Farmers become filmmakers: climate change adaptation in Malawi

10

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Introduction

This article describes the experiences and some of the findings of a participatory video project. This pilot project investigated the effectiveness of video for transferring community-based climate change adaptation practices between vulnerable villages in Salima District, rural Malawi. In collaboration with the Red Cross and the Meteorological Services, subsistence farmers in one village learnt how to operate a video camera, develop a script, and make a film showing examples of adaptation practices they have been developing to adjust their livelihoods to climate change. Mphunga's 'Adaptation to Climate Change' film was then shown in four neighbouring villages that have been suffering from similar climate impacts. The results show that participatory video can be a helpful communication tool in spreading knowledge of climate change adaptation measures between villages.

Background: climate change in rural Malawi

The effects of climate change have increasingly become visible in different regions around the world. The latest report of the Intergovernmental Panel on Climate Change states that rural communities in Africa are amongst the most vulnerable (IPCC, 2007a). The IPCC also says that climate change will lead to more extreme climatic events, compromising crops, food security, shelter, and livelihoods (IPCC, 2007b). Most subsistence farmers lack access to useful and comprehensible information about new scientific knowledge about climate change, and while already adapting to changing conditions they rarely learn about possible adaptive measures developed in other places that could help reduce the negative impacts (Suarez *et al.*, 2008).

Malawi is already experiencing increased climatic variability and more extreme events. Some of the worst impacts are poor crop yields and total crop failure due to droughts and floods, and loss of life due to the consequent famine. The country's low economic power and adaptive capacity puts pressure on the interna-

Location of the research areas in Malawi, indicated as shaded circles North and East of Salima town.

tional community to urgently fund intervention programmes to help the population to cope and adapt. Rural communities are amongst the most vulnerable groups (NAPA Malawi, 2006).

In this context, the Malawian Red Cross Society initiated a programme called Preparedness for Climate Change. This aimed to identify and address risks posed by climate change to their humanitarian work. Building on findings of the analytical components of this programme, the Malawi Red Cross received a grant to develop video tools for promoting climate change adaptation from the Advancing Capacity for Climate Change Adaptation project (ACCCA). The proposal was formulated and implemented in collaboration with the Red Cross/Red Crescent Climate Centre and the Malawi Meteorological Service.[1]

The proposal's main assumption was that audio-visual communications can play a stronger role in community-based climate change adaptation in two ways:

- to help transfer local adaptation experiences between vulnerable communities; and
- to help bridge gaps between the scientific and the real world (Suarez *et al.*, 2009).

Over a period of 18 months, this project aimed to:

- convene stakeholders;
- hold a series of workshops with subsistence farmers to discuss climate change and what could be done about it;
- support implementation of local adaptation measures;
- produce video tools to disseminate adaptation practices; and
- evaluate the effectiveness of these tools.

Table 1 outlines the key steps of the project.

This article reports on the evaluation of participatory video as a communication tool to promote climate change adaptation amongst farmer villagers in rural Malawi (Lunch and Lunch, 2006). This evaluation formed part of Baumhardt's Masters thesis at the Environment and Resources Management programme, Vrije Universiteit, Amsterdam. The hypothesis was that a film produced by the villagers with a local perspective, language, and approach could be an effective way of disseminating community-based adaptation.

We worked in five rural villages in the district of Salima in Malawi, Africa (see Map). Mphunga, Kasache, Pemba, Mwanza, and Maganga were chosen because of their high vulnerability to climate change. The villagers' livelihoods are mainly based on smallholder farming, with the staple crop being maize (a grain that often fails due to excessive or insufficient rain). During participatory workshops on climate risks, local people reported increased occurrence of flash floods and droughts. The Malawian Red Cross Society was key in providing a platform for local knowledge to be heard and acting as a gateway to communities.

