Workshop Proceedings

Fighting the Fall Armyworm through strategic communication and cross-sectoral knowledge management

Date: 28 – 30 August 2018
Location: Taj Pamodzi Hotel, Lusaka, Zambia

A meeting of the Fall Armyworm Knowledge Management and Communications Technical Working Group

Linked with

Zambian Fall Armyworm Communications Planning Workshop

Contents

Introduction

The 'Fighting the fall armyworm through strategic communication and cross-sectoral knowledge management' workshop brought communication and knowledge management stakeholders together with key agricultural decision makers currently engaged in the response to fall armyworm across the African continent for the first time, to critically review the role of communication to date, identify lessons learned and develop collaborative future plans.

60 participants attended; they were a mix of Zambian stakeholders and international stakeholders from Ghana, Kenya, Uganda, Ethiopia, Cameroon, Zimbabwe, Mexico, the UK and Australia.

Specifically the objectives of the workshop were to:

- map partners and current activities across affected countries
- share data and experiences on current knowledge and practices
- review fall armyworm (FAW) management recommendations and agree methods for harmonising messaging and maintaining consistency
- consider policy audience needs and approaches
- support the development of a FAW communication framework for affected countries

The workshops were divided into two areas of focus: (1) planning a national communications campaign on FAW for Zambia; and (2) regional discussions on knowledge gaps and the development of a policy tool for communication on major pest outbreaks.

Tuesday 28 August: National. Zambian stakeholders gathered to review findings from recent field surveys and focus group discussions in the country to support the planning of the national communications campaign for the 2018 maize season.

Wednesday 29 August: Regional. Country presentations were used to share experiences of FAW management and were followed by group work which focused on mapping of activities, knowledge management challenges, lessons learned and opportunities for the future.

Thursday 30 August: Participants divided into two groups: (1) Zambian stakeholders focused on planning for the communications campaign starting in November; and (2) international participants looked at the need for a communication tool for policy around FAW and major pest outbreaks, and discussed opportunities for collaboration going forward.

The proceedings of the workshops reported on in the following pages are grouped into the regional and the Zambian sessions for ease of reading.

Key findings and recommendations

Participants engaged with the programme very actively and were keen to reflect on both the response to the FAW outbreak more generally across the continent and the effectiveness of the mechanisms established for coordination, as well as focusing in more specifically on the role that communication had played to date and how it could be better planned and utilised going forward.

Over the three days a number of key issues emerged from the meetings which reflected common experiences and evidence from participants across the region. There is a need for action on the part of governments, research organisations, donors and the media in order to address these issues in the short term to manage the continued threat of FAW in Africa, but also in the longer term to enable better responses to major pest incursions going forward and to support food security.

Communication needs an equal seat at the table in agriculture

The role of the press in influencing the response to FAW in some countries was noted, where panic generated by coverage led to very high pesticide usage, with the associated risks. Equally worrying was the fact that mixed messages had often been given to extension workers and farmers, leading to confusion on what actions to take. To address these concerns it was felt that national task forces should be strengthened and that communication experts with suitable authority should be included to support national planning and management of harmonised communication strategies. It was also noted that communication is not a one-off exercise and that support is required through the lifetime of a pest incursion, and as new technologies are identified and made available.

For pest outbreaks scientific research should not be the only funding priority

It was highlighted that outreach efforts have not been able to reach all extension workers in countries due to limitations in funding and that the costs required to support effective communication were not being prioritised by governments and donor organisations. This is leading to patchy communication with farmers, who are often left to plan for and manage the FAW without any expert advice. It was also noted that capacity for effective science communication to translate technical information into language understood by farmers and intermediaries was limited and that often only highly technical materials were available for use in the field which wasn't appropriate. The recommendation is that communication should be prioritised alongside research as an area requiring funding by international donors and national stakeholders. In addition, the development of a strategic communication framework for governments – as planned at this meeting – would facilitate the planning of resource allocation for pest outbreaks.

Institutional advocacy for preferred management options is a barrier to effective pest management

Groups noted that certain organisations are investing in developing solutions around specific technologies or have an institutional viewpoint on, for example, the use of pesticides. Donors, too, in some cases have their own organisational perspectives for which they advocate. These differing perspectives often create barriers to partnership efforts on communication – with debate around what management methods should be recommended, for instance. This needs to be recognised and managed at an international level (one suggestion was through a 'technology review panel') and at a national level it should be the remit of the task force to determine which technologies are the most appropriate and therefore are signed off.

Farmer feedback is vital to effectively communicate and manage FAW

There was discussion around the role of farmers in managing FAW. It was noted that, where communications strategies exist, they have been developed and structured in a top-down manner that does not take into account the views of farmers – the farmers are mostly recipients of centrally developed communications. Participants noted that it is vital to understand how farmers access and use information, the context in which they are making farm management decisions and which local practices they are developing themselves. Priority should be given to researching the efficacy of some of the most well-used of these as part of the integrated pest management package and to including feedback mechanisms in any communications activities to understand their impact as they happen.

FAW provides a challenge and an opportunity

Given the large number of countries affected by FAW in Africa and beyond, many organisations are working on research into management solutions. This provides a huge opportunity for innovation, synergies and collaboration if coordinated well, but national as well as international mechanisms need to be identified to make this possible. Findings from nationally-based research should be shared with working groups on FAW and made available through a research portal. Identifying such mechanisms now for FAW could facilitate better responses to major pest outbreaks in the future.

Zambian fall armyworm planning

Tuesday 28 August 2018

Reviewing farmer knowledge and practice in managing fall armyworm in Zambia

The workshop was opened by the Regional Representative of CABI Southern Africa, Dr Noah Phiri, and the Deputy Director - Crop Production, Department of Agriculture of the Zambia Ministry of Agriculture and Livestock, Mr Alick Daka. The workshop focused on discussing various research results and the impact of fall armyworm (FAW) in Zambia, as well as brainstorming ways to design an impactful communication campaign on FAW. The following paragraphs summarise the key activities that took place.

FAW in Zambia: overview and update on the impact on yields

Presentation made by Mr Alick Daka, Ministry of Agriculture, Zambia. Mr Daka noted as follows:

FAW first appeared in Zambia in 2016 and has so far ravaged most provinces in the country, with the most serious impact being in Western, Eastern, Central and Lusaka provinces. The government has engaged in public awareness creation through establishing a call centre at the Disaster Management and Mitigation Unit and through disseminating CABI publications. With the help of the UN Food and Agriculture Organisation's (FAO's) Technical Co-operation Project a quarter of extension officers nationwide have been trained on available options for the management of FAW. The government, through the Ministry of Agriculture, has also procured low-risk synthetic pesticides recommended by the Zambia Agriculture Research Institute (ZARI). Key gaps include a need for more research on cultural and biological methods to deal with FAW, and a need for increased allocation of funds to capacity building for extension officers.

