

Evaluation Report

Evaluation and Efficacy of FMNR Online Training

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Independent Evaluation completed by:

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Figure 1: FMNR reserve in Matsanjeni AP, Swaziland

I. Executive Summary

Evaluation and Efficacy of FMNR Online Training Introduction and context

“Farmer Managed Natural Regeneration (FMNR) is a low-cost land restoration technique used to combat poverty and hunger amongst poor subsistence farmers by increasing food and timber production and resilience to climate extremes. In practice, FMNR involves the systematic regrowth and management of trees and shrubs from felled tree stumps, sprouting root systems or seeds.”¹ FMNR helps restore soil quality, inhibit erosion and soil moisture evaporation, rehabilitate springs and the water table, and increase biodiversity. Some tree species also impart nutrients such as nitrogen into the soil.

On behalf of World Vision International (WVI), in 2015, World Vision Australia (WVA) developed an online training course for World Vision staff to improve their knowledge and programming competency in relation to WVI’s FMNR Project Model. The course is hosted on WVI’s eCampus website. It is open to all WV employees, on condition of permission from their manager, and the payment of a subsidised fee by his or her WV office.

This evaluation has assessed the effectiveness of the course to shape the competency of these first three intakes of graduates to advocate for, design and implement effective FMNR projects.

Project Design

The course’s objective is as follows:

“This Farmer Managed Natural Regeneration eWorkshop aims to train project facilitators in identifying FMNR opportunities, how to overcome obstacles and how to empower individuals and communities to adopt and spread the practice.”

The Evaluation

The Terms of Reference of this evaluations state the purpose of the evaluation is to test the effectiveness of the WV eCampus FMNR course for strengthening development workers’ effectiveness in contextually appropriate promotion of FMNR and other sustainable agriculture approaches.

The Terms of Reference cites four evaluation objectives. Each of the following objectives is supported by guiding evaluation questions.

1. Measure the degree to which the course has influenced participants’ effectiveness as agents of FMNR.
2. Measure the degree to which past participants have sustained or increased their knowledge of FMNR since the course.
3. To what extent are the learning material fit-for-purpose?
4. Recommendations.

The evaluation adapted Kirkpatrick’s model for training evaluation that considers learners reaction to the course; acquired knowledge, skills and attitudes; changed behaviours; and results for their communities.

To collect data, the evaluation:

Duration:	Three course intakes between 2015 and 2017
People supported by the project:	90 WV Staff participants in the course <25,000 directly trained farmers ~76,000 cascade-trained farmers ~ 2,520 other WV staff and institutional partners trained

¹ FMNR Hub: <http://fmnrhub.com.au/home/about-us/>

- Analysed two sets of exit surveys from 2016 and 2017 graduates.
- Conducted a survey of all course participants around the world who had graduated more than 12 months prior, with 30 respondents (from a population of 55).
- Conducted in-depth face-to-face interviews with 10 course graduates, seven supervising managers in World Vision in Swaziland and Lesotho.
- Conducted three interviews with external institutional land management partners in Lesotho and Swaziland, with six participants in total.
- Conducted nine farmer discussion groups with community FMNR committees in Swaziland and Lesotho
- Undertook site observations of all participating FMNR committees' FMNR practices.

Project Results

Main outputs completed by the project

The 15-week course was initiated in late 2015, having completed two rounds in 2016, and one in 2017. To date, the course has trained a total of 90 enrolled participants from 18 countries.

Main outcomes of the project for participants

Exit surveys of course graduates, a global survey of graduates, and key informant interviews with graduates and their managers from two countries converge upon the conclusion that the WV eCampus FMNR training course is highly effective. Participants found the course's web-based learning environment easy to use and contained material that was easy to understand and increased their knowledge and skills as development workers promoting FMNR in rural communities.

Despite its duration over 15 weeks, participants are kept motivated by the forums and team-work that allow each to learn and collaborate with field staff from all over the world. They are also inspired by the personalised, active and caring engagement of the facilitators. The course has had two separate sets of facilitators, but consistently high satisfaction. Nevertheless, as a key outcome of this study, the evaluation sought-out several ways the content and facilitation can be improved, which are listed in the Recommendations section below.

A year or more after graduation, the course materials continue to be relevant and useful to graduates in their community work, with over two-thirds of graduates still referring to the materials. Video clips and practical 'how-to' guides were most popular, due to their utility when graduates conduct trainings for communities or WV peers. However, only around half the course content was easy for participants to save from the eCampus FMNR website. Content that could not be downloaded as files, such as online quizzes, embedded text and images, and weblinked videos, was effectively lost to most participants after completing the course.

After graduation, participants have little to no support for their ongoing learning. Around the world, most (70%) will discuss FMNR with other colleagues in their workplace. But only 13% receive any support from international colleagues, and even fewer (7%) receive FMNR learning support from their manager or national sector technical specialist. Reassuringly, 83% of graduates report they occasionally access ongoing learning from their own initiative. Two-thirds re-read the course materials, half access books or websites for new FMNR information, a third access videos such as via YouTube, and a quarter access materials via WVA's FMNR Hub.

In relation to the influence of the eCampus course on FMNR competency in National Offices, the evaluation explored what other influences have shaped knowledge and actions of WV staff, institutional partners in government ministries and NGOs, and in partner communities. Data collection in Swaziland and Lesotho found that a triangle of influence has successfully introduced FMNR into countries, with each 'point' having roughly equal but complementary impact. Each of the three points were instigated by WVA's FMNR Hub, and WV is the only influence promoting FMNR, at least in these two sampled countries. The first 'point' of influence is **external expertise events** provided by WVA: the 2014 'Beating Famine' Conference hosted in Malawi, followed by training visits by FMNR experts Norbert Akolbila in 2015 and Tony Rinaudo in 2015 and 2016. These authoritative experts catalysed and raised awareness among WV managers and field staff, among government ministries and NGOs, and some communities. The second 'point' of the triangle is the **eCampus FMNR training**. Many participants in Swaziland and Lesotho were motivated to do the eCampus course following exposure to the international experts. The course also opened FMNR to other staff who did not have the opportunity to attend training with the international visitors. eCampus Graduates have been the main contact points in training and mobilising communities. The third 'point' of the triangle of influence in Southern Africa was the appointment of one of the first eCampus graduates, Mr Makhera Kalele, as a **Regional FMNR champion**. WVA's FMNR Hub funded Mr Kalele's role in WV's Southern Africa Regional Office for one year to train development facilitators in National Offices. He also directly conducted many of the community trainings, as well as advocacy meetings with government ministries in Lesotho and Swaziland. This role was instrumental in mentoring graduates, educating development facilitators (DFs) who have not done eCampus, and leading FMNR training in communities whose DFs had not done eCampus. This role was terminated in late 2017. Thus, in understanding the influence of the eCampus course upon staff, communities and institutional stakeholders, the course must be understood in relation to these other two mutually reinforcing influences. However, **the evaluation concluded that a fourth 'point' or influence tactic was missing from this strategy:** funding dedicated FMNR-focussed development projects would enable WV National Offices to generate deeper and institutionalised expertise on-staff, and model FMNR-practitioner communities as testaments to other interested communities.

"How to think in a way that transforms other people's minds. It kept emphasising the farmer. The farmer. Who is supposed to make changes to how to do things? It is up to the farmer. It is up to the farmer to see if it is practical, and they will then contextualise it." (2016 female graduate, Swaziland)

"We learned a lot about FMNR. It made us more aware of environmental conservation, Now, I am thinking next year I want to enrol in something in university in something on environmental conservation. Our land is so degraded. I don't want to see Lesotho dependent on other countries for food. FMNR can respond to that." (Female 2016 graduate, Lesotho)

"Before, the soil was washing away. Not water flow has been slowed down and the dongas are closing. Where there are bare lands like here, we would take the prunings and put them here them here on top to interact with the organic materials which promotes the new generation of new grasses. You can see some of the new growth. Where we put a lot of debris, you can see a lot of grass growing now." (Matsanjeni I FGD male, Swaziland)

"As much as we are aware of the challenges the trees pose to us, having them there can create shade and that provides a microclimate that is conducive to crops the grow. The tree leaves can put more fertility into the soil because of the shed-leaves. That microclimate can minimise evaporation." (Mokotjomela AP FGD men, Lesotho)

Competency of Graduates:

Course participants graduated with high levels of self-confidence with 92% in 2016 and 100% in 2017 expressing confidence in being able to lead implementation of FMNR. The evaluation found evidence of elevated capacity to analyse agricultural and landscape issues, interpret and address barriers to FMNR adoption, and the importance of including all relevant stakeholders in problem analysis, learning and decision-making. Graduates were also versed in explaining the potential benefits of FMNR, and various strategies for optimising influence in communities.

Course participants consistently articulated their commitment to assisting communities to reverse agricultural land degradation. Their managers also recognised that they had become more effective community development agents than their staff who had not undertaken the FMNR course.

eCampus training has had a multiplier effect. The global survey of graduates found that, on average, each 2016 graduate had trained nine other WV staff since graduating, plus around 19 non-WV institutional stakeholders. By the time the 2017 graduates become active as well extrapolating these averages across all 90 graduates, we can reasonably estimate that, graduates will have trained around 2,520 other WV staff and institutional partners around the world.

Though these gains are impressive, it is important to remember that, outside West Africa and a small number of east African countries, FMNR promotion has only been introduced over the last one to two years. Graduates themselves are still novices and the lack of ongoing authoritative mentoring or advice for graduates makes these gains fragile. While enthusiasm for FMNR is high among DFs and technical specialists who have been exposed to it, FMNR is not embedded in the perennial competencies of the National Offices, Regional Office or even WV Global Centre.

Influence on World Vision's partnered communities:

The FMNR training of WV field workers has yielded a high return-on-investment in relation to passing on learning to WV's community partners. The global survey of course graduates found that only 7% of graduates have not passed on training to community land users. On average, the survey found that each graduate has trained 351 community land users (crop and livestock farmers) each. Extrapolating these findings across all graduates, discounting for staff attrition and doubled-up trainings, our conservative estimate of total farmers directly trained by eCampus FMNR graduates is 25,272, resulting in an additional 75,816 cascade-trained farmers being trained in FMNR around the world as a direct outcome of the eCampus training.

Nevertheless, the evaluation found reason to be cautious about the short-term impact of such FMNR trainings. While the FMNR technique is new to a community, with few or no mature demonstration sites, land users are still noncommittal. Among survey respondents, around a third (n=11/30) reported that more than 40% of households in their target communities were now implementing FMNR on their own farmland. Another third (n=9/30) reported that less than 10% of households were implementing FMNR. Still, FGDs revealed that, as their small test plots are just starting to show improvements to soil quality, grass growth, natural resource restoration, and erosion reduction, the more confident they are becoming to expand these early experiments to other lands. This early reticence to adopt or expand FMNR is consistent with previous project evaluations that found rapid expansion of adoption occurs after around three years of intensive FMNR promotion.

The evaluation identified key barriers to FMNR promotion that graduates continue to find difficult to address. The most notable were: fears of negative consequences from allowing indigenous trees to manifest in the fields; confusion about how to interpret the thinning of trees to optimise land rehabilitation; lack of engagement with relevant government ministries; how to mobilise protection for regrowth on communal land; people's resistance to doing FMNR work on their land without being paid; and the foreign and long name of FMNR (*effemmennar*) that has no resonance in local languages. These barriers perceived by implementing staff present insights to refine or expand how they are addressed in the course.

Lastly, the absence of projects with FMNR as a principal or significant component has resulted in NOs not being able to convert these interests and nascent capabilities into sustainable expertise. Without such projects, FMNR languishes in being a fraction of each graduates' responsibility, and each community receives a maximum of one FMNR training event per year, with little to no follow-up encouragement. Such countries also consequently lack mature demonstration communities that other communities can learn from and be convinced by.

Recommendations for better addressing the developmental problem

How could the course content be more informative and easier to follow during and after the course?

- a) Have a single manual, rather than scattered resources.

- b) Engaging Government Ministries.
- c) Investing in the few, while promoting to the many.
- d) Understanding the function of different indigenous trees (especially acacias).
- e) Provide some scientific basis for balancing farmers' and agriculture ministries' conventional beliefs.
- f) Address the intersection of FMNR and climate change.

What other supports or networks would better support continuous learning and practice after the course?

- h) Mainstream FMNR champions in each region.
- i) Advocacy and directly support for dedicated FMNR-focussed land restoration projects.
- j) Develop a facilitated online peer community of practitioners and mentors.
- g) Promotion of FMNR Hub, through the course.

Additional Recommendation

- k) Formalise and resource the four points of the FMNR Diamond of Influence strategy.

Conclusion

The FMNR Hub can rightly celebrate the effectiveness of the course in preparing development workers to be more effective, and the initial coverage of learning through a wide population throughout the world. However, the gains and growth will remain modest for the foreseeable future, and current gains are likely to erode over time due to absence of resources, lack of scope for field staff to follow-up coach FMNR committees, staff turn-over and attention given to other sectoral demands in Area Programmes and National Offices. Such erosion is avoidable if the FMNR Hub formalises and reinvigorates all four 'points' of its 'diamond' of FMNR influence: 1) continues to facilitate and improve the eCampus course across all interested WV NOs; 2) periodically facilitates country visits by international FMNR experts and/or conferences to catalyse interest; 3) installs a FMNR Champion on staff in each high-potential WV Region; and 4) encourages dedicated FMNR projects in high-potential countries to galvanise FMNR expertise in those WV National Offices and a core of practitioner communities.

End of Executive Summary.

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Report Approval

Once the report has been completed, it should be approved by the National Office or Country Office PQ Manager, and forwarded to the WVA Grant Project Manager for final approval.