The participatory video process

By June 2008, the Red Cross Malawi/ACCCA had worked collaboratively with farmers in understanding the threats posed by changing climate risks in central Malawi, discussing key vulnerabilities of

[1] See Kasamale (2006) for more information on the ACCCA project. See also: www.acccaproject.org

Table 1: Outline of the Malawi project on video tools for adaptation to climate change

Month	Activity
1	Inception workshop for Red Cross, Meteorological Service, and other participating institutions
2-12	Series of participatory workshops at Mphunga on climate risks: • observed and projected impacts • exploration of possible adaptation measures
6-15	Series of participatory workshops at Mphunga on participatory video: • farmers learn to use camera equipment • farmers learn to formulate a script
9-15	Implementation of community-level adaptation measures
16	Participatory video work on climate adaptation measures: • selecting examples for video and formulating narrative • filming adaptation practices • video editing
16	Development of survey instruments to assess impact of video as dissemination tool
17	Screening in neighbouring villages and survey of participating farmers
17-18	• Screening and reporting of results at Mphunga • Questionnaire and video interviews of Mphunga filmmakers • Analysis and reporting
18 onwards	• Presentation at UN conference on climate change • Submission to World Bank Micro-Documentary Film Contest

Mphunga, and identifying possible options for adapting to observed and projected climatic conditions. These built both on local knowledge and on lessons gathered by the Red Cross and other humanitarian organisations outside Mphunga. A series of participatory video workshops had enabled several farmers in Mphunga to become familiar with filmmaking equipment and approaches, and they had produced a short video describing the impacts of a changing climate in their village.[2]

In July 2008, the thesis sub-component of the project began: producing films about adaptation practices. In a participatory workshop, a group Mphunga villagers – the 'Mphunga filmmakers' – analysed what they had being doing differently as a result of their understanding of climate change. The filmmakers were broadly representative of the community, consisting of 60% men and 40% women, with 43% between 20 and 30 years old, 37% between 31 and 40, and a few older members. Women actively participated, with a preference for filming instead of being in front of the camera. The 20 villagers sat in a circle and shared their views and examples of adaptation. The facilitator noted the measures and the group voted for the most important ones. There was no limitation in terms of how many or what type and all villagers were free to make suggestions. They defined a list of six adaptation messages that were going to be turned into a short film to go on a 'screening tour' around the four other villages. These villages were on average 40 km apart and had no contact

[2] 'Mphunga Village, Malawi: Climate Change.' Watch online: http://tinyurl.com/Mphunga-video Full URL: www.youtube.com/watch?v=FSquE0WKHuM

Photo: Fernanda Baumhardt

Mphunga villagers filming 'flood alert' message.

with each other.

After a 'refresher' session on the use of the filming equipment, we began our activities in a circle setting. Every filmmaker had the opportunity to 'play' with the camera, filming a friend and also speaking to the camera. When the villagers felt confident, we suggested they organise themselves into pairs: an on-camera reporter to deliver the adaptation message and a camera operator to record it. The farmers were able express their knowledge, directing and filming absolutely everything according to their own perspectives.

The six climate change adaptation messages

The measures defined by Mphunga filmmakers in their video are simple and easy to understand, as well as easy to replicate in other villages experiencing similar problems.[3] These were defined and filmed by the villagers.

Diversification of crops

Most farmers depended heavily on maize, which was failing to produce good harvests when there was too much or too little rain. By planting more land with rice, beans, cassava, and other crops, farmers could ensure that some food would be produced even with relatively unusual rainfall.

Irrigation farming

Agricultural practices in Mphunga are entirely dependent on rainfall. Yet in the neighbouring village of Kasache, simple technology allows for irrigation farming through treadle pumps, providing water to plants and increasing production.

Ducks versus chickens

When floods occur in the village, chickens cannot swim and often drown, affecting local food security. During a Red Cross workshop on climate change adaptation, Mphunga farmers heard how women in

[3] Video: 'Adaptation to Climate Change by Mphunga Villagers.' Watch online: http://tinyurl.com/Mphunga-video2
Full URL: www.youtube.com/watch?v=2PcVn4oy3Nl

Photo: Fernanda Baumhardt

Mphunga filmmakers watching their own film.