Update on development of the FAW technical brief

Presentation made by Catherine Mloza Banda, CABI. Ms. Mloza Banda noted as follows:

At a meeting on 24 and 25 July 2018 CABI worked with the Ministry of Agriculture and other partners to develop a FAW technical brief, which is an agreed set of technical information and recommendations on the prevention, identification and management of FAW. The partners included: the Department of Agriculture (DoA), ZARI, University of Zambia, the Natural Resources Development College, Zambia Environmental Management Agency (ZEMA), the Zambia National Farmers Union, CropLife, the National Agriculture Information Service (NAIS), Seed Certification and Control (SCCI), and National Union of Smallholder Farmers in Zambia (NUSFAZ). During the meeting the following points were made: most reference materials on FAW are not suited to their end beneficiaries; there is a need to prioritise/strengthen the community-based early warning system; and current FAW management mostly involves the use of pesticides, with little focus on safe chemical use. The drafting of the FAW technical brief was completed during the July meeting. However, ZEMA needs to share a list of pesticides with CABI and the DoA and the brief needs to be circulated for comments.

Baseline research findings

Presentation made by Dr Monica Kansiime, CABI. Dr Kansiime noted as follows:

In April 2018, CABI, in partnership with ZARI and the Department of Agriculture, undertook a baseline study to quantify invasive species' impacts on household incomes and productivity, and to identify knowledge, information, management practices and gaps in order to assist in the design of campaigns and extension messages. The results of the study were as follows: farmers across Zambia are able to identify FAW and its effects on their crops; the impact of FAW on maize crops is severe but has lessened in the current year compared to the previous year; chemical control methods are the major management method, but a wide range of biological and cultural methods have also been tried; sources of information on FAW include extension workers, the radio, farmers' own experience and fellow farmers (with no significant differences between the sources of information for men and women).

Formative research findings

Presentation made by Catherine Mloza Banda, CABI. Ms. Mloza Banda noted as follows:

In August 2018 CABI commissioned a participatory rural communication appraisal to generate information that will aid in designing an effective, interactive and innovative FAW communication campaign for the 2018/19 cropping season in Zambia. The appraisal found as follows: the most common sources of agricultural information are extension workers, the radio and mobile phones; national and community radio broadcast a wide range of agricultural programme; most farmers located in the far east and far south listen to community radio stations more because the national radio signal is weak; receiving agricultural text through mobile phones and print media is less common and most of the messages on these channels are in English, making them to understand. Specifically in regard to FAW, the appraisal found that: farmers' preferred channels of information are extension officers, radio and mobile phones; famers wish to take part in radio programmes, but they think these should be broadcast in their local languages, and on community as well as national radio stations; and farmers also like to receive text messages (most own a mobile phone).

Workshop open feedback

The workshop participants indicated that the research reported on in the presentations accurately reflects the situation on the ground. Regarding the technical brief, the question was raised as to why the process had been delayed and if it was possible to hasten the process of obtaining a list of pesticides from ZEMA. A ZEMA representative responded that providing such a list falls under ZARI's mandate. The workshop agreed to send the technical brief to the Ministry with a note highlighting this issue. A question was raised about whether the farmers in the focus group discussions (FGDs) - which were held to survey farmer perceptions and preferences for accessing agricultural information - were disaggregated by gender and social economic status. The response was that they were disaggregated by gender but not by socio-economic status. ZARI commented that there was a need to triangulate the information from the FGDs.

Campaign decision points

A discussion of the key campaign decision points was carried out, which took the form of participants dividing into groups to discuss/answer the questions listed below, with groups' answers scored by the other participants.

Decision points

- What is the change we most need to see in organisation, attitudes and practices?
- Who are the key influencers?
- Means of engagement – what are the best ways to reach change agents?
- Triggers of change – what shapes decisions, practices and beliefs?
- What are the priority issues to address?

Thursday 30 August 2018

Planning FAW communication campaign planning

Recap of previous day ('Reviewing farmer knowledge and practice')

Participants discussed the key learning from the previous day. Key points included:

1. the need for a single message/harmonised messaging, as opposed to giving mixed messages about the same issues
2. the need for a task force bringing all stakeholders together, to ensure a concerted effort to fight FAW
3. the need for validated information, especially concerning use of indigenous knowledge to control FAW, more research on these methods and documentation/communication on which ones work best
4. the importance of engaging media personnel around accurate reporting on FAW

Campaign design exercise

In this section participants planned the communications campaign, which is due to start in November (the maize planting season). The agreed outcomes of the discussions and priority activities were as follows:

Draft theory of change for the campaign

"To achieve reduced FAW incidence and infestation, as well as reduced use of synthetic pesticides, through stakeholder engagement and resource mobilisation for sustained management and control of FAW in Zambia."

Farmer segmentation

Primary audience	Small-scale farmers, emergent farmers/medium-scale farmers
Secondary audience	Extension officers, agricultural NGOs, agro-dealers, traditional leaders, farmer groups, religious groups
Tertiary audience	General public

Key communications channels

Suitable channels	Audience
Extension workers	Small-scale farmers
Community radio	Small-scale farmers, extension workers, agro-dealers, agricultural NGOs
Mobile phones (SMS, voice calls in English and local languages)	Small-scale farmers
Print media (flyers, posters, printed flip chart illustrations, manuals)	Small-scale farmers
Television** (documentaries on procedures, interviews)	Small-scale and medium-scale farmers, extension workers
Others: Viral/micro videos** Farmer register/agricultural shows Plant health rallies, field days/social gatherings (e.g. churches, schools, farmer study groups) Theatre (e.g. drama groups) **Where circumstances allow	

Suggested sequence of activities

1. Signing off of the technical brief – by mid-September (CABI and Ministry of Agriculture)
2. Audit of existing extension material – by end of September 2018 (DoA (Crops))
3. Development of new print materials (ZARI, CABI, NAIS, DoA)
4. Contextualising and production of new extension material
5. Development of audio content – by early October 2018
6. Dissemination of new and existing material
7. Launch of communication campaign

Discussion on appropriate monitoring and evaluation (M&E) tools and approaches, and opportunities for action research