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by: Food Security and Natural
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Acknowledgement

The evaluation author applauds the commitment and innovation that World Vision Australia (WVA) and the FMNR Hub has enacted to promote FMNR around the world. The various promotion and education tactics employed by the FMNR Hub are experimental in the World Vision context, and as such, are evidence of the courage and vision of its sponsors in the organisation and its financial backers. The findings of this evaluation affirm that their faith is paying-off in nurturing an emergent global moment that ‘business-as-usual’ would not have achieved.

I am grateful to Mrs Soheila Lew of WVA for working closely with me to define the essence of what the FMNR Hub needs to learn from this evaluation, and for facilitating logistics and relations in sampled National Offices. I am also grateful to Mr Mafamo Pholo and Mr Makhera Kalele in WV Lesotho, and to Mr Busika Mlumuli in WV Swaziland for sacrificing so much time from their already overloaded schedules to organise and accompany my in-country visits. Furthermore, the many WV staff in Lesotho and Swaziland and their external partners were patient and open in sharing their reflections, as were the thirty staff around the world who took time to complete the evaluation survey. This evaluation reflects the convergence of their experiences of the eCampus FMNR course, and its influence on WV capacity and community change. My belief and my prayer is that documenting their lessons in this report will, in time, lead to greater improvements to World Vision’s effort to enrich the lives of marginalised rural families all around the world through FMNR.

Affirmation

Except as acknowledged by the references in this paper to other authors and publications, the evaluation described herein consists of original work, undertaken as a collaboration between World Vision Australia and Peter Weston of K4Dev International Consultants, with support from WV Lesotho and WV Swaziland. It is undertaken to guide future activities, describe and advance learning, and generate evidence of World Vision’s development effectiveness as part of the requirements of World Vision’s Learning, Evaluation, Accountability and Planning System.

Primary quantitative and qualitative data collected throughout the evaluation process remain the property of the communities and families described in this document, which World Vision retains as steward on behalf of those communities.

Dean Thomson

Manager – Food Security and Natural Resources Team, World Vision Australia

8 March, 2018

Glossary of Acronyms

The following acronyms are used in this report.

ANCP	Australian NGO Cooperation Programme
AP	Area Programme
CRS	Catholic Relief Service
DF	Development Facilitator: the WV officers in each Area Programme who engage with community partners to promote development.
DME	Design Monitoring and Evaluation
DPA	World Vision Development Programme Approach
eCampus	WVI's web-based platform for all online training courses for WV employees
FGD	Focus Group Discussions
FMNR	Farmer-Managed Natural Regeneration
FMNR Hub	WVA's Learning and communication portal for promoting knowledge about FMNR
Ha.	Hectare (are of land equivalent to 10,000m ²)
HH	Household
iNGO	International Non-Government Organisation
KII	Key informant interview
LEAP3	Learning through Evaluation with Accountability and Planning, Version 3: WV's global guidelines for programme design, monitoring and Evaluation
n	Number of respondents to a given survey question
NO	National Office
NRM	Natural Resource Management
ToR	Terms of Reference
WASH	Water, Sanitation and Hygiene
WVA	World Vision Australia
WVI	World Vision International
WVLSO	World Vision Lesotho
WVSWZ	World Vision Swaziland

2. Project Background and Context

“Farmer Managed Natural Regeneration (FMNR) is a low-cost land restoration technique used to combat poverty and hunger amongst poor subsistence farmers by increasing food and timber production and resilience to climate extremes. In practice, FMNR involves the systematic regrowth and management of trees and shrubs from felled tree stumps, sprouting root systems or seeds.”² FMNR helps restore soil quality, inhibit erosion and soil moisture evaporation, rehabilitate springs and the water table, and increase biodiversity. Some tree species also impart nutrients such as nitrogen into the soil.

In recent years, the Farmer Managed Natural Regeneration (FMNR) approach had generated enough pioneer project experience and research evidence to validate its promotion as a core approach to restoring rural livelihoods. FMNR is suited to countries and communities experiencing agricultural and ecological degradation. This platform of experience had increased the level of interest among WV National Offices in adopting or expanding FMNR programming. This interest is driven by an intent to increase their aid effectiveness in partner communities, and to position for the growing number of global grant opportunities targeting environmental resource management, climate change adaptation, disaster risk reduction, and livelihood development.

On behalf of World Vision International (WVI), in 2015, World Vision Australia (WVA) developed an online training course for World Vision staff to improve their knowledge and programming competency in relation to WVI’s FMNR Project Model. The course is hosted on WVI’s eCampus website. It is open to all WV employees, on condition of permission from their manager, and the payment of a subsidised fee by his or her WV office.

The course’s objective is as follows:

“This Farmer Managed Natural Regeneration eWorkshop aims to train project facilitators in identifying FMNR opportunities, how to overcome obstacles and how to empower individuals and communities to adopt and spread the practice.”

The 15-week course was initiated in late 2015, having completed two rounds in 2016, and one in 2017. To date, the course has trained a total of 90 enrolled participants.

This evaluation has assessed the effectiveness of the course to shape the competency of these first three intakes of graduates to advocate for, design and implement effective FMNR projects.

3. Purpose and Scope of the Evaluation

The Terms of Reference of this evaluations states the purpose of the evaluation is to test the effectiveness of the WV eCampus FMNR course for strengthening development workers’ effectiveness in contextually appropriate promotion of FMNR and other sustainable agriculture approaches.

The findings of this evaluation will generate evidence to measure, interpret and articulate the course’s effectiveness in accelerating livelihood improvement in marginalised rural communities; and will generate lessons that will inform adjustments to the course content, to improve future sessions of the eCampus course.

² FMNR Hub: <http://fmnrhub.com.au/home/about-us/>

4. Evaluation Objectives and Questions

Copy/Adapt from Evaluation ToR/Plan, and amend if needed updated. Recommended length: one to two pages.

The Terms of Reference cites four evaluation objectives. Each of the following objectives is supported by a number of guiding evaluation questions.

1. Measure the degree to which the course has influenced participants' effectiveness as agents of FMNR.

- Influence of graduates on farming HHs, and community power-brokers (informal, traditional, and civil service)?
- Ability and willingness of graduates to train or mentor other WV Staff.
- Ability and willingness to advocate for new FMNR programming in the NO.
- Within WV National office, and in the nation's wider development sector, the degree to which graduates perceive themselves as leaders and contributors to extending the practice of FMNR.
- To what extent has participation in the course influenced graduates' career interests and employment/promotion prospects?

2. Measure the degree to which past participants have sustained or increased their knowledge of FMNR since the course.

- To what extent was the course material useful for ongoing reference? How did they store the materials after the course?
- What support did they receive after the course from anywhere (WVA, other WV, non-WV).
- Do they continue to access resources of updates on FMNR? If so, from where/whom?

3. To what extent are the learning material and assessments fit-for-purpose?

- What was helpful about the materials? What was constraining or missing in the materials?
- How easy was it to learn and use the eCampus environment?
- Were any important themes for designing and conducting FMNR programming inadequate or absent from the course?
- What were the most impacting lessons gained from participating in the course?
- What were the most enjoyable, motivating or engaging methods of learning employed by the course?

4. Recommendations

- How could the course content be more informative and easier to follow during and after the course?
- What other supports or networks would have better supported continuous learning and practice after the course?
- What are the preferred methods for communicating with the course facilitators?

5. Methodology

Due to the nature of the evaluand being a training program, the evaluation has drawn on Kirkpatrick's model for evaluating training and learning. While the following hierarchy of learning informs the approach to data collection and analysis, results will not be presented under these headings, but in relation to the evaluation objectives and guiding questions.

The Kirkpatrick model utilises four levels or steps of outcome evaluation:

- Level 1—**Reaction** - Participant’s perception of usefulness and enjoyment overall, and of the various aspects of the training: content, components, instructors, etc (*related to course graduates’ critique of the course structure and content*)
- Level 2—**Learning** – did transfer of learning occur, of knowledge, skills, attitudes. Should be done immediately after training. Learning has three sub-categories:
 - Knowledge
 - Skills
 - Attitudes

(This level relates to changes in course graduates’ increased knowledge of FMNR)

- Level 3—**Behaviour** – Have participants’ behaviours changed in line with training expectations? Measuring the transfer of knowledge, skills, and attitudes from the training context to the workplace. Use pretest/Post-test or retrospective survey design (*related to changes in course graduates’ competencies as development change agents*)
- Level 4—**Results** – Have the new behaviours resulted in the desired outcomes (*related to changes in WV-partnered communities*)

5.1. Methods

Evaluating each of these learning outcomes will engage the following methods:

Exit surveys

Review of course exit surveys from 2016-2017 graduates. These anonymous course-assessment surveys took place at the end of the second and third course intake, and took place via WVI’s eCampus web portal. They provide quantitative and qualitative data to triangulate primary data collected for the evaluation. Completion rates of these surveys were low (13/29 in 2017 and 13/30 in 2016). However, the findings are consistent with primary data to reveal or reinforce evidence for overall trends.

Participant Survey

In November 2017, a short web-based survey was sent to all fifty-five of the 2015/2016 participants still employed by World Vision. The survey was hosted by SurveyMonkey, and all responses were anonymous. The survey focussed on 2015 and 2016 intakes, because they have had at least a year of apply their learnings to reflect in their answers. After several rounds of reminders, this survey was completed by 30 respondents (55% of the WV-employed course participants). Seven respondents were women (23%), which is consistent with the proportion of women who have undertaken the FMNR eCampus course.

These survey results form the quantitative primary data content of the evaluation.

This sample size provides findings that have 95% confidence levels with 9.5% margin of error. This is a higher than desirable margin of error for evaluations, for which 8% is an industry standard. Respondents represent 13 of the 18 National Offices (NOs) who have sponsored course participants. None of the Regional Offices or Support Offices were represented.

National Offices of respondents are:

Burundi
Ethiopia
Ghana
Kenya
Lesotho
Malawi

Countries that did not respond

DR Congo
Indonesia
Myanmar
Somalia
Timor-Leste
East Africa Regional Office

Niger
South Sudan
Sri Lanka
Swaziland
Uganda
Zambia
Zimbabwe

West Africa Regional Office
United States

Key Informant Interviews and Focus Group Discussions (Swaziland and Lesotho)

Qualitative data collection took place in the countries of Lesotho and Swaziland. These countries were selected by WVA based on the higher number of graduates per country relative to other National Offices, and their directors' responsiveness to host the evaluation.

Methods consisted of the following:

- Face-to-face key informant interviews with past **eCampus FMNR course participants**, in their place of work. Questions covered their experiences of participating in the course and how they have applied the learning in their work responsibilities in international development, and the extent to which they have passed on their knowledge among staff, community and other stakeholders.
- Face-to-face key informant interviews with **supervisors of past participants**, in their place of work. Questions covered their observation of the knowledge and effectiveness of eCampus participants in programming and implementing FMNR, as well as their broader skills as development professionals.
- Face-to-face key informant interviews with **external institutional land management stakeholders** (Government ministries of forestry and agriculture).
- **Farmer/land-user Focus Groups** in communities assisted by FMNR course graduates.
- **Site observations** where WV-assisted communities are practising FMNR.

WV Staff Interviewees:

The evaluation conducted in-depth interviews with 14 World Vision staff. Of these interviewees, 10 are graduates of the online FMNR course, and seven are supervising managers (four are both course participants and supervisors). Five interviewees are female (36%). Each interview was conducted in English and took between one and 1 ½ hours. Interviews covered graduates from all three intakes, but focussed on 2015 and 2016 intakes, because they have had at least a year to apply their learnings in their work.

Lesotho:

- Mr Makhera Kalele (2016 Participant and former Southern Africa Region FMNR Project Officer)
- Mr Mafamo Pholo –National Livelihoods & Resilience TP Manager
- Ms Nyakallo Sehloho (2016 Participant and AP Development Facilitator)
- Ms Pulane Mokhethi (2016 Participant and AP Development Facilitator)
- Mr Tsotelo Lebetse – Resilience TP coordinator-North
- Mr Selete Molete – Programme Cluster Manager – Manager of Nyakallo and Pulane

Swaziland:

- Mr Busika Mdumuli (2015 Participant and National Livelihoods & Resilience Manager)
- Mr Mduduzi Mavimbela (2016 Participant and AP Development Facilitator)
- Ms Bongiwwe Dlamini (2016 Participant and AP Development Facilitator)
- Ms Precious Mdluli (2016 Participant and Coordinator for livelihoods: economic and food security coordinator)
- Mr Thabani Mnisi (2017 Participant and AP Development Facilitator)
- Mr Bonginkosi Mabuza (2017 Participant and Grant Project Officer for EU Vegetable project)

- Mr Mpendulo Simelane (2017 Participant and Project coordinator – Farmer’s Group economic strengthening)
- Ms Phetsile Basilela - Cluster manager. Manager of Thabani and Nduduzi

External Interviewees

The evaluation conducted three in-depth interviews with external land management partners: two with government partners, and one with a partner international non-government organisation. Each interview was conducted in English and took around one hour.

- Catholic Relief Services, Lesotho
 - Mr Ehsan Rizvi - National Operations Manager
 - Mr Mpho Mosiuoa – National NRM Coordinator
- Mr Nkuebe Lerotholi. District Coordinator – Lesotho Ministry of Forestry, Range and Soil Conservation
- Swaziland Department of Rangeland Management, Ministry of Agriculture:
 - Mr Sazi Mhlongo – Range management officer – MoA (M)
 - Mr Sifiso Msibi – Livestock extension officer, under range management office. (M)
 - Mr Thapelo Hlatshwako – Range management (M)

Community/Farmer Focus Groups

The evaluation conducted nine farmer discussions. Of these, four took place in Lesotho, and five were in Swaziland. Discussion participants were members of FMNR committees, who were mostly livestock/rangeland management committees. These pre-existing groups have been taught FMNR between early 2016 and late 2017. FGDs were conducted via translation from English into Sesotho or Siswati and took between 1 ½ and two hours.