Bangladesh decided to substitute chickens with ducks, which can float and are more likely to survive floods. Now Mphunga sells ducks to neighbouring communities.

Storm drains and elephant grass

During floods, running water causes erosion and other damage. With the right measures, the negative impacts can be reduced.

Storage of food

Mphunga farmers used to store their harvest in granaries. When flooded, the harvest would spoil. Now farmers store grains in 50-kilogramme bags inside their huts, so that when the waters rise they can take the food to higher ground.

Flood Alert

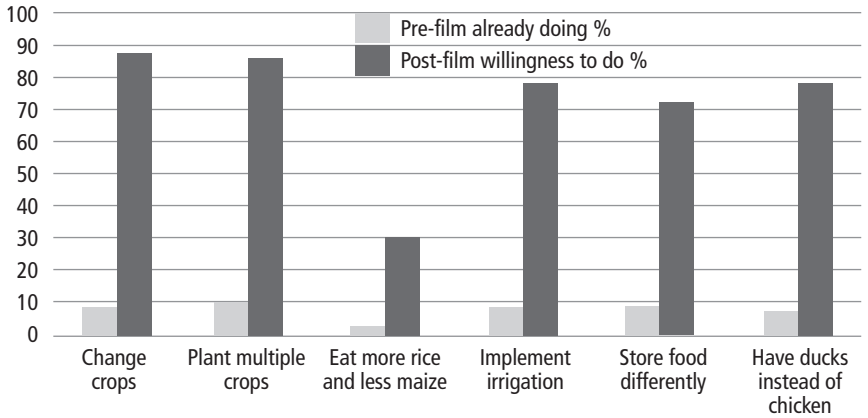
Waters can rise relatively rapidly, and catch households unprepared. Since the Red Cross supported the formation of local action teams, some community members are responsible for alerting the village when waters rise by blowing a whistle.

The film tour

The Red Cross organised screenings of the video in neighbouring communities. Groups of around 20 villagers were selected by the village's headman and gathered at the village schools, to watch the screenings. While gender issues were not at the core of the project design, there was an attempt to ensure balance. Overall there were 60% men and 40% women participants. The villages of Maganga, Mwanza, and Kasache were better balanced while Pemba had approximately 80% men and 20% women. These events followed local traditions, beginning with welcoming remarks and a group prayer. We explained that videos had been created by other villagers like them to share messages. First we showed pictures of the villagers making the film, which helped create an open atmosphere.

The film was screened on a laptop computer placed so that all the villagers could see well. When the audience saw villagers like them delivering their experiences on film, the room was filled by a

Figure 1: Comparing perceptions of different livelihoods adaptation measures, both before and after watching the film.



respectful and curious attention.

To help us evaluate the method, participants answered two questionnaires, one before and one after the screening, to help distinguish what they had learnt from the video. The Red Cross field coordinator and villager's liaison helped define the questions to ensure they reflected and were framed according to local reality. Any illiterate villagers received help from a Red Cross member or from a fellow farmer when completing the questions. A group of villagers were also interviewed on camera before and after the film.[4] Both before and after the screening, participants answered questions mainly about if and how they were experiencing climate change, whether it had an impact on their livelihoods, whether they were already adapting their livelihood practices as a consequence, and how open they were to exploring new ideas of ways of doing this. For each answer, villagers had the option to say 'No'. Figure 1 compares the villagers' responses both before and after watching the film. It shows an overall increase of 55% in their willingness to adopt different livelihoods adaptation measures after watching the film. For a more qualitative capture of their views, four participants in each village were video interviewed (see Box 1).[5]

In the final stage of the project we went back to Mphunga, the filmmakers' village. We showed their film to the whole group, and shared pictures and stories from the four villages where their film had been screened. We also interviewed the filmmakers on their perspectives of the process.

