

The following **draft storyboard** is used as a **template for instructional videos on SLM technologies**. It is completed with all necessary details by the local expert, protagonist and production team and adapted according to the technology captured.

<b>Draft Storyboard - SLM Technology</b>			
<b>Scene No.</b>	<b>Timeline</b>	<b>Narrative</b>	<b>Visualization</b>
<b>1_intro: contextualization and problem statement</b>			
1_1	00:00- 01:00	introduction of protagonist location natural environment and regional context	protagonist in his/her farm wide angle shot of the area/farm and environment  <i>option: aerial images</i>
1_2		challenges and difficulties faced	land use problems overview and details
<b>2_demonstration and main explanations: implementation and functionality of technology</b>			
2_1	01:00-07:00	reason(s) for technology adoption  source of idea/information transformation achieved	land and water degradation addressed (on- and off-site)  comparison plot with/without technology
2_2		<b>steps for implementation</b>  <i>The single work steps have to be clearly divided in order to guarantee a thorough understanding of the steps to be undertaken!</i>  functionality and direct benefits source of material time and labour requested costs pitfalls challenges and adaptations	step by step construction of technology (close ups of material, tools, steps of operation etc.)
2_3		Resilience -adaptation to climate variability and change pests  adaptation to extreme events, benefits for disaster risk reduction	comparison with/without technology  demonstration of location where technology prevented disaster
<b>3_conclusion and closure: impacts, benefits and future</b>			
3_1	07:00-10:00	benefits achieved local and regional impacts (up- and downstream)	improvements/changes on the land, harvest
3_2		present and future benefits for the livelihood	farm, family, harvest

## SLM approach

Capturing a SLM approach is more challenging than capturing a SLM technology as approaches greatly differ from each other and are sometimes directly linked to a particular or several technologies. In certain cases the approach might not be understood if the related technology is not shown and explained at the same time. Drafting a comprehensive storyboard is of particular importance.

If more than one person is involved in the approach other relevant stakeholders can be included in the video. However, the story should still be told by one main protagonist.

The following **draft storyboard** is used as a **template for instructional videos on SLM approaches**. It is completed with all necessary details by the local expert,

protagonist/involved stakeholders and production team and adapted to the approach captured.

<b>Draft Storyboard - SLM Approach</b>			
<b>Scene No.</b>	<b>Timeline</b>	<b>Narrative</b>	<b>Visualization</b>
<b>1_intro: contextualization and problem statement</b>			
<b>1_1</b>	00:00- 01:00	introduction of protagonist introduction of approach source of idea/information location natural environment and regional context	protagonist / involved stakeholders in relevant environment (group meeting, school etc.) wide angle shot of the area <i>option: aerial images</i>
<b>1_2</b>		reasons for implementation of approach challenges and difficulties faced	land use problems addressed
<b>2_main explanations: functionality of approach</b>			
<b>2_1</b>	01:00-07:00	organizational set-up involved stakeholders strategies costs funding challenges	Relevant locations e.g. office, training centre, group meeting etc.
<b>2_2</b>		benefits	comparison with/without approach
<b>3_conclusion and closure: impacts, benefits and future</b>			
<b>3_1</b>	07:00-10:00	regional impacts (up- and downstream)	area and environment, farms, land users
<b>3_2</b>		benefits for the livelihood future impacts	farms, families, harvest

The **narrative** of an instructional video follows the explanations and demonstrations of the protagonist. In order to guide the explanations he/she is interviewed by the local expert.

A combination of two story styles, namely **facilitated stories** and **direct instruction** is applied. A **voice over** is added in the post-production. Facilitated stories mean that an interviewer is facilitating the discussion with the protagonist following a set of interview questions. Direct instruction means that the protagonist is speaking directly to the camera explaining the steps for implementation of the technology without facilitation by the interviewer. This creates more authenticity. If certain details are missing they can be recorded at a later stage.

Below are two **draft templates for interview questions**. Some interview questions may have to be simplified and others may not be relevant depending on the SLM practice captured. The interview questions are discussed and completed by the local expert and production team.

<b>Template Interview Questions - SLM Technology</b>		
<b>1_intro: contextualization and problem statement</b>		
<b>1_1</b>	introduction protagonist and area	What is your name? Where are we? What is the natural environment here?
<b>1_2</b>	degradation problems	What are the problems of land and water degradation you face in your farm, the village and in the region? What are the causes?