Lesotho Area Programmes (APs)	Swaziland Area Programmes (APs)
Koeneng AP Haletsoela AP (youth FMNR committee) Rothe AP Mokotjomela AP	Matsenjani AP (three separate committees at three sites) Sithobela AP Somntongo AP



Figure 2: FGD with rangeland management committee, Somntongo AP, Swaziland

Site observation (Swaziland and Lesotho)

In each Area Programme, where FMNR committees engaged in FGDs, their fields of FMNR practice were visited. The site visits were to establish what the evidence and scale of FMNR practice are evident in locations where FMNR is being promoted by eCourse graduates, relative to neighbouring lands not under FMNR management. FMNR committee members were on hand to answer questions and highlight any aspects important to them.

5.2. Limitations of the Evaluation

Quantitative sample size: The 55% response rate for the small population of participants resulted in a high margin of error (9.5%) for the quantitative data. Thus, quantitative findings are indicative, but not high in precision. The reader must bear in mind that true results may be 9.5% higher or lower than reported results.

Limited scope for in-country data collection: WV staff from eighteen countries have participated in the first two intakes of the FMNR course. For in-country qualitative data collection, only two countries were represented. These two countries provide valuable insights, but are not representative of the experience of applying FMNR learning into the contexts of other WV National Offices. Furthermore, FMNR was introduced into WV Swaziland and Lesotho around the time of the eCampus FMNR course, and they have both introduced FMNR into communities with limited Child Sponsorship resources. Their course graduates' context is quite different to other East and West African countries where graduates integrate into long-running national FMNR programmes with dedicated grant projects for FMNR.

Language. Qualitative data collection guides were developed in English. WV staff and institutional partners were interviewed in English. For respondents, English is a second or third language. FGD questions were translated into Sesotho and Siswati and their answers translated back into English. Translation may lose some of the nuance and meaning in some questions and responses.

6. Ethical and Child Protection Considerations

6.1. Ethics Declaration

All research was conducted in an ethical manner. This is to say that all participation in surveys, interviews and FGDs was **voluntary**, all were **informed** of their right to not participate, to end the interview early, and to not respond to questions they feel uncomfortable or unqualified to answer. Voluntary involvement was assured by a scripted verbal delivery of a clear explanation of the evaluation being conducted.

To limit anxiety about performance-reporting, WV staff were informed that neither they nor their implemented projects are being evaluated. The focus is squarely on interpreting the utility of the eCampus FMNR course upon its participants and indirectly on assisted communities.

A do-no-harm approach was further ensured for participants by protecting informants' **anonymity and confidentiality**. No names were recorded on questionnaires or FGD transcripts: only village name and interview number, to ensure anonymity. Potential for harm is low, as discussions about farming practices and incomes are unlikely to be considered sensitive. In focus groups, participants are likely only to reveal what they are comfortable revealing in public. Furthermore, comments and quotes cited in the report do not attribute them to specific participants. Thus, comments from community FGDs are only attributed to the collective group, and comments from staff to their country, sex and eCampus intake group. Individual questionnaires will be retained by the lead researcher, and not made available to World Vision staff or community partners.

Where key informants have been quoted by name in the report, it has been done with their **permission**, sought at the time of interview. No material inducement was offered to any informants.

In the spirit of appreciating their hosting of this evaluation, at the end of each field research period, **preliminary findings were shared** with the senior managers of WV Lesotho and WV Swaziland. These informal presentations shared observations and lessons relevant to the improvement of each National Office's FMNR and climate-smart agriculture programmes.

6.2. Declaration of Conflicts of Interest

The independent evaluation consultant is a former employee of World Vision, and FMNR researcher with WVA from 2010 to 2013. The consultant was also contracted by WVA to co-facilitate the 2017 intake of the eCampus FMNR course. These past affiliations benefitted the evaluation due to the evaluator's understanding of WV operations and deep understanding of good FMNR practice. The consultant has sought to maintain the integrity of the evaluation by conducting data collection and analysis from an independent perspective, remaining dispassionate about the findings: whether positive or negative about the FMNR course's impact. However, given past affiliations, some degree of unintended bias must be considered.

The consultant has no prior engagement with staff or programmes of WV Swaziland and WV Lesotho.

7. Findings

Results and observations of the evaluation have been analysed and set-out in the following section using the Guiding Evaluation Questions as sub-section headings.

7.1. To what extent are the learning material and assessments fit-for-purpose?

7.1.1. How easy was it to learn and use the eCampus environment?

Surveys and interviews almost unanimously affirmed that the structure and content of the eCampus FMNR course is excellent, and very user-friendly. For most, the FMNR course was their first encounter with an online learning course. While that created a little anxiety for some, all found it intuitive to learn.

"It was my first time to do an online training, it was awkward for the first times, not knowing if I was doing it right or wrong. After that, it was easy to use and follow. Even just getting into the link was so easy." (Male 2017 graduate, Swaziland)

"It was user-friendly. It did not have much difficulty. It was good to use. Besides, the instructors were always online to assist." (Female 2016 graduate, Swaziland)

In the 2016 and 2017 intakes, over 90% of graduates reported that they felt comfortable navigating the course site.

Figure 3: I felt comfortable learning online (navigating pages, contributing to forums, submitting assignments and finding resources) – 2017 intake

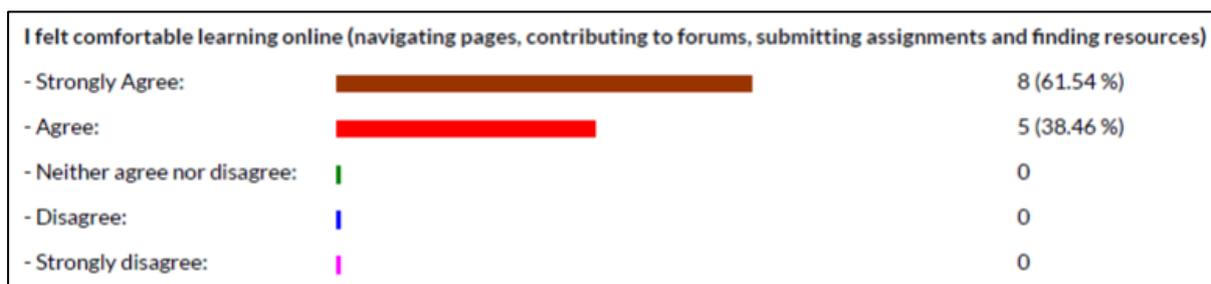
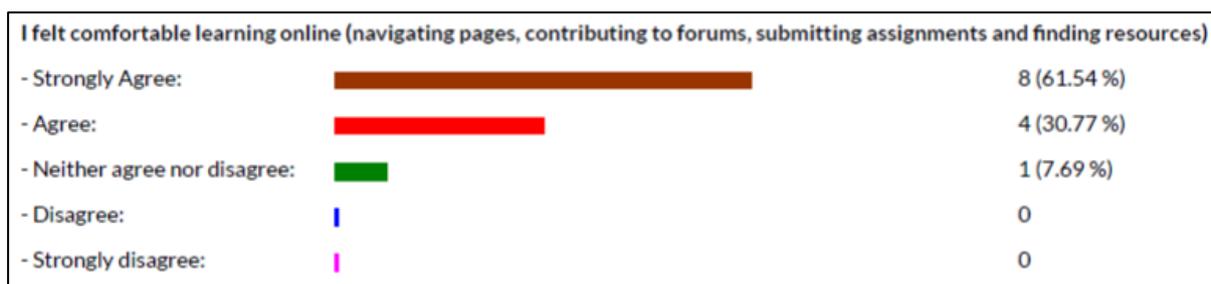


Figure 4: 2016 Intake



7.1.2. What was helpful about the materials?

"I loved all the content of the course. God bless the one who designed such practical based course. Keep it up!" (2016 exit survey feedback)

Clearly, the weekly structure and layout was easy and intuitive for participant to navigate, which made learning uncomplicated. Among Swaziland and Lesotho interviews, and 2016 and 2017 exit surveys, the most motivating factor cited is the ability to interact and learn from the experiences of people in other countries, achieved through weekly forums and group activities. Many course graduates praised the very pragmatic nature of the course content: the videos, case studies and explanations made FMNR concepts easy to understand and pass on to others. Beyond the facilitation and the practical resources, several interviewees and survey respondents reported that the workbook forced participants to put the theories into practice; and the quizzes were popular to test and correct their own learning.

"There were so many success stories shared in the course and that was motivating. Also, I mentioned, we did the course with people from difference countries sharing what is happening in their countries and learned a lot from their information. The other thing is that we had team works. We divided into teams. That was important. Each one of us had to contribute to the team to do the best." (Female 2016 graduate, Lesotho)

The next most cited motivator in the course is the active and personal engagement and care exhibited by the course facilitators.

"Thumbs up to our facilitators, the support and courage they have been giving us throughout the course. Sometimes heavy loads of work made us to forget our assignments here but they were always there to push us in a very good manner, THANKS YOU SO MUCH!!!!!!!" (2017 exit survey feedback)

"The facilitators did a wonderful job." "FMNR facilitator gave guidance and responded quickly to participants concerns and challenges through various means such as skype and mails." (2016 exit survey feedback)

"This course, it felt like a family thing. If you were getting behind, someone would come along and see what is going on and help you out. For other eCampus courses, it is not like that. It is rushing through and if you get behind, you get left behind. FMNR was not like that., the facilitators were, like, building a community. They were interested in each of us, and not just interested in growing their numbers." (Male 2016 graduate, Swaziland)

Figure 5: I felt welcomed and a part of the eWorkshop community – 2016 intake

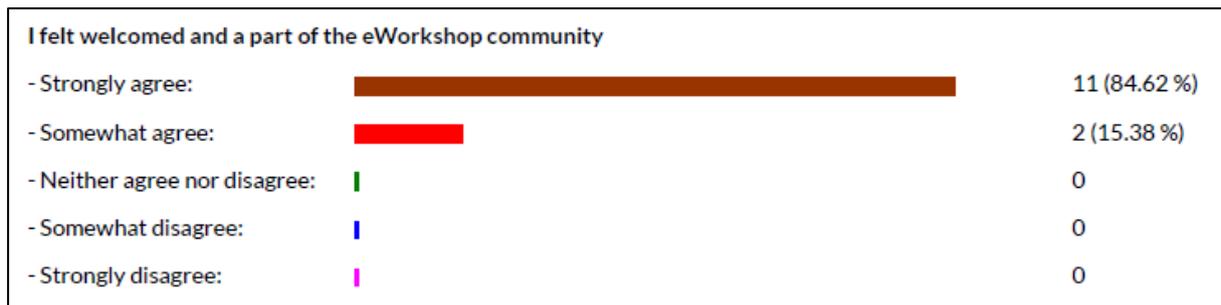
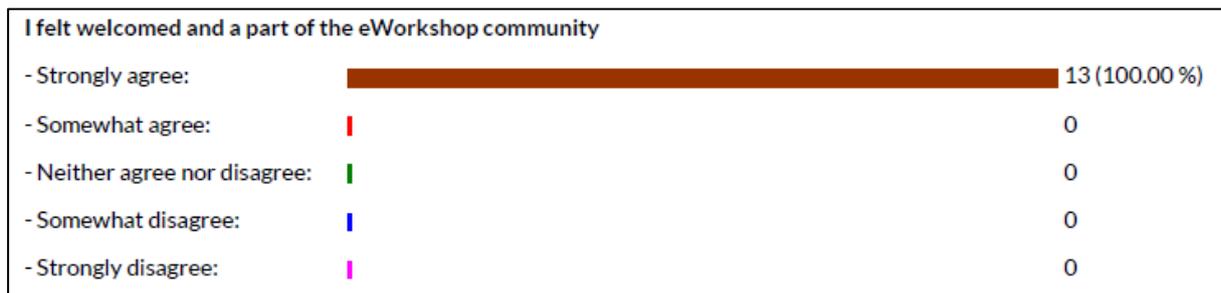


Figure 6: 2017 Intake



7.1.3. What was constraining or missing in the materials?

The overwhelming message from all forms of data inform the evaluation that, even if the eCampus FMNR course continued unmodified, it would continue to be relevant, motivating and easy to follow. Nevertheless, interviews and surveys have been able to elicit a list of weaknesses in the structure and materials that can be addressed to further improve the course's effectiveness.

The first bracket of suggestions were raised by three or more interviewees or survey respondents.

Solidarity post-course: As already mentioned in section 7.2.2, many interviewees and survey respondents requested a communication platform that allowed graduates and other FMNR champions to continue to exchange ideas and insights, and to receive news from FMNR Hub too. This was the most cited 'gap'. Suggestions included skype groups, email distribution lists, and forming a Facebook group.

Timing: The next most cited challenge was the timing of the course. Some from the first intake complained that, by hosting the course either side of the Christmas period, people were busy, and then all on leave. So, participants who wanted to get course work done had no-one to collaborate with. Staff could not access internet because the WV office is closed, and one must complete workbook over Christmas period. Others more generally lamented the intersection of the course with periods of peak reporting for Area Programmes (the end/beginning of the WV Financial year).

Climate Change was a topic that many interviewees, survey respondents and even community FGDs referred to, noting the utility of FMNR for livelihood adaptation. At least four graduates suggested the

course should be more explicit about the interaction between climate change and FMNR, since this is a key topic for communities and donors alike.