1. Possible M&E tools and approaches

- Number of farmers receiving and using the information should be documented
- Quarterly/monthly reports
- Assessing the impact of technologies being evaluated
- Reports/reviews
- Monthly/quarterly visits
- Quarterly reviews/reports/briefs
- Performance indicators
- End-term impact evaluation (after implementation)
- Formal/household surveys
- Rapid appraisals
- Campaign review meetings
- FGDs
- Supervisory visits
- Participatory methods

2. Possible action research opportunities

- Finding out how many farmers are adopting and using the new management approaches
- Investigating how farmer approaches and attitudes are changing, to enhance adoption of technologies
- Investigating extent of farmers' knowledge of other crops attacked by FAW (besides maize)
- Dissemination of proven, effective Indigenous Technical Knowledge (ITK) on control of FAW
- Combining research with farmer field schools and field demos
- Identifying famers' preferred channels and modes of communication, and those which are most effective
- Evaluating the effectiveness of dissemination channels for passing FAW management technical information to farmers
- Assessing how well extension officers transfer FAW mitigation information to farmers
- Conducting efficacy trials on the effectiveness of various indigenous methods of control and management of FAW
- Identifying natural enemies of FAW through Farmer Field Schools (FFS)
- Identifying effective dosages of bio-extracts used against FAW

Regional review and planning

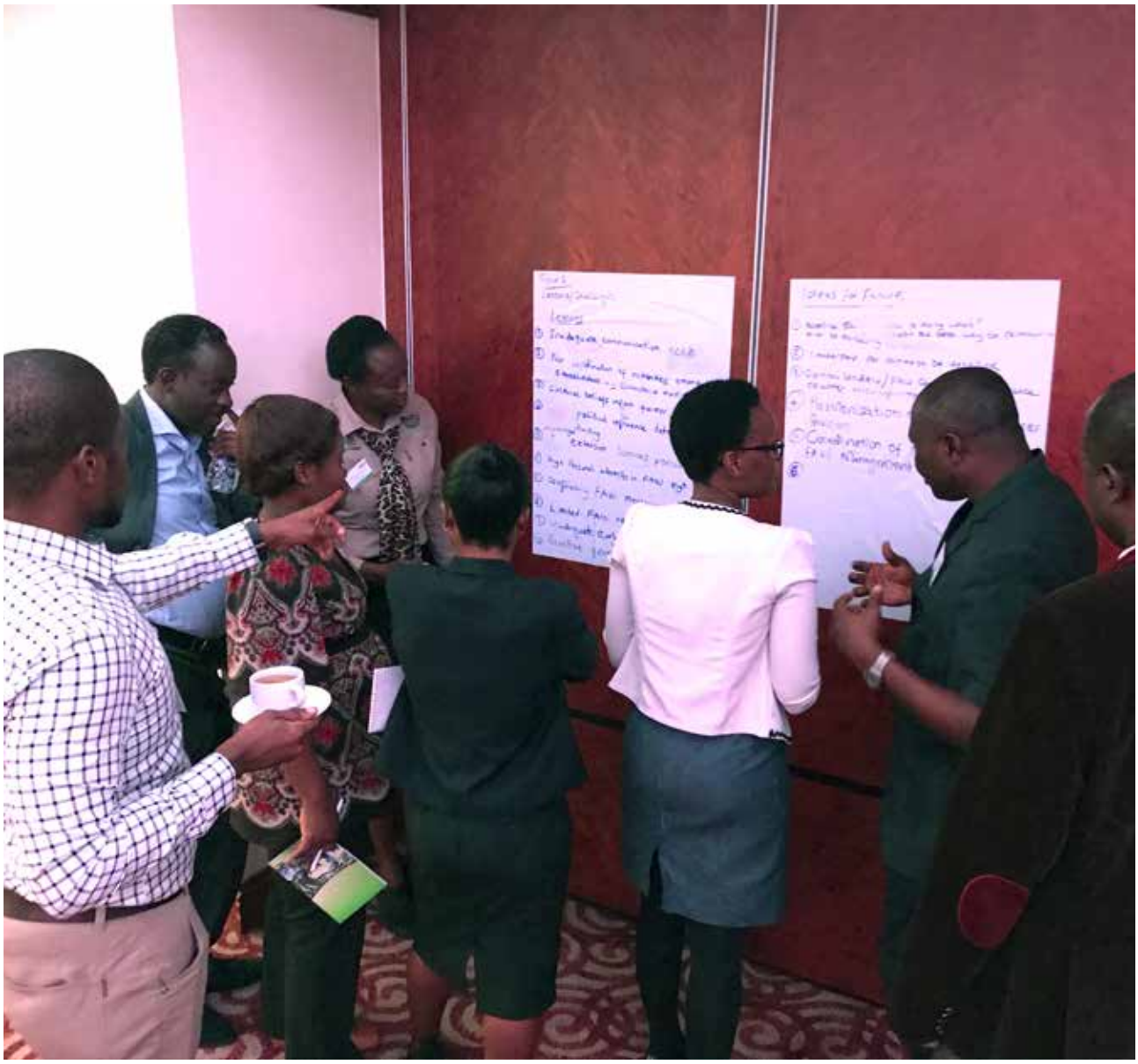
Wednesday 29 August 2018

Fighting the FAW through strategic communication and cross-sectoral knowledge management

Key note address

Mr Peter Lungu the Acting Permanent Secretary of the Ministry of Agriculture, Government of Zambia (GoZ) noted as follows:

The first case of FAW was reported in December 2016 in the Copperbelt Province, and by January 2017 the pest had spread across the country. In the 2017/2018 agricultural season there was a 35% drop in the numbers of farmers affected and a 20.5% drop in the hectares of land affected. The GoZ considers FAW to be permanently present in Zambia, hence it is collaborating with strategic partners, such as CABI and the FAO, to manage and mitigate the effects and impact of the pest. The GoZ is providing oversight over the surveillance of FAW, setting up pheromone traps and assisting farmers to procure safe pesticides. The GoZ is committed to working with CABI and other collaborating partners to develop an action plan to enhance communication with Zambian farmers on the management of FAW. This is important in order to ensure that Zambia is food secure.



