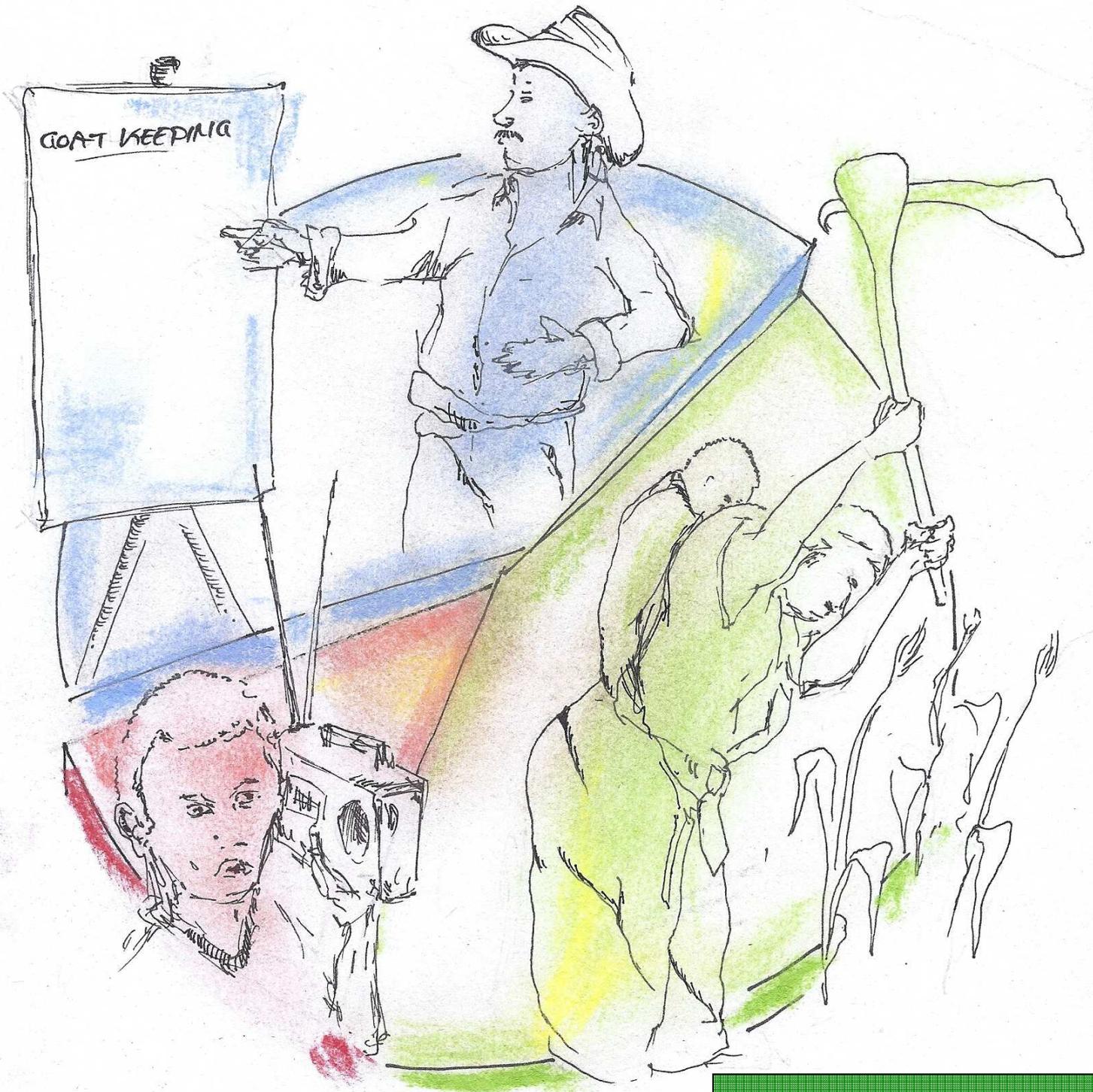


Impact Assessment of the Agrodok series - 2011

The usage and impact of the Agrodok series by/on the subscribers of The Technical Centre for Agricultural and Rural Cooperation (CTA)



Esmé Stuart
February - July 2011

Title: Impact assessment of the Agrodok series – 2011

Subtitle: The usage and impact of the Agrodok series by/on the subscribers of The Technical Centre for Agricultural and Rural Cooperation

This research has been commissioned by CTA, Wageningen, in partial fulfilment of Bachelor degree Regional Development and Innovation, Van Hall Larenstein, Wageningen.

Esmé Stuart

Illustration by: Niels van den Bosch

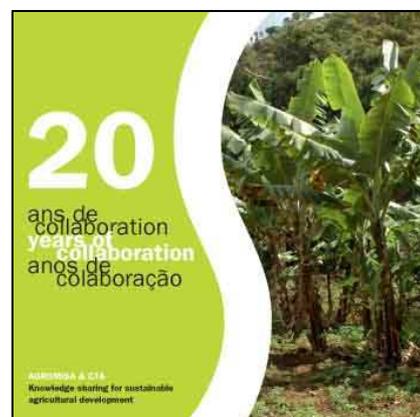
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Summary

The Agrodok series is a tool for agricultural knowledge sharing. It is produced by Agromisa in co-publication with CTA, the main distributor of the series. The series consists of 49 manuals published in English, French, and Portuguese. The manuals are simple, low-priced, and concern small-scale, sustainable agriculture in tropical and subtropical countries. With the series, CTA and Agromisa try to improve the livelihoods of the rural population in the South. The series is written for small-scale farmers and those who work directly with farmers, like NGOs, extension workers, teachers and trainers, researchers, and farmers' organisations.

From 1985 until 2001 a survey was held by Agromisa and CTA amongst the users/readers of the Agrodok series. However, during the last ten years there was no evaluation done on the series. This research therefore sought to answer the question 'what is the impact of the Agrodok series on the subscribers of CTA?'. It has to be noted that most of the Agrodok manuals are distributed by CTA, through its Publications Distribution Service where subscribers can order publications with credit points. This research has limited itself to look at CTA's subscribers only, and more specifically those with an e-mail address who ordered Agrodoks in English.



Example of the new cover of the Agrodoks, CTA 2011

In total, a digital questionnaire was sent to around 3000 e-mail addresses, to which 397 subscribers replied. On the basis of the results of this survey research questions were answered and a better insight was gained on the target group, the usage, and the impact of the Agrodok series.

It must be noted that due to the sampling of the survey (subscribers with e-mail address who ordered Agrodoks in English), the results might be biased. Therefore, the previous survey to the usage and impact of the Agrodok series was studied to compare results and to reduce biases. The previous survey was carried out by Agromisa in cooperation with CTA from 1985 until 2001, and analysed in 2006.

Results from the questionnaire show that CTA's subscribers are in general very satisfied with the provided knowledge. It can also be seen that interests are various and shifting from traditional Agrodok subjects like '*animal production and health*' and '*plant production and protection*' to '*technology and innovation*', '*food safety and human nutrition*', '*food security*', '*natural resources and environment*', and '*management and entrepreneurship*'.

In terms of illustrations and content, the subscribers urged the need for colour illustrations and better legends. Content-wise they wish to see more research-based and detailed information, while maintaining the Agrodoks practical and accessible for farmers.

As seen in the previous survey, most subscribers use the Agrodoks for the production of teaching, training, and extension material. On the other hand, knowledge contained in the Agrodoks is not often repackaged into other publications or other media (e.g. video, radio, newspapers).

Subscribers also use the Agrodoks to learn about new practices and methods concerning the subject of the Agrodok. In this regard, many subscribers indicate that they have improved their activities, either their teaching and training activities as well as practical on-farm activities (mainly animal keeping), or those of their students or trainees.

CTA's subscribers mostly order the Agrodok manuals for themselves, but after reading them they often share them with colleagues, relatives, or neighbours, this implies that the outreach of the Agrodoks might be more extended than the subscribers only.

The results of this questionnaire will be used to further improve the Agrodok series in order to enhance the impact on its target group.

Acknowledgements

This research has been made possible thanks to CTA, and therefore my thanks go out to Thierry Doudet who allowed me to carry out this research. In addition, I want to thank Murielle Vandreck for the much needed support and input. Besides, my gratitude goes out to Evelyne Kort-Nerinx, Jennesi Matturi, Giacomo Rambaldi, and Roy Keijzer for providing me with the needed information and technical support. My thanks go out to Hans Glas for providing me with input and feedback for a good finalisation of this report.

I also want to thank everybody who participated in the questionnaire, since there would have been no results without their participation.

At last I want to thank Niels van den Bosch, Jenneke van Vliet, and my family for supporting me and for the help and feedback they provided.

Preface

As a last assignment before graduating, a final thesis was to be conducted. My internship, another part of my study Regional Development and Innovation, was done at Agromisa, the publisher of the Agrodok series. Within the framework of this internship, my interest for the Agrodok series, its readers, and its impact arose. That is why I decided to do my thesis for CTA, the main distributor of the series.

During my thesis I was supervised by an external supervisor, Thierry Doudet, CTA, and by Hans Glas, internal supervisor of Van Hall Larenstein.

14 June 2011

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List of Terms and Acronyms

List of Terms

Subscribers:

Subscribers are those who have subscribed to the Publications Distribution Service (PDS) of CTA, and receive CTA (co-)publications through a credit point system. To subscribe for the Publications Distribution Service of the CTA 'institutions and individuals should be active in agricultural and rural development and reside in ACP countries' (CTA Publications Catalogue 2009). Besides, since 2010, only organisations can apply for a free subscription to the PDS. A number of credit points is annually allocated to these subscribers, so that they can order publications free of charge. Subscribers can choose out of a broad range of manuals and books. Therefore, it does not necessarily mean that subscribers have specifically ordered Agrodoks. In this research however, to subscribers will be referred as those who ordered Agrodoks.

Readers:

Readers are those who read one or several Agrodok manuals.

Buyers:

Buyers are those who bought Agrodok manuals from Agromisa.

Agrodok:

The Agrodok series consists of 49 practical manuals concerning different agriculture-related topics, which are named Agrodoks.

List of Acronyms

CTA: The Technical Centre for Agricultural and Rural Cooperation

ACP: African, Caribbean, Pacific

RDI: Regional Development and Innovation

VHL: Van Hall Larenstein

PDS: Publications Distribution Service

EU: European Union

IPDD: Information Products and Dissemination Department

IPC: Information Products Committee

NGO: Non governmental organisation

GO: Governmental organisation

ICM: Information Communication Management

1. Introduction

The Agrodok series consists of 49 titles dealing with different agriculture-related topics. The series aims to improve the livelihoods of the rural population in the tropical and subtropical areas by providing knowledge on small-scale, sustainable agriculture. People living in rural areas in the South often depend on agriculture for their living and the series therefore aims at improving agricultural practices (including food processing), in order to make agriculture more sustainable and more profitable. Since 2001 there has been no evaluation on the Agrodok series, whereas a better insight on the usage and target group of the manuals would help to further improve the quality and accessibility of the manuals. Therefore, this research aims to gain insight on the impact of the Agrodoks on those who order them.

The series is written by authors commissioned by Agromisa, an NGO located in Wageningen. Agromisa sells the Agrodoks, but most are distributed free of charge by CTA. CTA distributes publications through its Publications Distribution Service (PDS), of which the members receive a certain number of credit points to order free publications from CTA. With these credit points publications can be ordered, including Agrodok manuals. Most of CTA's subscribers are not farmers, but intermediaries like libraries, NGOs, GOs, extension workers, and farmers' organisations.

In total, CTA has around 35.000 subscribers, and annually distributes 170.000 publications, of which around 5000 to 10.000 Agrodoks. (For more information about the CTA and Agromisa see chapter 3. The Agrodok series, page 13.)

After distribution neither CTA nor Agromisa has much insight on the impact and usage of the Agrodoks by their customers. In order to find this out, a digital questionnaire was developed and sent to subscribers of CTA, more specifically to those with an e-mail address who ordered Agrodoks in English (3000 in total). Besides, before doing research on the impact we first needed to know the intended impact of the Agrodok series. For answering this question, interviews were held with employees of CTA and Agromisa. Afterwards, we needed to define the concept 'impact'. The conceptualisation of the term 'impact' can be found in the conceptual framework (see 5. Conceptual Framework, page 16), in which indicators were defined for measuring the impact of the Agrodok series.

The survey that was sent to the subscribers of CTA aims to provide detailed information on how the subscribers use or used the Agrodok manuals. However, this is not the only way to measure the impact of the Agrodoks. The research also looks at how CTA and Agromisa try to respond to the needs of their target group. One can assume that the more the writers are aware of the needs of their target group, the more relevant the (topics of the) Agrodoks are.

Besides, the research also looks at the distribution statistics of CTA. Ordering and receiving the Agrodok manuals is the first step in what might become reading and using the content of the Agrodoks.

This report starts with background information on agricultural knowledge sharing in general (chapter 2). In this background information a theory can be found which forms the basis of the conceptual framework (chapter 5). The report continues with background information on the Agrodok series and its publishers, CTA and Agromisa (chapter 3). In chapter 4, a detailed problem definition with regards to the Agrodok series can be found. Chapter 5 contains the conceptual framework which defines the concept 'impact' into concrete, measurable indicators. The methodology (chapter 6) describes how results have been obtained and processed. In the next chapter (chapter 7), direct findings of the research can be found. In the chapter 'Results' (chapter 8) this information is analysed and answers are given to the research questions. The report ends up with a conclusion (chapter 9) in which the most important findings are summarised and answers are given to the main research question. From the conclusion recommendations (chapter 10) were formulated.

2. Agricultural Knowledge Sharing

The Agrodok series is a tool for agricultural knowledge sharing. On the basis of a literature review, this chapter will treat the principles of knowledge sharing in general, influences that can affect the impact of knowledge sharing, and indicators to measure impact. This theory forms the basis on which the conceptual framework has been developed (see chapter 5. Conceptual Framework, page 16).

Primarily, in this research knowledge is referred to as ‘the combination of data and information, to which is added expert opinion, skills and experience’ (Sehai, 2006). Secondly, knowledge sharing refers to ‘the process through which knowledge is channelled between a source and a recipient’ (Argote, 2000). More specifically, according to FAO and the World Bank (2000), knowledge sharing/management ‘links people and institutions to promote mutual learning and generate, share and utilize agriculture-related technology, knowledge and information’.

Experience and research show that successful knowledge sharing involves an extended learning process rather than simple communication processes, as ideas related to development and innovation need to be locally applied by local intermediaries. As reflected in the Agrodok series, the use of local and endogenous knowledge plays an important role in making knowledge locally applicable.

Successful agricultural knowledge sharing can lead to better practices and methods (like the downsizing of crop failure), higher yields, higher profits, etc.

Different influences on impact

As described in table 1, there are different contexts that enhance or hamper the potential impact of knowledge sharing. These will be further explained below.

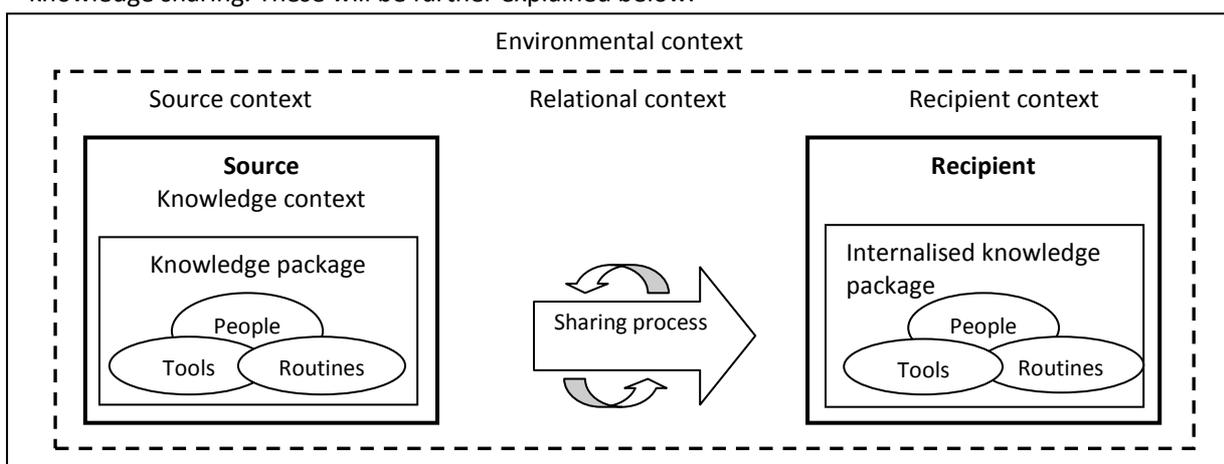


Table 1: Five contexts of knowledge sharing (Cummings, 2003)

The relational context in which the knowledge sharing takes place consists of five factors: the organisational distance, the physical location, the institutional distance, the knowledge distance, and relational distance.

- *The organisational distance* is indicated by the strength of social ties between the organisations, the free-flow of communication, similarity of administration, and levels of trust, which will be improved by interacting through defined structured arrangements.
- *The physical location* of organisations might affect the impact of knowledge sharing in terms of time requirements, (cultural/communicational) difficulties, and the costs of face-to-face meetings.
- *The institutional distance* refers to the difference between the institutional environments in which the organisations find themselves. It is assumed that the institutional environment of an organisation is often reflected in the organisation itself in terms of strategy and structure. With organisational structure is meant ‘the learned way of perceiving, thinking and feeling, shared and transmitted among organisational members’ (Schein, 1984).