"... one part I thought was not explored much: the relation between FMNR and climate change, in the current situation. They did not go deep enough on that one. If you are going to sell an idea, it has to address the current situation." (Male 2017 graduate, Swaziland)

More Evidence: Many graduates simply noted that they would like the course to enable access to a lot more videos, case studies, interviews and other forms of evidence that they can use to promote FMNR and possibly to cite in proposals.

Concise workbook or manuals. Given the scattering of resources, and the difficulty that most had with downloading and saving some of the online content, several graduates suggested the course needs to be accompanied by a "Well developed and organized FMNR Text Book, Practitioners Manuals and Guidelines."

"FMNR I felt is an approach that can be included as early as primary school education. That would be relevant. For me it is the way to go now to expose young people to... if the government and others can be active in promoting this approach, it will make a big difference in the future. We could benefit a lot as a country." (Male 2017 graduate, Swaziland)

I wish I could go on and study more on FMNR and even get to a level where I can look for new concepts that the people in Swaziland can easily understand. In most cases, people say these things may have worked somewhere else, but they can't work here. So I'd like to have a way of adopting it to local context to teach it in a way that makes easy sense to them. (Male 2016 graduate, Swaziland)

Graduated levels of training: Several expressed a need for differentiated levels of learning. At one end, one graduate expressed some frustration that, while she was just new to FMNR, other participants were highly experienced, so she had trouble following them. Another commented that even workbook A, designed for non-practitioners, was still mostly geared to experienced field staff: *"it was like it was really for people already working in it. Those parts we could not fill, so we left them. But they still came back and said we had to fill them. It was really hard for us."* At the other end of the capacity spectrum, several graduates expressed a desire to have a next-level training, so they can go further in their knowledge of FMNR than this course can take them.

Trees per hectare: Two of the most experienced FMNR practitioners independently expressed frustration in the lack of guidance around how many trees farmers should have. It is a question other DFs have, and a question farmers have. Both practitioners noted that FMNR mentor, Tony just says it's up to the farmer. But they say it's little help because the farmers themselves want more tangible guidance from them as FMNR promoters. The graduates themselves do not know whether 40 or 80 or 1000 trees per hectare would benefit or crowd out crops, or what those densities even look like, so they feel disempowered as trainers.

Awareness of the workbook: Two graduates of the 2017 intake separately complained that they did not really understand that they needed to be working on the contents of the workbook throughout the course. Consequently, they had to cram its work into the final weeks. Related to this, a high proportion of exist survey respondents recommended allowing more time for completion and submission of the workbook at the end of the course. This was recommended by 53% of respondents in 2016, and 46% in 2017.

More catch-up breaks throughout the course. This was recommended by 46% of respondents in both 2016 and 2017 exit surveys.

The role of different tree types and root systems. Graduates were poorly equipped to guide farmers on making informed decisions about which trees to keep and to remove. Farmers interviewed also had poor knowledge about which trees' roots do and don't compete with crops for soil moisture and nutrients. Basic guidance would be constructive that explains the different type of root systems of trees: those with vertical roots that mine moisture and nutrients deep in the sub-soil without competing with crops. Those with horizontal roots close to the surface that do compete, and those whose roots have fertiliser effects. Also see 'Distrust of indigenous trees, especially African acacia trees', under sub-section 7.3.6, on page 26.

Other individual critiques of the structure and materials, worth mentioning are:

- Having a course option for it to be completed as a one-week intensive, instead of spread across 15 weeks.
- Breaking-up the online forum-style interaction with some direct voice-to-voice webinars. *"it's good that when you type a question, it is answered straight away. You don't want to go to sleep, and come back to find the answer... it would make it more dynamic."*
- Prompting senior managers to undertake the course, so that decision-makers support and resource FMNR, rather than leaving field-level facilitators frustrated in not being able to implement the need they see.
- In-country workshops to build on online learning.
- Means to gain knowledge of local trees species and uses (this was an observed gap in the knowledge of DFs in Swaziland and Lesotho too).
- M&E resources for FMNR projects.
- Awards to high-performing students, to motivate and acknowledge engagement.
- Opportunities to be co-facilitator in the future.

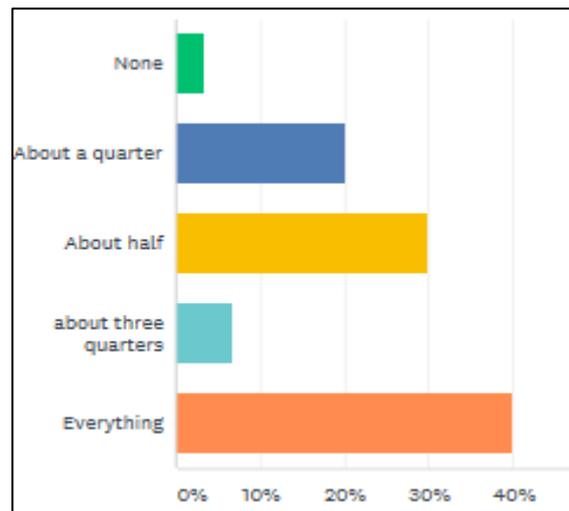
7.2. Measure the degree to which past participants have sustained or increased their knowledge of FMNR since the course.

7.2.1. To what extent was the course material useful for ongoing reference? How did they store the materials after the course?

Two-thirds of survey respondents (63%, n=19/30) who graduated more than 12 months before the evaluation report that they have re-read the course materials to refresh their memory of the content. This is consistent with testimonies from graduates interviewed in Lesotho and Swaziland, most of whom reported they use the material, especially in preparation to conduct community training sessions.

The evaluation survey found that only 40% of participants (n=12/30) managed to save all the course content. Just over half of the participants (n=16/30) managed to save up to half the content of the course.

Figure 7: How much of the course learning materials did you download and keep to look back on? (n=30)



Interviewees were enthusiastic about downloading and saving the videos, as excellent media to show during training sessions. Simple ‘how-to’ instructions were also popular, to be easily used as hand-outs at community training sessions.

“I have the materials and refer to them a lot. When I do trainings, I make sure I refer to it to make sure I am saying the right things.” (Male 2016 graduate, Swaziland)

“The videos: we kept these to show to other farmers. So, they were important to us not just during the learning but also as resources as we go out to teach others.” (Female 2016 graduate, Lesotho)

“There are some material that were simple for me to learn from, like, do’s and don’ts on FMNR. I would print such sheets and they are still with me. Before I depart to a community, I would share those do’s and don’ts with them. There is a document that shows how to prune properly. I use that all the time too. There are a lot of material I downloaded that I use.” (Male 2016 graduate, Lesotho)

Many of the resources were difficult or impossible to download, such as online quizzes, embedded text and images, and weblinked videos³. This was their main dissatisfaction with the content. There was also some feedback that the materials were too scattered around the course website, and not all in one place. Consequently, graduates described how they would copy and paste information off the website into PowerPoint documents to be able to retain them after the course.

“Some of those things are difficult to save. The format does not work for saving. Like some of the quizzes could not be saved. I wondered if it was for security reasons. You know, if the person can take the whole lot, they can go and run the course themselves somewhere.” (Male 2016 graduate, Swaziland)

“I have a few notes on PowerPoint, and some of the quizzes by copy and pasting. The key concepts of FMNR, the principles and key information, I have them. I would copy and paste a few sentences, and wordings, and put them in my own PowerPoint.” (Female 2016 graduate, Swaziland)

³ For example, see all study resourced under course weeks 4&5. None of these can be saved as a file. To retain these documents’ knowledge, the participant would need to manually copy content from the website, paste it into a Word or Powerpoint document, and reformat.

7.2.2. What support did they receive after the course from anywhere (WVA, other WV, non-WV)

In relation to ongoing support, 70% (n=21/30) of surveyed graduates around the world reported that they discuss FMNR issues with other colleagues, and only 13% (n=4/30) say they get updates about FMNR from colleagues outside their own country. In interviews, some in Swaziland and Lesotho commented on how, last year, they could seek advice from Makhera Kalele, the former SARO FMNR Project Officer, but that he is no longer in that role. Local peers are the primary means for graduates obtain support or advice after graduation.

"Only my colleagues in WV. We share on what is going on, on the ground. And we hear their views. It's not all the colleagues. Not all areas are affected, but in APs that are affected [by land degradation]." (Female 2016 graduate, Swaziland)

Many interviewees and exit interview respondents suggested that local peer networks were not sufficient and proposed that the FMNR Hub create channels for ongoing interaction and learning for FMNR graduates.

"The other area that needs improvement is the aspect of an FMNR champions group which can be used as a platform for learning from one another. After the course, we have had no communications from the facilitators in Australia and even fellow course participants. This survey is the only communication (we've had)." (Male, evaluation survey respondent)

7.2.3. Do graduates continue to access resources or updates on FMNR? If so, from where/whom?

Most graduates continue to access FMNR resources in some form. Most (63%, n=19/30) rely on re-reading their course notes.

In terms of accessing new knowledge, half (n=17/30) also report that they occasionally look for books or websites on FMNR; a third (n=11/30) sometimes watch videos about FMNR on YouTube or similar; and almost a quarter (n=7/30) occasionally look for new resources on the FMNR Hub website. Just 17% (5/30) reported that they only rely on their memory.

Reporting lines within NOs are not proving to be useful for transmitting FMNR information. Only 2 out of thirty surveyed graduates (7%) stated agreed that their manager or technical specialist feeds them new information about FMNR.

7.2.4. Contribution/Attribution: what other influences have shaped graduates' FMNR capacity?

The eCampus FMNR course is just one of several influences that have built the interest and capacity of staff, community and partners. Though all other influences have come from WV as well, and have been instigated by WVA's FMNR Hub specifically.

Interviews and focus groups Swaziland and Lesotho found that, in Southern African NOs, the 2014 'Beating Famine' conference that the FMNR Hub facilitated in Malawi was the catalyst that first generated interest in FMNR among WV National Offices. Effectively, this conference, which was

attended by representatives from most WV NOs, as well as representatives from government ministries and NGOs, was the genesis moment for FMNR in Southern Africa.

“The first was the Beat Famine Conference in Malawi in 2014. That was the first I had heard of it.” (National Livelihoods manager, Swaziland)

For institutional partners in government and other iNGOs, the visits and training events by international trainers Norbert Akolbila in 2015, and Tony Rinaudo in 2015 and 2016 were the most influential on their interest. The NOs and FMNR Hub were vigilant in ensuring that these visits and trainings included senior and field-based officials from relevant government ministries and key NGO peers.

The ‘Beating Famine’ conference could only be attended by a small number of staff from each NO. According to interviews, the visits of Norbert and Tony mainstreamed the FMNR message throughout the NOs.

“Norbert did a full week training for those 18 (El Nino project facilitators), plus other stakeholders like Ministry of Agriculture and CRS. Then we had a follow-up training by Tony Rinaudo in 2015. It was in 3 phases: in central where he trained national level staff to clearly explain the model for all the NGOs and ministry of forestry and ministry of agriculture. Then the same was done in the two regions: the north and the south.

The way WV with Tony’s credibility! He came with FMNR in a packaged way, and exposed everyone to the FMNR Hub and to learn more about FMNR. The way Tony and Norbert gave us kind of a spiritual wake-up of what we had before, and what we have now. What could we be doing differently? Even the air we breathe: we have trees we have life. We can stop using chemical fertilisers now, and we will have fertiliser that will sustain the soil in the longterm, It was a wake-up. It was like a strong foundation. Without a strong foundation, the wall will collapse.” (National Livelihoods and resilience manager, Lesotho)

Many graduates in Lesotho and Swaziland mentioned the training visits by Tony and Norbert. These three-day face-to-face training events seemed to have as significant an influence on staff knowledge as the eCampus course. The advantages they noted were the intensive nature of a full-time event, and that they could go out and see and do field demonstrations. These made it easy to understand. Many graduates also noted these visits as a key motivator to continue on to do the eCampus course.

At community level, the two most significant influences have been the FMNR graduates on one hand, and the SARO FMNR project officer: Mr Makhera Kalele. Based on FGDs, Mr Kalele individually had as much influence on communities across Lesotho and Swaziland as all other



Figure 8: Mr Nkuebe Lerotholi of the Lesotho Ministry of Forestry and Land Reclamation shows-off 3 year-old FMNR regrowth. The original shrub was pruned during training from Norbert Akolbila in 2015

graduates combined. This statement is not intended to denigrate other graduates. However, Mr Kalele was focussed fulltime on FMNR promotion, was conducting trainings for staff and communities all around Southern Africa, and was called on by DFs to lead trainings of communities in their Area Programmes when they did not feel confident to do so themselves. Makhera Kalele is, himself, a graduate of the eCampus course, so is part of its success.

“I was trained by Mr Makhera. That was a three-day training at the area programme. I was trained with 25 diptank (rangeland management) members. That was in 2016 before the eCampus course. Mr Tony also came to Swaziland and did a practical demonstration in my area programme. It was more influential to get to meet him and hear about it from a pioneer. It was very influential. With Tony, it was more about changing the perception of people and bringing back hope. It was less about technical training. With Makhera it was more technical.” (2016 male graduate, Swaziland)

“The story of our beginning is the same as the other. We were all trained by WV on FMNR. There was a man who came from Lesotho: Makhera.” (Matsanjeni AP, Group 2 FGD, Swaziland)

“We had a training on 3 march 2016. The training was done in THIS hall. Not only inside: we also moved outside to do a demonstration. Charts were made on the wall. We had to present our views about the environment: how it was in the old days and the current state, and how it will be in the future. It was a three-day training. Makhera presented the training ...” (Mokotjomela AP FGD, female, Lesotho)

7.3. Measure the degree to which the course has influenced participants’ effectiveness as agents of FMNR.

7.3.1. Influence on participants’ knowledge of FMNR / participants’ self-confidence as leaders in land restoration

High levels of confidence among graduates

The 2016 and 2017 exit survey of graduates revealed that course participants feel very confident about their levels of knowledge of FMNR at the end of the course. As the following graphs show, in both years, between 90% and 100% of participants felt confident they had the knowledge to lead an FMNR project.