<b>2_ demonstration and main explanations: implementation and functionality of technology</b>		
<b>2_1</b>	SLM technology and transformation	How do you call the technology you adopted here? Why did you adopt it? From where did you get the idea? Did you get any training on how to implement it? Did anybody help you? What are the objectives of the technology? What is the difference between a plot, where the technology was applied and one, where it wasn't?
<b>2_2</b>	steps for implementation	What are the single steps you undertake to implement the technology?
	functionality	Once the technology is fully established, how does it function?
	benefits	What are the direct benefits on your land? How has the vegetation, the soil or the water quality and availability changed?
	costs	What are the total costs of implementation? What are the costs for the material and those for labour? Where are savings possible (e.g. by using cheaper material)? Who paid for it?
	pitfalls, challenges and adaptations	What are some of the potential pitfalls and challenges? What are your suggestions to avoid or address them? What are possible adaptations in other areas/contexts?
<b>2_3</b>	resilience	Does the technology help you to deal with variable rainfall, water stress, hotter or colder years and pest infestations? If yes, what are the benefits of the technology for your land and livelihood during these events?
	disasters	How does the SLM practice function during unexpected weather events (prolonged dry periods/droughts /heavy storms)? What are the benefits of the SLM practice for your land and livelihood during these events?
<b>3 conclusion and closure: benefits, impacts and future</b>		
<b>3_1</b>	benefits and impacts	What are the costs caused by land degradation? And what are the benefits of the technology? What are the benefits for your family and your family's life? Which is the impact of the technology on your neighbours, neighbouring fields and villages? Which are the benefits for them if you apply the practice?
<b>3_2</b>	future	What are the benefits of the introduction of the practice for your livelihood? What are the benefits for the future?

<b>Template Interview Questions - SLM Approach</b>		
<b>1_intro: contextualization and problem statement</b>		
<b>1_1</b>	introduction protagonist and approach	What is your name? Where are we? What is the name of the approach? When and how was it established?
<b>1_2</b>	degradation problems	What is the purpose of the approach? Why was it implemented? What are the degradation problems in this area?
<b>2_ main explanations: functionality of approach</b>		
	functionality	How does the approach function? Who is involved and how? What are the costs? Who pays for it? What are the challenges?  What are the direct benefits of the approach?
<b>3 conclusion and closure: benefits, impacts and future</b>		
<b>3_1</b>	regional impacts	Which is the impact of the approach on neighbours, neighbouring villages and communities? (spreading of the approach)
<b>3_2</b>	future	What is the impact on the livelihoods of the involved stakeholders? What is the impact in the future? Future plans?

## Filming features

### *The protagonist*

The farmer/land user sharing his/her experiences is at the centre of the video at any given time. However, if giving additional value to the content and description the protagonist might be accompanied by family members or other farmers/land users, e.g. during the implementation of a particular step of setting up the SLM technology where additional labour force is needed and usually involved.

As mentioned above, the protagonist is part of the storyboard writing process during which the filming locations are defined. The locations selected should be in line with the narration, e.g. if the protagonist is talking about erosion he/she should be positioned in an area, where erosion is visible. Furthermore, the protagonist should always have a direct connection with the environment shown in the frame.

### *The interviewer*

The interviewer (local expert or translator) is not seen or heard in the videos and not part of any of the scenes shot. Interview questions are not included in the edited video clip. Therefore, during the interview both interviewer and protagonists have to be aware to make clear breaks between the questions asked and answers provided in order to facilitate smooth editing. The interviewer should always ask open questions and not pose any closed questions which can only be answered with yes or no.

### *Filming procedure in 4 steps*

The filming procedure is divided into the following four steps:

#### **Step 1: narrative**

Here the protagonist is answering all questions without focusing on demonstrating the explained on the ground/in the field. The focus is on the explanation, the way of explaining, the use of simple wording and short sentences. All necessary information is gathered as spoken words.

#### **Step 2: visualization**

Here the focus is on the visualization of the topics/information and the different steps for implementation. The protagonist is showing the steps for implementation in such a way that by the use of the imagery the single steps are comprehensive. The focus here is on capturing all necessary visual details for a successful replication. Images should visualize the narration and be self-explanatory as much as possible.

#### **Step 3: additional information/conclusion**

In a third step additional or forgotten information or visuals are captured. It also includes concluding remarks of the protagonist.