- *The knowledge distance* is meant the gap between the possessed knowledge of the recipient and the source. Research has pointed out that the smaller the gap, the more effective the learning.
- *The relational distance* can be measured in terms of duration and quality of working together that both recipient and source have. The more experience the recipient and source organisations have in working together, the fewer problems they will encounter in knowledge transfer. Besides, similarities, in terms of social status and strategy of the organisation, ease communication and are therefore more likely to enhance the impact of knowledge sharing.

As for the Agrodok series, the physical distance between CTA and the recipient is often far. However, face-to-face meetings and seminars with the target group are organised by CTA. Besides, by cooperation with local ACP organisations, CTA is aware of the institutional environment of its target group and tries as much as possible to adapt to the needs of its target group in terms of content and form of the knowledge. (See 8.2.2 How does CTA try to respond to the needs of its target group?, page 42)

The knowledge context consists of two aspects; knowledge explicitness and embeddedness.

- With *knowledge explicitness* is meant the extent to which knowledge is verbalized, written or drawn. Tacit knowledge is hard to articulate, acquired through experience, non-verbalised, and intuitive. The explicitness of knowledge can be seen as the complexity of the knowledge and the extent to which the knowledge is explainable. The better explainable the knowledge is, the easier to successfully transfer the knowledge.
- *Embeddedness* refers to the extent to which people, tools, and routines of the recipient organisation will have to be adapted according to the new knowledge. The transfer of this kind of implementations is complex, since people have established patterns of working and feel comfortable with old routines.

Knowledge contained in the Agrodoks is mostly explicit since it refers to well explainable methods and practices, using clear illustrations and language. The level of embeddedness depends on the recipient and its familiarity with the proposed methods and practices.

The recipient context can also be seen as the learning predisposition of the organisation. Flexible recipient organisations that delegate responsibilities, tolerate creative mistakes, and provide time to work on new ideas are more likely to adapt to transferred knowledge (Davenport & Prusak, 1998). A learning culture is characterised by the facilitation of adaptation to transferred knowledge. This facilitation requires competences, time, and motivation to invest in (adaptation to) new knowledge. This enables the creation of ownership of, and commitment to knowledge in order to internalise the knowledge.

The source context relates to the idea that 'a capable source is able to manage knowledge-sharing activities in a way that improves a recipient's learning of the specific knowledge, much as a university professor structures lectures, readings and assignments to best facilitate their students' learning' (Cummings, 2003). In addition, a capable source will also try to best overcome difficulties recipients might have with the internalisation of knowledge.

As publishers of the Agrodok series, Agromisa takes the target group into account the writing process in order to make knowledge as suitable as possible. That is done by an appropriate selection of themes, authors, language, and illustrations.

The last context is the environmental context. This environment includes economic, cultural, political, and institutional aspects. These different environmental circumstances influence the relational context, the knowledge context, and the source and recipient contexts. It is therefore essential for CTA and Agromisa to consider the environmental context in order to make knowledge sharing successful.

Measuring Impact

After identifying the different contexts that can affect the impact of knowledge sharing, two stages of measuring impact are described. The first stage is knowledge internalisation, which exists of 'the degree to which a recipient obtains ownership of, commitment to, and satisfaction with the transferred knowledge' (Cummings, 2003).

- *Ownership* refers to the fact that the more a recipient internalises the knowledge, the more the knowledge becomes ‘theirs’. This is largely influenced by the energy, time, effort, and attention that are invested by the recipient in the knowledge.
- *Commitment* can be seen as the level of the recipient’s identification with the knowledge. This commitment can be developed by seeing the value of the knowledge, by developing ‘competence in using the knowledge’ (Leonard-Barton, 1990), by maintaining ‘a working relationship or interaction with the knowledge, and by being willing to put extra effort to work with the knowledge’ (Mowday, et al., 1979).
- *Satisfaction* is the last important aspect of knowledge internalisation. The higher the recipient’s satisfaction the less stress adaptation and application of the knowledge will cause. It is therefore likely that the more satisfactory the knowledge is, the more the knowledge will be used.

The second stage is the actual implementation of the knowledge, the so-called re-creation or ‘repackaging’. Knowledge can be divided into different packages used for different elements of an organisation or project. In this regard, re-creation is the process of un-packaging these knowledge packages and implementing the figurative packages into the recipient’s organisation or project. The impact of knowledge can be therefore measured by the amount of re-creation that has taken place. A prerequisite for effective re-creation is that the knowledge is made accessible and that the recipient can adapt the information to local needs.

With these measurements indicated above, this research will aim to identify the impact of the Agrodok series.

3. The Agrodok series

About Agromisa

Agromisa is a foundation located in Wageningen. In 1934 they started as a missionary advisory service, and evolved to a modern organisation for knowledge sharing. Their mission is to provide farmers and intermediary organisations with knowledge and skills on agriculture-related practises in tropical and subtropical areas. With this approach they want to improve the livelihoods of the rural population in the South. Agromisa's core principle is that people are able to change their living conditions by themselves, and that relevant knowledge is a prerequisite for achieving that.

Agromisa works with a few key strategies in order to make materials as useful as possible. One of the most important strategies is the fact they use endogenous knowledge. Agromisa organises so-called 'Writesops', in which the target group of the Agrodok series participates in the development and writing of new materials themselves. This enables farmers to document their experiences and to learn from the experiences of others. Moreover, employees and volunteers working on the manuals in the Netherlands all have, next to their academic background, years of experiences in the tropics. Therefore we can conclude that Agromisa does not only work with a farmer-to-farmer approach, but also combine it with academic knowledge.

About CTA

CTA is the co-publisher of the Agrodok Series and its main distributor. It was established in 1984 under the ACP-EU Cotonou Agreement and its headquarters are located in Wageningen, The Netherlands.

'CTA is a joint ACP-EU institution active in agricultural and rural development in ACP countries. Its mission is to advance food and nutritional security, increase prosperity and encourage sound natural resource management. It does this by providing access to information and knowledge, facilitating policy dialogue and strengthening the capacity of agricultural and rural development institutions and communities in ACP countries. CTA is financed by the European Union.' (CTA)

Annually they co-publish around 50 titles, of which five Agrodoks, either new titles or revised editions. Besides providing information products, they focus on are the promotion of communication channels to improve the flow of information like web portals and conferences. Furthermore they focus on capacity building in information and communication management (ICM).

The Partnership

CTA and Agromisa have been working together since the late 1980s. Agromisa is in charge of writing new and revising old Agrodoks. In agreement with CTA they yearly decide on new titles. The two organisations both have their own distribution channels, and CTA is responsible for approximately 70 percent of the distribution. Agromisa sells the books in hard copies and makes them free available on their web page. CTA distributes the largest share of the total amount of distributed Agrodoks, and has a complete different system. They use the Publications Distribution Service (PDS), through which the subscribers obtain credit points with which they can order different agriculture-related publications, including the Agrodoks. The Agrodok series is one of the most ordered items in CTA's catalogue.

The Agrodok series

The series currently consists of 49 titles related to small-scale, sustainable agriculture in tropical and subtropical areas. The manuals aim at improving agricultural practices and methods, and thereby also improving the livelihoods of the rural population. The manuals are written for (small-scale) farmers and those who work directly with farmers in the South. In the manuals both the theory and the practise are addressed, therefore it well serves as extension material, for teaching and training, or for solving practical farm problems.

Main themes within the Agrodok series

- Animal production (e.g. 'Small-scale chicken production in the tropics')
- Plant production (e.g. 'The home garden in the tropics')
- Food processing (e.g. 'Preservation of fish and meat')
- Soil water and environment (e.g. 'Erosion control in the tropics')
- Economics (e.g. 'The rural financial landscape')
- Miscellaneous (e.g. 'Mitigating the effects of HIV/AIDS in small-scale farming')

An entire list of all publications can be found in Annex 1 (see page 67).

Target Group

The final beneficiaries of the Agrodok series are supposed to be farmers, but most of the manuals are ordered by so-called intermediaries like NGOs, GOs, researchers, extension workers, universities, and libraries. Part of the aim of this research is to gain a better insight on the exact users of the Agrodoks.

Gender

Since women often play an important role in small-scale farming in rural areas in the South, the series also carefully addresses gender issues. This is done by selecting suitable illustrations that also represent women, and by choosing appropriate language that does not exclude either males or females. Besides, some publications are written by female authors, ensuring that women are addressed in the Agrodoks.

At CTA, gender is a cross-cutting issue; they try to include gender issues not only in terms of content and subjects of the publications, but also in terms of dissemination. In the process of dissemination of the Agrodok series, the CTA for example addresses women's organisations.

Endogenous Knowledge

With regards to the content of the Agrodoks, the writers incorporate endogenous knowledge, ensuring that the content of the manuals suits local habits and climate. This endogenous knowledge mostly comes from the writers of the manuals. The writers might be either volunteers who have been working abroad or locals with expertise on the Agrodok subject.

Besides, Agromisa organises writeshops, workshops in which the target group of the Agrodok series participates in the development and writing of new materials themselves. In these writeshops, endogenous knowledge is exchanged and used as basis for new Agrodoks.

Language and Format

The CTA and Agromisa try to make the series as accessible as possible for its target group. First of all this is done by publishing the manuals in English, French, Portuguese, and to a limited extent in Swahili. Some Agrodoks are translated by local partners of Agromisa into other languages like Spanish and Japanese. Moreover, by applying a flexible copyright policy, the organisations ensure an enhanced accessibility of the manuals. Because of the flexible copyrights, local partners in the South can adjust the information and language to their regional target group.

Lastly, the books are available in hard-copy and are the full versions of all manuals free available on the websites of both the CTA and Agromisa. This enhances the accessibility for those with internet disposal, since the Agrodoks can be freely downloaded.

4. Challenges in the impact of the Agrodok Series

In the last decades more emphasis was placed on the development and dissemination of knowledge-based aid to people in the South. It is believed that developing countries are poor because of a lack of adequate knowledge. In development aid, knowledge is considered to be one of the most important factors for change. Also 'the Millennium Development Goals and the World Summit on the Information Society have underlined the important role of information for achieving rural development and improving livelihoods. Major preconditions are the political will of the African, Caribbean and Pacific governments, and investment in the information infrastructure' (CTA, 2006).

Therefore it is important to know whether disseminated knowledge reaches its target group, how knowledge is being used, and whether the knowledge has an impact.

Adapt to the needs of the target group

The main difficulty is the fact that the Agrodoks are distributed for free by CTA, and that CTA does not know whether information is actually used. Both CTA and Agromisa only receive anecdotal feedback. However, in order to be able to improve the quality and relevance of the series, it is important to know what impact the manuals have, and how and by whom the manuals are used. Moreover, ACP countries are characterised by a steady change, and it is therefore that CTA needs to continuously adapt to these changes in terms of themes, services, and products.

Until now, there has not been any systematic evaluation done on the Agrodok series and the satisfaction level of its recipients. Both CTA and Agromisa receive random feedback every once in a while, however, due to its randomness it cannot be stated that this feedback is necessarily representative. This can be underlined by the recent evaluation by ITAD stating that 'the perceived impact of CTA products and services is high but the evidence for this is anecdotal'. Moreover, since the target group of CTA is mainly housed on other continents, witnessing the successfulness of the Agrodoks is difficult.

The only factual feedback on the Agrodok series CTA and Agromisa receive are the amounts of manuals distributed and sold. The relevance of the distribution statistics is limited however, since CTA's subscribers obtain the Agrodoks for free. The distribution can be therefore only considered as a first step in analysing the possible impact. Secondly it is to be figured out whether the manuals are actually read, and at last, whether concrete interventions are derived from the Agrodoks.

Justify the relevance for donor funds

Better knowing the impact of the Agrodok series would be of use, not only to the organisations' target groups, but also to those who provide financial resources to CTA and Agromisa.

As stated by Margot Bellamy, 'bottom line issues are generally return on investment for the provider of funds, accountability, and the need for the recipient to be able to justify the case for further funding' (Bellamy). CTA receives subsidy from the European Union, and Agromisa receives funding from private donors and charity organisations. It is important to proof the relevance of the Agrodok series to these funds.

5. Conceptual Framework

In order to do research on the impact of the Agrodok series, it is needed to translate the concept 'impact' into something observable and measurable. This chapter aims at defining and clarifying the concept of 'impact' and develop indicators for it. These indicators are the basis on which sub research questions and questionnaire questions have been formulated.

With regards to the actual implementation of knowledge two stages can be identified. The first stage is knowledge internalisation; knowledge internalisation exists of 'the degree to which a recipient obtains ownership of, commitment to, and satisfaction with the transferred knowledge' (Cummings, 2003).

Ownership

The following question aimed to give insight in the amount of ownership subscribers acquired:

- 'How do you (or for librarians, your readers) normally read the Agrodoks?'
- 'Do you (or for librarians, your readers) find the Agrodoks easy to understand?'

Ownership refers to the fact that the more a recipient internalises the knowledge, the more the knowledge becomes 'theirs'. This is largely influenced by the energy, time, effort, and attention that are invested by the recipient in the knowledge. This question provides insight on the extent to which subscribers read the Agrodoks. On the basis of the results an indication can be given of the extent of ownership acquired by the subscribers.

Commitment

To measure 'commitment' the questionnaire poses the following questions:

- 'What is your profession?'
- 'Why do you read the Agrodok manuals?'

The profession of the subscribers can be seen as part of the identification subscribers have with the knowledge. It is assumed that the more familiar the subscribers are with the knowledge, the more they can identify themselves with the knowledge and the more they will therefore commit to the knowledge. Besides, part of the extent to which the subscribers have acquired commitment to the knowledge can be measured by the question whether they maintain a working relationship with the Agrodoks. The question 'why do you read the manuals?' gives insight in the question whether subscribers use and work with the knowledge contained in the Agrodoks.

Satisfaction

The higher the recipient's satisfaction the less stress adaptation and application of the knowledge will cause. It is therefore likely that the more satisfactory the knowledge is, the more the knowledge will be used. The following questions give insight on the level of satisfaction of the subscribers:

- 'Does the information contained in the Agrodoks meet your (or for librarians, your readers') expectations?'
- 'Suggestions to improve the Agrodok series'
- 'Has the Agrodok series helped you improve your activities?'

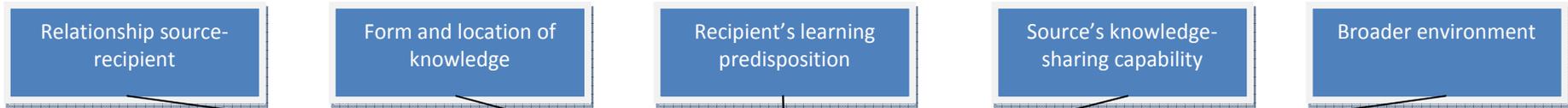
Re-creation

The second stage is the actual implementation of the knowledge, so-called 're-creation'. In the questionnaire questions in order to measure the amount of re-creation created by the interviewee were posed. These questions are:

- 'What do you do, most frequently, with the Agrodok manual(s) once you have finished reading it/them?'
- 'For whose benefit did you obtain the Agrodok(s)?'
- 'Do you use the information in the Agrodoks to produce other agricultural information material?'
- 'Tell impact stories'

Re-creation consists of the transformation of knowledge into either practical interventions or into other informational materials. The questions above will give insight in the question whether subscribers re-created the information contained in the Agrodoks, and if so, for whom, and for what purpose.

Influences



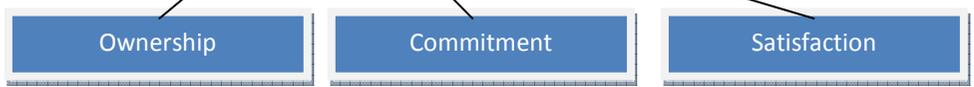
Concept



Dimensions



Sub dimensions



Indicators

(Questionnaire questions)



Table 2: Visualisation Conceptual Framework

6. Research Design

The main objective of this research is to indicate what impact the Agrodok series has on the subscribers of CTA. The main research question is therefore as follows: 'What is the impact of the Agrodok series on the subscribers of CTA?'

In this regard, the following research questions were formulated:

- What is the intended impact of the Agrodok series?
- Does the Agrodok series respond to the needs of its target group?
- How is the Agrodok series distributed?
- To what extent did CTA's subscribers acquire ownership of the knowledge contained in the Agrodoks?
- To what extent did CTA's subscribers commit to the knowledge contained in the Agrodoks?
- To what extent are CTA's subscribers satisfied with the knowledge contained in the Agrodoks?
- To what extent did re-creation of the Agrodok series take place?

Interviews

In order to answer the research questions 'what is the intended impact of the Agrodok series?', 'how does the Agrodok series respond to the needs of its target group?', and 'how is the Agrodok series distributed?' interviews were held with Jenessi Matturi and Murielle Vandreck from CTA and with Roy Keijzer from Agromisa.

The first research question 'what is the intended impact of the Agrodok series?' aims to answer what the intended impact of the Agrodok series is, according to CTA and Agromisa. In order to carry out an impact assessment we first need to know what the intended impact of the intervention is, and how the intended impact is to be achieved.