Country insights – Reports on the approaches, challenges and successes in responding to FAW

Speakers

Teresia Karanja, Assistant Director of Agriculture Ministry of Agriculture, Livestock and Fisheries (MOALF) – Plant Protection Services Division

Benius Turkahirwa, Senior Agriculture Inspector, The Ministry of Agriculture, Animal Industry and Fisheries (MAAIF-UG)

Zebdewos Salato Director, Plant Protection Services Ministry of Agriculture, Natural Resources and Rural Development (MOALR)-Ethiopia

Ebenezer Aboagye, Deputy Director Ministry of Food and Agriculture (MOFA /Plant Protection and Regulatory Services

Alick Daka, Deputy Director Agriculture, Ministry of Agriculture and Livestock, Zambia

Gilson Chipabika, Entomologist, ZARI

Representatives from five countries – Kenya, Ghana, Ethiopia, Zambia and Uganda – presented on their experiences in responding to the FAW outbreak. Their contributions included the following:

- In Kenya, all maize-growing regions of the country reported FAW invasion.
- Agricultural ministries in each of these countries use a range of communication and outreach tools to reach stakeholders (which include policymakers, extension service providers, agro-chemical companies, farmers, research and academic institutions, and development partners). They develop specific messages and communication platforms for each, depending on their roles in FAW management or mitigating the socio-economic effects of the outbreak. For example, the Kenyan Ministry of Agriculture prepares 'briefing updates' and convenes 'briefing and discussion' sessions with policymakers from different line ministries responsible for managing the FAW outbreak. The briefings update policymakers on the status of the pest, its economic impact, the management strategy put in place and the support required from various ministries to manage the outbreak and support farmers.
- Most countries have set up inter-agency task forces to co-ordinate responses to the outbreak, to harmonise communication efforts on FAW: for example, Ethiopia communicates with other countries (such as Kenya and Tanzania) which have already experienced the FAW outbreak, to learn from their responses.
- Regarding extension support, most countries carry out locally-based training workshops (i.e. a district or county level) and field excursions. They also reach farmers through agricultural shows, exhibitions and field days; working with faith-based organisations, NGOs and other locally-based interest groups; using mobile SMS platforms; mass media campaigns through radio and television broadcasts; farmer field schools; plant health rallies; and mobile plant clinics. The countries also use Information education and communication (IEC) materials (brochures, flyers and posters) to raise awareness of FAW and its management. The key messages shared in extension support/communication relate to prevention, monitoring and actions that need to be taken. This includes information on the history and biology of FAW, signs and symptoms of FAW, scouting for early detection, and the damage that FAW causes. In Ghana, they work with schools so that pupils can disseminate messages on the identification, early detection and management of FAW in their communities. All these communication interventions are integrated within the ministries' FAW community-based monitoring and early warning activities.
- In terms of challenges, most countries reported that they have limited budgetary support for agriculture and this affects financing of the FAW response. For example, they cannot train all extension workers who are at the frontline of managing the FAW outbreak. Most countries do not have adequate communication budgets to raise awareness and provide critical support to affected farmers/communities. In some countries the media sensationalises reports on FAW infestation levels and this causes unnecessary panic amongst farmers and the general public, leading to over-use of pesticides by some farmers or even abandonment of fields. Another challenge is limited research and knowledge about the pest ecology and biology, and about the efficiency of FAW management options, such as botanical, landscape and cultural methods. The lack of adequate research and knowledge results in incomplete, and, at times, distorted, information reaching farmers.

Lessons learnt and insights from FAW response activities to date

Groups made the following observations:

- Capacity building training given to extension workers at the start of the FAW outbreak helped them to quickly assist farmers who were encountering the pest for the first time. Nonetheless, the training was very basic such that extension workers could not provide detailed and authoritative information to farmers. This negatively affects sustainable communication on FAW.
- Capacity can differ between central and local government, hence plans developed at national level are sometimes not implemented properly at local level.
- Country responses to the initial FAW outbreak were not complemented by a well-structured communication strategy, even though most countries set up multi-stakeholder task forces. In cases where there were communication frameworks in place, these were usually developed and structured in a top-down manner that did not take into account the views of farmers – the farmers were mostly recipients of centrally developed communications.
- Most governments developed and publicised lists of registered pesticides. However, not all farmers, especially those in remote and underserved areas, have access to the lists of registered pesticides. This shows that important communication on FAW is not evenly distributed to all farmers. Also, in some countries there are multiple lists of recommended pesticides developed by the government and research institutions and this makes it difficult for extension workers to provide authoritative information to farmers. This challenge is exacerbated by agro-dealers giving farmers improper advice on recommended pesticides due to their desire to sell their own stock of products.

The groups also came up with suggestions to improve communication on FAW management. These included: developing communication channels to reach farmers in remote areas with information on registered and safe pesticides; systematic collection of suggestions and ideas from farmers and their representatives on effective management of pest outbreaks; periodic reviews of pest management communication strategies so that appropriate and relevant messages and technical information is relayed to farmers in good time; establishing permanent and multi-stakeholder Pest Management Communication Task forces (PMCTs) that can respond to future outbreaks (the PMCTs should be able to integrate research on FAW/other pests with country communication strategies and provide refresher training sessions to extension workers and farmers whenever new knowledge on FAW/other pests is available).

The following table captures the outputs of the group work by the thematic area.

Theme	Lessons/challenges	Ideas for the future
Planning and co-ordination	• Inadequate understanding of communication needs of farmers and extension workers to ensure that the right formats and language are used • Poor co-ordination of activities among stakeholders (e.g. researchers and media) • Poor extension/research linkages • Reactive government FAW management • Poor timing of campaigns/communication • Limited monitoring, tracking and evaluating communications outreach/campaigns • Haphazard response to initial outbreak, which also lacked a communication strategy • Lack of periodic strategy review and strategy realignment • Differing capacity between central government and local government, hence plans developed at national level might not be implemented properly at local level	• Carry out a baseline study prior to developing communication plans – who is doing what, where? Which channels of communication are most appropriate? • Obtain adequate funding for communication interventions • Set up steering committee/task force for FAW to oversee linkages between research and extension to ensure information flow. Roles of actors must be clearly communicated and broader stakeholder representation is needed • Establish proper communication roadmap involving all stakeholders, to support co-ordination • Develop a generic emergency response plan for invasive species and pest management for use in future pest outbreaks • Invest in impact assessment and communication of results
Approach	• Top-down communication strategy planning fails to take into account the views of farmers – farmers are mostly recipients of centrally developed strategies • Training for extension workers is basic, so they cannot provide detailed and authoritative information to farmers • Not all extension workers have had training on FAW management practices • Diverse local languages make it difficult to disseminate FAW extension messages	• Identify national leadership for communications around FAW • Incorporate farmers' ideas, needs and indigenous knowledge in FAW communications planning • Harness farmer-to-farmer learning to complement formal extension • Share capacity building resources between central government and local government so that communication strategies developed are implemented efficiently at a local level • Convey messages in local languages that are understandable to farmers • Use pictures and illustrations to help in low-literacy situations
Technical recommendations	• Cultural beliefs inform farmer decisions which means they aren't making use of scientifically proven technologies • Financial considerations affect farmers' decisions on management • There are conflicting FAW messages from different stakeholders • There is limited FAW research • High dependence on chemical pesticides for FAW management • Issues around the safe use of pesticides	• Put emphasis on integrated approach to FAW management • Proactively verify indigenous knowledge and practices • Recruit opinion leaders/FAW champions to influence/counter misinformation • Intensify farmer education on use/misuse of chemicals/use of personal protective equipment (PPE) • Establish a task force to evaluate technical options and decide on national recommendations
Funding	• Poor government funding for FAW • Expensive airtime (TV and radio) • High dependence on donor funding for FAW management by government	• Advocate for the role of communication in FAW management • If possible, integrate FAW activities within existing activities
Two-way communication	• Inadequate early warning systems in place • Poor feedback and farmer reporting mechanisms/ systems for FAW	• Strengthen early warning systems