Figure 9: 2016 Graduates' levels of confidence in leading FMNR programming

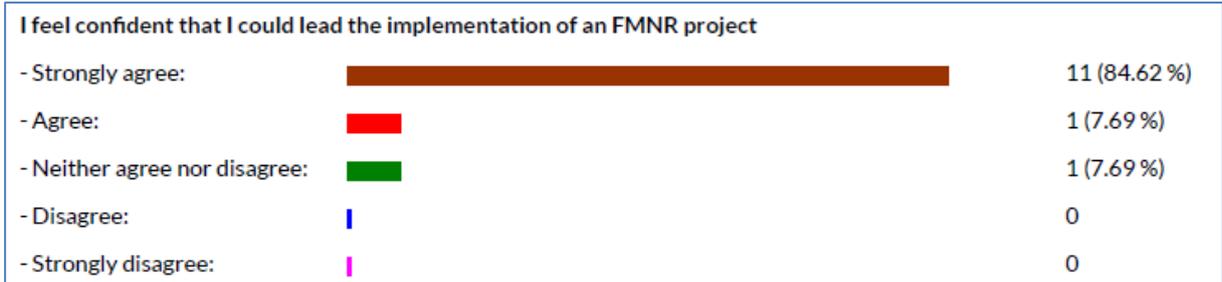
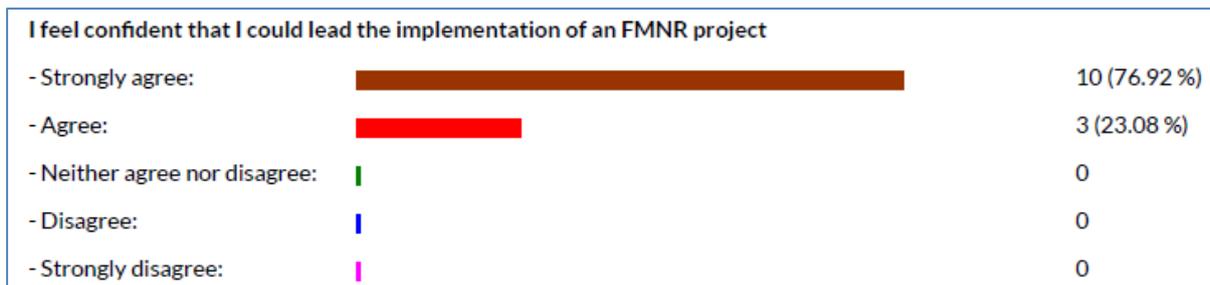


Figure 10: 2017 Graduates' levels of confidence in leading FMNR programming



The in-country interviews with 2016 graduates and separately with their managers provided qualitative evidence of the extent to which this confidence is justified, and how much of the knowledge was retained.

“The self-confidence of the participants changed a lot. They were more bold and passionate, and that made a huge impact on the interest and engagement of the communities to get involved too. These facilitators from non-agricultural background: they are now strongly advocating land management. It is very impacting.” (Male manager, Lesotho)

“when you encounter those who are more technical, you can answer them, or others can just see ‘this is someone with strong knowledge’. If we meet the director of forestry for the whole country, I can face him and convince him of the importance of FMNR... That is something from the ecourse. I remember when I had done the eCourse, I was so filled with it, I went to the TV station. They encouraged me to go to the Ministry of Forestry to put together a documentary on what evidence we have. I was brave enough to stand on TV and promote it. Without the eCourse, I would still be shy and not be able to talk about this on TV or on the radio.” (Male 2016 graduate, Lesotho)

“For the fact that I was the first development facilitator in my cluster to get to know of FMNR, I felt like I have an upper-hand to the other DFs. Whenever they encountered problems, they would refer to me, and I would try to explain and try to motivate them” (Male 2016 graduate, Swaziland)



Figure 11 - Mpendulo and Mduduzi: Two FMNR eCampus 2016 graduates from Swaziland

Improvements in analytical competencies

Most graduates also described how FMNR changed their perceptions and attitudes in quite profound ways. Where before, they accepted landscapes the way they are, now, they observe, look for signs of how the land use to be, how it has been managed, and how it could be restored. They claim that this makes them much more engaged in how they interact and motivate their partner communities.

"Our self-perception changed. The beliefs that we had changed after the course. You know, in our areas, Rothe and Segame, there are these big dongas (erosion gullies). So much gully erosion you would think this cannot be changed. It will remain the same forever... Only [the government] can do something about it, the problem is so big. Now we are able to train the farmers that they can restore it. It is easy and is their responsibility." (2016 female graduate, Lesotho)

"When I get to a place, I don't look at a veld (grazing lands) like before. Before I would look at a veld and think nothing about it. Now, I start to think of ideas and ways of improving it. Even if it is not in my area. I still reflect on what it needs and this and this can be done here to make it better. It has turned my interest more to the farmers and seeing how they do things. How we can help each other. An interest that was not there before." (Male 2016 graduate, Swaziland)

Improvement in competency

During KILs, graduates were asked to share what they considered their most important lessons from the FMNR course. Despite having graduated 12 to 18 months ago, their responses showed a mature understanding of FMNR technique and promotion consistent with course content.

A few raised core techniques, such as focussing on regrowing shoots from trees stumps and not planting seedlings; what seems like short, low value shrubs are often thick regrowth of felled tall trees; and managing existing tree cover by trimming branches off existing trees rather than cutting down or burning down trees.

"there is one area where they burned the forest. Later they were told about FMNR. They started trimming those trees when they sprung up." (2016 male graduate, Swaziland)

However, the lessons they were most enthusiastic to describe focussed on addressing the complexities of community. The two most frequently shared themes were:

- i) Recent graduates are most impacted by the new knowledge that FMNR requires development staff to identify and confront communities' cultural and attitudinal barriers that cause resistance to FMNR adoption.

"The issues of community unwillingness to fully go with FMNR has also been identified. The root cause of this is poverty, struggling to survive: in meeting the livelihood needs of the families leads to indiscriminate tree cutting as are wood and charcoal as source of income. Bush burning and the issues of herdsmen allowing their animals to graze on pruned trees have all been identified as bottlenecks to address if FMNR is to be sustained." (2016 exit survey)

"I have learned that misconceptions take time to deal with since they might be deeply rooted within the communities' practice. ... Approaches to FMNR and misconceptions that lead to poor adoption and how to overcome them and motivate communities to participate." (2017 exit survey)

- ii) Graduates with more than a year of field practice most emphasised the discovery through the course that FMNR adoption, and good development in general, is best achieved by including all relevant stakeholders in problem analysis, learning and decision-making.

"There is a change. From this course of FMNR, one thing I have learned is that people come from different backgrounds. So, with your approach you have to accommodate their backgrounds. Also, I appreciated that not everyone will agree

with what you are saying. You should not judge that person but listen to what they are saying. Understand that each person has his or her own role to play inside development.” (2017 male graduate, Swaziland)

“it is the fact that it is community-led. It is much better when most of the processes are being led by the community members. The only thing that you do as a coach is to build capacity. ... Then they get to own the project instead of it being World Vision’s project.” (2016 male graduate, Swaziland)

“I gather people and explain the need we see on the ground from how things have changed since the past, and what they imagine the future will be like, and then, asking them what change they want. Normally, we just take the training to the community and don’t want to know their opinions. FMNR is the opposite.” (2016 male graduate, Lesotho)

“How to think in a way that transforms other people’s minds. It kept emphasising the farmer. The farmer. Who is supposed to make changes to how to do things? It is up to the farmer. It is up to the farmer to see if it is practical, and they will then contextualise it.” (2016 female graduate, Swaziland)

Management supervisors of graduates have also noticed this improvement in their development facilitation skills:

“What I am seeing of the FMNR training is that it emphasises community ownership and decision making which definitely promotes sustainability... This is different a lot to how other staff approach it.” (Female manager of graduate, Swaziland)

Both these themes are major lessons, not just for FMNR, but for good development work in general. Given the prior absence of these insights, we can fairly conclude that the FMNR course has provided foundational development facilitation skills that are otherwise lacking from World Vision training and orientation of field staff.

While the above themes were the two most common, graduates raised a diversity of other lessons the course had conveyed to its participants:

- FMNR is not just about protecting the environment but is principally about increasing household income and resources: through fatter livestock, more milk, timber and non-timber tree products, better yields, fewer fertiliser and pesticide inputs; and eventually more rather than less firewood.
- Starting with influencing community leaders as opinion-leaders in the community.
- FMNR is often similar to ancestral land management techniques, so can be introduced as part of their deeper culture.
- Results take a year or more to start seeing benefits. So one must encourage land users to persevere a while before they are motivated by seeing the benefits
- FMNR is low-cost to the land user, but yielding high returns over time
- Projects can achieve huge success by focussing on nurturing a few keen farmers to achieve success, whose farms provide the evidence for all other farmers.

“when one person was trained in our first training, later he was able to train lots of people and is now being used as a trainer by his local community. Then the AP has been using him to train others in another district. Maybe it works so well because it is farmer-to-farmer. So they can pick-up what he is saying.” (Lesotho male 2016 graduate)

7.3.2. To what extent has participation in the course influenced participants' career interests and employment/promotion prospects?

Career interests

Graduates who were interviewed for this evaluation fell into three into one or more of three distinct categories:

Those who were already interested in agriculture, for whom, the FMNR course boosted their knowledge and skills

*"I was already involved in agriculture. It sits within what I have been wanting to do, and what I want to do in the future. I started with WV in March 2015, having just completed a bachelor of horticulture. Then FMNR came along a year after that."
(Male 2016 graduate, Swaziland)*

Those who were interested and concerned about climate change impacts on their countries and were considering FMNR's potential for adaptation

*"Maybe, not really a career interest. I like what I am doing now. But I always had an interest in climate change. So this has just added to the interest I had in climate change and sustainable agriculture."
(Male 2017 graduate, Swaziland)*

*"I was doing my MSc on animal nutrition, specialising on rangeland management... I made a presentation on FMNR on one of my papers. Careerwise, I think I have really believed in FMNR. I risk my voice to promote FMNR."
(Male 2016 graduate, Swaziland)*

Those who had no prior interest were transformed in their appreciation for the health of land as a primary determinant for all other development initiatives.

*"We learned a lot about FMNR. It made us more aware of environmental conservation, Now, I am thinking next year I want to enrol in something in university in something on environmental conservation. Our land is so degraded. I don't want to see Lesotho dependent on other countries for food. FMNR can respond to that."
(Female 2016 graduate, Lesotho)*

*"Now, the way I look at the environment, it has changed with me... If it is grass, or anything, I can challenge people to change the way they perceive things. Challenge people to perceive how the environment is changing, and make decisions based on that."
(Female 2016 graduate, Swaziland)*

Career prospects

Interviewed Managers noted that they had perceived distinct improvements in the development skills of their FMNR graduates, compared to others.

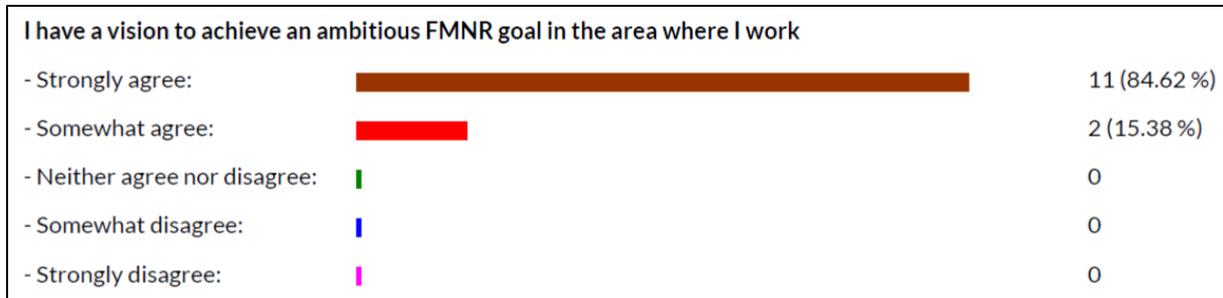
*"I [told my senior manager], I see a difference with [my two FMNR graduate DFs]. They look like SEASONED⁴ development facilitators. I did not think why at the time. But then I am thinking it is probably the FMNR training that taught how to do that. But the other two, they are not like that. I can't talk about promotion prospects, but I can recommend them as superior development facilitators."
(Male manager of graduates)*

⁴ Capitals emphasise how the interviewee emphasised the word in her speech

"I am seeing their understanding of FMNR and other development projects as having a huge improvement in their work." (Female manager of graduates)

These testimonies of career interest in pursuing FMNR correlate with exist survey responses from the wider body of FMNR course graduates. One hundred percent of respondents are keen to achieve an ambitious FMNR goal in their work:

Figure 12: 2017 Intake - Ambition to pursue FMNR in work



7.3.3. Ability and willingness to train or mentor other WV Staff

Demand for FMNR skills and initiatives among staff in the sampled offices is high. Graduates are in demand from other Development Facilitators in other APs to come train their communities and their staff.