#### **Step 4: B-roll footage**

During the filming or as a last step B-roll footage is captured.

#### **B-roll footage**

B-roll footage is footage that shows different issues/items/details that are described by the protagonist or are part of the storyline (e.g. the surrounding landscape, the home of the protagonist, shots of the family, the harvest, close-ups of different items described etc.). B-roll footage is added during the editing for further illustration, filling certain gaps or covering up a scene if there were some technical slips.



## Language

All instructional videos are produced in the local or the official national language(s) depending on the purpose and aim of a particular video and the intended distribution. Based on the needs and demands for the application and dissemination of a video in a certain area or region, a voice over can be made for other (local) languages.

Preferably all existing videos should be made available with voice over in English, French, Spanish, Arabic, Chinese and Russian for broad dissemination.

One should take into consideration that translation and the production of a voice over are time consuming and costly. Therefore, when planning an instructional video in several languages funds should be allocated accordingly.

## Challenges and difficulties when producing instructional videos

### **Finding the right protagonist and farm**

Finding the right video protagonist and farm takes time. Several farm (-er) appraisals should be calculated when planning the production of an instructional video. In some cases the farmer/land user may be an excellent protagonist but his/her farm unsuitable for filming and vice versa. Investing time in finding the right person and location definitely pays off during the production.

### **Identification of key issues and visualization**

A lot of thinking should be invested in thoroughly understanding the key issues for the functioning of the SLM practice and possible ways to visualize these. Furthermore, for each step for implementation of the practice the right frame, angle, fore- and background have to be chosen. The information transmitted by the image has to be attractive AND right.

### **Missing information and data**

The objective of instructional videos is to give a voice to those people implementing SLM practices on the ground and not to SLM experts. One therefore has to take into consideration that not all information and detailed data can be captured. Furthermore, the type of information transmitted may vary greatly from farmer/land user to farmer/land user.

Missing information, however, can be included by adding a voice over to the video in the post-production. An additional option is to combine the instructional video with a written documentation such as the WOCAT case study documentation that includes more detailed information and data.

### **Seasonality**

Certain technologies are difficult to understand if the steps for implementation, benefits and impacts are not shown during the relevant season are only explained by the farmer/land user. For such technologies one has to calculate several filming missions or otherwise make use of existing footage or photographs.

### **Language and translation**

If the protagonist is speaking in a language not understood by the production team more time is needed for shooting the video as well as later for the editing process. During the shooting the translator is responsible for translating in detail all what has been said to make sure the local expert and production team can assess that all topics have been covered. In addition, time has to be calculated to translate all the footage at the end of each shooting day. Preferably subtitles are added right on the spot.

# Post production

## *Transcription*

As mentioned above instructional videos are shot following a storyboard and without line-by-line script. However, if the protagonist is speaking in a language not understood by the production team transcription of the footage is necessary in order to be able to edit the footage. In that case the transcription is preferably organized as part of the filming mission following the shooting in the field. When planning the filming mission several days should be taken into account for transcription purposes which often takes up more time than initially thought. If possible a rough transcription is made at the end of every filming day to assess the quality of the narration and make sure all information was captured.

## *Editing and Voice over*

The easiest way to edit the footage and select the relevant scenes is by importing all the footage into the so-called project. All scenes are watched several times, put into the right order, linked and shortened. B-roll footage is added to visualize the necessary details.

Once the sequence is finalized it should be transcribed in order to be able to write the text for a voice over. Lacking information is added in the voice over text in order to complete the instructional video. Depending on the purpose the instructional video is used for the voice over text can include more or less detailed information.

## *Use of overlays and animations*

In order to give a clear structure to the video, emphasize the main messages and ease the understanding for the different steps for implementation simple overlays are added to the video. Such overlays are easy to create with any video editing software. An example is shown in the picture below.



More complex is the creation of animations which can be used to visualize information or processes that are difficult to capture with the camera: for instance the construction of a new terrace system; the functioning of a technology during an extreme event; or the organizational set-up of a group/committee.

An easy way to create animations is the following:

1. draw the illustrations by hand or with photoshop
2. save them as images
3. import them in the video project
4. add them in a sequence and overlay them with the cross-dissolve function

### *Option: Use of Google Earth - zooming in and out*

In order to create a better regional understanding, particularly for the off-site benefits, and facilitate insight into the functioning and importance of a SLM practice within a watershed short video clips can be produced with Google Earth Pro and inserted into the instructional video. Depending on the availability of high resolution imagery Google Earth enables a zooming in to a particular region where a SLM practice is applied and a zooming out from the same area on a watershed or regional level.