Tackling knowledge management challenges

Genevieve Renard, International Maize and Wheat Improvement Center (CIMMYT) noted as follows:

Technical briefs and campaign strategies on FAW should be harmonised through the concerted efforts of ministries of agriculture and their research organisations, National Agricultural Research Systems (NARS), regional and international organisations (FAO, African Union, CABI, Alliance for a Green Revolution in Africa (AGRA), Forum for Agricultural Research in Africa (FARA), African Agricultural Technology Foundation (AATF), Consultative Group on International Agricultural Research (CGIAR), CIMMYT, International Institute of Tropical Agriculture (IITA) and World Agroforestry Centre (ICRAF), as well as agricultural research institutions from countries such as Brazil, the United Kingdom and the United States of America that have expertise on FAW management. Private sector companies that manufacture pest management technologies (pheromones, synthetic pesticides, biopesticides, etc.) should also be included in these collaborative efforts. Such collaborations should result in the timely provision of relevant, appropriate, low-cost, effective, environmentally safe and sustainable management options to farmers. It is important to harmonise activities so that other priorities being worked on (such as wheat blast and Maize Lethal Necrosis (MLN) are not overlooked as this new problem is addressed.

Group work: communication on FAW and messaging with other organisations

Groups considered the following questions and gave the following responses.

What works/doesn't work for you (your organisation) about communicating on FAW?

- Budget considerations, structural differences and the difficulty of ensuring timely responses
- Resources are a general problem
- Difficulty for different units in the same organisation to agree on messages
- There is limited expertise in-house
- Participants from Zambia and Uganda (and others feel particularly positive about the work in their own organisations (regular meetings, website, easy communications, clear processes) and with the task forces

What works or doesn't work in terms of messaging with other organisations (challenges)?

- It is difficult to work with other organisations if procedures and roles are not clear
- Options may be different: how can they be reconciled? (e.g. use of Bacillus thuringiensis (BT) maize)
- Availability of funds
- Respect of deadlines and of sensitivities, need for clearance
- No transparency of information shared
- Different interpretations of information and inconsistency
- Information does not reach farmers on time
- Bureaucracy and different levels of approval are a challenge

Benefiting from FAW research across the region

Led by Solomon Duah (CABI), groups brainstormed the challenges of, and opportunities for, sharing and benefitting from research initiatives. The findings are summarised in the table below:

Fall armyworm portal

Reference was made to the FAW Species Portal which CABI is launching in September which is to be demonstrated by Ms Idah Mugambi, CABI on Thursday 30th August at the workshop. The Portal will provide a central repository for information resources collated from a wide range of contributors including many of the key organisations collaborating in the FAO-led Framework for Partnership for Sustainable Management of the Fall Armyworm in Africa. The URL for the new site will be www.cabi.org/fallarmyworm

Challenges	Opportunities
• Researchers do not release their findings in a timely fashion and in user-friendly formats that can be easily translated and shared with non-technical audiences • Lack of a one-stop-shop knowledge-sharing platform for FAW • Inadequate linkages between research and extension • Bureaucracies within organisations hinder smooth information-sharing processes • Competition for credit and recognition among the institutions/ organisations limits widespread sharing of findings • Lack of resources/funding to facilitate extensive sharing of research information • Mistrust and dishonesty among researchers result in the credibility of useful research being questioned • Funders of research are sometimes not satisfied with research outputs and as a result they are not shared widely • Sometimes research findings are not shared beyond countries of research due to non-existence of mutual trust and corresponding bilateral agreements • Different agro-ecologies mean varying research needs at times. Some research outputs/recommendations may be country-specific • Inadequate information on who is researching on what or who has what research information • Restrictions based on intellectual property rights • Varying research interests and agendas across different countries and regions	• There is lots of research on FAW ongoing in Africa. Findings from this research should be shared with working groups on FAW • Many nations and stakeholders are involved in the fight against FAW – providing a tremendous opportunity for innovation, synergies and collaboration • Information-sharing can take advantage of latest ICT tools and social media platforms available (e.g. online platforms and repositories available for sharing research outputs, such as Dgroups) • There are an increasing number of publications on FAW • Well-co-ordinated and credible websites available to publish research findings • New funding opportunities for research are being made available • Opportunities to partner with international research institutions • Joint/regional task forces present opportunities for sharing research findings • Establishment and use of centres of excellence as repositories and reference points for research outputs • Existing regional and sub-regional blocks (African Union, Economic Community of West African States (ECOWAS), The Common Market for Eastern and Southern Africa (COMESA), etc) can provide physical and virtual opportunities for sharing research findings • Existing international and regional institutions – CABI, ICIPE, CIMMYT, IITA, etc. – can facilitate sharing of research outputs

Thursday 30 August 2018

Fighting the FAW through strategic communication and cross-sectoral knowledge management

Precision agriculture – FAW SMS in Kenya

Emmanuel Bakirdjian, Country Director, Precision Agriculture of Development. Mr Bakirdjian noted as follows:

A SMS-based farmer information service has been launched in Kenya to support farmers in managing FAW on their farms. It was launched with the support of the Kenya Ministry of Agriculture and is called MOA-INFO. It currently has more than 110,000 active subscribers.

