



Overview of the Resources Available for The Popularization of Research Results on the Shea Sector in Burkina Faso

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ABSTRACT

This study dealt with access to the results of research on shea by the direct actors of the shea sector. Indeed, research has been carried out on shea butter in Burkina Faso for a long time. However, the results generated are still little or not always known to the direct actors of the shea sector. The study was conducted in the Hauts-Bassins and Centre regions of Burkina Faso. The objectives of the workshop were to take stock of the resources available for the popularization of knowledge on shea technology. Semi-structured individual interviews and focus groups carried out with direct and indirect actors in the shea sector generated a mass of qualitative information, the analysis of which revealed the following results: the main resources for popularization are technical sheets, scientific articles and dissertations. Among the direct actors, it was rather manuals, image boxes and videos that were mentioned. The majority of researchers interviewed cited the Forum for Scientific Research and Technological Innovations (FRSIT), symposia, exhibitions and workshops as activities to popularize shea knowledge. As for the technical structures and partners, they cited training, outings and equipment endowments. The intervention strategies leading to the extension activities are diagnostics and participatory research with women. This would allow a good flow of knowledge to the key players in the sector, which are women's groups.

Keywords: shea, research results, extension, extension system, Burkina Faso.

INTRODUCTION

This research is of great importance in the development of the shea sector. Thus, several efforts have been combined to make the knowledge generated available to the direct actors of the sector. Indeed, between 1964 and 1991, the Burkinabe State committed itself to the management of the sector through projects and programs. From 1991 to the present day, the shea sector has been in the private sector ([1]; [2]). Structuring and organizational efforts have been made to facilitate interventions in the sector. These include the establishment of the National Consultation Framework (CNC) in 1998, the Table Filière Shea inter-professional association in 2000 and the development of a National Strategy for the Sustainable Development of the Shea Sector 2015-2019 ([1]; [3]). Despite these multiple interventions in the sector, it is clear that there has been little exploitation of the results of the research and experiences of the various projects [4]. The various stakeholders in the value chain, including almond and butter producers, may not have the latest technical information that can help them improve the management and productivity of the species in their fields. The main question guiding the study is how to boost access to and use of shea research results by women's groups? What are the needs of the actors in the sector for an effective dissemination of the results of research on shea? It is in order to answer these various questions that we undertook this study. The general objective of our study is to strengthen the popularization of knowledge on shea among women's groups.

METHODOLOGY

Présentation of the study site

The study was conducted in two climatic zones of Burkina Faso. These are the North Sudanian zone and the South Sudanian zone. The Centre region has been selected in the North Sudanian region and the Hauts-Bassins region in

the South Sudanian. They are located between latitudes 10° and 12°30' north and between longitudes 2° east and 5° west [5]. The climate is characterized by an alternation of a dry and a wet season [6]. The central region is located between the 700 mm and 800 mm isohyets. Rainfall in the Hauts-Bassins varies between 900 mm and 1200 mm [8]. The vegetation is of the wooded savannah, shrubby savannah and fallow and crop types [7]. Indeed, the agroforestry parks in these two areas are dominated by *Parkia biglobosa*, *Tamarindus indica* and *Vitellaria paradoxa*, which is the subject of our study [5]. Both regions consist of various types of soils. These are soils with a predominantly tropical ferruginous soil, leached or impoverished [7] and [9]. Economic activities are, in order of importance, service and sales activities, agro-pastoral activities.

Collection method

Data collection consisted of interviews with stakeholders in the shea sector ([10]; [11]). According to [10], this method of collection is mainly applied in areas where pre-existing documents contribute only partially to the research objectives. Two types of interviews were used: the semi-structured individual interview and a focus groups [12]. The focus groups were used for women's groups to gather their needs for the popularization of knowledge on shea and to obtain their observations on certain research results.

Data collection and processing tools

The following equipment was used to collect the data; interview guides, a digital voice recorder, Word 2013 software and Excel 2013 spreadsheets.