Google Earth Pro however is not a free programme and the development of short videos requires either some prior experience or the ability to learn from available online tutorials.

## **Technical considerations**

The realization of a video is always highly dependent on available financial resources. A low-cost video can be produced for \$1000-2000 using low-cost video recording devices and free software whereas a professionally produced video may cost up to \$10,000-20,000. For the production of instructional videos each project or programme should decide independently what is most appropriate for their situation.<sup>5</sup> Videos don't have to reach cinema quality but should be engaging and appeal to the viewers, guaranteeing that a certain baseline quality is met. The minimum requirements to reach the baseline quality are:

- 1) **Video quality**  
All shots are clear and stable, well lit, and there are no distracting camera angles.
- 2) **Audio quality**  
All interviews can be heard and understood, background noise and wind do not distract from the narration.
- 3) **Story structure**  
The video is divided into three parts, an introduction, main part and an end. The three parts are interlinked and there is a flow.
- 4) **Message clarity**  
The messages the video wants to convey are clear. If additional clarification is needed this can be done with a voice over.
- 5) **Engagement**  
The look and content of the video are engaging the audience.
- 6) **Learning**  
The video provides the necessary information for the viewer to understand and know how to replicate the practice.<sup>6</sup>

### *Filming equipment*

As mentioned above, the type of equipment chosen is dependent on the considerations and possibilities of the implementing projects or programmes. Instructional videos can be produced using basic, semi-professional or professional equipment.

The minimum equipment needed is the following:

- film camera, camcorder or other filming device such as a smartphone
- video tripod
- external microphone

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<sup>5</sup> For a detailed description on different video devices, their advantages and disadvantages, see USAID toolkit on integrating low-cost video into agricultural development projects, component 6 <http://ictforag.org/video/component6.html>.

<sup>6</sup> based on 'Video Baseline Quality Worksheet' in: USAID toolkit <http://ictforag.org> component 3

- headphones for sound check

Additional, 'nice to have' equipment is:

- good zoom
- microphone stick for external microphone
- wind stopper for external microphone
- clip-on microphone

### *Filming format*

Depending on the video device being used different settings are possible or necessary to reach a certain quality. Some recommendations for the filming format if semi-professional equipment is available:

- shooting minimum in HDV, preferably in full HD
- 16:9 widescreen format 1280x720 or better 1900x1080
- 1080p or 720i
- filming in PAL not NTFS

If basic equipment is used always use the highest resolution possible.

For the export of the edited video clips it is recommended to use the video compression (codec) H.264 and the file type .mp4 which most media players and websites can view and play.

### *Editing software*

Different editing software can be used depending on the experience of the editors and the availability of the software. Some examples are:

- Free editing software such as Windows Movie Maker or iMovie
- Low cost editing software such as Pinnacle Studio or Adobe Elements
- Professional software such as Adobe Premiere, Final Cut Pro, Sony Vegas or Avid

Different tutorials are available on the internet on various websites such as youtube or Adobe which explain the use of editing software. A recommended website is [www.lynda.com](http://www.lynda.com) (requires a monthly or annual payment for signing up) which offers tutorials on all existing editing software and much more.

The voice over can be recorded either in a professional studio or with simple devices such as smartphones. The audio line can then be inserted in the video project.

### *Video upload and dissemination via internet*

WOCAT is in the process of developing a video sharing platform which is linked to the WOCAT database and will allow for the watching of instructional videos which will be directly linked to a documented SLM practice. Once the platform has been established instructional videos can be sent to the WOCAT Secretariat which will approve the content and upload the videos to the WOCAT database.

Another way of uploading and disseminating videos is to use open access video sharing platforms such as Youtube or Vimeo. In certain countries, however, the use of Youtube is restricted. On both channels one can create a personal profile and share numerous videos. Vimeo has the advantage that videos can be downloaded by others (even in various formats) and saved on the computer as video files for further dissemination or offline viewing.

The Water Channel ([www.thewaterchannel.tv](http://www.thewaterchannel.tv)) is a further open access platform to share videos mainly related to water. The videos can be directly uploaded on the channel.

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