Secondly, the research aimed to gain insight on how the Agrodok series responds to the needs of its target group. By interviewing key persons of CTA and Agromisa it has been found out how CTA and Agromisa know what the needs of their target group are and how they incorporate these needs in the series. Besides, the subscribers indicated priority themes and specific topics they would like to see covered in future Agrodoks. These results were included in this research question, so to find out whether the Agrodok series indeed addresses the subscribers' needs.

The third research question helps to better define the readers of the Agrodok Series. CTA and Agromisa kept track of to whom they distributed the Agrodoks. By looking at these databases insight was gained in the amount of readers and amounts of distributed Agrodoks. Besides, this research question aims to give more insight in how the organisations distribute the Agrodoks.

These first 3 sub research questions were mainly answered by interviewing key persons of CTA and Agromisa, and have been underpinned with results of the questionnaire. Questions number 4, 5, 6, and 7 are merely based on the results of the questionnaire.

Questionnaire

In order to measure the impact of the Agrodok series on CTA's subscribers, a questionnaire was made. This questionnaire was announced in the first E-zine, released at the end of March 2011. Secondly, on the 1st of April, the questionnaire was sent out to around 3000 e-mail addresses of subscribers of CTA. Important to mention is the fact that among these 3000 e-mail addresses only subscribers who ordered Agrodoks in English were invited to participate in the questionnaire. The deadline for subscribers to fill in the questionnaire was on the 26th of April, in this regard, subscribers had almost 4 weeks to fill in the questionnaire. All participants of the questionnaire were rewarded with 3 complementary Agrodoks of their own choice.

6.1 Data Collection

The first three research questions were answered by interviewing key persons of CTA and Agromisa. The first interview was held with Roy Keijzer, Coordinator Knowledge Centre, Agromisa. As key person in the organisation he is the adequate person to ask about Agromisa's strategy and about how Agromisa tries to respond to the needs of its target group. In order to find answers to the same questions with regards to CTA, another interview was held with Murielle Vandreck, Information Products and Dissemination Department. Another interview was held with Jenessi Matturi, Information Products and Dissemination Department (and member of the Information Products Committee), to gain insight on how CTA tries to respond to the needs of its target group.

Use has been made of semi-structured interviews in which key questions form guidance but which also allows spontaneous questions as a result of what the interviewee says. (For interview structure see Annex 2 and Annex 3, page 55 and 56)

In order to answer research questions 4, 5, 6, and 7 a questionnaire was made with the survey tool 'SurveyMonkey'. SurveyMonkey is a company that provides a website for the digital development and sending of surveys. The format and content of this survey have been designed on the basis of the conceptual framework (see Conceptual Framework, page 16). (For the full questionnaire, see Annex 4, page 57) The indicators of the conceptual framework directly form the questions of questionnaire. These questionnaire questions on their turn, will answer the research and main research questions.

6.2 Data Processing

After closure of the survey the results of the questionnaires were automatically processed in the programme 'SurveyMonkey'. Open answer questions were exported to Excel and categorised into categories. By means of Excel, these categories have been processed into tables and graphs.

Subsequently, the outcomes are presented, analysed, and concluded in the chapters 'Findings of the Questionnaire' (see page 23), 'Discussion of the Results' (see page 42), and 'Conclusion' (see page 50). Moreover, the open interviews held with employees of CTA and Agromisa can be found in 'Findings of the Research' (see page 20) and analysed in the 'Discussion of the Results' (see page 42) as well.

6.3 Limitations

Looking at the impact of the Agrodoks, it has to be considered that the reading of the Agrodok might not be the only reason for implementation. There might have been other factors influencing the readers of the Agrodoks in their decision to implement new practices. As stated by J.A. Berdegué and G. Escobar, 'Innovation is the result of the interaction of a multitude of agents and stakeholders. If agricultural research and extension are important to agricultural innovation, so are markets, systems of government, social norms, and, in general, a host of factors that create the incentives for a farmer to decide to change the way in which he or she works, and that reward or frustrate his or her decisions' (Berdegué & Escobar, 2001). It is however assumable that there is a link between observed implementations and the Agrodok, as long as the link is plausible.

Another limitation of this research is the availability of valid e-mail addresses of the subscribers of CTA. Of the 35.000 subscribers of CTA, only 3000 subscribers have a valid e-mail address. Moreover, not all of these 3000 e-mail accounts might have been valid. (This problem will be solved with the implementation of a new system at the end of 2011)

Further limiting is the fact that due to language restrictions, the questionnaire was addressed only to those who ordered Agrodoks in English.

These two limitations described above might influence the outcome of the research. This has to be kept in mind while drawing conclusions. Nevertheless, biases were disproved by comparing the results of this questionnaire with the results of the 'AgroSpecial 4, Evaluation Agrodok Questionnaires, An overview of all questionnaires used during the period 1985-2001'.

7. Findings of the Research

7.1 Findings of the Interviews

Interview Roy Keijzer, Coordinator Knowledge Centre, Agromisa

Objectives

1. What are the objectives of Agromisa/the Agrodok series?

We try to publish/revise at least 5 manuals per year. Of every new/revised edition we normally print 1700 copies in English, 1700 copies in French, and 350 copies in Portuguese. Occasionally we also print in other languages like Spanish or local languages. Of these 3750 hardcopies 3250 manuals are sent to CTA, for their distribution. Agromisa aims to sell and distribute at least 150 hardcopies of this new edition during the first year. Total sales and free distribution of Agrodok and other publications is around 3500 manuals per year. Besides, most of our publications are free downloadable from the web page, from Internet and from CTA's website.

2. What is the policy of Agromisa to reach their objectives?

To publish Agrodoks is not an objective in itself, but it is a networking tool and of course a way of earning funds to keep the organisation ongoing. Using the content of our practical books by farmers in the South we see it also as a tool for achieving our mission 'to improve livelihoods of the rural poor in the South'.

Decision making process on new/revised Agrodoks

3. What is the target group of the Agrodok series?

The information targets both male and female farmers. However, the manuals are often sold to intermediaries like extension workers and local NGOs and Farmers organisations to 'translate' knowledge and use it for educational purposes with for example farmers.

4. How do you know what the needs of your target group are?

Amongst others from *Spore*, the magazine published by CTA. If we see there are many questions about a certain theme we know it is a reason for a new publication. Also by means of our Question-and-Answer Service we receive questions from the field by which we know what is of interest to our target group.

During the decision making process we present all new titles or proposals for revisions, translations and local publishing to CTA for their approval or information.

For the revision of old Agrodoks we look at the popularity of a title and see what feedback was given in order to update it and adapt it to the needs of our target audience.

5. How does Agromisa try to respond to the needs of its target group?

Local partners often ask if they may use the Agrodoks for teaching and training. That is why we try to keep the copyrights as flexible as possible, so that local partner organisations can use and adapt information from the Agrodoks for non-commercial purposes.

Besides, since we target farmers with the Agrodok series, even though the manuals are not directly used by farmers, we try to keep the language and illustrations as clear as possible. This is done in order to make it easy for the intermediaries to translate the language for educational purposes.

Distribution

6. How does Agromisa distribute the Agrodok series?

Besides CTA and our own distribution there are other organisations who sell the Agrodoks via their bookshop or library. More importantly, our publications are online downloadable. That is how we score many hits on Google, especially organisations in North and South America often download Agrodoks from the Internet. These statistics however, are not very specific and give no detailed insight in target group, usage or impact of the Agrodok series.

Gender and endogenous knowledge

7. How are gender issues addressed in the Agrodok series?

Many publications are partly written by women. Moreover, illustrations play an important role since they often represent women. Also in terms of language we always keep it neutral and never refer to gender.

The topics of some of our publications are very much female-oriented and others less.

8. How do you incorporate endogenous knowledge in the Agrodoks?

Many publications are written with and by locals or by experienced volunteers. These volunteers are aware of local circumstances and practices which they keep in mind while writing.

As Agromisa we see a future in which Agrodoks could be open documents on the Internet, like Wikipedia, which people may extend, adapt, and use to their own needs.

Interview Jennesi Matturi, Information Products and Dissemination Department, CTA

What is the IPC?

That is the Information Products Committee, which is made up of key members from the IPDD (Information Products and Dissemination Department) as well as representatives from each of the other CTA Departments. Proposals for publications are sent to the IPC and we decide either to reject or recommend them for support. Per year we co-publish around 35-40 publications, under which the Agrodok manuals.

Decision making process on new/revised Agrodoks

1. What is the target group of the Agrodoks?

Agrodoks are practical booklets and therefore appeal to people who want hands-on knowledge. Target groups include extension workers, small-scale farmers and rural development actors.

2. How do you know what the needs of your target group are?

Mainly we get this information from the distribution statistics from our Publications Distribution Service (PDS). In this way, we can tell what topics are the most popular or well demanded by our subscribers.

For example, the following topics have proved popular with our readers: post-harvest activities, processing and marketing.

We also sometimes get feedback from the field through local ACP partner organisations and consultants, because due to their physical location, they sometimes have a better insight into the needs of the target groups. Through the feedback from partners, we sometimes receive proposals on new themes. We also get information from needs assessment studies which we carry out. So mostly our (co)publications result from proposals that CTA receives but we might also decide to commission publications ourselves, when needed.

3. How do you try to respond to the needs of your target group with the Agrodoks? In other words, how do you decide on subjects for new Agrodoks?

We have an annual planning meeting with Agromisa to discuss possible titles which could be included in the Agrodok Series. On this basis, the various titles are developed and once we (IPC) have the outline and/or sample chapters, we can then decide whether to go ahead with the publication or not. We sometimes give suggestions on proposals of Agromisa, to try to improve them and make the publications more relevant in terms of subject and content.

4. How do you revise less popular Agrodoks?

For revisions, we usually consider titles which are more than 5 years old. Also, the need for revision will depend on the topic: some topics are fast-changing, others are not. We discuss revisions during the annual planning meeting between CTA and Agromisa.

In general, CTA promote the series at seminars and book fairs for example; we also announce all titles in *Spore*, our bimonthly magazine. And also when there is a *Spore* article on a topic which is covered by an Agrodok, we will promote that Agrodok there as well, as a source of further information. Series such as

the Agrodoks tend to be easier to promote once they are well-known and established. Once our subscribers consider the manuals as relevant, new titles are easy to market as well.

We have recently taken steps to try to make the series more attractive in order to try to enlarge its impact. We think that more people would buy/order and read the Agrodoks if they had a more attractive cover and lay-out. This is being done in collaboration with Agromisa but is, however, still pending completion.

Gender and endogenous knowledge

5. How do you try to address gender issues with the Agrodok series?

These are cross-cutting issues for CTA and so they remain very relevant. With specific reference to the Agrodoks, the gender issues are dealt with in accordance with the topic or theme being dealt within the manuals. As mentioned earlier, CTA has to approve the proposed outline and samples chapters of each Agrodok before they can be developed. This means that CTA will make comments as necessary, and Agromisa makes sure that any pertinent issues are addressed with the authors. For the dissemination, we also try to target for example women's organisations.

Interview Murielle Vandreck, Information Products and Dissemination Department, CTA

Objectives

1. What are the objectives of CTA in terms of distribution of Agrodoks?

Until last year our aim was to increase the outreach of our publications. We wanted to distribute as many copies as possible hoping to reach the remotest places in ACP countries. With our new Strategic Plan we now focus more on the impact and less on the outreach. We want to know how the Agrodoks are used and we want to encourage our subscribers to repackage their content (e.g., by reusing the content in other publications, training or teaching materials or in other medias, by translating it into local languages). In 2009 we distributed many Agrodoks, 10.010 in total. We would like to maintain this level of distribution while carefully monitoring the impact of the series.

2. How do you try to reach these objectives?

Maintaining the level of distribution of 2009

We want to promote our publications more. That is why we recently launched our E-zine. The first issue was dedicated to the Agrodok series. The only disadvantage is that the E-zine is only sent to the subscribers who have an e-mail address. A next step would be to send the magazine in a printed format to those who do not have any e-mail address.

It is also important that Agromisa and CTA co-publish new Agrodoks and revised versions every year. With new offers we maintain our subscribers' interest in the complete Agrodok series. In 2010 there was only one new Agrodok in our catalogue and our distribution statistics clearly indicate that we distributed fewer manuals.

Monitoring impact

In order to make sure the Agrodoks are reused, repackaged, translated or used for solving practical problems, we carefully select our subscribers. We now target organisations in ACP countries, active in agriculture and rural development and we encourage them to order and to share the publications they receive. When our new database (including a web interface) is operational, we will reward our subscribers who actively use their credit points while inactivating those who have not ordered for two years. We also want to regularly interview our subscribers on the way they use our publications and collect impact stories.

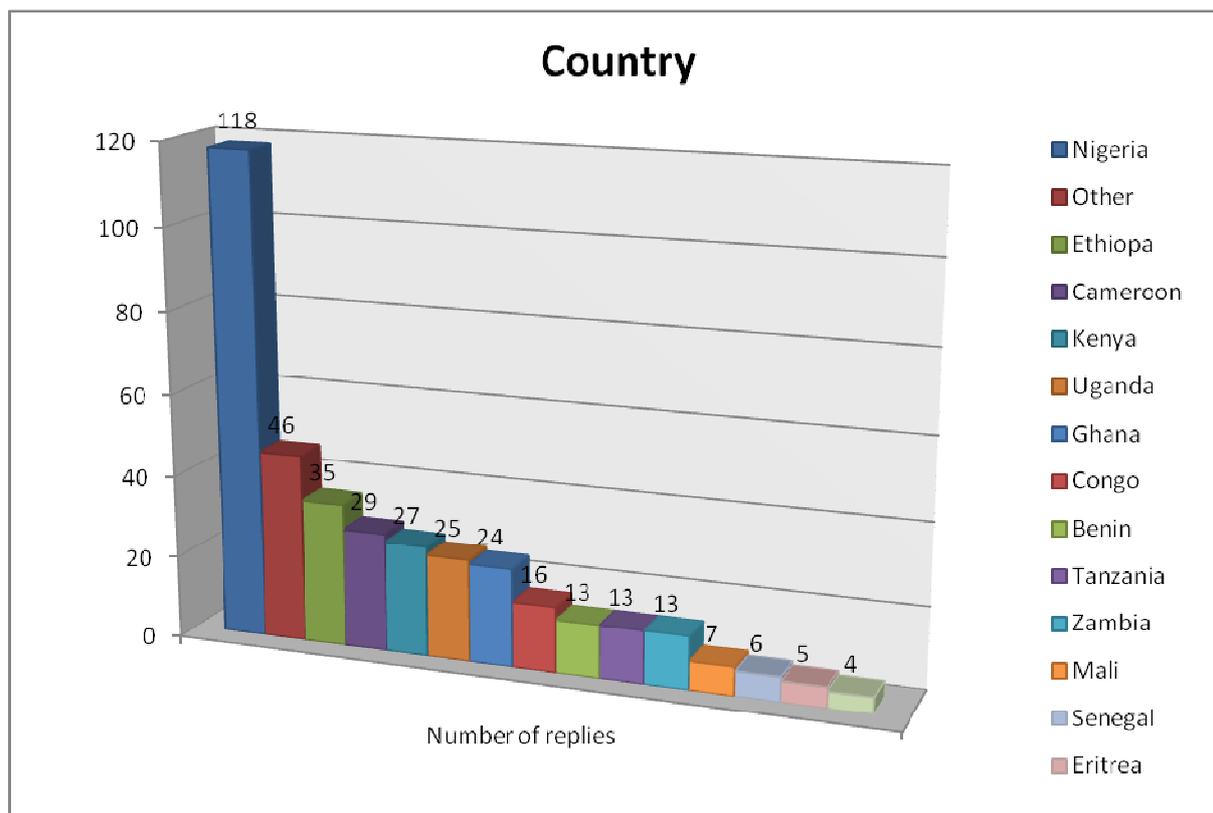
7.2 Findings of the Questionnaire

On the following pages, the processed results of the digital questionnaire can be found. The questionnaire was sent to around 3000 e-mail addresses of CTA's subscribers. In total, 397 subscribers participated in the questionnaire. However, not all questions were answered by all subscribers. All these details can be found in the following graphs and tables.