Choice of contact persons

We deliberately chose to approach all the stakeholders in the shea sector, hence a population chosen on purpose [12]. We made this choice because we believe that this population has the information that would help achieve the goals of the study. This is all the direct and indirect actors. The choice of interlocutors was made taking into account the criterion of diversification of interlocutors [13]. We considered the following criteria for the selection of our interlocutors: having conducted research activities on shea; having participated in the management of a shea project; Be a member of a structure for the promotion of research results and be direct actors in the shea sector. According to [10], [11] and [14], the criterion required to define the number of interlocutors in qualitative research is the phenomenon known as "saturation". We have therefore relied on the saturation of information. A total of 27 interviews were carried out to meet the needs of the approach.

Data analysis

Transcription was done manually after data collection [15]. We have made a transcription word for word. The average time it took to transcribe a one-hour interview was 10 hours. A transcript of all the interviews did not seem necessary [15]. Indeed, the first 12 interviews with indirect actors allowed us to reach information saturation. Of these interviews, 10 were recorded and transcribed word for word; 2 were note-taken. Five additional interviews were conducted and recorded. The latter were listened to attentively followed by note-taking. At the level of the direct actors, 7 interviews were recorded. Those in focus groups, 4 in number, took place in Dioula, These interviews were listened to and the significant excerpts for our study were transcribed. The other 3 interviews were transcribed in full. The transcription was made according to the following principles ([16]; [15]) :

- The silences, hesitations, repetitions of successive words, the tone and attitudes of the interviewee have not been transcribed;
- off-topics have not been transcribed;
- contracted forms of words in pronunciation such as "It was not" have been transcribed into their normal forms "It was not";
- misunderstandings, unfinished sentences have been replaced by dotted lines;
- the verbatim have been encoded by the initials of the name of the structure and the category to which the interlocutor belongs;
- the questions have been transcribed in italics and the answers in straight characters.

The data were manually tabulated and subjected to categorical content analysis. We assisted this analysis with a thematic and frequency analysis of the themes. The different categories used for the analysis were chosen by deduction [12]. From the interview guides and the research objectives, we have identified the themes that relate to the research question. A floating reading of the verbatim was done to identify the sub-themes addressed by the interlocutors. These sub-themes were assigned to the various themes identified by deduction and were used to establish a categorical analysis grid [17]. The entire corpus of interviews was coded. An initial coding (color coding) allowed us to fragment the corpus and assign these pieces to the categories defined in the grid [17]. This coding also made it possible to know the number of interlocutors who had addressed a theme in the same way. A second coding was made to identify the source of the verbatim fragments. The unit of coding was the speech act, i.e. the affirmations of the interlocutors [17]. For the analysis of the corpus of interviews, we first carried out a vertical analysis to synthesize each interview on the different themes defined. A horizontal analysis was then carried out and allowed us to summarise all the interviews on the defined themes. The quotes that we considered relevant were chosen to support certain categories of responses. They are integrated into the document in italics. These quotations engage a multitude of people, or mark an insistence. Finally, a frequency analysis was carried out and

consisted of quantifying the regularity of a notion or a perception. This data was fed into Excel 2013 to create tables and graphs.

RESULTS AND DISCUSSION

Résultats

Resources for training women

The resources available for the training mentioned in our interviews are of two types. Audio-visual media such as professional cassettes, films, theatres and paper media such as leaflets and picture boxes. At the level of indirect actors; Scientific articles, technical sheets and dissertations are represented by more than 50% of the interlocutors, i.e. 14/17, 15/17 and 10/17 respectively. We quote one of our interlocutors in these terms: "When we achieve a result, it is disseminated through training. It can be conferences, it can be on leaflets, on technical sheets that we will succinctly say what we have found", (AI_Cr). At the level of the direct actors, these resources were not mentioned, i.e. 0/10 interlocutors. On the other hand; Image boxes, videos and manuals were mentioned by the majority of direct actors, i.e. 6/10, 6/10 and 5/10 respectively. Figure 1 shows the number of interlocutors referring to these different training resources.