After Mr Bakirdjian's presentation workshop participants discussed different countries' experiences of using SMS messages to communicate with farmers, and the sign-off of such messages.

Support for governments – introduction to policy tool development (group discussion)

The workshop participants discussed the following areas:

- There is a need for support to governments to enable them to internalise learning from previous pest outbreaks so they can respond effectively to subsequent ones.
- There was over-hyping of the FAW outbreak, which had caused fear and drastic responses amongst farmers in some cases. (Participants argued that there is a need for a greater understanding of the implications of press coverage, with a focus on accuracy and impact. An example was given of the unexpected impacts of press coverage: bird flu was reported by the press in one village in a particular country; this became a big news story, which resulted in the closing (for birds) of the country's border to its neighbour and major trading partner.)
- Co-ordination between stakeholders is important. (Information is not currently being shared widely and planning is not undertaken on a joint basis. In particular there is a need for National Plant Protection Officer (NPPO) involvement and for decisions to be taken around chemical control recommendations. Communications expertise is missing within national task forces on FAW (where they exist); this needs to be rectified.)
- Two types of communication are needed in any tool/framework: 'internal', within partners; and 'external', to other audiences (farmers, extension workers, agro-dealers etc.)
- The Red Desert Locust outbreak saw effective co-ordination and communication.
- There is support for the development of a policy tool that is a cross between a policy and a strategic work plan. The tool should allow for longer-term planning throughout the lifecycle of the outbreak not just the immediate response.

What would a policy tool on FAW look like? Content development and distribution (group work)

The participants worked in groups to decide what the policy tool should contain in terms of content and how it might be distributed to ensure it is taken up and used.

Policy tool content

Objectives

- To provide a framework for managing communication knowledge about pest outbreaks
- To guide communication on national task forces and technical committees
- To prepare for potential pest outbreaks
- To collect accurate and timely data on outbreaks
- To streamline investment for sustainable management of pest outbreaks

Rationale for investment

- The impacts of major pests – financial, socio-economic and environmental. These factors are tied to the SDGs and other frameworks (e.g. International Plant Protection Convention (IPPC)
- Cost/benefit calculations of communicating – bringing together data
- Examples of past miscommunication and impact on trade (e.g. bird flu)
- Success stories – what has worked (e.g. the BT maize example)

Structuring a response

- Roles and responsibilities – emergency communication team structure
- Mapping of stakeholders – partners, implementers etc. (i.e. research, input)
- Co-ordinating body (i.e. task force at regional level with clear terms of reference and required expertise)
- Audiences and beneficiaries – public, farmers, agro-dealers, extension workers, government, media and private sector
- Lifecyle of response – what is needed, when and how (i.e. a platform for convening, resources, approaches, feedback, research pipeline and funding)

Planning and implementation

- Effective communication procedure
- M&E procedure
- "Ambulance analogy" – traffic gives way to an ambulance because it is an emergency. Communication in a disaster should be prioritised by the government
- Continuous early warning system – surveillance and monitoring reduces cost of managing outbreak
- Contingency funds for emergency communication
- Funding of implementation of communication strategy

Policy tool distribution

National task force champion

- Office of the president/prime minister
- Minister for agriculture
- National task forces
- Technical committees (NPPO)
- Local governments
- Chief/principal director – i.e. the most senior technical person in the ministry
- Regional bodies (e.g. East African Community (EAC), COMESA, ECOWAS, African Union and Southern African Development Community (SADC))

Events and regional bodies

- African Union
- COMESA, ECOWAS, SADC
- FAO sub-regional office
- CABI/CIMMYT, ICIPE, FAW communication task forces
- Farmer days, exhibitions
- Agricultural shows
- Director of plant protection

It was agreed that CABI would share the outline of the proposed policy framework tool with participants of the meeting for their input and agreement prior to developing it further, in line with the recommendations from the meeting.

Prioritising knowledge and capacity gaps in our practice for communication

Arnold Chamunogwa, Communications Consultant. Mr Chamunogwa noted as follows:

There are gaps in the research around the use of technologies for FAW management, including both agricultural practices and tools to facilitate two-way sharing of information between farmers and governments. There is a need to research the barriers to technology deployment, adoption and advancement (such as language, literacy, policy barriers in communications and low population density). In addition, proof of the efficacy of management practices is still being worked on and needs further research.

Reviewing knowledge and capacity gaps, along with ideas for the future (group work)

The table below captures the gaps in current communications activities identified by the groups and lists ideas for filling the gaps going forward.

Gaps	Ideas of the future
Language and literacy challenges	• Use a system to translate into different local languages • Use voice messages (IVRs) • Use common terminology or common names
Policy barriers in communication	• Shorten the bureaucratic channels, processes and requirements • Put in place a knowledge hub-
Low population density	• Use multi-channel communication platforms to reach sparsely populated geographic areas
Poor and low electricity and internet connectivity and access	• Use offline technologies and applications
Gender gap	• Empower women's groups • Promote gender-sensitive communications • Address gender gap through affirmative action • Use gender-appropriate technologies
Resource gap – gap in the human and financial resources for communication in agriculture	• Mainstream communication in government • Enhance capacity of communication experts and researchers • Reduce or subsidise advertising rates during outbreaks or disasters and for public interest campaigns • Enhance farmer-to-farmer learning and communication
Validation of ITK	• Establish a repository of documented/validated ITK and other innovations

Linking activities – brainstorming collaboration opportunities

Joyce Mulila Mitti, FAO, explained the FAO response to FAW, including the FAO Partnership Framework for Africa and its Technical working groups, which are focusing on different aspects of the response – from biopesticides, through to communication and impact assessment. Ms. Mulila Mitti highlighted the partnership between organisations (IITA, CIMMYT, FAO, CABI, AGRA and ICIPE) and provided an update on progress so far and ongoing challenges, including the need for more research on management options and limitations in funding allocated to the FAW.

Edwin Adenya, FAO, presented on recent work by the East African resilience team of the FAO on FAW, including communication channels the team is using, which range from the Famine Early Warning Systems Network FEWSNET app collecting information to the use of posters for school going audiences. (Participants were particularly excited about the FEWSNET maps which had been produced so far and asked when/whether other countries would be added.)

Group work on collaboration opportunities

The groups identified incentives for working together, along with barriers for collaboration; they also identified some potential opportunities/ways forward, including holding an inception meeting before each planning cycle to co-ordinate activities in each country. The work is captured in the table below.