General Profile

Gender	Number of replies	Percentage
Men	352	91.6
Women	32	8.4
<i>Total respondents</i>	397	100.0
<i>Skipped</i>	13	

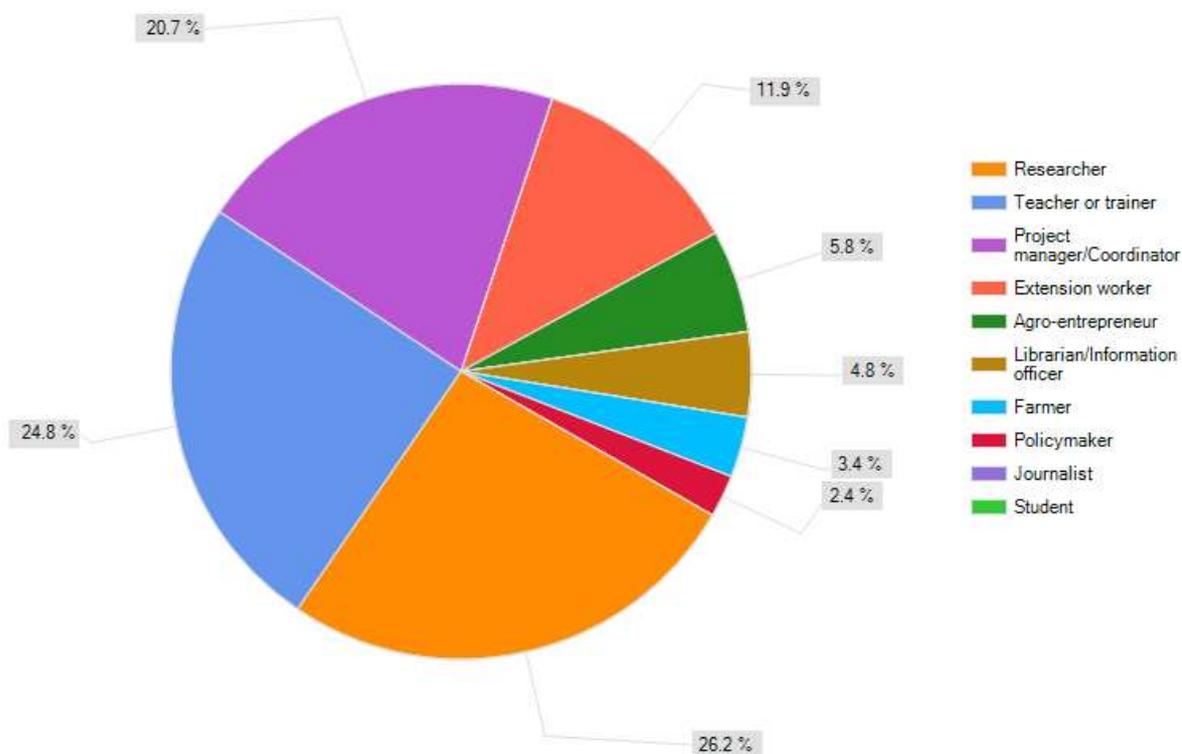
Table 3: Gender



Country	Number of replies	Percentage
Nigeria	118	30.4
Ethiopia	35	9.0
Cameroon	29	7.5
Kenya	27	7.0
Uganda	25	6.4
Ghana	24	6.2
Congo	16	4.1
Benin	13	3.4
Tanzania	13	3.4
Zambia	13	3.4
Mali	7	1.8
Senegal	6	1.6
Eritrea	5	1.3
Other	46	14.5
<i>Total respondents</i>	<i>387</i>	<i>100.0</i>
<i>Skipped</i>	<i>10</i>	

Table 4: Country

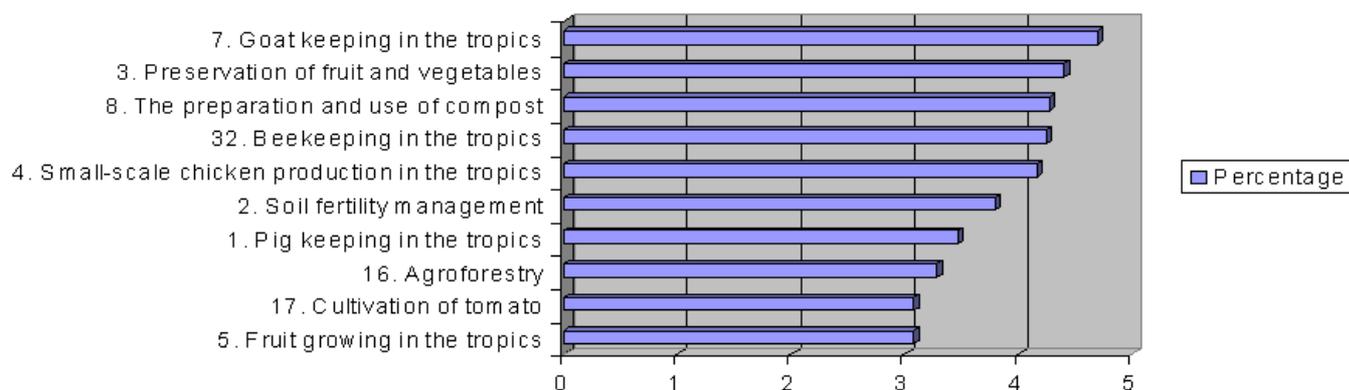
What is your profession?



Profession	Number of replies	Percentage
Researcher	77	25.8
Teacher or trainer	73	24.5
Project manager/Coordinator	63	21.1
Extension worker	36	12.1
Agro-entrepreneur	17	5.7
Librarian/Information officer	14	4.7
Farmer	11	3.7
Policymaker	7	2.3
Journalist	0	0.0
Student	0	0.0
<i>Total respondents</i>	<i>298</i>	<i>100.0</i>
<i>Skipped</i>	<i>99</i>	

Table 5: Profession

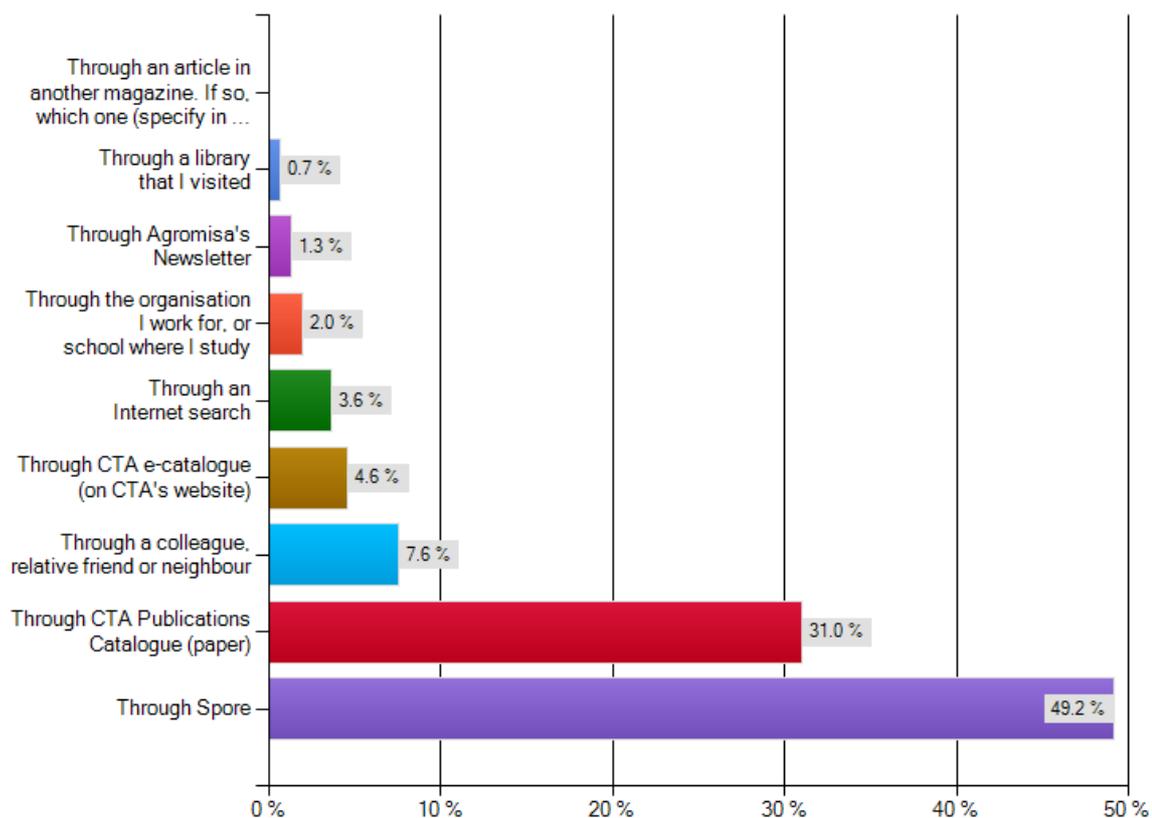
Most ordered Agrodoks



Most ordered Agrodoks	Number of replies	Percentage
7. Goat keeping in the tropics	156	4.69
3. Preservation of fruit and vegetables	146	4.39
8. The preparation and use of compost	142	4.27
32. Beekeeping in the tropics	141	4.24
4. Small-scale chicken production in the tropics	138	4.15
2. Soil fertility management	126	3.79
1. Pig keeping in the tropics	115	3.46
16. Agroforestry	109	3.28
17. Cultivation of tomato	102	3.07
5. Fruit growing in the tropics	102	3.07
14. Dairy cattle husbandry	91	2.74
15. Small-scale freshwater fish farming	88	2.65
20. Backyard rabbit keeping in the tropics	87	2.62
12. Preservation of fish and meat	85	2.56
13. Water harvesting and soil moisture retention	79	2.38
21. On-farm fish culture	76	2.29
9. The home garden in the tropics	72	2.17
42. Bee products	70	2.11
26. Marketing for small-scale producers	69	2.08
11. Erosion control in the tropics	67	2.02
Others	1264	37.7
<i>Total answers (multiple choiche answer)</i>	<i>3325</i>	<i>967</i>
<i>Total respondents</i>	<i>344</i>	<i>100.0</i>
<i>Skipped</i>	<i>48</i>	

Table 6: Most ordered Agrodoks

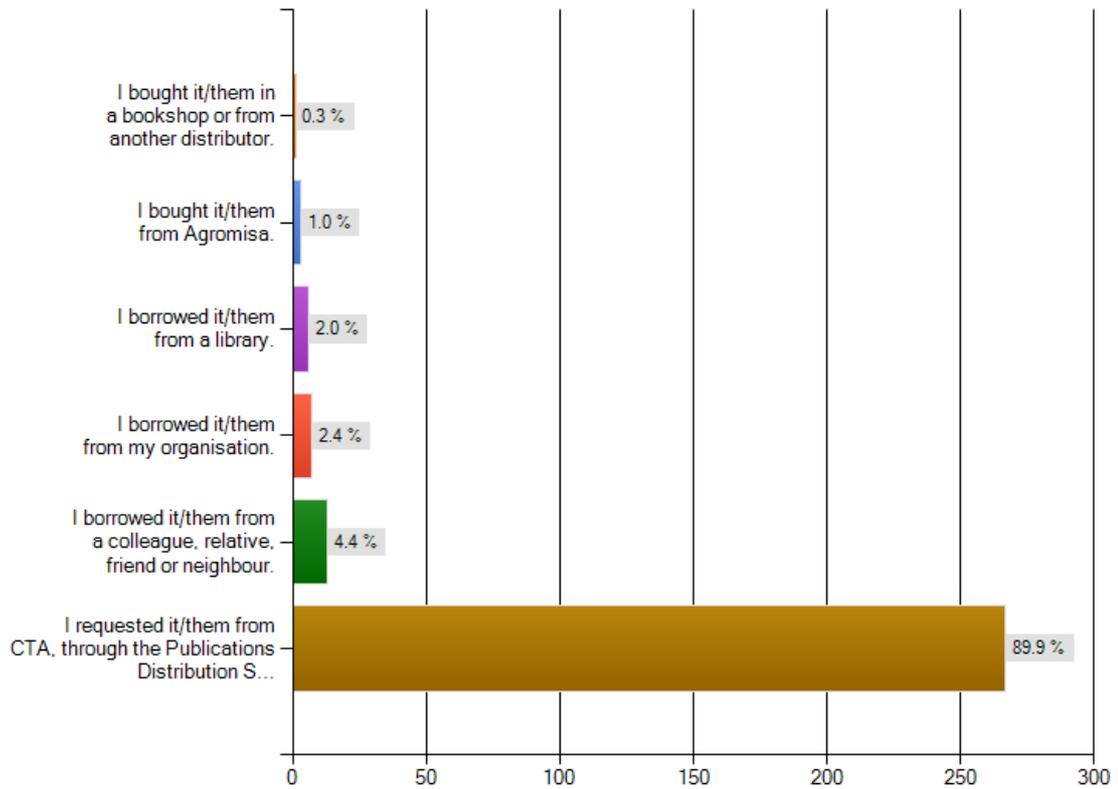
How did you hear about the Agrodok Series?



Awarenes of the Agrodok series	Number of replies	Percentage
Through <i>Spore</i>	150	48.9
Through CTA Publications Catalogue (paper)	96	31.3
Through a colleague, relative, friend or neighbour	23	7.5
Through CTA e-catalogue (on CTA's website)	15	4.9
Through an Internet search	11	3.6
Through the organisation I work for, or school where I study	6	2.0
Through Agromisa's Newsletter	4	1.3
Through a library that I visited	2	0.7
Through an article in another magazine	0	0.0
<i>Total respondents</i>	<i>307</i>	<i>100.0</i>
<i>Skipped</i>	<i>90</i>	

Table 7: Awareness of the Agrodok series

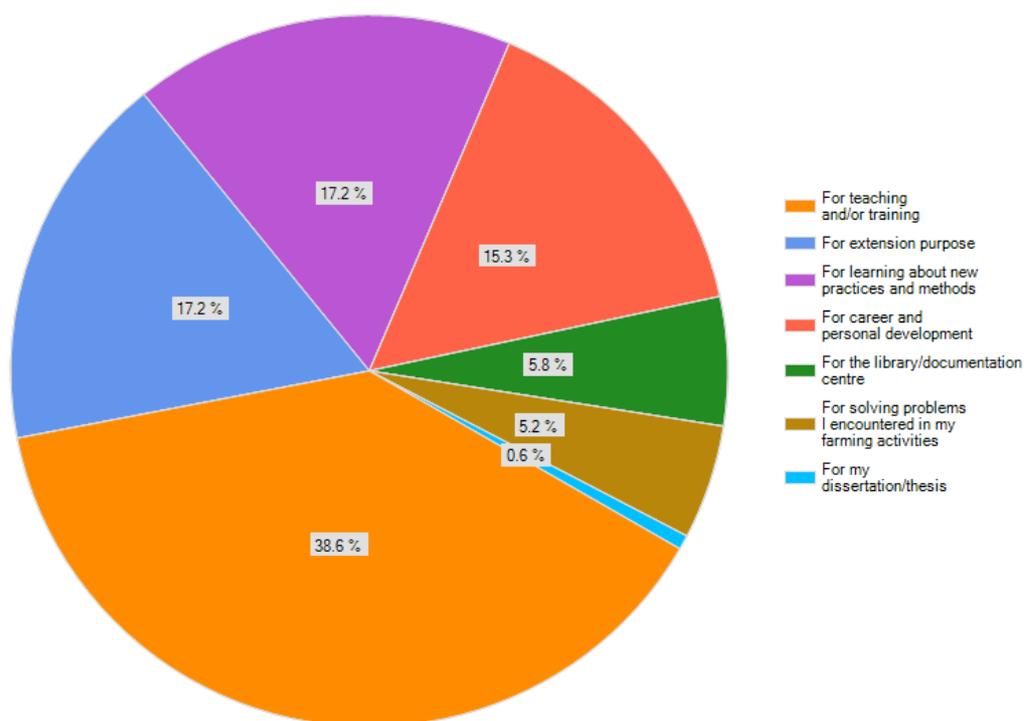
How did you or your organisation obtain the Agrodok(s)?



Obtainment of the Agrodoks	Number of replies	Percentage
I requested it/them from CTA, through the Publications Distribution Service	271	90.0
I borrowed it/them from a colleague, relative, friend or neighbour	13	4.3
I borrowed it/them from my organisation	7	2.3
I bought it/them from Agromisa	3	1.0
I bought it/them in a bookshop or from another distributor	1	0.3
<i>Total respondents</i>	<i>301</i>	<i>100.0</i>
<i>Skipped</i>	<i>96</i>	

Table 8: Obtainment of the Agrodoks

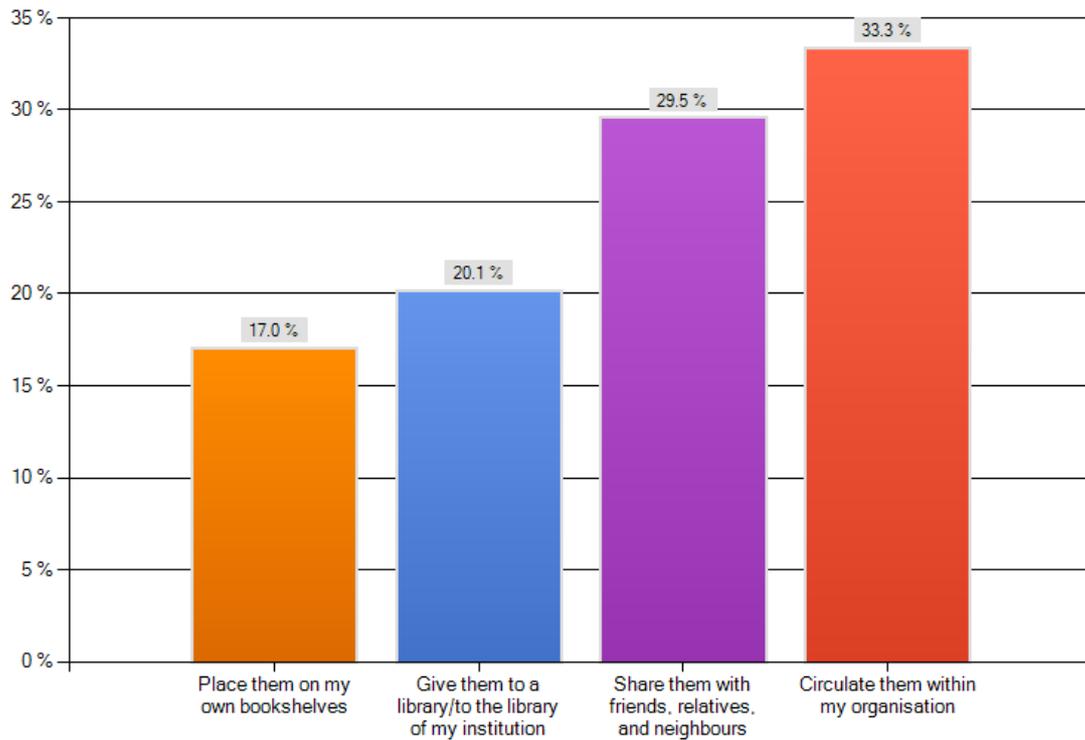
Why do you read the Agrodok manuals?