"They have been requested by other projects to facilitate FMNR trainings. So in those trainings there would be both staff members and community members including leaders. This is a growth area." (Female Manager of Graduates, Swaziland)

"Mr Makhera was instrumental in spreading the training. But, these other DFs called on Makhera to come train their communities. Then, instead of what they usually do, of leaving the trainer with the community (while they did other work), the other DFs stayed to learn the training themselves." (National manager, Lesotho)

In relation to passing on their lessons to other WV staff members, **each course participant has reportedly trained an average of 9 other WV staff** (n=28, range: zero>40; having excluded high outliers). When we factor in institutional land-management partners, such as ministries of agriculture and forestry, the average increases to **28 WV and government office-bearers trained per course graduate** (n=30, range: 0>412).

Thus, when we calculate the aggregate number of office-bearers influenced by the course, we find that, **for the 90 participants to-date, around 2,520 other WV staff and institutional partners have been on-trained by course graduates globally.** This latter figure is difficult to reconcile with the poor understanding of FMNR by government partners interviewed in Lesotho and Swaziland. Such partners were aware of and positive about WV projects promoting FMNR, but were not fluent in their understanding, not active in promoting or supporting WV's FMNR promotions. Thus, we can conclude that course graduates are successful in raising awareness of FMNR, but do not have a NO mandate to deeply engage, educate and partner with government peers to implement FMNR.

Sustainability of capacity retention in National Offices

In 2017, one eCampus graduate, Mr Makhera Kalele, was seconded to WV's Southern Africa Regional Office to be its regional FMNR capacity-building project officer. For this 12-month period, the role was financed by WVA's FMNR Hub. Many DFs in Swaziland and Lesotho referred to the positive influence of this resource person. However, when the WVA/FMNR Hub funding ran out, SARO elected to discontinue the role, indicating FMNR is not prioritised in the Regional strategy. The incumbent was reassigned to the M&E function of an unrelated grant project in Lesotho.

"I was the FMNR programme officer for WV Southern Africa Region for one year. From May 2016 until September 2017. My main job was to build the capacity of the DFs with regard to FMNR and to provide any technical support that they might need. To mobilise the adoption of the model across World Vision. We had a target of 5 countries. I was able to train 3 countries' staff: LSO: I trained 6 DFs and a manager representative and one business administrator. Then I had a chance to train 12 DFs from Swaziland who attended face-to-face training. I also trained staff from Malawi: 42 of them I think. In all the three countries, there are people who went on to do the online training, after I trained them." (Makhera Kalele, former Southern Africa FMNR Project Officer)

Interviews with Swaziland and Lesotho graduates confirmed the motivation to promote FMNR that is evident in course exit surveys. Graduates are also capable of facilitating FMNR initiatives in communities. Nevertheless, it was also evident that most are not well equipped to identify when FMNR is being maladapted for sub-optimal results. The most competent NO practitioners had received previous and/or additional FMNR training. For example, in addition to the eCampus FMNR course, Mr Kalele had attended a three-day training on FMNR with Norbert Akolbila, had accompanied Tony Rinaudo in facilitating FMNR trainings, and was assigned a mentor from East Africa, for face-to-face and remote support. Swaziland national livelihoods and resilience manager, Mr Busika Mlumuli attended the 2014 'Beating Famine' conference in Malawi, about FMNR, then did the eCampus training, then face-to-face training with Norbert and Tony in 2016, and co-facilitated training with Mr Kalele in 2017.

For all other graduates, interviews revealed a consistent theme of scarcity of opportunity to maintain and upgrade their own knowledge, and scarcity of opportunity to programme FMNR: FMNR is programmed as one component of the overall livelihood outcome targets, which are one of between two and four outcomes in each Area Programme design, with only Child Sponsorship funding to resource them all. Therefore, the DFs are on their own to promote FMNR among dozens of other obligations. As a result, their time investment and their training of communities, and time for follow-up is inadequate to drive the scale of results required for countries with such degraded land and agricultural systems.

Furthermore, with limited expertise available in-country, when graduates leave, the NO does not have a critical mass of internal learning to have raised-up other staff to carry-on the knowledge.

"We (World Vision) need to be self-aware. We find that, in the middle of building momentum for this, Global Centre and others in WV just pull out and shift focus. Like Makhera. All the expertise he has, and we have to shift him to something completely different because conservation is not important to WV at the moment. A challenge is that WVLSO has these staff trained. But then, when projects end, those staff are lost.... Then, when proposal opportunities come about, WVLSO has no staff." (Male, Lesotho)

Essentially, once WV staff have graduated from the FMNR eCampus course, they are on their own, with no support networks in place at national, regional or WV Global Centre to continue to mentor them. Experience in other NOs has demonstrated that, to enable the NO to grow strong and sustainable levels of competency in FMNR requires a sequence of grant projects with a primary focus on FMNR⁵. This enables a critical mass of fulltime work focus on FMNR, access to external training, and regular training and follow-up support for target beneficiaries.

"If it was a stand-alone project, we would see rapid change and expansion of those demonstration plots, unlike now." (Female 2016 graduate, Lesotho)

⁵ Cases in point include (but are not limited to) World Vision NOs in Ethiopia, Kenya, Ghana, Senegal, Chad and Niger

One interviewee articulated this well:

"It is a pity that we do these evaluations, and then the report is shared, and after that I haven't seen grants responding to evaluation results. Because, if it did that, I would recommend that we scale the FMNR training. Especially in Lesotho because we need it. As you go and you travel around you see we need FMNR. If the evaluation report could really influence... scaling it up... to train more staff on FMNR and include line staff from Ministry of Agriculture and Ministry of Forestry and Land Reclamation. That would help us a lot." (Male, Lesotho)

7.3.4. Ability and willingness to advocate for new FMNR programming in the NO

Among survey respondents, 60% (n=18/30) reported that, since completing the FMNR course, they have been or are currently involved in influencing or modifying project proposals, design or implementation plans to better incorporate FMNR. Managers also testified to the internal advocacy undertaken by their staff who had completed the FMNR course.

"Each time we are discussing a project, I hear him say 'I don't think there is enough community ownership in this one. Can we do more of this way? What I am seeing of the FMNR training is that it emphasises community ownership and decision-making which definitely promotes sustainability.'" (Swazi female manager of a graduate)

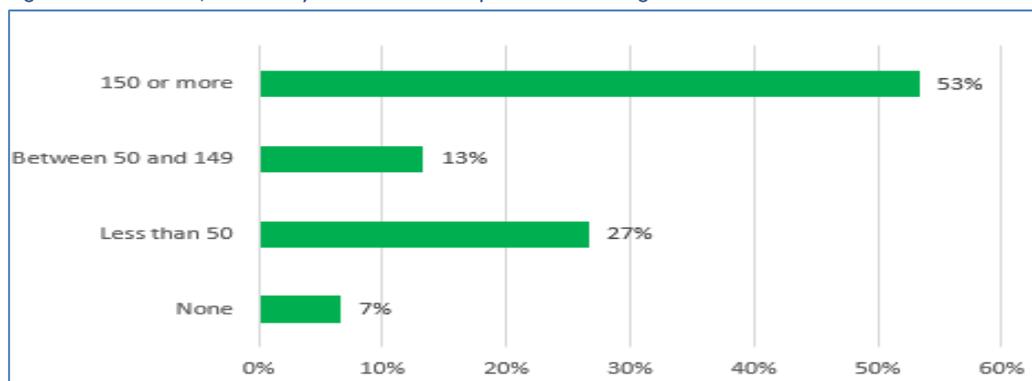
"For these two [graduates] the way they went about planning resilience for 2017-18 they were adamant that FMNR and sustainability is included as a foundation... The DIP, it's something we do every year. Those who did not attend the training, did not include FMNR in their DIP development. But those who attended the training did. So, they value the idea and are more ready to run with it... they were more adamant that land restoration and FMNR is included... There were quite a number of livelihood options. But their focus is strongly on value-chain and FMNR together. You will see how our land is so bare." (male manager of graduates, Lesotho)

7.3.5. Influence on farming HHs, and community power-brokers (informal, traditional, and civil service)?

"Today, when we were walking through the [FMNR] site, people were saying, 'this used to be a big forest when I was a boy, and we have wrecked it. But now, it is good to see that we are bringing the trees back. We can see how lush the grass is getting under these trees'. People are getting a sense of hope again. This is a transformational change for them. They are so use to burning the rangelands and cutting down the rangelands. This is something new for them that gives them hope." (National Manager, Swaziland)

The training return-on-investment has a high multiplier effect. Survey responses from 2016 course graduates revealed that each participant has subsequently trained 351 community members, on average. Only 7% (n=2/30) reported that they have not trained any community members. The following graph reveals the proportions who have trained a lot or a few. Consistent with the high average, we see that more than half of all 2016 graduates have trained more than 150 community members since graduating. The following calculations exclude the multiplier effect of WV FMNR graduates who have since transferred to new jobs in government ministries and other aid organisations. Such skills transfers are lost to World Vision, but potentially expand the eCampus course's influence more widely in the development sector.

Figure 13: Number of community members trained per 2016 course graduate



Most of those trained by WV staff are representatives of households or explicitly community trainers tasked with passing the learnings onto other farmers and household members. Based on existing research⁶ we estimate that each community trainee will cascade-train three additional farmers. This implies an additional 1053 farmers have received new knowledge of FMNR per course graduate.

Thus, when we calculate the aggregate number of people influenced by the course, we find that, for the 90 participants to-date, around 31,590 farmers have been directly trained by graduates plus an additional 94,770 farmers are estimated to have been cascade-trained by direct trainees. Given that 5 of the original 60 2015/16 graduates have left WV, we adjust these figures down by 10% for a more realistic/conservative estimate. We should also deduct a further 10% to account for the possibility that some trainings by graduates overlap with a same population, such as where a technical specialist visits and trains a community supported by a graduate development facilitator. Thus, our revised, conservative estimate of total farmers directly trained by eCampus FMNR graduates is 25,272 (31,590 x 80%), resulting in an additional 75,816 cascade-trained farmers being trained in FMNR around the world as a direct outcome of the eCampus training. This is significant coverage of learning.

Evidence of changes taking place in communities:

"I have seen how dongas (erosion gullies) are being protected and avoiding more erosion. I have seen grass regrowing from soils that were very bare and hard-hit from erosion. These were influenced by collecting all the pruned branches, put together, and put on the very bare lands. That has encouraged more water to go down into the soil. It also prevents the soil being washed away during heavy rains. This is the same technique they used to stop erosion in the dongas." (Swazi male 2016 graduate)

Despite the demonstrable confidence and motivation found in most course participants (see figure 1), the adoption of FMNR promotion in communities is proving to be a gradual process. Among survey respondents, around a third (n=11/30) reported that more than 40% of households in their target communities were now implementing FMNR on their own farmland. Another third (n=9/30) reported that less than 10% of households were implementing FMNR. The survey did not cross-reference which staff are active in FMNR-promoting projects and what proportion are not, which may account for some of the low-adoption areas.

"The good thing is our communities are adopting the models. They are slow but are really interested. They have identified a demonstration site. They are pruning

⁶ Weston P, Hong R, Kabore C & Kull C, 2015, Farmer-Managed Natural Regeneration enhances rural livelihoods in dryland West Africa, Journal of Environmental Management, vol 5, issue 6. pp.1402-1417. DOI: 10.1007/s00267-015-0469-1. At URL: <http://link.springer.com/article/10.1007/s00267-015-0469-1>

the trees. Although, there are not many, they are doing it. They have a bit of direction and understand what FMNR is and where it is going.” (Lesotho female 2016 graduate)

Site observations revealed that communities in Lesotho were focussed on applying FMNR to create small forest reserves. Lesotho generally has highly degraded landscapes where tree removal clearly has been highly favoured by land users across the whole country. Each of the three communities visited had set-aside a FMNR reserve of around 4 ha, and all were on non-agricultural steep hillsides. These areas are often used for grazing small livestock. All visited sites had been started in the last year, with the most recent being started only a month before. So far, each was being used as a demonstration site, so that tree products and grass were not yet being harvested. The potential for expansion of the FMNR-managed forest reserves was plentiful, with a lot of unmanaged small regrowth on adjacent hillsides. However, this was not done due to the lack of community consensus to expand beyond the young demonstration plots. No household nor community in the Lesotho sample communities had attempted to implement FMNR on crop or livestock grazing land. Overall, community FGDs communicated recognising that their lands were losing fertility, and that FMNR was a viable approach to reversing that challenge. However, it was equally apparent that none were confident yet to implement it on farmland, and that previous promotions by ministries of agriculture and Forestry meant that they favoured planting fruit tree seedlings to control erosion.

In each location, the site visits and community FGDs demonstrated that they are starting to observe benefits in their pioneer or demonstration FMNR plots.



Figure 14: Sithobela AP FMNR goat farm, Swaziland (10ha. approx)

In Swaziland, all groups commented on how they are using the increased cover of trees, grasses, and laying down the pruned branches to slow-down surface water and protect and naturally fill-in erosion gullies (dongas). This was of prime importance to all groups in sloping land areas.

“The dongas are going (closing up). Before, the soil was washing away. Not water flow has been slowed down and the dongas are closing. Where there are bare lands like here, we would take the prunings and put them here them here on top to interact with the organic materials which promotes the new generation of new grasses. You can see some of the new growth. Where we put a lot of debris, you can see a lot of grass growing now.” (Matsanjeni 1 FGD male, Swaziland)

In Swaziland, FGDs also showed strong levels of mobilisation and design in their approach, citing specific group criteria for which trees to remove and which to keep. Though, usually, they favoured trees bearing fruit or fodder, but cut out trees that improve soil, such as African acacias. They displayed strong management to control whose livestock can graze and when.