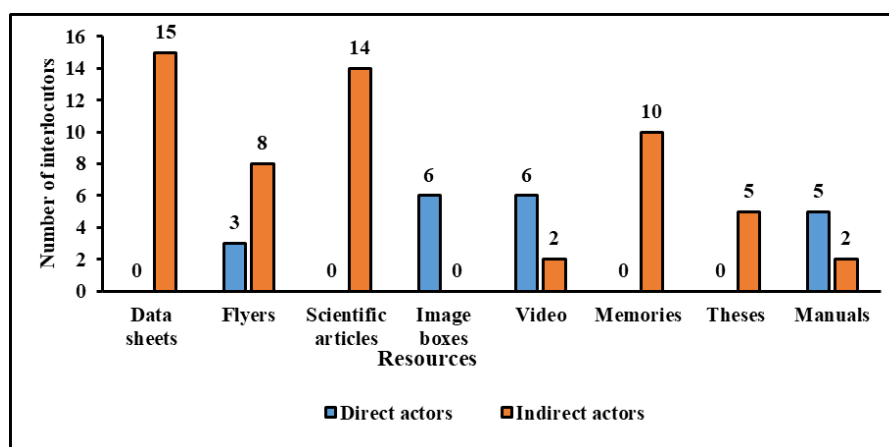


Figure 1: Resources available for women's training

Ressources pour la diffusion de masse

In addition to the training courses, which are group methods, the mass methods used by the research actors and partners are the Internet, radio and television (table). The Internet is the most used means by researchers to reach as many people as possible. Indeed, about 1/3 of our interlocutors, indirect actors in the shea sector, mentioned the Internet as a means of mass dissemination. Radio and television were mentioned by only 1/5 of the indirect actors interviewed. One interlocutor testifies to this last tool of mass distribution in these words: "For example, we should do a training program on shea, the TV came to see us for a program. Unfortunately, it was not precisely the period. It was a training course on shea transplantation, but it wasn't the period. (AI_Gr).

Table 1: Tools used to reach the majority of the population

| Tools used | Internet | Radio and television |
|-------------------------------------|----------|----------------------|
| Number of people who have mentioned | 5 | 3 |
| Number of times mentioned | 11 | 3 |

Out of five interviews with researchers who cited the Internet as a tool for mass dissemination, the term "Internet" was mentioned eleven times (11 times). The expression "radio and television" is repeated three times (3 times) in three interviews with researchers who have mentioned it as the tool for mass dissemination. These results imply that the Internet is the most widely used means of disseminating shea research results.

Status of interventions in the shea sector

En matière d'équipement, nos interlocuteurs témoignent de l'appui dont ils bénéficient de la part de ces partenaires. Un interlocuteur nous le relate en ces termes : « Là aussi, cette année ils ont essayé d'équiper...l'Etat a intervenu, ils ont subventionné ça fortement, fortement. Alors, nous on a commandé, je sais pas combien là, mais ce que nous on a commandé ça vaut quinze millions et notre apport ne dépassait pas trois millions. Ça été vraiment bien subventionné ». (AD_Pu.).

Our interviews with indirect actors show that interventions in the shea sector are oriented towards the butter production process, equipment and shea tree management. Interviews with the direct actors show that a greater

number of groups have benefited from interventions in the butter production process than in the equipment and management of the tree (Figure 2.). Several of the women's groups have technical or financial partners. These partners intervene to strengthen their skills in the various links of the shea sector but also in the improvement and management of the shea tree. "We have a lot of support structure, we have a lot of it. If you will see on my table here, you will see that the SNV has had to support us, the environmental intervention fund has had to support us, there is the dynamization of the agricultural sectors that has had to support us, well... There is a European Union project, in particular on the Shea project, which had to support us three years ago." (AD_Up).

