## Good Practices Note

## E-extension for Agroecology

### Introduction

According to the New Extension Learning Kit (NELK) by GFRAS, E-extension enhances traditional approaches with ICTs to facilitate change. Its relevance heightened during the COVID-19 pandemic, where lockdowns hindered traditional extension activities. E-extension tools such as applications, mass media, videos, helplines, USSD, and SMS became crucial. They also address the shortage of extension workers in Africa, reaching more people with limited resources. However, rural technology adoption faces challenges: limited network access, high digital costs, inadequate infrastructure, and skill gaps. This is particularly crucial for women and vulnerable individuals. Hence, addressing these challenges is vital for effective e-extension implementation.

### Principles of E-extension

- **Relevant content:** Video content must be based on farmers' needs and scientific principles. Even a video that introduces a new practice should involve farmers who have already tried the practice and make it farmer-friendly.

- **Farmers first:** Involve farmers in the development of the video, depict them in the video (e.g. demonstrating ideas, explaining why things work), and involve them in the dissemination to ensure that their views are represented.

- **Focus content on principles, and encourage experimentation:** To ensure that videos have wider relevance beyond a few communities, the content should present a menu of technical options that farmers can experiment with. Explain the underlying principles of each innovation to encourage discovery learning.

- **Quality:** Videos must have good-quality audio and visuals, a solid story structure, and a relevant message to capture the audience's attention, engage their thinking, and stimulate learning.

- **Combine with other methods:** For training, information, and knowledge sharing, it may be necessary to combine video with other extension approaches such as demonstrations, group discussion, and printed materials.

- **Institutionalization and policy:** ICTs as extension tools need to be institutionalized within rural advisory services through appropriate policies and regulatory frameworks.

## Application of E-extension in Agroecology

The implementation of e-extension for agroecological principles involves several steps to increase the participation of farming communities, but also to ensure the inclusiveness of e-extension activities:
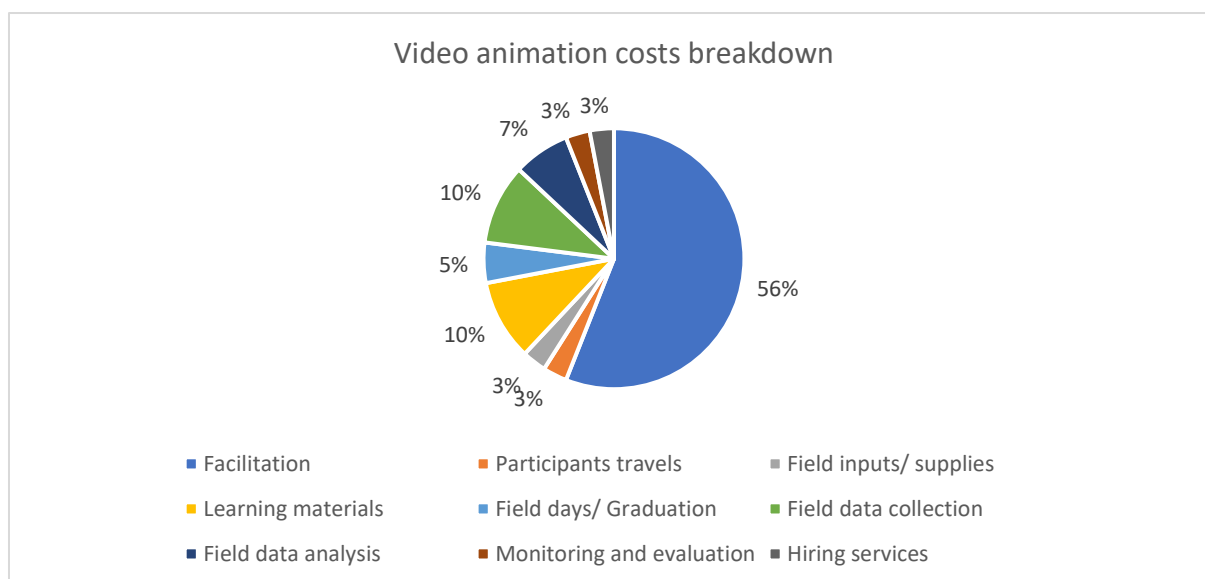
1. Stakeholder Identification: Identify key stakeholders in agriculture, ensuring diverse representation and defining their roles in promoting agroecology through E-extension.

2. Needs Assessment: Assess the current agricultural and digital landscape, identifying specific needs and opportunities for E-extension.

3. E-Extension Framework Establishment: Formalize an E-extension framework, defining objectives, scope, and appropriate digital tools, and setting up communication channels through local structures.

4. Digital Outreach Activities Organization: Create relevant content, organize sessions, and integrate E-extension with classical extension activities.

5. Digital Capacity Building: Develop action plans aligned with needs, collaborate to create digital content, and enhance farmers' digital literacy.

6. Monitoring and Evaluation: Establish mechanisms to assess impact, define key performance indicators, collect data during events and visits, and refine strategies accordingly.