In Lesotho, FGDs described how, in the FMNR reservations, they are observing a lot more grass growing than elsewhere; that managing the land in this way reduces soil erosion; and that they gain bonus benefit as well:

“We also have learned we can make a good tea out of some of the regenerating indigenous species.” “We get medication too. High blood pressure, dizziness associated with high blood pressure. Others can cure headache, common cold and flu.” (Mokotjomela AP FGD women, Lesotho)

One group in Lesotho was intent on using their reforestation as a strategy for developing ecotourism, given their proximity to the border with South Africa. This same group noted current

benefits of firewood and thick grass to cut and carry, and the increase in wild animals like hares. They also anticipate a commercial trade in traditional remedies, with several traditional healers in the area, but a lack of indigenous trees from which to harvest ingredients.



Figure 15- Focus group in the meeting place of the Lubono FMNR committee, in Koeneng AP, Lesotho

Farming women and men alike in both countries expressed a suspicion and resistance to growing trees on cropland, as shall be further explored in the next sub-section. However, they also demonstrated that WV facilitators had passed on lessons that they can have a net positive effect on crops:

“When we have trees but without management they can end up with reduced yields. But when the trees are managed, they can have space where the crops can be planted and have benefits of trees and crops.” “As much as we are aware of the challenges the trees pose to us, having them there can create shade and that provides a microclimate that is conducive to crops the grow. The tree leaves can put more fertility into the soil because of the shed-leaves. That microclimate can minimise evaporation.”

(Mokotjomela AP FGD men, Lesotho)



Figure 16: Pruned shrubs in a FMNR reserve on marginal hillside land in Mokotjomelo AP, Lesotho

Coverage of FMNR across countries

"We are in an experimental stage, and it's important for us to work with the community to analyse the immediate results. So what do we make of them? What direction can we take from them? Upscale, reduce speed? What should we do about what we are seeing in the fields?" National Livelihoods and Resilience Manager, Swaziland)

The NO Livelihoods and Resilience Manager noted that 12 of their 14 Area Programmes have now incorporated FMNR into their 5-year plans. If the four APs visited are valid indications, we can expect that, in this first year of promotion, around 4 ha. of **FMNR is being trialled in 12 locations around the countries, resulting in an estimated national coverage of 48 ha. in Lesotho.** This is a small amount, and only focussed on marginal lands rather than farmland. Still, this has been achieved with FMNR being only a small part of Child Sponsorship-funded activities, and no dedicated staff or funds for FMNR promotion.

In Swaziland, FMNR was being promoted for the more pragmatic application of rangeland rehabilitation. Also, FMNR promotion began in 2015, a year to two years ahead of Lesotho. Five FMNR sites were visited. Each was managed by the village Dip-Tank/Rangeland management committee. Between the five, the average FMNR plot size was 10.4 ha. (range: 2>25ha.). Coverage in Swaziland is greater than in Lesotho. The National Livelihoods and Resilience Manager explained that they have promoted FMNR in all 12 Aps, with 5 to 7 diptank/rangeland management committees being involved per AP. Thus, we can estimate that 10.4 ha is being managed with FMNR per committee, then Swaziland may have around 72 sites (6 committees x 12 APs), **resulting in around 749 ha. of land under FMNR management in Swaziland.** Though, in Swaziland, as in Lesotho, no farmer had the confidence to try FMNR on cropland. The suspicion of trees competing for soil moisture and shading out crops was too strong, and not at all challenged by WV's promotion of FMNR. Community members in Matsanjeni also explained that income for livestock was more important than the little they get from crops. So Livestock recovery has taken precedence.

Site counts found that, in Matsanjeni AP, tree coverage rates were around 80 trees per hectare. This is an admirable density for pioneer sites. Though, these sites have potential to double this density to optimise grass, timber and non-timber benefits.

7.3.6. Persistent capacity gaps and barriers for graduates/ Were any important themes for designing and conducting FMNR programming inadequate or absent from the course?

In both sampled countries, a number of barriers to FMNR adoption persist that WV staff have not been able to address. The global survey of all past graduates also tested what community dynamics are hampering their FMNR promotion efforts. These may give indication of issues that need to be strengthened in the FMNR training course. Note that these particular barriers are unlikely to be representative of barriers in all countries where WV is promoting FMNR.

Afraid or unwilling to try to implement FMNR on farmland

"On our crop land we have no trees. We cut them down." (Somntongo AP FGD man, Swaziland)

Man: "That's our cropland. Our indigenous trees would crowd out our crops to grow." Woman: "When these trees get older, their root systems can extend to where we plant crops. Their growth rate of their crops will be affected" (Mokotjomela AP FGD, Lesotho)

As mentioned above, in Lesotho, farmers are not yet willing to trial regrowing indigenous trees on rangelands nor croplands, so restricting the practice to rehabilitating small plots of marginal lands on hillsides. In the past, both ministry of forestry and WV have promoted the planting of fruit trees to

stabilise lands, even though community members have reported that most die. In Swaziland, the land users are willing to apply FMNR to communal rangelands, though are afraid to apply it on cropland. In both countries, the belief persists that indigenous trees will compete with crops for nutrients and moisture and shade out crops. In both countries, the belief also persists that, even in rangelands, clearing trees promotes grass growth. This is despite the observed evidence to the contrary during evaluation data collection where thick green grass only grew under trees. Given that ministries of agriculture across African countries have promoted tree removal to open pasture and croplands for the past 60 years, such 'common knowledge' is normal when FMNR has only recently been introduced. Generally, only a tiny minority of farmers will be prepared to take such a risk, initially.

Consistent with these qualitative findings, the survey of all graduates, respondents reported issues related to community fear or resistance to trees on farmland, especially indigenous trees, as the top barrier they encounter (20% of respondents: n=6/30).



Figure 17: (Left) Busika Mlumuli demonstrates how erosion gullies are consuming vast amounts of arable land where trees had been removed

Figure 18: (Right) Mduduzi inspects unimproved, exposed soils in a FMNR reserve. Somntongo AP, Swaziland

Distrust of indigenous trees, especially African acacia trees

Acacia trees are leguminous, pioneer tree species. Being leguminous implies that their actions of mycorrhiza: fungi which grow around roots and make nutrients available to plants, inject nitrogen into the soil, which is the main nutrient crops and other plants need for growth. As a pioneer species, their role in ecology is to rapidly create cover and rehabilitation to degraded and exposed land. In Lesotho and Swaziland, the evaluation observed that grass grew greenest under the acacia trees. Yet, in both countries, farmers had a reverse understanding of acacia trees: since acacias are in abundance on degraded land, they believe they must remove them to improve their yields. That African acacias are extremely thorny further discourages land users from retaining them. Yet, once they grow above head height, thorns are not present on the trunks and antagonise neither beast nor human. WVV staff were as ignorant of the function of different tree species as the farmers and could not distinguish what trees are beneficial to crops and which compete. Thus, they are unable to collaborate with farmers to make informed decisions, and often defaulted to affirming erroneous assumptions, to the detriment of the fields and yields.



Figure 19 - Grass growing healthy under African acacia trees, but only unpalatable weeds beyond the tree canopy - Mansanjani AP, Swaziland

This suspicion and devaluing of the role of the acacia is similarly transposed to indigenous species in general. Again, due to the promotion of exotic species by Ministries of Agriculture and NGOs including World Vision, a general preference persists for introduced species, especially fruit trees and eucalyptus trees.

Confusion about thinning trees

Ministries of Agriculture and WV still promote the belief that exposing land promotes grass growth, despite the evidence to the contrary. Consequently, some Swaziland, rangeland committees applied FMNR as a pretext for cutting down most trees and leaving a small number of mature trees in the hope that grass will grow back on the exposed ground between the trees. The preserved trees were not pruned at all. Thus, they had interpreted FMNR as thinning by selecting which trees to remove and which to keep, as opposed to moderating sunlight by pruning and thinning the stems and branches of mature and regrowing trees. The consequence is an unhealthy landscape of fully exposed and degrading land with mainly unpalatable weeds, interspersed with heavily shaded ground beneath mature trees.

Inadequate understanding by government ministry counterparts – leading to opposing advice to communities

“Apart from WV, the Ministry of Forestry has been motivating us to build structures in the gullies, but not about regeneration of trees.” (Rothe AP FGD man, Lesotho)

“we have partnered with government on other models. FMNR should be the government’s mandate to promote and spread FMNR.” “It has to be a stand-alone project. And the government needs to be well capacitated for it to spread.” (Female 2016 graduates, Lesotho)

In the global survey of 2016 graduates, respondents cited weak or unresponsive government ministries as the equal second biggest barrier to FMNR promotion (17%: n=5/30).

In both sampled countries, Ministry of Agriculture and Ministry of Forestry officials expressed an appreciation and interest in FMNR but had no scope for action themselves. At worst, the evaluation encountered advice and initiatives by such ministries that were directly in conflict with the messages of FMNR. Such conflicts included the preference to clear indigenous species, promoting the planting of exotic species including eucalyptus, to clear trees to improve farmland, and to encourage setting fire to the landscape to clear it and encourage new grass growth.

Naturally, government ministries are held in high esteem by both farmers and WV staff. FMNR promotion cannot progress in a context where government ministries are directly opposed to the conditions required for FMNR.

In Lesotho, the Ministry of Forestry and Land Reclamation officials had participated in just one 2015 initiative, which was conducted by Ghanaian: Norbert Akolbila, who was sent by WVA’s FMNR Hub. In Swaziland, the Department of Rangeland Management said they had visited a FMNR site with WV and were supportive. However, they were oblivious that techniques they promote for land restoration are diametrically opposed to FMNR principles.

In contrast, the partner iNGO interviewed for the evaluation, Catholic Relief Services (CRS) in Lesotho, had excellent understanding and willingness to apply FMNR in their overall natural resource management strategies. Even so, Norbert’s visit in 2015 was their primary source of learning about FMNR.

No WV NO staff have been in a position in terms of expertise, time or job description to ensure government ministries are trained and cooperating with WV around promoting FMNR.

Definition of FMNR

In just a few instances, community people and WV staff who had not attended the training were not aware of how FMNR is different from other land conservation techniques. Though, these cases were a minority.

"We were trained that FMNR can be practised on cropland: our plan was to plant fruit trees on our cropland. But the seedlings were affected by drought and did not survive." (Mokotjomela AP FGD man, Lesotho)

"Anything that could protect the environment could be FMNR. We have always had relations with Dept of land reclamations and forestry to recover the land through gully reclamation, tree planting..." (Supervising Manager)

Communal land

In Lesotho especially, and to a lesser extent Swaziland, WV staff cited the communal ownership of agricultural land as a key impediment to promoting FMNR. They believed that other countries have private ownership of all land, so farmers can make their own choices. This is most likely because of these countries' proximity to commercial farms in Republic of South Africa. In fact, across Africa, most countries visited by the evaluator have some form of communal land ownership, and, in fact, land allocation to individual households in Lesotho is relatively stable, even over the long-term. The global survey of 2016 graduates also reported that challenges of communal land and insecure land tenure is the equal second-highest barrier to FMNR promotion in communities (17%, n=5/30).

In Swaziland, use of communal rangelands was very well managed compared to other countries. The combination of chiefly authority and management by rangeland committees has resulted in few problems of unauthorised grazing on FMNR-managed lands.

Communal land use and management does require the FMNR promoters to tailor their implementation approaches to generating community-level consensus and facilitating a process that goes beyond teaching the techniques of FMNR to mobilising reflections by community about the challenges, possible solutions, making decisions on the way forward, taking action, and setting accountability steps in place to ensure compliance by all.

A history of hand-outs and remuneration

"M5: When we started, there were such a big number of people interested. Over time, the numbers reduced. Mainly because of hunger or poverty. So, they undertake some work that can pay them because they have need for that provision, at the end of the day." Mokotjomela AP FGD man, Lesotho)

"there is also the issue of confusing [communities] about FMNR with these grants project on land reclamation ... Whereas with FMNR, they are supposed to work for themselves. The grants teach them to get paid for land restoration..." (Female 2016 graduate, Lesotho)

NGOs have a long history of motivating community members to participate in initiatives by providing material incentives. In sampled countries, government ministries had paid people to participate in actions to reduce erosion gullies, as did World Vision during the recent El Nino drought response. They also provided free tree seedlings and tools.

FMNR emphasises community self-initiation: to reach the benefits, they need to make their own decisions and work their own land with whatever tools and resources they already have. In the absence of hand-outs or payments, turn-outs to FMNR planning meetings tend to be on the low-side. However, it does imply that participants who get involved understand the potential and are committed. This was evident in the FMNR and rangeland management committees interviewed.

A similar challenge comes from **WV's own systems**. Staff informants noted that Support Offices and National Offices pay close attention to project 'burn-rates': is the project spending all of its budget? Procuring material inputs like tree seedlings, tools and payments keeps project managers safe by expending their budgets. Interventions like FMNR that require no inputs create a conflict of interest for project managers. A couple of informants (a survey respondent and a key informant) observed that

LEAP3 has been a constraint on FMNR. This is both because APs have had to reduce the number of TP projects, meaning some have cut-out livelihoods activities, and partly due to the loss of agriculture specialist facilitators, with facilitators having to be generalists without expertise or time to pursue land restoration and food security.

Nomenclature

In both sampled countries, staff and community members expressed objections to the term 'FMNR' or its full description: 'farmer-managed natural regeneration'. They found it much too foreign, which reflected negatively on trying to promote it, or remember the name.

"using the term FMNR at community level is not good. It makes the concept too external than when they give it a local name.... If you give it a name from the outside it does not fit well and they see it as a foreign idea." (Female manager, Swaziland)

"When you say 'FMNR', it sounds like a big word. Even when you unpack the acronym, it seems complicated. So that is the kind of exchange we have to have with the DFs to make it understandable for them" (Female 2016 graduate, Swaziland)

8. Conclusion

Exit surveys of course graduates, a global survey of graduates, and key informant interviews with graduates and their managers from two countries all converge upon the conclusion that the WV eCampus FMNR training course is highly effective. Participants found the course's web-based learning environment was easy to use and contained material that was easy to understand and increased their knowledge and skills as development workers promoting FMNR in rural communities.