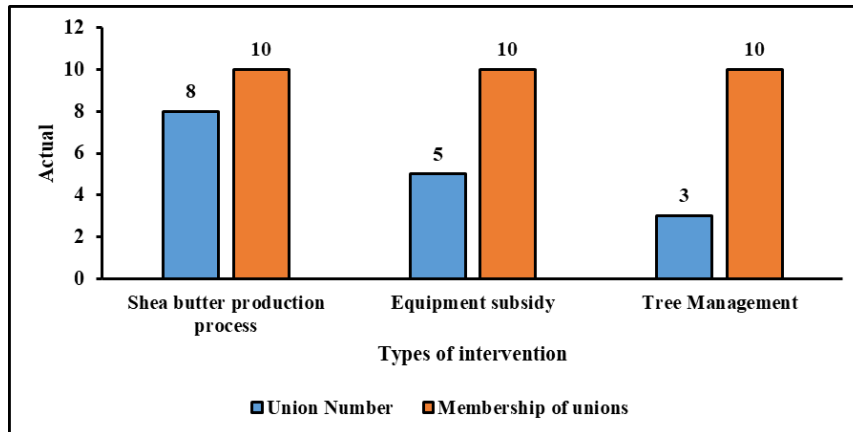


Figure 2: Main interventions in the umbrella structures of the shea sector

Discussion

The resources available for extension are the technical sheets; scientific articles; picture boxes, manuals, leaflets, videos, dissertations and theses. However, only leaflets, manuals, videos and picture boxes are used to popularize the results of shea research. For [18]: "after a training session, a copy of the film is left with the group of women who will watch it once the need arises". These latter tools are easier to use and understand by women because they are computer in nature. Indeed, the videos are generally made in a language that women understand. The images contained in the boxes are adapted to women's activities. Technical sheets, scientific articles, dissertations and theses, on the other hand, are of a scientific nature. As a result, their access and exploitation would not be easy for women. This would explain their absence at the level of women's groups. The internet, radio and television broadcasts are the means used by indirect actors to share knowledge with as many people as possible. We agree with the conclusion of [19]: "radio broadcasts and thematic festivals in villages and communes represent good opportunities to raise awareness among a large number of people". [20] came to the same conclusion: "Broadcasting and the presentation of films in villages have also been instruments regularly used by extension services since 1976 and even, occasionally, before that date". Indeed, radio is the most used computer tool in rural areas according to our interviews. According to [21], the capital good that households own the most is radio. The radio broadcasts, theme parties, and films mentioned by these authors are generally conducted in the language of the locality. This allows us to better convey the message. As for the Internet, it is the most used means by research actors to disseminate results. This is because it is easier and cheaper for researchers to disseminate their findings via social media than through radio and television channels.

CONCLUSION

The objective of our study was to strengthen the dissemination of knowledge on shea among the various stakeholders in the sector, particularly women's groups. The aim was to take stock of the resources available for the popularization of knowledge on shea. The resources available for the popularization of shea knowledge mentioned in our interviews are technical sheets, scientific articles, image boxes, manuals, leaflets, videos, dissertations and theses. Interventions in the shea sector are mainly initiated by projects. These projects intervene either through diagnoses or by conducting participatory research with women. Our results show a diversity of resources produced by research for the popularization of shea knowledge. This testifies to the researchers' desire to make their findings known to both the scientific and rural worlds. The resources for the dissemination of knowledge on shea were insufficient to allow an appropriation of the new techniques for the valorization of products in the various links of the shea sector. The extension activities and strategies put in place testify to the willingness of the national authorities, support structures and projects to share research findings with the rural world. However, given that some of these activities, not the least of which such as FRSIT, presentations at conferences and other similar events, take place in cities and that women's groups are mostly illiterate and far from urban centres, they are not fully beneficial to these actors. In view of the multiplicity of interventions in the shea sector and the diversity of

extension activities undertaken, a future study could deepen the question of the intervention methods promoted in the sector, particularly from the point of view of knowledge dissemination.

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