Reason for reading the Agrodoks	Number of replies	Percentage
For teaching and/or training	119	38.6
For extension purpose	53	17.2
For learning about new practices and methods	53	17.2
For career and personal development	47	15.3
For the library/documentation centre	18	5.8
For solving problems I encountered in my farming activities	16	5.2
For my dissertation/thesis	2	0.6
<i>Total respondents</i>	<i>308</i>	<i>100.0</i>
<i>Skipped</i>	<i>89</i>	

Table 9: Reason for reading the Agrodoks

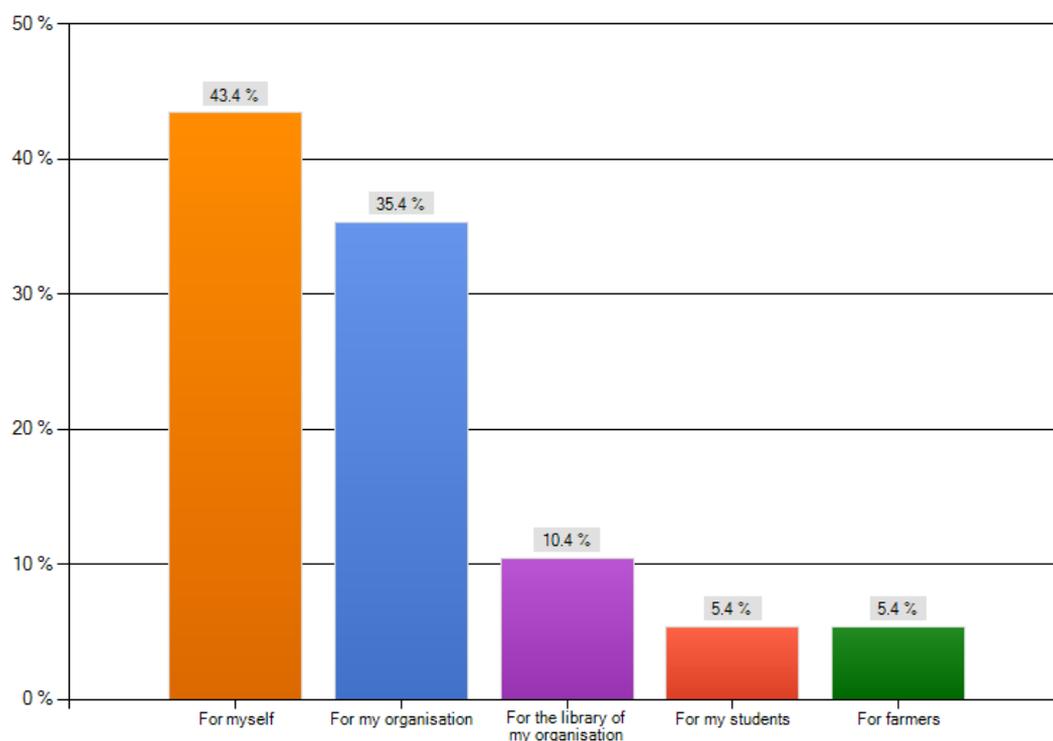
What do you do, most frequently, with the Agrodok manual(s) once you have finished reading it/them?



Usage of the Agrodoks after reading	Number of replies	Percentage
Circulate them within my organisation	99	33.9
Share them with friends, relatives, and neighbours	85	29.1
Give them to a library/to the library of my institution	58	19.9
Place them on my own bookshelves	50	17.1
<i>Total respondents</i>	<i>292</i>	<i>100.0</i>
<i>Skipped</i>	<i>105</i>	

Table 10: Usage of the Agrodoks after reading

For whom did you obtain the Agrodok(s)?

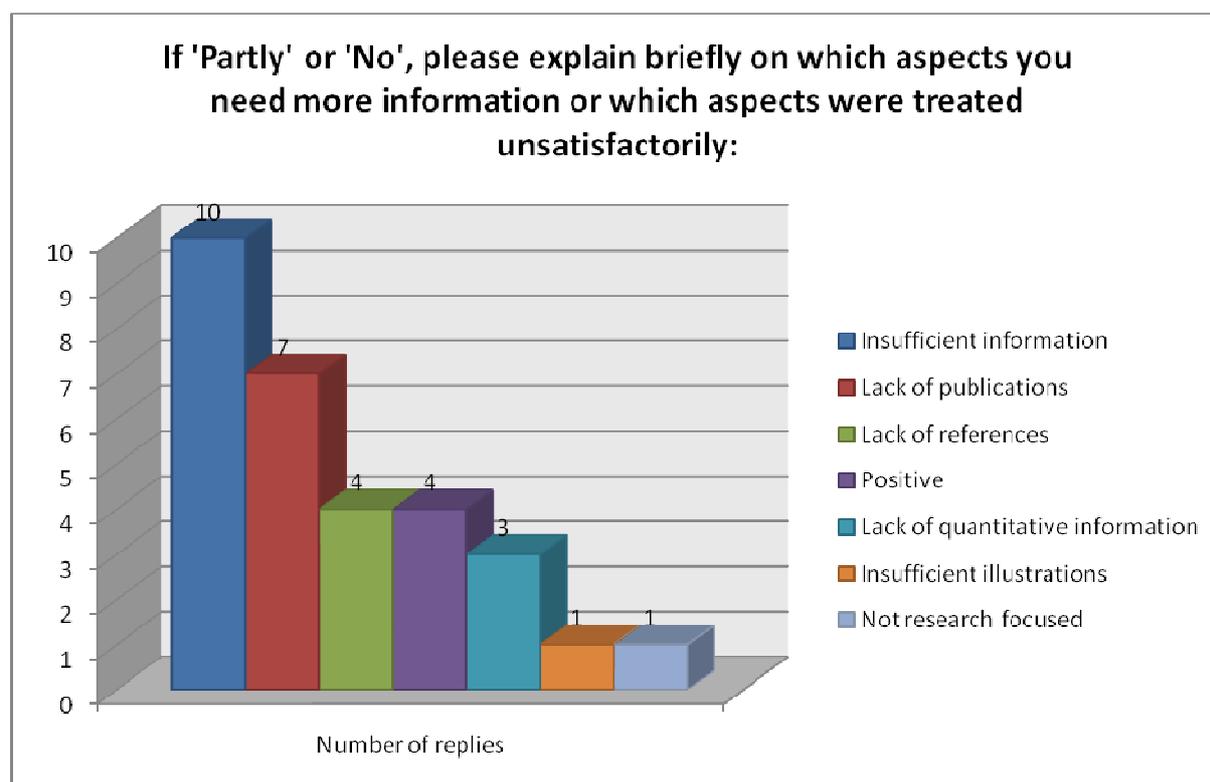


Beneficiaries of the Agrodoks	Number of replies	Percentage
The subscriber him/herself	129	42.9
The subscriber's organisation	108	35.9
The library of subscriber's organisation	31	10.3
Students	17	5.6
Farmers	16	5.3
<i>Total respondents</i>	<i>301</i>	<i>100.0</i>
<i>Skipped</i>	<i>96</i>	

Table 11: Beneficiaries of the Agrodoks

Does the information contained in the Agrodoks meet your expectations (or those of your readers)?	Number of replies	Percentage
Yes	282	90.4
Partly	30	9.6
No	0	0.0
<i>Total respondents</i>	<i>312</i>	<i>100.0</i>
<i>Skipped</i>	<i>85</i>	

Table 12: Satisfaction with the information in the Agrodoks



Aspects that were treated unsatisfactorily in the Agrodoks	Number of replies	Percentage
Insufficient information	10	25.0
Lack of topics	7	17.5
Lack of references	4	10.0
Lack of quantitative information	3	7.5
Insufficient illustrations	1	2.5
Not research focused	1	2.5
<i>Total respondents</i>	<i>40</i>	<i>100.0</i>
<i>Skipped</i>	<i>357</i>	

Table 13: Aspects that were treated unsatisfactorily in the Agrodoks

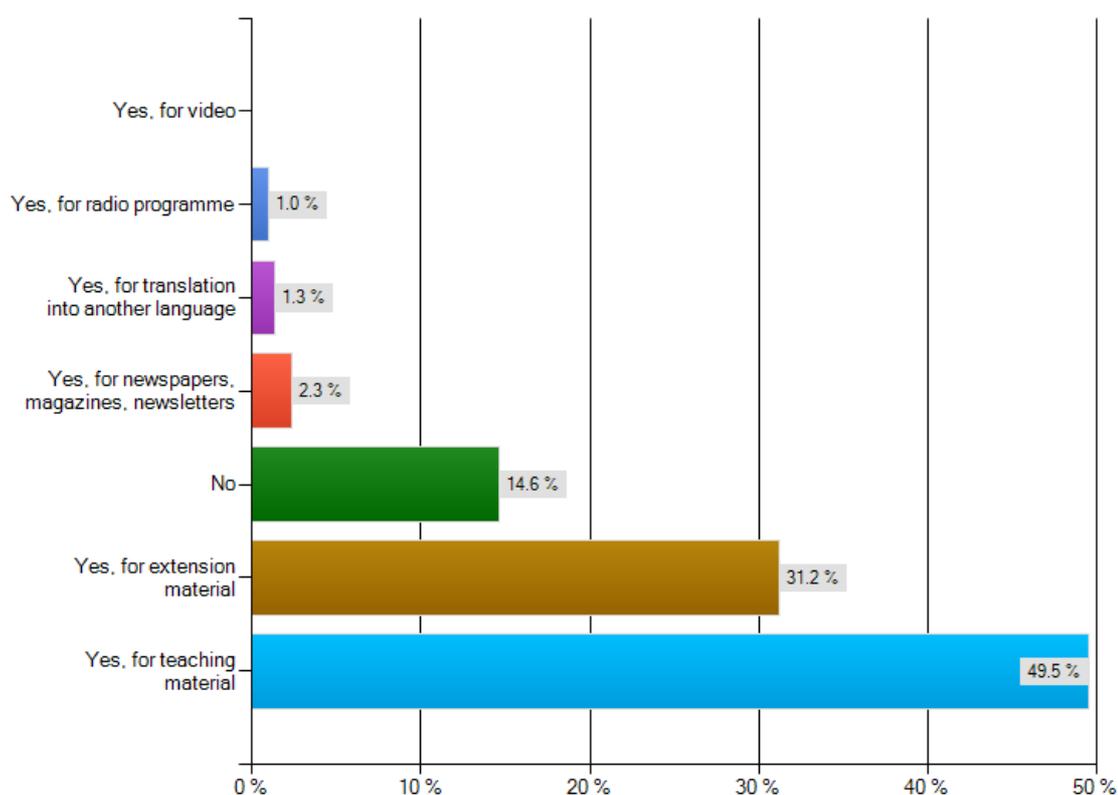
Do you find the Agrodocs easy to understand?	Number of replies	Percentage
Yes	304	100.0
No	0	0.0
<i>Total respondents</i>	<i>304</i>	<i>100.0</i>
<i>Skipped</i>	<i>93</i>	

Table 14: Comprehensibility of the Agrodocs

How do you normally read the Agrodocs?	Number of replies	Percentage
I normally read only relevant parts of the Agrodok	213	71.0
I normally read the entire Agrodocs	87	29.0
<i>Total respondents</i>	<i>300</i>	<i>100.0</i>
<i>Skipped</i>	<i>97</i>	

Table 15: How the Agrodocs are read

Do you use the information in the Agrodocs to produce other agricultural information material?

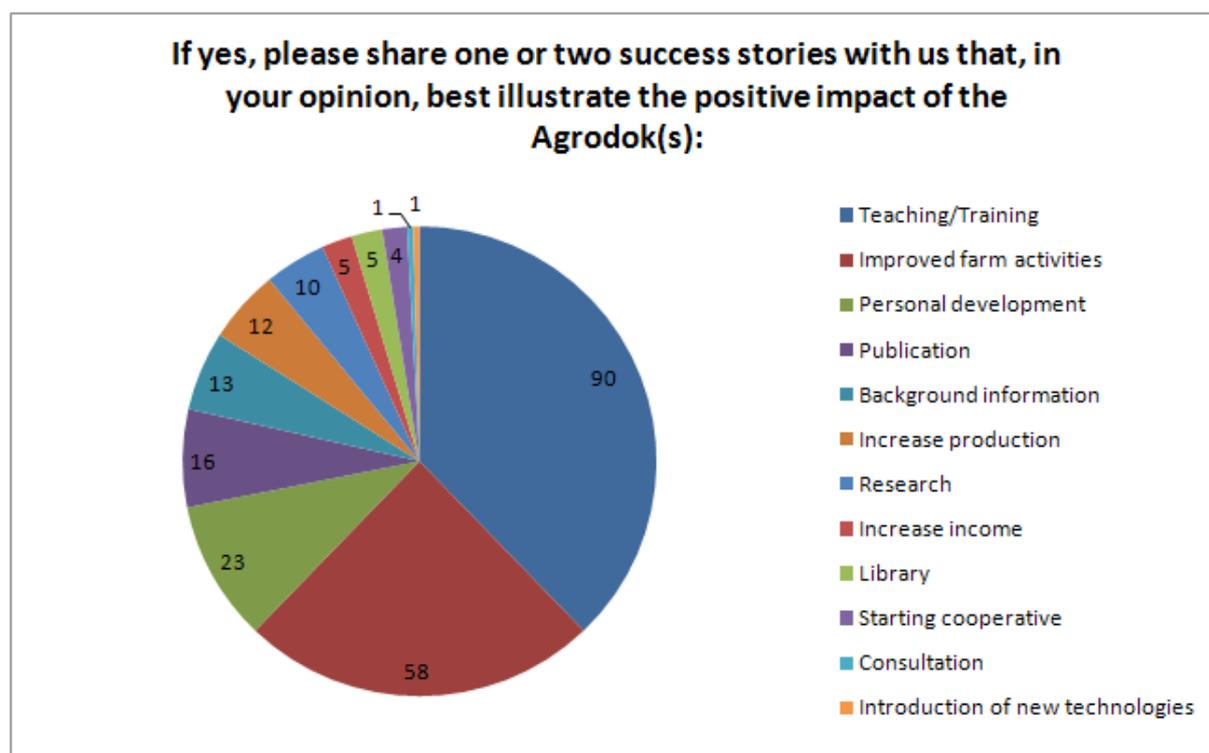


Re-creation of the Agrodocs	Number of replies	Percentage
Yes, for teaching material	151	49.5
Yes, for extension material	96	31.5
No	44	14.4
Yes, for newspapers, magazines, newsletters	7	2.3
Yes, for translation into another language	4	1.3
Yes, for radio programme	3	1.0
Yes, for video	0	0.0
<i>Total respondents</i>	<i>305</i>	<i>100.0</i>
<i>Skipped</i>	<i>92</i>	

Table 16: Re-creation of the Agrodocs

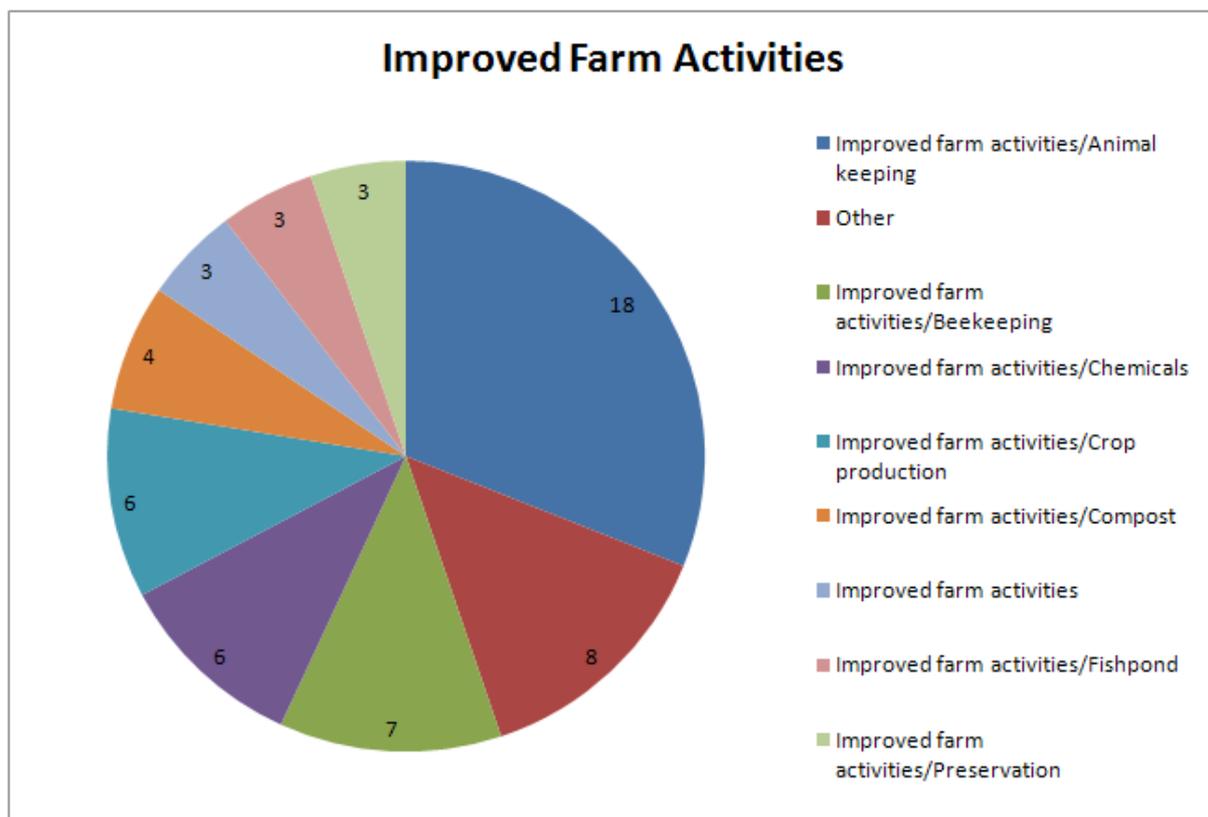
Has the Agrodok series helped you improve your activities?	Number of replies	Percentage
Yes	305	97.8
No	7	2.2
<i>Total respondents</i>	<i>312</i>	<i>100.0</i>
<i>Skipped</i>	<i>85</i>	