## Resources

The issue of resources remains complex in the case of e-extension. On one hand, it should reduce the cost of extension and agricultural advisory services. On the other hand, accessing these services still requires significant investments for farmers. Additionally, the question of competency, both for extension workers and farmers, remains a challenge to address.

## Costs

When discussing expenses, we'll focus on the cost of video dissemination during community animation evenings in Madagascar, a common e-extension method in the Global Programme "Soil Protection and Rehabilitation for Food Security (ProSoil)" in Madagascar named shortly as ProSol. The estimated cost, around 35 USD, is based on interviews with extension actors. These expenses cover facilitation, participants' travel, field inputs, learning materials, field days, data collection and analysis, and monitoring and evaluation for one session with 15-20 farmers. See the breakdown in the figure below:

**Video animation costs breakdown**

- Facilitation — 56%
- Participants travels — 3%
- Field inputs/ supplies — 3%
- Learning materials — 10%
- Field days/ Graduation — 5%
- Field data collection — 10%
- Field data analysis — 7%
- Monitoring and evaluation — 3%
- Hiring services — 3%

It should be noted, however, that the use of videos falls within a broader framework of extension involving other more conventional activities. Thus, certain additional costs may be involved and covered by these activities. Moreover, it is important to note that these costs only represent community engagement. They do not yet take into account costs such as content production, for example. Furthermore, if we are talking about e-extension, and from a perspective beyond project approach, the cost of investment that it represents for farmers should also be taken into account (cost of equipment, internet subscription, phone credit, etc.). Indeed, this can represent a significant investment for them and therefore constitutes an additional barrier. This reinforces the need to conduct an assessment among the target populations in order to identify, for example, the equipment available to farmers, their capacity for use, and their financial possibilities. The digital extension tool must therefore be adapted to the real context of farmers.

**Capacities**

The issue of competency arises both at the level of extension workers and farmers:

- Extension workers need to have a variety of digital capacities to effectively implement e-extension. We have identified as top priorities the following:
  - ✓ Technical Skills: Proficiency in using digital tools and platforms relevant to e-extension, such as mobile applications, online communication platforms, and data collection software.
  - ✓ Digital Literacy: The ability to navigate digital interfaces, understand basic computing concepts, and utilize digital resources for information gathering and dissemination.
  - ✓ Digital content creation: The ability to produce relevant agricultural training videos, radio programs, graphic supports, etc.
  - ✓ Communication Skills: Capabilities in effectively communicating through digital channels, including written communication via email, social media, and other online platforms.
  - ✓ Training and Support: Capabilities in supporting and training farmers in the use of digital tools effectively.

- ✓ Data Management: Competence in collecting, analyzing, and interpreting data gathered through digital platforms, ensuring accurate reporting and decision-making.
- ✓ Adaptability: Flexibility to adapt to new digital tools and technologies as they evolve, and willingness to experiment with innovative approaches to extension work. It also means being able to adapt the tools to be used to the context of the beneficiaries.

- Farmers need to be strengthened in some basic digital skills to fully benefit from this opportunity:

*Basic must-skills:*

- ✓ Digital Literacy: Understanding how to use computers, smartphones, and/or other digital devices (video projector, radio, TV, etc.), including navigating interfaces and using basic functions.
- ✓ Communication Skills: Ability to send emails, use messaging apps, use social networks, and/or participate in online forums to access information and communicate with extension workers and peers.

*Preferable skills:*

- ✓ Internet Access: Having access to reliable internet connectivity to utilize online resources, access market information, and engage in digital learning platforms.
- ✓ Data Management: Basic knowledge of collecting, storing, and managing data, such as recording farm activities and keeping digital records of expenses and revenues.
- ✓ Online Safety: Awareness of cybersecurity risks and best practices to protect personal and financial information while engaging with digital platforms and conducting online transactions.

**Good practices**

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**VIDEO PRODUCTION WITH FARMERS WITHIN PROSOL MADAGASCAR**

*Within **ProSol** in Madagascar, video[1] is one of the extension tools used by extension agents and leader farmers during community animation evenings. The distinctive features of this approach are:*

- *Videos are produced based on the needs of farmers, thus avoiding a top-down approach and better addressing relevance issues.*
- *Videos are produced with farmers, promoting their participation and sharing in the agroecology extension process.*
- *Lastly, beyond farmers' participation and involvement, it is important to note that the videos are filmed within farmers' environments, ensuring better representativeness and ownership*

According to Mr Dod, leader farmer collaborating with GIZ ProSol in the Boeny region, the introduction of videos during community events has

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[1]You can follow Youtube channel of ProSol Madagascar by clicking this link: https://www.youtube.com/@prosolmadagascar

significantly increased local farmers' interest and participation in these gatherings. A notable difference was observed compared to the period before videos were used. Additionally, these tools have fostered more dynamic exchanges among participants. Importantly, these videos are not only beneficial for farmers but also serve as invaluable extension resources for extensionists, making their work easier.

**References**

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