Incentives	Barriers
• Saving time • Effectiveness • Sustainability • Tapping into expertise and knowledge of other institutions/partners • Provide platform for recognition and institutional visibility • Fulfil donor partner requirements for multiple players in the engagement • Reduce cost of implementation through cost-sharing • Access harmonised information materials • Inclusive branding of different technical expertise	• Competition for funding and resources • Profile • Consensus on options/solutions • Institutional culture • Time-consuming / bureaucracy at institutional level • Vested interests among partners • Conflicting work schedules • Bad/poor planning • Political interference/differences • Unrealistic demands from donors • Lack of coherence within regional economic block • Inconsistent representation of stakeholders

Annex 1: Agenda

Tuesday 28th August

No.	Timing	Agenda item	Participants
	8.30 – 9.00	Registration and coffee	
1	9.00-9.15	Welcome and introductions	Dr Noah Phiri, CABI
2	9.15 – 9.30	Formal opening of the meetings	Department of Agriculture
3	9.30- 10.00	Fall armyworm in Zambia. Overview and update on impact on yields	Mr Alik Daka, Ministry of Agriculture
4	10.00 – 10.30	Fall armyworm solutions and technical brief – update	Catherine Mloza Banda, CABI
	10.30 – 11.00	Coffee	
5	11.00 – 11.30	Baseline research findings – survey results	Monica Kansiime, CABI
6	11.30 – 12.00	Formative research focus group reports	Catherine Mloza Banda, CABI
7	12.00 – 12.30	Open feedback on findings of research – questions of clarification	Nick Perkins, CABI
	12.30 – 13.30	Lunch	
8	13.30 – 16.00	Campaign decision points: • Decision points • Key influencers • Means of engagement • Triggers for change • Priority issues to address	Nick Perkins, CABI
9	16.00 – 16.30	Reflections on findings from groups and group prioritisation	
	16.30	Meeting close	

Wednesday 29th August

No.	Timing	Agenda item	Participants
	8.30 – 9.00	Registration and coffee	
1		Welcome and introductions	Tamsin Davis, CABI
2	9.00 – 9.15	The Acting Permanent Secretary for the Ministry of Agriculture, Government of Zambia	Mr Peter Lungu
3	9.15 – 10.45	Country insights. Reports from 5 countries on approach, challenges and successes: • Kenya • Ghana • Ethiopia • Zambia • Uganda	Country representatives
	10.45 – 11.30	Coffee and Mapping exercise - activities across countries	Tamsin Davis, CABI
4	11.30 – 12.30	Lessons learned/insights from activities to date	Nick Ishmael-Perkins Group work
	12.30 – 13.30	Lunch	
5	13.30 – 15.00	Presentation of group work and reflection on findings	Nick Ishmael-Perkins
	15.00 – 15.30	Tea	
6	15.30 – 16.30	Tackling knowledge management challenges. • How can technical briefs and campaign strategies be harmonised? • How can research findings be benefited from across the region? Group work	Genevieve Renard, CIMMYT Emmanuel Bakardjian, PAD Solomon Duah, CABI
7	16.30 – 17.15	Reflections on the mapping exercise and posters	Tamsin Davis, CABI
	17.15	Meeting close	
	17.30	Conference cocktail	

Thursday 30th August
Programme for regional participants

No.	Timing	Agenda item	Participants
	9.00 – 9.15	Welcome	Nick
1	9.15 – 9.30	Precision Agriculture – FAW SMS in Kenya	Emmanuel Bakirdjian
2	9.30 – 10.00	Support for governments – introduction to policy tool development What is the policy tool and how can it work? Reflections from country representatives	Nick Perkins Country representatives
3	10.00 – 11.00	What would a policy tool on Fall armyworm look like? • Key content • Development and production • Distribution	Arnold Chimunogwa Group work
	11.00 – 11.30	Coffee	
4	11.30 – 12.30	Prioritising knowledge and capacity gaps in our practice for communication	TBC
	12.30 – 13.30	Lunch	
5	13.30 – 15.00	Linking activities - brainstorming collaboration opportunities	FAO – Joyce Mulila Mitti and Edwin Adenya
	15.00 – 15.30	Tea	
	15.30 - 16.30	Reflections on key learning Action points	Nick Ishmael-Perkins *Zambian and regional groups in attendance*
	16.30	Meeting close	

Programme for Zambian participants

	Timing	Agenda item	Participants
	9.00 – 9.15	Welcome	CABI
1	9.15 – 10.00	Recap from Day 1/sense making exercise	Catherine Mloza Banda
2	10.00 – 11.00	Team planning on; • Approach considering audiences and theory of change • Scale of campaign • Identification of important partners and roles in project	Solomon Duah and Catherine Mloza Banda
	11.00 – 11.30	Coffee	
3	11.30 – 13.00	Team planning on (continued) • Sequencing of activities and timing	Catherine Mloza Banda and Solomon Duah
	12.30 – 13.30	Lunch	
4	13.30 – 15.00	Discussion of appropriate M&E tools and approaches Budget review and timeline development Discussion around any action research opportunities	Monica Kansiime
	15.00 – 15.30	Tea	
5	15.30 - 16.30	Reflections on key learning Action points	*Zambian and regional groups in attendance*
	16.30	Close	

Annex 2: Mapping of communications activities exercise

Country/Region	Objective	Activities	Organisation	M&E activities
Zambia/ Malawi/ Mozambique	Information dissemination	Held Plant clinics and rallies	DoA / ZARI / CABI	Survey on impact of Plant Clinics
Zambia	FAW impact on Maize production	FAW impact assessment	ZARI / DoA / CABI	
Zambia	Development of FAW Technical management Early warning Evaluating the push and pull technology	Efficacy trials Setting up of pheromone traps	ZARI, DoA, CABI, CIMMYT	
Zambia	Awareness creation Coordination	Call centre Communication tools Publication/translation Radio programmes TV documentaries Community mobilisation	DMMU Media/MoA/CABI/NGOs CIMMYT, FAO, NAIS	Reports Impact studies
Zambia	Capacity building	Training of extension and research officers	CABI, ZARI, DoA, FAO	Report
Kenya/ Ethiopia/ Uganda	FAW control management	Research Awareness (Media, Farmer trainings, IEC materials) Mobile platforms CB FAMEWS Packaging and dissemination of technical materials	ICIPE, KALRO, CIMMYT, AATF, Universities MoA, KALRO, KEPHIS, PAD, FAO, CABI, County Gov'ts, FFS Farm Radio International	Chemical Efficacy trials Dissemination workshops Technical materials/ results Journals/publications Rapid surveys, feedback collection (SMS) Technical backstopping Webinar Radio call in
Ethiopia	2 way communication on FAW incidence, farmer feedback and information	Digital suite of ICT channels (video, IVR, and mobile-based survey) supporting rapid decision making by aggregating data / farmer feedback for analysis to be used by MoALR-Ethiopia. Working on this until Dec 2018	Digital Green DLEC project implementing (Digital Green); MoALR-Ethiopia (extension directorate; crop directorate; pest management; FAW TAC); Fintrac; FAO	
Kenya, Rwanda and Ethiopia		Pilot study on mechanical control	MoAs/FAO/Local Gov'ts, NARI	Baseline surveys and monitoring of adoption