Table 17: Improvement of activities



Improved activities	Number of replies	Percentage
Yes, to produce teaching/training material	90	34.0
Yes, to improve farming activities	58	22.0
Yes, for developing my career	23	8.7
Yes, to produce another publication	16	6.0
Yes, for background information	14	5.3
Yes, to increase production	12	4.5
Yes, for doing research	10	3.8
Yes, for the library	5	1.9
Yes, to increase income	5	1.9
Yes, to start a cooperative	4	1.5
Yes, for the introduction of new technologies	1	0.4
Useless replies	26	10.0
<i>Total respondents</i>	<i>264</i>	<i>100.0</i>
<i>Skipped</i>	<i>133</i>	

Table 18: Improved activities

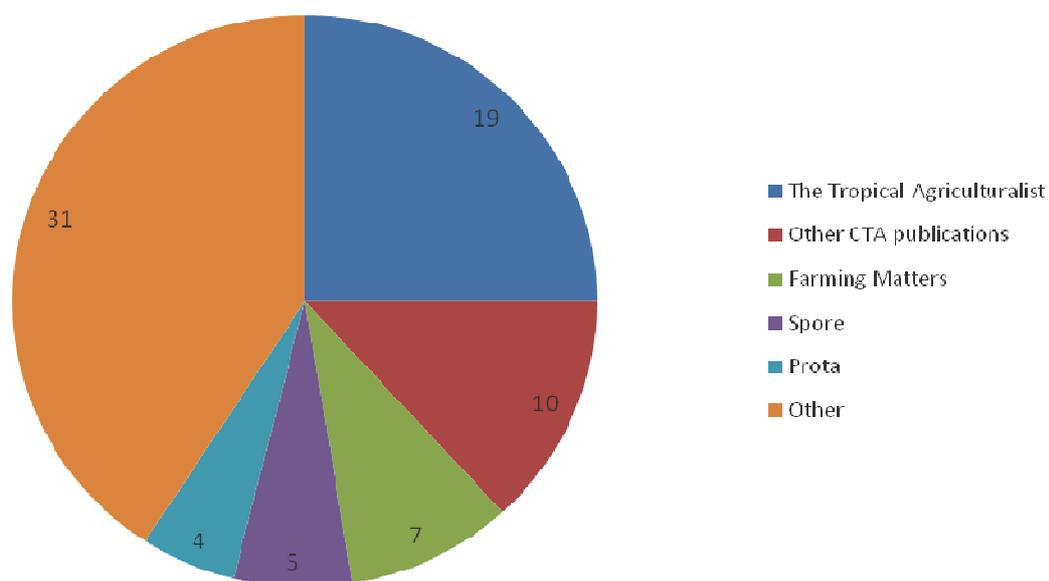


Improved farm activities	Number of replies	Percentage
Animal keeping	18	31.0
Beekeeping	7	12.0
Better use of chemicals	6	10.4
Crop production	6	10.4
Preparation of compost	4	6.8
Food processing	3	5.2
Fishpond construction	3	5.2
Other	11	19.0
<i>Total respondents</i>	<i>58</i>	<i>100.0</i>

Table 19: Improved farm activities

(See Annex 5: Success Stories for the entire list of answers)

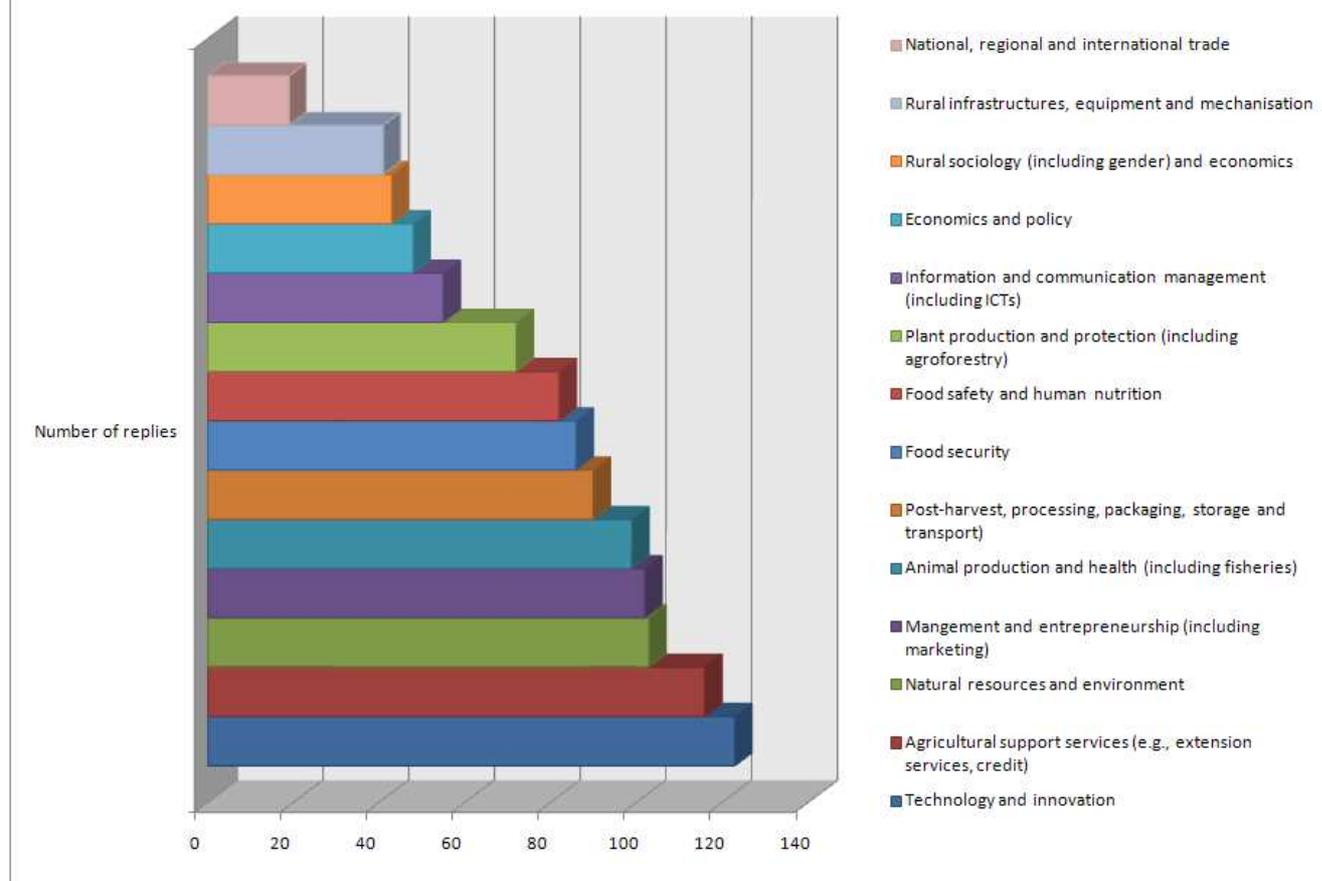
Can you name another series similar to the AgrodoK series?



Can you name another series similar to the AgrodoK series?	Number of replies	Percentage
The Tropical Agriculturalist	19	25.0
Other CTA publications	10	13.2
Farming Matters (ILEIA)	7	9.2
<i>Spore</i> (CTA)	5	6.6
Prota	4	5.2
Other	31	40.8
<i>Total respondents</i>	76	100.0
<i>Skipped</i>	321	

Table 20: Other series similar to the AgrodoK series

Please select what you would like to see as priority themes for the Agrodok series in the future



Priority themes for future Agrodoks	Number of replies	Percentage
Technology and innovation	123	11.4
Agricultural support services (e.g., extension services, credit)	116	10.8
Natural resources and environment	103	9.5
Management and entrepreneurship (including marketing)	102	9.5
Animal production and health (including fisheries)	99	9.2
Post-harvest, processing, packaging, storage and transport	90	8.3
Food security	86	8.0
Food safety and human nutrition	82	7.6
Plant production and protection (including agroforestry)	72	6.7
Information and communication management (including ICTs)	55	5.0
Economics and policy	48	4.4
Rural sociology (including gender) and economics	43	4.0
Rural infrastructures, equipment and mechanisation	41	3.8
National, regional and international trade	19	1.8
<i>Total answers (multiple choice question)</i>	<i>1079</i>	
<i>Total respondents</i>	<i>311</i>	<i>100.0</i>
<i>Skipped</i>	<i>86</i>	

Table 21: Priority themes for future Agrodoks

In the following list, specific topics subscribers came up with can be found.

Technology and innovation	Number of replies
Technology Innovation	19
Biotechnology	13
Energy Generation	11
Indigenous Technology	6
GIS	2
Stoves	1

Agricultural support services (e.g., extension services, credit)	Number of replies
Agricultural Extension	10
Fund Raising	6
Microfinance	2
Purchasing of farming tools	1

Natural resources and environment	Number of replies
Climate Change	17
Natural Resources	15
Environmental Protection	5
Land Degradation	4
Land Use Planning	4
Carbon Credits	2
Soil Management	2
Waste Management	2
Tillage	1
Early Warning System	1
Wildlife Management	1

Management and entrepreneurship (including marketing)	Number of replies
Marketing	20
Entrepreneurship	19
Financial Management	7
Project Management	7
Agro-Tourism	1
Taxation	1

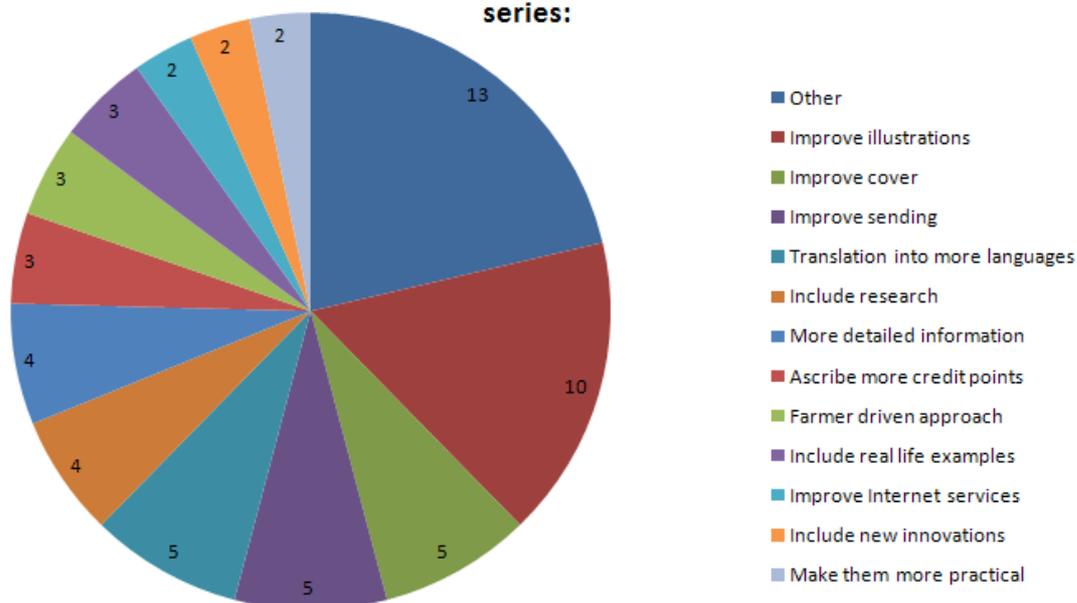
Animal production and health (including fisheries)	Number of replies
Animal Keeping	24
Aquaculture	10
Animal Husbandry	9
Animal Processing and Utilisation	6
Veterinary	6
Beekeeping	3
Cane Rat Production	2
Feed Production	2
Milk Processing	2

Pasture	2
Insemination	1
Rabbit Production	1
Post-harvest, processing, packaging, storage and transport)	Number of replies
Post-Harvesting	13
Processing/Preservation/Storage	6
Packaging	1
Food safety and human nutrition	Number of replies
Food Safety	11
Child Nutrition	3
Human Hygiene	1
Food Security	Number of replies
Food Security	22
Plant production and protection (including agroforestry)	Number of replies
Pest Management	12
Crop Production	6
Irrigation Management	5
Fruit Production	4
Fertilisation	4
Seed Quality	4
Agroforestry	3
Juice Production	3
Organic Agriculture	2
Forestry	2
Chemicals	1
Floriculture Management	1
Herb Production	1
Hydroponic	1
Lettuce Production	1
Macadamia Production	1
Oil Palm Production	1
Precision Agriculture	1
Raising in Shelters	1
Root Symbiosis	1
Upland Rice Production	1
Agricultural Intensification	1
Nematology	1
Nursery	1
Information and communication management (including ICTs)	Number of replies
ICT	9
Information/Communication Management	8

Video	1
Economics and policy	Number of replies
Agricultural Law	1
Value Chains	1
Marketing Policy	1
Rural sociology (including gender) and economics	Number of replies
Rural Sociology	5
Gender	4
Rural infrastructures, equipment and mechanisation	Number of replies
Rural Development	6
Rural Infrastructure	6
Farm Machinery	3
Self-Sufficiency	2
National, regional and international trade	Number of replies
Trade	4

Table 22: List of suggestions for topics per category

Additional comments or suggestions as to how we could improve the Agrodok series:



Suggestions for improvement	Number of replies	Percentage
Improve illustrations	10	16.4
Improve cover	5	8.2
Improve sending process	5	8.2
Translation into more languages	5	8.2
Include research based information	4	6.6
More detailed information	4	6.6
Ascribe more credit points	3	4.9
Farmer driven approach	3	4.9
Include real life examples	3	4.9
Improve Internet services	2	3.3
Include new innovations	2	3.3
Make Agrodoks more practical	2	3.3
Other	13	21.2
<i>Total respondents</i>	<i>61</i>	<i>100.0</i>
<i>Skipped</i>	<i>336</i>	

Table 23: Suggestions for improvement of the Agrodok series

8. Discussion of the Results

8.1 Intended impact of the Agrodok series

In order to do an impact assessment, we first need to know the intended impact of an intervention. For answering this question interviews were held with Roy Keijzer, Coordinator Knowledge Centre, Agromisa and with Jenessi Matturi, Information Products and Dissemination Department, CTA.

Agromisa sees itself mostly as a publisher. Therefore, they have concrete objectives which are partly linked to the production process of Agrodoks. Agromisa mainly focuses on the production of new titles and the revision of existing titles. They aim at writing and revising around five titles per year. For every published Agrodok 1700 copies in English, 1700 in French, and 350 in Portuguese are printed. They aim at selling around 2000 copies per year, and they distribute some free copies as promotional material.

Nevertheless, they have an idealistic mission described as follows: 'Agromisa works to improve the livelihoods of small-scale farmers, mainly in rural areas in the South, by improving their access to practical information about sustainable agriculture. We communicate either directly with the farmers or through intermediary organisations'. In this regard, the Agrodok series is a tool for reaching this objective and not an objective on itself. By publishing the Agrodok series Agromisa tries to fulfil its mission. Therefore the Agrodoks must fit as much as possible to the target group. The end users or beneficiaries of the series are supposed to be farmers, but the manuals are mostly used by intermediaries who work with farmers (more details on this can be found in chapters 8.4, 8.5, and 8.6, see page 45). In the writing process it must be taken into account that language and illustrations are comprehensible for farmers so that intermediaries can easily use the information for training purposes.

Also content-wise Agromisa tries to make the manuals suitable for the target group, as described in the following statement: 'Agromisa believes that structural improvement of living conditions in the South can only take place through the initiatives and ideas of the local population. Agromisa wants to contribute to this indigenous development potential by making agricultural knowledge readily available. We understand that, to be effective, technological advice must be appropriate to the local context and must not lead to the depletion of locally available natural resources. It must also take gender aspects into account by considering the potentially different effects that the introduction of new technologies may have on men and women.'

Moreover, in order to facilitate repackaging by its target group, Agromisa wants the copyrights of the Agrodoks to be as flexible as possible. This means that other organisations and local partners can use, adapt and translate the content when wanted.