Eighty eight percent of the filmmakers confirmed that they had enjoyed making the film, because it showed how much they knew, because they felt empowered, and because it was good teamwork for the group (Figure 2). They demonstrated that overall, they had benefited from their experience. There were many remarks about how much the villagers liked encouraging and teaching other villagers like themselves about their experiences of adapting to climate change (see Box 1).

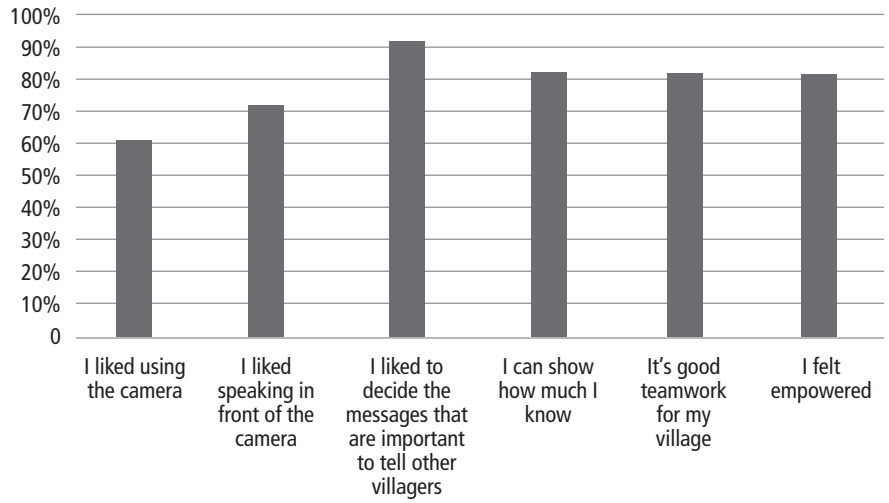
Lessons learnt and next steps

We learnt many lessons during this project. Firstly, more work is needed to develop

[4] This component was designed by Fernanda Baumhardt to fulfill requirements of her Masters thesis. Fernanda is also the founder of Pro Planeta, an organisation committed to the creation of media content that has a positive impact on the development of humanitarian projects.

[5] Baumhardt (2009) offers a more indepth analysis of the results.

Figure 2: Mphunga filmmakers' final perceptions about making the film



Box 1: Transcribed interviews from Mphunga filmmakers

Jamila Anusa
The way I've seen the making of this film is very good because I've learnt about climate change exactly what it is in a way we can even teach our friends in the other villages.

Zainabu Nyaude
In the video what I liked most is to encourage other villagers who don't know about these things. I want to teach others so they can be encouraged.

A sample of these interviews[6] can be watched online in the short documentary 'Farmers Become Filmmakers': http://tinyurl.com/farmer-filmmakers

frameworks for design, implementation, and evaluation of participatory video as a tool for transferring community-based climate change adaptation practices. This must take into account limited human and financial resources as well as the magnitude of the task. Secondly, a substantial amount of energy was required to coordinate the participating actors – the Red Cross national and international staff, climate experts, film technicians, and local villagers. To promote this interdisciplinarity it is critical to build capacity among all stakeholders.

Also, to an extent, this project could have been more participatory. For example, representatives from the Mphunga filmmakers could have participated in the film tour. That would certainly have been a valuable and additional step. However, the main goal of this part of the project was to assess whether or not it was possible to establish effective community-to-community knowledge and experience transfer through video. The video itself was produced by one community using participatory video techniques to be screened at four neighbouring communities. In this context, the video was representing the Mphunga filmmakers and reflecting their perspectives, and was 'the messenger' itself.