Graduates are motivated throughout the course and the course materials continue to be relevant and useful to graduates in their community work, with over two-thirds of graduates still referring to the materials. Though, after graduation, participants have little to no support for their ongoing learning.

The evaluation found that a *triangle of influence* has successfully introduced FMNR into countries, though incomplete without a fourth 'point': dedicated FMNR project funding (further described below). Each of the three existing 'points' had roughly equal and complementary impact. Each of the three points were instigated by WVA's FMNR Hub, and WV is the only influence promoting FMNR, at least in these two sampled countries. The first 'point' of influence is **external expertise** provided by WVA. The second 'point' of the triangle is the **eCampus FMNR training**. The third 'point' of the triangle of influence in Southern Africa was the appointment of one of the first eCampus graduates, Mr Makhera Kalele, as a **Regional FMNR champion**. This role was instrumental in mentoring graduates and educating development facilitators who have not done eCampus, and leading FMNR training in communities whose DFs had not done eCampus. Thus, in understanding the influence of the eCampus course upon staff, communities and institutional stakeholders, the course must be understood in relation to these other two mutually reinforcing influences.

Course participants graduated with high levels of self-confidence in being able to lead implementation of FMNR, and sufficient competency, and high levels of motivation. Their managers also recognised that they had become more effective community development agents than their staff who had not undertaken the FMNR course.

On average, each 2016 graduate had trained nine other WV staff since graduating, plus around 19 non-WV institutional stakeholders, and 351 members of farming communities. Graduates themselves are still novices and the lack of ongoing mentoring or advice. Therefore, these gains are fragile and FMNR is not embedded in the perennial competencies of the National Offices, Regional Office or even WV Global Centre. Plus, while the FMNR technique is new to a community, with few or no mature plots

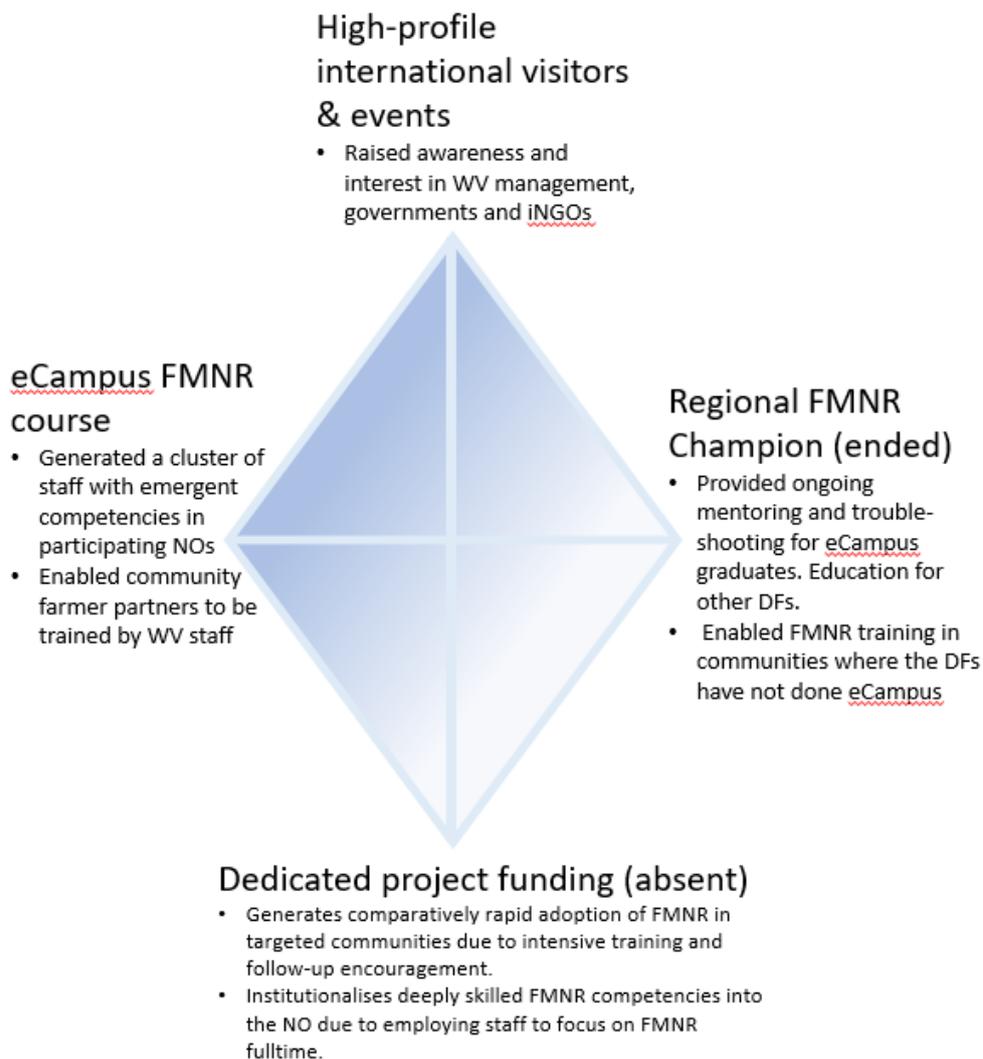
of farmland where it has been practised, land users are still approaching it cautiously. This early reticence to adopt or expand FMNR is consistent with previous project evaluations that found rapid expansion of adoption occurs after around three years of FMNR promotion⁷. This can only be overcome with dedicated projects within a country to generate mature demonstration communities that other communities can learn from and be convinced by.

The evaluation identified a number of key barriers to FMNR promotion that graduates continue to find difficult to address. The eCampus course can be modified to accommodate most of these.

Lastly, the evaluation has found that, in the Southern Africa sampled countries, promotion of FMNR has been successful due to the three complementary reinforcing influences: international visits and events to raise WV and institutional-partner awareness and interest; the eCampus FMNR course, to build development practitioner knowledge and skills; and a Regional FMNR trainer/promoter champion. The evaluation described these successful tactics as *the 'FMNR Triangle of Influence'*. The evaluation also found that the effectiveness of these three has been constrained by the absence of a fourth stimulus: dedicated projects in which FMNR is a central or prominent objective. That has resulted in NOs not being able to convert these interests and nascent capabilities into sustainable expertise, and their countries being without mature FMNR practitioner demonstration communities from which other communities can learn and be convinced. Thus, the FMNR *triangle of influence* actually needs to be a four-pointed '*diamond*' of influence with dedicated FMNR project funding as the fourth point of the diamond (see Figure 20 below). Presently, in the Southern Africa context, Presently, only, one of the four points is still functional, being the eCampus training. Thus, the FMNR Hub can rightly celebrate the effectiveness of the course in preparing development workers to be more effective, and the initial coverage of learning through a wide population throughout the world. However, the gains and growth will remain modest for the foreseeable future, and current gains are likely to erode over time due to absence of resources, lack of scope for field staff to follow-up coach FMNR committees, staff turn-over and attention given to other sectoral demands in Area Programmes and National Offices. Key informants in the FMNR Hub noted that they anticipate that its next phase, due to commence in 2019, will directly address these issues in targeted countries and regions where an FMNR National Chapter and FMNR champions will be installed.

⁷ Rinaudo, T. (2011). Farmer-Managed Natural Regeneration: A land rehabilitation technique well adapted to funding by exchanges. In R. P. Buckley (Ed.), *Debt-for-Development Exchanges: History and New Applications* Edited (pp. 185–198). Cambridge University Press. <http://doi.org/http://dx.doi.org/10.1017/CBO9780511977374.P.193>

Figure 20: The FMNR Diamond of Influence



9. Recommendations

9.1. How could the course content be more informative and easier to follow during and after the course?

- Have a single manual, rather than scattered resources.** The rich learning materials in the course are scattered throughout the week components on the website. It is not structured in an intuitive or portable way for use after course completion. Some of its content cannot be downloaded. A single manual would solve these problems and be replicable beyond course participants. The manual may be provided at the beginning, and referenced each week throughout the course, or awarded at the end, as an award for completion.
- Engaging Government Ministries.** Identify space in the curriculum to focus explicitly on importance or of influencing and 'recruiting' relevant government ministries, to ensure support and consistency of FMNR messaging, and strategies for doing so.

- c) **Investing in the few, while promoting to the many.** Emphasise focussing on identifying, nurturing and encouraging the small number of farmers who are willing to apply FMNR to farmland in the first couple of years, while continuing broad-scale awareness-raising. These few early adopters become the local farmer examples the wider population needs, to gain confidence to try FMNR on their own land in future years⁸.
- d) **Understanding the function of different indigenous trees (especially acacias).** Course participants need to be equipped to understand the ecological and social uses of indigenous trees per region. Basic guidance would be constructive that explains the different type of root systems of trees: those with vertical roots that mine moisture and nutrients deep in the sub-soil without competing with crops. Those with horizontal roots close to the surface that do compete, and those whose roots have fertiliser effects. Also provide specific information about the role and benefit of indigenous acacia species. If this is too broad to cover across the many bioregions, provide sufficient overview information and include links to web-based resources from peer organisations that provide such (example for East Africa: <http://www.fao.org/docrep/x5327e/x5327e00.htm#Contents>)
- e) **Provide some scientific basis for balancing farmers' and agriculture ministries' conventional beliefs.** In sampled projects, conventional 'wisdom' was still overriding directly observable evidence of best conditions for grass and crop growth. Farmers believed that uncovered soils exposed to direct sunlight promoted best grass and crop growth, despite the best grass growing in the dappled shade under trees. This was also the doctrine of the department of rangeland management. An alternative source of knowledge authority is needed in the course to counter and these domestic authority viewpoints. Such external authority is required to complement local experience of farmers.
- f) **Address the intersection of FMNR and climate change.** The emerging vulnerabilities due to climate change and role of FMNR in adapting to it is in demand. Such a content in the course does not need to be lengthy, but does need to be practical and use authoritative references, to be a practical resource for course participants, especially after the course. Such content needs to be useful as a resource after the course, both as justification in grant proposal writing, and for presenting and sharing with community trainees.

9.2. What other supports or networks would better support continuous learning and practice after the course?

- g) **Mainstream FMNR champions on staff in each region.** The evaluation found that the activities of a Regional FMNR champion for a year in SARO was highly effective in reinforcing learnings for less experienced graduates, for educating government and training communities served by APs without FMNR graduates. This one role was significant in ensuring that immediate capacity gains in a National Office from staff graduating from eCampus does not atrophy quickly. WVA FMNR Hub should negotiate with Regional Offices and/or WVI's Livelihoods and Resilience TSO to mainstream such roles in each global Region.
- h) **Advocacy for and direct support to dedicated FMNR-focussed land restoration projects.** The evaluation found that, in the sampled National Offices without dedicated FMNR-focussed projects, persevering via Sponsorship funding was neither sufficient to

⁸ Birch J, Weston P, Rinaudo T & Francis R, 2016, Releasing the Underground Forest: Case Studies and Preconditions for Human Movements that Restore Land with the Farmer-Managed Natural Regeneration (FMNR) Method, Ch. 2.7 In *Land Restoration: Reclaiming Landscapes for a Sustainable Future*. Chabay I, Frick M & Helgeson (eds), Elsevier BV, pp.183-207. ISBN: 978-0-12-801231-4 URL: <http://www.sciencedirect.com/science/book/9780128012314>. P.11

achieve deep competency among staff, nor to achieve critical momentum in adoption of FMNR in communities. Without such projects, FMNR languishes in being a fraction of each graduates' responsibility, and each community receives around one FMNR training event per year, with little to no follow-up encouragement. In countries with several FMNR eCampus graduates, GAM managers and partner Support Offices should pursue NRM/climate adaptation or agriculture grants, with FMNR a key component of the proposal. With a growing evidence base, FMNR is an attractive initiative for climate and environmentally focussed grant providers.

- i) **Develop a facilitated online peer community of practitioners and mentors.** Graduates expressed high demand for an online platform that enables them to continue to learn and share with one another around the world: practitioner-to-practitioner. Such a concept would be further enhanced to include participation, and ad-hoc facilitation of expert peers.
- j) **Promotion of FMNR Hub, through the course.** The FMNR Hub website has many useful case studies, reports, conference papers and research about FMNR. Graduates stated they would like more such resources, but only small minority of course graduates seek resources on this website. The course should encourage participant familiarity with the FMNR hub site. This may be done by incorporating research tasks in some weekly 'homework'. WVA should explore whether it is technically and financially feasible to enable WV staff to subscribe to receive email updates when new material is posted. Subscription option?

Additional Recommendation

- k) **Formalise the FMNR Diamond of Influence strategy.** The eCampus FMNR training is but one vital stimulus that is necessary to catalyse and galvanise FMNR practice in communities assisted by WV around the world. To date it is unclear if the four tactics of influence have been piecemeal or strategic by the FMNR Hub. Nevertheless, they are effective and should be formalised and transparent as an explicit strategy in the future.

10. Appendices

10.1. Appendix A: Evaluation Terms of Reference and Evaluation Plan



FMNR training
research ToR consider

10.2. Appendix B: Survey Tools and Data Sources



FMNR eCampus eval
PARTICIPANT KII guide



FMNR eCampus eval
Farmer FGD guide.doc



FMNR eCampus eval
Manager KII guide.do

I0.3. Appendix C: References

List references

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I0.4. Appendix D: Evaluation Response from WV

To be completed by World Vision post-evaluation as a response to the recommendations and key lessons learnt. Embed appropriate file.



WVA Eval recomdn
response template.c