One of the results of the interview with CTA is that CTA wants to make the Agrodok series more attractive by changing the layout. By selecting suitable photographs, information will be more accessible to the target group and less descriptive text will be necessary. They assume that the more readable the manuals are, the more impact they will have. On the other hand, it is important not to raise the price of the Agrodoks in order to keep them affordable for the target group.

In terms of distribution, until last year CTA focused on outreach, trying to distribute as many publications as possible with the hope to reach the remotest places in ACP countries. Nowadays CTA focuses much more on the impact of their publications. They want to better understand the use of publications and encourage repackaging into other materials.

Even if CTA gives priority to impact, the PDS would like to maintain the same level of distribution as in 2009 when they dispatched more than 10,000 copies. This is done by promotion and by publishing new Agrodoks every year. Lately they launched a new promotion tool: the E-zine. The first edition was dedicated to the Agrodok series. The only disadvantage is that the E-zine is only sent to the subscribers who have an e-mail address. A next step would be to send the magazine in a printed format to those who do not have any e-mail address.

8.2 Agrodok series with regards to the needs of its target group

When assessing the impact of the Agrodok series, the production process has to be considered as well. We can wonder how CTA and Agromisa know there is a demand for their manuals and the subjects they deal with. Moreover, we can assume that the more demand-driven their approach is, the more successful the series will be. To answer this question interviews were held with Roy Keijzer, Coordinator Knowledge Centre, Agromisa and with Jennesi Matturi, Information Products and Dissemination Department, CTA.

8.2.1 How does Agromisa try to respond to the needs of its target group?

After analysing the interviews, CTA's magazine *Spore* seems to be an important source for subjects for new Agrodoks. Hot topics in this magazine are possible opportunities for new Agrodoks. As Roy Keijzer explained, ideas for new titles often evolve by a combination of questions from the Question-and-Answer Service and *Spore*. If Agromisa receives many questions about the same topic, this can form a reason for publishing a new title concerning this topic. According to Agromisa it is up to CTA to approve or reject a proposal for a new title.

The decision making process for revising old Agrodoks is done in collaboration with CTA. Together they look at received feedback and distribution statistics to see why some Agrodoks are more popular than others. It might be decided to revise a rather unpopular Agrodok to make it more interesting for a broader target group or to revise a popular Agrodok to keep it up to date and well demanded.

8.2.2 How does CTA try to respond to the needs of its target group?

CTA has several channels through which it gains insight on the needs of its target group. First of all, CTA has local consultants and local ACP organisations to consult about relevant subjects for new publications. Since these organisations are locally situated they have better insights in the needs of the target group. Besides, behind *Spore* there is a network of journalists who frequently contact local correspondents. Via these correspondents they gain insight on local needs. CTA also uses so-called 'back to office reports' to gain insight on the needs of its target group. These reports are made by CTA staff on mission, who report the needs of the visited organisations in ACP countries.

Also the distribution statistics provide insight on which topics are popular and which ones not. The Publications Catalogue is used for identifying gaps in the provided topics.

All together, CTA tries to assess which topics should be addressed in the new publications. These important topics will come forward during annual planning meetings with publishing partners (like Agromisa), in which they discuss their main themes of interest. Subsequently, partners will come up with proposals for new publications. These proposals for co-publishing go to the IPC which will approve or reject them.

In most cases proposals for new publications are received by CTA. However, CTA can also decide to commission authors for the writing of a manual or book if they find it necessary.

8.2.3 Does the Agrodok series respond to the needs of the subscribers of CTA?

Looking at table 21, we can see the priority themes identified by the subscribers for the future Agrodoks. Subsequently, the questionnaire asked for more specific topics (in relation with these priority themes) that the subscribers would like to see covered in the future Agrodoks (see table 22). Priority themes were mainly '*technology and innovation*' and '*agricultural support services*'. Frequently mentioned themes were also '*management and entrepreneurship*', '*natural resources and environment*' '*food security*' and '*food safety and human nutrition*'.

For the Agrodok series emphasis was mainly placed on plant and animal production, while in the last years a slight change could be seen with topics like 'starting a cooperative', 'entering the organic export market', and 'the rural financial landscape'. In that sense it seems that Agromisa and CTA have adapted new titles to the current needs of the subscribers who are more interested in the facilitation, marketing and management side of agriculture.

Many subscribers mentioned climate change, categorised under '*natural resources and environment*', as an important topic as well. In this category, most frequently mentioned topics were agricultural

adaptation to climate change and climate change effects on agriculture, which are currently hot topics, above all in ACP countries. Moreover, food security, food safety and human nutrition appear to be important themes for the subscribers. Another mentioned topic is for example child nutrition, which is partly covered in the Agrodok *Small-scale production of weaning foods*.

In conclusion, the swift Agromisa seems to make in the Agrodok series in terms of topics addresses the needs of the subscribers who are becoming more interested in the marketing, management, facilitation side of agriculture, and in natural resources and environment. Besides, Agromisa and CTA should also address the theme of *'technology and innovation'* in their future Agrodoks.

8.3 Distribution of the Agrodok series

CTA and Agromisa have different distribution channels and to measure how far the distribution reaches, interviews were held with Roy Keijzer, Coordinator Knowledge Centre, Agromisa and with Murielle Vandreck, Information Products and Dissemination Department, CTA.

8.3.1 Distribution by Agromisa

Most of Agromisa's publications are distributed by CTA. Besides, Agromisa sells its Agrodoks in hardcopies mostly to intermediaries in the South. Annually they sell around 2.000 manuals. However, since all publications are digitally and free available, most of its distribution goes through the Internet. This has the disadvantage that the users remain unknown. Agromisa can only see how many hits they have on Google but they cannot identify who the users are or how they use the Agrodoks.

Besides, part of the distribution of Agromisa is done through other organisations which sell the Agrodoks to their customers. This also means Agromisa does not know how many or to whom the manuals are sold. Drawing conclusions, the only feedback Agromisa receives is the amount of hardcopies they sell and the amount of hits they score on Google. They receive feedback from readers only anecdotally.

8.3.2 Distribution by CTA

As described in the introduction (see chapter 1. Introduction, page 9) CTA distributes Agrodoks through its Publications Distribution Service. Organisations in ACP countries which want to receive publications of CTA's list must apply for a free subscription. If their request is accepted, they receive credit points which they can use to order publications. The subscribers' credit points are renewed every year. Nowadays, in total, the PDS has 35.000 subscribers who receive in average between 100 and 200 credit points a year.

CTA disseminates around 170.000 publications per year, of which up to 10.000 Agrodoks (in 2009). These figures show that the Agrodok series is rather popular and often ordered compared to other CTA publications.

8.3.3 Distribution according to the questionnaire

From the questionnaire (see table 4) we can see that most respondents are from Nigeria, 118 replies of the almost 400 (almost 30.0 percent). Secondly comes Ethiopia, afterwards Cameroon, Kenya, Uganda, Ghana, Congo, Benin, Tanzania, Zambia, Mali, Senegal, and lastly other countries with less than 4 replies per country. These results are quite similar to the results of the previous Agrodok questionnaire. By then, 96.0 percent of all replies were from sub-Saharan Africa, with a majority of 3 countries: Ghana, Nigeria, and Ethiopia. The other countries worth mentioning were Cameroon and Zambia (each around 6.0 percent of total replies) and Kenya, Tanzania and Uganda (with around 4.0 percent each). Since the replies of the previous Agrodok evaluation are quite similar to the results of the current questionnaire, one can assume that this is a representative insight on the distribution of the Agrodoks.

As can be read in chapter 8.1 Intended Impact of the Agrodok series (see page 42), CTA and Agromisa try to incorporate women both content-wise as well as in terms of distribution. However, only 8.3 percent of the respondents were female (see table 3). This is comparable to the results of the previous Agrodok evaluation, when only 7.0 percent of the respondents indicated to be female. Therefore, it can be concluded that it is difficult to include women in the distribution of Agrodoks.

The questionnaire gives insight on the most popular promotional tools for the Agrodoks (see table 6). Most of the respondents heard about the Agrodok series through *Spore*, CTA's magazine (49.2 percent). The second source of information on the Agrodok series is the printed CTA Publications Catalogue (31 percent) while only 4.6 percent of the respondents heard of the Agrodok series through the digital CTA e-catalogue. Others heard about the Agrodok series from colleagues, friends or neighbours (7.6 percent). In the previous Agrodok evaluation 61.0 percent of respondents knew the Agrodok series through *Spore*.

As expected, 89.0 percent of all respondents ordered the Agrodoks from CTA, through the Publications Distribution Service. Only 1.0 percent bought the manuals from Agromisa, and the rest (in total 8.8 percent) borrowed them from a colleague, relative, friend or neighbour, from their organisation, or from a library. Only 0.3 percent bought the Agrodoks from a bookshop or other distributor.

These results are pretty similar to the results of the previous Agrodok evaluation, where 87.0 percent obtained the Agrodoks from CTA, 3.0 percent from Agromisa against payment and 10.0 percent through other channels (friend, bookshop, free from Agromisa, etc.).

The difference concerning the Agrodoks ordered from Agromisa might be due to the fact that in this survey the questionnaire was only sent to subscribers of CTA. The previous survey was held amongst all customers, including those of Agromisa. It is rational to assume that CTA's subscribers would not buy Agrodoks from Agromisa but would order them from CTA, and that these percentages are therefore distinct.

However, the results clearly show that CTA is responsible for the greatest share of both promotion and distribution of the Agrodok manuals. It has to be kept in mind that this questionnaire might be biased since it was sent to subscribers of CTA only. However, the previous Agrodok evaluation shows similar results and therewith confirms the representativeness of the results of the current questionnaire.

To find out whether there is competition with other agricultural series, the question 'can you name another series similar to the Agrodok series?' was asked in the questionnaire. Due to the low number of replies it can be assumed that there is little competition. Moreover, series and magazines that were mentioned, like *The Tropical Agriculturalist* and *Spore*, are (co-)publications of CTA. However, this does not mean that there is no competition with other series at all. It can be concluded that the subscribers usually stick to the Agrodok series and other CTA publications.

8.4 Ownership

This research question aims to answer the question ‘to what extent did CTA’s subscribers acquire ownership of the knowledge contained in the Agrodoks?’. The first stage of ‘knowledge internalisation’, explained in chapter 2. Agricultural Knowledge Sharing (see page 10), is the ownership of the knowledge obtained by the recipient. This chapter will look at the extent to which CTA’s subscribers own the knowledge contained in the Agrodok manuals.

Ownership refers to the fact that the more the recipients internalise the knowledge, the more the knowledge becomes ‘theirs’. This is largely influenced by the energy, time, effort, and attention that are invested by the recipient in the knowledge. In order to find this out, the question ‘how do you normally read the Agrodok(s)’ was posed in the questionnaire. As seen in table 15 most of the subscribers (71.0 percent) normally read the entire Agrodok while 29.0 percent only read relevant parts of the manual. There was an additional of 19 replies to ‘other’ which indicated that some of the subscribers sometimes read only relevant parts and sometimes read the entire Agrodok. Only two of the open responses indicated not to read the manuals at all.

From these results it can be concluded that the Agrodoks are usually thoroughly read by the subscribers of CTA. Besides, since all subscribers (100.0 percent) found the Agrodoks easy to understand, it can be assumed that the knowledge contained in the Agrodoks is well internalised by the subscribers. This is similar to the responses of the Agrodok evaluation, in which less than 1.0 percent of the found the language difficult, and only 3.0 percent found the illustrations not clear and easy.

If the knowledge is well understood by the recipients, it can be correctly converted by the recipient into other information materials, lectures, courses or training materials. This also means that the potential impact of the Agrodoks might be high, since knowledge can be better reused and repackaged when it is well internalised.

8.5 Commitment

Commitment can be seen as the level of the recipient’s identification with the knowledge. This commitment can be developed by seeing the value of the knowledge, by developing ‘competence in using the knowledge’ (Leonard-Barton, 1990), by maintaining ‘a working relationship or interaction with the knowledge, and by being willing to put extra effort to work with the knowledge’ (Mowday, et al., 1979). This chapter aims at identifying the extent to which CTA’s subscribers commit to the Agrodok series.

As seen in the questionnaire (see table 6) subscribers possess on average around 10 Agrodoks. This can be interpreted as positive since subscribers would not order more Agrodoks if they were not satisfied with the first manual they ordered. It also means that they appreciate the knowledge, underpinned by the many positive replies of the questionnaire.

Table 5 shows the profession of the subscribers of CTA. Their profession can be seen as part of the identification recipients have with the knowledge. It is assumed that the more familiar the subscribers are with the knowledge, the more they can identify themselves with the knowledge and the more they will therefore commit to the knowledge.

Most of the subscribers are researchers, about 26.2 percent. Secondly, of the almost 400 replies, 24.8 percent works as a teacher or trainer. 20.7 percent is project manager or coordinator, and 11.9 percent is extension worker. Only 3.4 percent accounts for farmers. These results are not quite similar to the previous Agrodok evaluation. Important to note is that fact that in the previous survey the respondents could indicate several professions, while in the current survey only one profession could be mentioned. In the previous evaluation, professions most frequently named were extension worker (23.0 percent), part-time farmer (20.0 percent), teacher/trainer (17.0 percent), project manager/project staff (13.0 percent), student (4.0 percent), and documentalist/librarian (3.0 percent). From the previous research a strikingly

higher percentage of farmers was noted. However, the total amount of respondents who were exclusively farmers was only 5.0 percent.

Striking is the fact that the main profession in the current survey is researcher, while to the previous Agrodok evaluation no researchers replied at all. Besides, prominent is the conclusion that in the previous survey much more farmers, either part-time or full-time, were addressed. These differences in profession might be due to the fact that field workers like farmers are less likely to have access to Internet and are therefore excluded from the current survey.

To come back to the level of commitment subscribers have to the Agrodok manuals, it is important to note that most subscribers work for agriculture-related organisations. Therefore, it can be assumed that the (agricultural) subjects covered in the Agrodoks are familiar to them. Moreover, from the question 'has the Agrodok series helped you improve your activities?' to which 97.8 percent answered 'yes', it can be concluded that they have indeed used the knowledge, or in other words, that the subscribers commit themselves to the knowledge.

Part of the extent to which the subscribers acquired commitment to the knowledge can be measured by the question whether they maintain a working relationship with the Agrodoks.

The question 'why do you read the Agrodok manuals?' was posed in order to see what the subscribers use the knowledge for and whether they maintain a working relationship with the Agrodoks. From table 9 it can be seen that most of the subscribers of CTA read the Agrodoks for teaching and training purposes, 38.6 percent. 17.2 percent read them for extension purpose and another 17.2 percent read the Agrodoks for 'learning about new practices and methods'. 15.3 percent read the Agrodoks for career and personal development. Similar to the results of the question 'what is your profession?' to which 4.8 percent responded to be librarian or working in an information centre, 5.8 percent of the manuals is used for libraries or documentation centres.

In the previous Agrodok evaluation the question 'what information were you looking for?' was asked. This was a multiple entry question, with about 2.3 replies per respondent. 'Information about new practices/methods' was the most frequently ticked option (32.0 percent), followed by 'Information for use in teaching/ training' (26.0 percent). Options 'Solutions to a problem encountered' and 'Information for the preparation of extension material' were about equally popular (20.0 percent, and 19.0 percent of the total replies). Strikingly fewer respondents answered that they used the Agrodoks for teaching and training. However, replies from the Agrodok evaluation confirmed that many Agrodoks served (as basis) for textbooks or extension material.

From these results it can be concluded that subscribers fulfil the requirements of commitment. Seen their profession and the organisations they work for, it can be assumed that the knowledge in the Agrodoks is familiar to them. Moreover, they successfully use the knowledge (for teaching, training, and learning about new practices), and therefore seem to have acquired competence in using the knowledge.

8.6 Satisfaction

Satisfaction is the last important aspect of knowledge internalisation. The higher the recipient's satisfaction, the less stress adaptation and application of the knowledge will cause. It is therefore likely that the more satisfactory the knowledge is, the more the knowledge will be used. This chapter aims to identify whether subscribers are satisfied with the Agrodok series, to finally measure the amount of knowledge internalisation by the subscribers of CTA.

As can be seen in table 12, the subscribers of CTA are very satisfied with the Agrodoks. Only 9.7 percent (30 respondents) confirm that the information in the Agrodoks only partly met their expectations. These results are more positive than the results of the previous Agrodok evaluation, when only 55.0 percent indicated full satisfaction, 43.0 percent partial satisfaction, usually without any reason, and almost 2.0 percent partial or total disappointment.

In table 13 reasons for not being satisfied can be found. Most of the 40 respondents (33.0 percent) indicated that the Agrodoks contain insufficient information. Others (7 respondents) indicate that not enough topics are covered in the series and that they would like to have more titles in the series. Four subscribers indicated that they need more references which are not sufficiently provided in the Agrodok series. Other replies were that the Agrodoks lacked of quantitative information, that the illustrations were not clear enough, and that the manuals were not scientific enough.

Reasons for (partial) dissatisfaction that came up in the previous Agrodok evaluation usually concerned the information being inadequate for the particular objective of the respondent. Besides, consistent with the replies to the current questionnaire, replies to the previous survey indicated that they wanted the Agrodoks to be vast and wide, and covering all the information.