Country/Region	Objective	Activities	Organisation	M&E activities
Kenya		MoALF Information System: a two-way SMS platform to disseminate information about FAW and other topics, on behalf of the Ministry of Agriculture, Livestock, and Fisheries (MoALF) Smallholder farmers with mobile phones. Final sample will depend on response rate but we expect more than 1 million.	Precision Agriculture MoALF, Council of Governors, Safaricom, CABI	
Ghana, Benin and Nigeria	To sustainably manage the incidence and effect of FAW	Development of action plan **Awareness creation:** • Radio, community information centres • TV, printing and distribution of educational materials • Development of new communication materials **Capacity Development:** • Training of key stakeholders (AEAs, media, farmers, NADMO, Agro-input dealers) FAMEWs • Setting up pheromone traps **Research into options for IPM:** • Scouting for natural enemies • Efficacy trial of bio rational insecticide • Host plant resistance **Current management practices:** • Procurement of strategic stock bio rational insecticide • Collaboration and coordination • Early warning system (setting up and servicing pheromone traps)	MOFA, NADMO, CABI, USAID, FAO, Farm Radio ECOWAS, FAO, Parliament select committee on Ag, MOFA, IITA FAO, MOFA, CRI CRI, IITA, MOFA, CIMMYT MOFA, ECOWAS, CRI, FAO, USAID	Monthly task force monitoring surveillance for FAW Evaluation of communication campaign and strategies Regional level monitoring

Annex 3: Current Communication materials on FAW

Organisation	Materials
National Agricultural Information Service (Zambia Ministry of Agriculture)	• TV program • Radio script programme • Posters • Brochures • Leaflets • FAW manual (technical info. on FAW repackaged for farmer use • Available both in English and local languages • Contact: NAIS for TV/radio programmes, NAIS for publications
CIMMYT	• FAW manual • Videos • Fliers • Stories/media • Media field visits with partners such as IITA, CABI • Participation in forums
IITA	• Peer reviewed publications • Radio programmes (with CIMMYT)
Precision Agriculture for Development	• FAW technical brief (with CABI and MOALF) • SMSs on FAW • Database on farmers affected by FAW This info is for Kenya only
ZARI	• Technical brief (with CABI, MoA) • Posters • Leaflets • Brochures
NARO – Uganda	• Peer reviewed publication Contact: Dr. Michael Otim
Food and Agriculture Organisation	• FAW identification manuals • IPM materials • FFS manuals
Ministry of Agriculture – Ethiopia	• Leaflets • Posters • Training manuals • FAW management strategy (with different stakeholders) • IVRSMS-(Interactive voice response system)-collect info from farmers, prepare management strategies based on the response system • Manuscripts to national radio – short briefings eg on FAW biology, ecology etc
CABI	• Posters • SMS messages • Radio programmes and scripts • Videos • Evidence notes • Training manuals

Annex 4: Participants list

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Annex 5: Lessons learned and ideas for the future

Theme	Lessons/challenges	Ideas for the future
Planning and coordination	• Inadequate understanding of communication needs of farmers and extension workers to ensure that the right formats and language are used • Poor coordination of activities among stakeholders e.g. researchers and media • Poor extension/research linkages • Reactive government FAW management • Poor timing of campaigns/communication • Monitoring, tracking and evaluating communications outreach/campaigns • Haphazard response to initial outbreak which was not complimented by a communication strategy • Lack of periodic strategy review, strategy realignment • There are different levels of capacity between central government and local government, hence plans developed at national level might not be implemented properly at local level.	• Need for baseline study prior to developing communication plans – who is doing what, where? Which channels of communication are most appropriate? • Adequate funding for communication interventions needed • Steering committee/task force for FAW to oversee linkages between research and extension to ensure information flow. Roles of actors to be clearly communicated and broader stakeholder representation needed • Proper communication roadmap involving all stakeholders to support coordination • Develop a generic emergency response plan for invasive species and pests management for use in future pest outbreaks • Invest in impact assessment and communication of results
Approach	• Top-down communication strategy planning failing to take into account the views of farmers – farmers are mostly recipients of centrally developed strategies • Training for Extension workers was basic such that they could not provide detailed and authoritative information to farmers. • Not all extension workers have had training on FAW management practices • Diverse local languages making it difficult to disseminate FAW extension messages	• Leadership for communications around FAW should be identified nationally • Integration of farmers ideas, needs and indigenous knowledge into FAW communications planning • Harness farmer to farmer learning to complement formal extension • Share capacity building resources between central government and local government so that communication strategies developed are implemented efficiently at a local level • Put messages in local language understandable to farmers • Use of pictures and illustrations to help in low literacy situations
Technical recommendations	• Cultural beliefs informing farmer decisions • Financial considerations affecting farmer decisions on management • Conflicting FAW messages from different stakeholders • Limited FAW research • High dependence on chemical pesticides for FAW management • Issues around safe use of pesticides	• Emphasis needs to be on integrated approach to FAW management • Proactive verification of indigenous knowledge and practices • Opinion leaders/FAW champions could influence/ counter misinformation if recruited • Intensification of farmer education on use/misuse of chemicals/use of PPEs • Need for taskforce to evaluate technical options and decide on national recommendations
Funding	• Poor government funding for FAW • Expensive airtime (TV and Radio) • High dependence on donor funding for FAW management by government	• Advocate for the role of communication in FAW management • If possible, integrate FAW activities within existing activities
Politics	• High personal interests in FAW management	
2 way communication	• Inadequate early warning systems in place • Poor feedback and farmer reporting mechanisms/ systems for FAW	• Strengthening early warning systems

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Schweizerische Eidgenossenschaft Confédération suisse Confederazione Svizzera Confederaziun svizra

Swiss Agency for Development and Cooperation SDC

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