Regarding the film production process,

[6] Full URL: www.youtube.com/watch?v=MQYM3iRtABs

Photo: Fernanda Baumhardt

Kasache villagers filming irrigation farming message.

there are practical and technical requirements that need to be considered. Firstly, if the film is to be produced and edited in the local language, the project translator must have good communication skills. In particular, during the editing session, the translator needs to be an effective intermediary between the village editors and the technical editor. Secondly, electrical power is an issue. Potential power cuts need to be planned for during the editing process. This happened frequently during this project. Allow extra time to cover the resulting delays and constantly save your edited footage. In addition, if we had had a power generator, the film screenings could have had far more impact if the film was projected onto a bigger screen connected to louder speakers.

A set of remaining project tasks is to follow up on levels of adoption of adaptation measures and their impact. These include:

- screening the film 'Adaptation to Climate Change by Mphunga' in other impacted villages of Salima district;
- expanding the participatory video approach to more Malawi villages as well as other vulnerable countries;
- developing new video tools aimed at training Red Cross staff and volunteers about how to communicate and use information for climate risk management; and
- equipping the Malawi Red Cross with mobile video projection units to show videos as part of other participatory processes in remote communities.

Conclusions

The initiatives reported here constitute a first step in exploring the role of participatory video to support the formulation and dissemination of information about community-based climate adaptation in Malawi. Ideally, this approach would be embedded in a larger, more ambitious

participatory process of learning and action also aimed at addressing the root causes of vulnerability to climate risk in Mphunga and neighbouring villages. However, such an approach would require levels of experience and resources that are beyond what is currently available to the Malawi Red Cross.

But even with its challenges and limitations, the results here show that participatory video is a suitable tool for transferring community-based knowledge on successful adaptive measures on climate change between vulnerable communities. It also shows that villagers in developing countries can easily learn how to make films telling their own stories according to their local perspectives.

This participatory video approach, integrated with the work of a humanitarian organisation, has already helped some Malawian farmers to improve their food security in a changing climate.

People can learn new skills to cope with the negative impacts of climate change, when they have access to relevant information. Six months after the video made by Mphunga farmers was screened, Alick Malunje from Kasache village told a Red Cross member:

> *I have started keeping my maize in bags. In January 2009 our village was affected by flood. I was able to carry the bags to the temporary shelter without difficulties. I did not lose my food, however those who keep their maize in granary lost the food.*

Based on this experience, the Red Cross/Red Crescent Climate Centre has worked with partners, including local communities, to submit similar proposals for Senegal, Burkina Faso, Kenya, and Tanzania. Each new proposal has been shaped in collaboration with national and local stakeholders. As a result, the Malawi pilot project acts as the foundation of future work.

In the case of Burkina Faso and Senegal, a funding proposal has already been pre-approved by the Global Facility for Disaster Risk Reduction, which will also have a peer-to-peer learning process but will have more of an emphasis in the integration of science-based climate predictions at different timescales (not just climate change but also imminent floods, seasonal drought forecasts, etc).[7] In the case of Kenya and Tanzania, the proposal submitted to the Rockefeller Foundation also includes peer-to-peer learning but has a focus on health dimensions of urban flooding (such as water-borne diseases).

A video project 'Farmer to farmer learning in a changing climate' has also started in Ethiopia with support from the Spanish and the Netherlands Red Cross Societies.[8] Farmers from the Legambo community explain what they are doing about climate change via video, and then the video is shared with another community, Ibnat. The film documents this process and is aimed at encouraging potential donors to support strengthening participatory aspects of horizontal knowledge transfer.

At the same time, Pro Planeta is searching for the right partner to support the expansion of this method across similarly vulnerable and impacted villages around the world. Mphunga's experience indicates that it is not too ambitious to envision the development of a worldwide community-to-community linkage, enabled by participatory video, for the exchange of local experiences and practices, to help empower communities to help each other adapt to climate change. The Himalayan shepherds and the Andean Quechuas might have a lot to say amongst themselves. And, it only starts with one…

[7] See: http://gfdrr.org
[8] The first draft of the video can be seen at: http://tinyurl.com/farmer-learning. Full URL: www.youtube.com/watch?v=m4O1q4QTgQA

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