However, negative responses are only 40 of the total amount of 312 replies (to this question). Therefore, it can be concluded that subscribers are in general satisfied with the knowledge contained in the Agrodoks. This enhances the probability that the Agrodok series has an impact on its recipients.

On the other hand, from the previous Agrodok questionnaire, it can be seen that there were more (partial) unsatisfied recipients, 45.0 percent against 9.7 percent. That might be due to the fact that the Agrodok series has improved ever since. Reasons for being unsatisfied are however rather similar. It also has to be taken into account that the target audience of the current questionnaire might be biased. It is possible that because of the selection of e-mail addresses, the respondents have other purposes with the information and that they are therefore more satisfied with the Agrodoks.

Suggestions for improvement as can be seen in table 23 are pretty similar to the reasons for not being satisfied with the knowledge contained in the Agrodoks. As can be seen, it is especially important to the subscribers that the illustrations improve (10 replies). They would like to see them in colour or better readable. Some subscribers (5) would also like to see the cover in colour. Another 5 subscribers indicate that the sending takes much time and that they have to wait long for the delivery of their order. Some subscribers (5) say that the Agrodoks need to be based on more scientific/research based knowledge. It is also seen that subscribers (4) would like to see more detailed information in the Agrodoks. The type of responses is quite similar to the responses of the previous Agrodok evaluation. From the previous evaluation 15.0 percent of the comments were on layout, saying that there should be more and colour illustrations. 37.0 percent of the comments dealt with the content of the Agrodoks, mostly requests for clarification and elaboration on technical issues of the subject of the Agrodok.

Another indicator for satisfaction was the question whether the Agrodoks helped the subscribers improve their activities. 97.8 percent of the respondents indicate that the Agrodok series has indeed helped them improving their activities. As indicated in the questionnaire, mainly teaching/training and farm activities improved (for the entire list of answers, see annex 6, page 59). As can be seen from the answers given to this question, many subscribers improved their teaching/training skills, lectures, and materials. Besides, often also through training, farmers and students on their turn improved their farming activities.

Only 2.2 percent indicates that the Agrodok series did not help them improving their activities. However, no reasons were given why the Agrodoks did not improve the activities of the respondents.

In the previous Agrodok evaluation, to the similar question 'did you do anything concrete with the information in the Agrodok?' only 45.0 percent indicated to have successfully used the Agrodok. 11.0 percent encountered problems and 37.0 percent still wanted to try to use practices proposed in the Agrodoks. Encountered problems had to do with acceptance, with materials or finance, and with technical reasons like diseases. Similar to this questionnaire, only 3.0 percent did not undertake action. This difference between the two surveys might have appeared because of the different formulation of the question, or because of the biased target group of the current survey.

However, it can be concluded that the subscribers are satisfied with the knowledge seen the high percentage of subscribers who indicate that the knowledge helped them improve their activities.

8.7 Re-creation

This research question aims to identify the amount of re-creation of the Agrodok series by the subscribers of CTA.

Knowledge can be divided into different packages used for different elements of an organisation or project. In this regard, re-creation is the process of un-packaging these knowledge packages and implementing the new packages into the recipient's organisation or project. The success of knowledge can be measured by the amount of re-creation that has taken place at the recipient's side.

In order to measure the amount of re-creation created by the recipients of the Agrodoks, the question 'what do you do, most frequently, with the Agrodok manuals once you have finished reading them?' was posed. Looking at the table 10, it can be seen that most of the Agrodok manuals are reused after reading. Only 17.0 percent say to place the manuals on their own bookshelves, meaning that the knowledge is not shared. Nevertheless, 33.3 percent circulate the manuals within their organisation, 29.5 percent share them with friends, relatives and neighbours, and 20.1 percent give them a library or to the library of their organisation. This means that the information remains accessible for and possibly used by others, what on its turn indicates that the potential impact of the Agrodok series does not limit itself to CTA's subscribers only.

Moreover, the questionnaire aimed to identify the beneficiaries of the information contained in the Agrodoks. Table 9 shows that most of the subscribers (43.4 percent) obtained the Agrodoks for themselves. Others, 35.4 percent, obtained the Agrodoks for their organisation. 10.4 percent obtained the manuals for the library of their organisation, 5.4 percent of the manuals were obtained for farmers, and another 5.4 percent for students. The previous Agrodok evaluation shows similar results even though they made use of a multiple response question. The options 'personal benefit' and 'benefit of my organisation' both score around 41.0 percent, and the option 'other' (community, family, farmers, etc.) around 16.0 percent of total entries. Therefore, it can be concluded that the results of the questionnaire are representative to indicate who the beneficiaries of the Agrodoks normally are. Underpinned by the results of the question 'has the Agrodok series helped you improve your activities?', it can be stated that the subscribers who ordered the Agrodoks for themselves often use them for improving their lectures, training or teaching materials. The fact that most of the subscribers order the Agrodoks for themselves does therefore not necessarily mean that the information is not re-created and re-used for the benefit of others. This is also reflected in the question 'do you use the information in the Agrodoks to produce other agricultural information material?'. These results (see table 16) show that Agrodoks are mostly used for the preparation of teaching material (49.5 percent), and extension material (31.2 percent). On the other hand, re-creation of Agrodoks into other media like video, radio programmes or magazines is very low (3.3 percent) while these supports are important for reaching e.g. farmers.

Since most subscribers indicate to use the knowledge for repackaging into other materials it can be concluded that re-creation takes place and that knowledge is adapted to local needs and purposes.

As can be seen under 8.7 Satisfaction (see page 46) re-creation also took place in terms of practical activities. 97.8 percent of the subscribers indicate that the Agrodoks helped them improve their activities. These activities were categorised and as can be seen (see table 17, 18, and 19), most of the subscribers indicated that they improved their teaching and training activities. Success stories that were named under this category were for example the training of students and farmers, or the making and improvement of lectures and lecture materials. On its turn, subscribers indicated that they, or their students or trainees improved their farming activities. Many indicated that they started beehives, goat farms, and other types of animal keeping. In this sense, it can be concluded that the Agrodoks are re-created into extension and teaching materials and that concrete interventions were derived from the Agrodoks.

Annex 5 (see page 59) includes a list of all success stories.

9. Conclusion – Impact of the AgrodoK series on CTA’s subscribers

This chapter sums up the answers to the different research questions and measures the impact of the AgrodoK series on CTA’s subscribers.

The intended impact of the AgrodoK series is ‘to improve the livelihoods of small-scale farmers, mainly in rural areas in the South, by improving access to practical information about sustainable agriculture’.

In order to facilitate this process Agromisa wants to support initiatives and ideas of local populations by using endogenous knowledge. Besides ‘technological advice must be appropriate to the local context and must not lead to the depletion of locally available natural resources. It must also take gender aspects into account by considering the potentially different effects that the introduction of new technologies may have on men and women’.

In order to respond to the needs of their target groups, CTA and Agromisa keep track of the trends and hot topics reported in *Spore*, CTA’s magazine, and identified by Agromisa’s question-and-answer service. Topics that are often addressed might be sources for new topics of the AgrodoK series. Moreover CTA has local consultants and local ACP organisations to advise them about relevant subjects for new publications. Since they are locally situated, they have insight on the needs of the target audience.

From the results of the questionnaire it can be concluded that interests are shifting from traditional AgrodoK subjects like ‘*animal production and health*’ and ‘*plant production and protection*’ to ‘*technology and innovation*’, ‘*food safety and human nutrition*’, ‘*food security*’, ‘*natural resources and environment*’ (including climate change), and ‘*management and entrepreneurship*’.

In terms of ‘*animal production and health*’ and ‘*plant production and protection*’ the AgrodoK series well covers the needs of the target group while slowly placing more emphasis on the facilitation, marketing and entrepreneurial side of agriculture. This trend can be seen in the last titles of the AgrodoK series, like *Entering the organic export market* and *The rural financial landscape*. It seems that the AgrodoK series slowly adapts itself to the needs of its target group.

Most AgrodoKs are distributed by CTA, through their Publications Distribution System. That is also why most subscribers know the AgrodoK series through *Spore*, CTA’s magazine, and through the printed CTA Publications Catalogue. In the last 10 years, annually around 2.000 copies of AgrodoKs were distributed by Agromisa and another 5.000 to 10.000 per year by CTA.

The extent to which the subscribers internalise the knowledge was measured by several questions in the questionnaire. It can be concluded that the AgrodoKs are normally thoroughly read by the subscribers. Besides, since the AgrodoK manuals are easy to understand, knowledge is well internalised by the recipients. Most subscribers commit themselves to the knowledge contained in the AgrodoKs and use the knowledge for teaching, training, extension, and for learning about new practices. These results show that the information will not only be read but also used for practical implementation and repackaging for third parties, what will enhance the impact of the AgrodoK series.

Satisfaction can be seen as another important indicator of the extent to which internalisation of the knowledge can take place. It can be concluded that the subscribers are very satisfied with the AgrodoK series. However, suggestions were made to improve the series. Subscribers would like to see colour illustrations and they indicate that illustrations could be clearer and easier understandable. Moreover, other critiques were that the content of the AgrodoK should be more research-based and detailed, while securing the farmer-based and practical approach of the series.

Besides internalisation of the knowledge, the degree to which re-creation takes place is an important indicator for measuring the impact of the AgrodoK series. Many subscribers point out that they circulate the AgrodoKs after reading. The AgrodoKs are often shared with colleagues, relatives, neighbours, or brought to a library. This enhances the potential impact of the AgrodoK series since it is very plausible that others also benefit from the AgrodoKs. In addition, even though most subscribers indicate that they order the AgrodoKs for themselves, it can be read that they often use the manuals for the improvement or

development of lectures, training's and extension services. Therefore, it can be assumed that the knowledge reaches a broader audience than the CTA subscribers only.

This statement is underpinned by the results of the question 'has the Agrodok series helped you improve your activities?'. From these results it can be seen that 97.8 percent of the subscribers indicate that they improved their activities thanks to the Agrodok series. These improved activities mainly concern teaching, training, and farming activities like beekeeping and other forms of animal keeping. However, re-creation of the Agrodoks contents into other media like video, radio programmes or magazines is low while these supports are important for reaching e.g. farmers.

In conclusion, the Agrodok series seems to be quite an effective tool to the current users and beneficiaries of the series. Researchers, teachers, trainers, project managers, and extension workers appear to find the provided information comprehensible and useful for the improvement of their teaching, training, and extension materials and for the improvement of farm activities. It has been proved that the series is frequently used for third parties, meaning that the outreach of the Agrodok manuals might be much broader than the actual audience.

However, subscribers seem to become more interested in other topics than the traditional Agrodok topics such as '*animal production and health*' and '*plant production and protection*'. New topics they are interested in are mainly related to '*technology and innovation*', '*food safety and human nutrition*', '*food security*', '*natural resources and environment*', and '*management and entrepreneurship*'.

10. Recommendations

Despite the rather positive feedback of the questionnaire, recommendations were formulated on the basis of the results. These recommendations are categorised in the different contexts that affect successful knowledge sharing as described in chapter 2. Agricultural Knowledge Sharing (see page 10).

The relationship between the source and the recipient

Probably due to cultural difficulties it appears that it is hard to involve women in the dissemination of the Agrodok series. In order to reach the intended impact i.e. 'to improve the livelihoods of small-scale farmers, mainly in rural areas in the South' (Agromisa), it is important to include more women in the dissemination process. Women often play a major role in rural areas in the South, for example in terms of daily productive tasks like collecting water, collecting material for fuel, and food processing for home consumption and for sale. Therefore, the impact of the Agrodoks could be improved by a better involvement of women. CTA should try to enhance female participation by organising promotional campaigns for the Agrodoks targeted to women associations. Content-wise, Agromisa should ensure that topics included in the Agrodok series are relevant for women.

The form and location of the knowledge

The form of the knowledge refers to the explicitness of the knowledge, in other words, the degree to which the knowledge is explainable. Many suggestions for improvement of the Agrodok series concern improvement of the content and illustrations. Some subscribers stated that the knowledge contained in the Agrodok manuals should be more research-based, more detailed, and better explained. The same concerns are noted for the illustrations of the Agrodoks that should be clearer and easier to understand. At the same time, subscribers indicated that the knowledge should remain practical and targeted to farmers.

In other words, subjects in the Agrodoks series could be more detailed and better explained, underpinned with scientific research and clear illustrations, while securing the practical and farmer-based approach. Incorporating these suggestions would help the subscribers, to internalise the knowledge. Better internalisation increases the chances that the knowledge is reused and re-created, an important factor to enhance the impact of the series.

Moreover, with regards to the content of the Agrodok series, it has been noted that the interests of the subscribers do not limit themselves to animal and plant production. As seen from the categorised list of specific topics (see table 22), *'technology and innovation'*, *'food safety and human nutrition'*, *'food security'*, *'natural resources and environment'* (including climate change), and *'management and entrepreneurship'* are important topics for CTA's subscribers.

In order to better respond to the needs of the target group, it is recommended that the list of priority themes mentioned by the respondents is taken into account for the publication of new Agrodoks.

The source's knowledge-sharing capability

The source's knowledge-sharing capability refers to the ability of the source to facilitate the recipient's learning. A striking result of the questionnaire is the fact that the number of re-creation into other media like video (0.0 percent), radio programmes (1.0 percent), newspapers or magazines (2.3 percent) is very low. In order to reach a broader target group (including farmers), it is important that CTA stimulates re-creation of the Agrodoks into these types of media. This could be done by raising awareness and promotion. Besides, in order to stimulate re-creation of knowledge and given the fact that much of the information of the Agrodok series is used for lectures, trainings, and extension materials, the format of Agrodok manuals and the online version could be easier adaptable for repackaging. This would make it easier for subscribers to select information they need, adapt it to their audience, use illustrations for other purposes and facilitate the potential impact the Agrodok series can have on third parties. This could be done digitally and/or by restructuring the set up of the (printed) Agrodoks, so that separate parts of texts or illustrations can be used for other documents, materials and/or presentations.

No recommendations could be made for the environmental context or for the recipient context, since these contexts are out of the reach of CTA and Agromisa.

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Annex 1: List of all Agrodoks

1. Animal Production

Backyard rabbit farming, No 20
Duck keeping in the tropics, No 33
Beekeeping in the tropics, No 32
Pig keeping in the tropics, No 1
On-farm fish culture, No 21
Ethnoveterinary medicine, No 44
Goat keeping in the tropics, No 7
Bee products, No 42
Hatching eggs by hens or in an incubator, No 34
Donkeys for traction and tillage, No 35
Freshwater fish farming, No 15
Dairy cattle husbandry, No 14
Small-scale chicken production, No 4
Zoonoses, No 46
Snail farming, No 47

2. Plant Production

Identification of crop damage, No 28
Small-scale seed production, No 37
Non-timber forest products, No 39
Cultivation of tomato, No 17
Non-chemical crop protection, No 30
Small-scale mushroom cultivation, No 40
Cultivation of soya and other legumes, No 10
Small-scale mushroom cultivation, No 41
Fruit growing in the tropics, No 5
Agroforestry, No 16
Propagating and planting trees, No 19
Pesticides: compounds, use and hazards, No 29
Protected cultivation, No 23
Urban agriculture, No 24
Granaries, No 25
The home garden in the tropics, No 9

3. Food Processing

Preservation of fish and meat, No 12
Protection of stored grains and pulses, No 18
Storage of tropical agricultural products, No 31
Preservation of fruit and vegetables, No 3
Small-scale production of weaning foods, No 22
Preparation of dairy products, No 36

4. Soil, Water & Environment

Water points for livestock, No 27
Soil fertility management, No 2
Rainwater harvesting for domestic use, No 43
Water harvesting and soil moisture retention, No 13
Erosion control in the tropics, No 11
The preparation and use of compost, No 8
Simple construction surveying, No 6

5. Economics

Marketing for small-scale producers, No 26
Starting a cooperative, No 38
The rural financial landscape, No 49
Entering the organic export market, No 48

6. Miscellaneous

HIV/AIDS in small-scale farming, No 45

Annex 2: Interview Questions Roy Keijzer, Agromisa

Objectives

1. What are the objectives of Agromisa/the Agrodok series?
2. What is the policy of Agromisa to reach their objectives?
3. What role does the Agrodok series exactly play to reach your objectives?

Decision making process on new/revised Agrodoks

4. What is the target group of the Agrodok series?
5. How does Agromisa try to respond to the needs of its target group?
6. How do you know what the needs of your target group are?

Distribution

7. How does Agromisa distribute the Agrodok series?

Gender and endogenous knowledge

8. How are gender issues addressed in the Agrodok series?
9. How do you incorporate endogenous knowledge in the Agrodoks?

Annex 3: Interview Questions Jennesi Matturi and Murielle Vandreck, CTA

Interview Questions Jennesi Matturi

Decision making process on new/revised Agrodoks

1. What do you consider the target group of the Agrodoks?
2. How do you know what the needs of your target group are?
3. How do you try to respond to the needs of your target group with the Agrodoks? In other words, how do you decide on subjects for new Agrodoks?
4. How do you revise less popular Agrodoks? Only content-wise or also by means of other activities to promote the Agrodok?

Gender and endogenous knowledge

5. How do you try to address gender issues with the Series?

Interview Questions Murielle Vandreck

Objectives

1. What are the objectives of the CTA? Does it have a relation with the MDG?
2. How do you try to reach these objectives?
3. How does the Agrodok series fit in these objectives?

Annex 4: Questionnaire

Annex 5: Success Stories

