

## **Dissemination and democratization of information access in rural communities: the role of librarians in the Mini Libraries project**

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### **Abstract:**

*This paper articulates the history of the Mini Library project, the current situation and the contributions of librarians in the project advancement. The Mini Libraries project is an innovative proposal for the dissemination and popularization of scientific knowledge generated by Embrapa (Brazilian Agricultural Research Company). Through this project Embrapa distributes kits containing a collection of print publications, videos and radio programs to encourage reading and productive inclusion in rural areas. The project is very well received in the benefited communities, but it needs some improvements to improve its efficiency. In this paper we propose two solutions to help in the project operation: a Mini Library web portal, to improve the communication with users and mediators participating in the project; a control and borrowing scheme for the collection.*

**Keywords:** Access to information; Agricultural library; Rural development; Mini Library Project.

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### **1 Introduction**

Recent open access policies have increased the availability of information to the world's population. However, the information resources available on the Internet have been better enjoyed by the part of population that lives in urban areas. Connectivity difficulties in the countryside are a reality, especially in the South-South cooperation countries.

According to the CETIC.br (Center of Studies on Information and Communication Technologies) "TIC Domicilios" study, 43% of Brazilian households had internet access in 2013. This reality varies by region, family income, social class, and area (urban or rural). In

the case of rural areas, only 15% of households had internet access in 2013, while the maximum internet speed for most of these households reached only 2 Mbps **(1)**.

Considering this and other aspects on how to cater to the information needs of farmers, Embrapa – the Brazilian Agricultural Research Company – started the Mini Library project in order to democratize access to information in the countryside. Embrapa and other partner institutions generate information and technologies, whether from scratch or adapting existing ones. The goal of the project is to make these, when suitable to the rural needs of Brazil's various regions, available to extension agents, rural development agents and family farms, the latter through their schoolgoing children **(2)**.

The initiative has the support of all Embrapa research units as well as institutional partners, such as the Ministry of Social Development and Fight against Hunger (MDS). Embrapa produces and organizes information in the Agriculture field, making it available through the Mini Libraries' collection, which is guarded by the schools and communities served by the initiative. Those communities are responsible for promoting the access to this information for young people and local farmers, stimulating reading and comprehension, and the use of agricultural and environmental practices that contribute to the community's sustainable development.

The Mini Libraries project is an innovative proposal for the dissemination and popularization of scientific knowledge generated by Embrapa. It has a strong potential for the replication, access and socialization of knowledge in schools, rural communities and other rural social spaces.

The Mini Libraries' collection includes print publications, videos and radio programs to encourage reading and productive inclusion in rural areas. These materials employ simple language, are easy to understand, and are presented in the form of booklets, illustrated books, pedagogic and audiovisual resources (videos and CDs). Through partnerships, this collection is distributed to schools, associations, rural communities, extension workers and others. In addition, each unit has community mediators responsible for stimulating the consultation and use of this information. This paper articulates the history of this project, the contributions by librarians, their current situation and challenges for the future.

## **2 The Mini Libraries Project**

### **2.1 Project History**

The project, initially called "Semi-Arid Mini Libraries", was prepared and approved in late 2003 with the goal of bringing information generated or adapted by Embrapa to family farms and small farms.

It was an initiative by Embrapa together with the Ministry of Social Development and Fight against Hunger (MDS) as part of the MDS "Zero Hunger" (*Fome Zero*) social program. The project sought to cater to five municipalities in the Brazilian semiarid Northeast region whose share of the rural population was significant, mainly serving the municipalities with the lowest Human Development Index (HDI) **(2)**.

The first action designed to place the Mini Libraries in practice was the creation of an editorial team of researchers from different areas of knowledge to assess which languages,

formats and medias were most appropriate for the Mini Libraries collection to meet the information demands presented by farmers in the municipalities of the Brazilian semiarid Northeast, the first served by the initiative. This committee also identified the major topics for the collection and defined the preparation of booklets with content that could be easily assimilated by the target audience **(3)**.

The collection was initially made up of 108 titles of print publications, two copies of each, mainly in booklet format, 37 reports (reportages) from the Embrapa TV show *Farm Day on TV (Dia de Campo na TV)* and 40 audios from the Embrapa radio program *Rural Prose (Prosa Rural)*. Farm Day on TV is weekly television show that seeks to promote technologies and innovations generated by agricultural research to Brazilian rural producers, technicians, students and housewives. Rural Prose is a weekly radio program created to inform family farms and showcase low-cost technologies for improving agricultural production and sustainability

The Mini Libraries were initially implemented in 205 elementary and secondary schools distributed across eight states of the semiarid Northeast. Then, in late 2004, the first project expansion took place, including 50 schools in the Jequitinhonha Valley of Minas Gerais State **(4)**.

Currently there are over 2,500 Mini Libraries established in Brazil, in 1,248 municipalities, serving a socio-culturally diverse public, distributed in different age groups whose common point is the need for practices and technological innovations that promote rural development and sustainability. This audience is made up of students from elementary and secondary schools in rural areas, Agricultural Family Schools and Rural Family Houses<sup>1</sup>, family farms, fisherman and quilombo communities. There are also twelve Mini Libraries operating in Agricultural Family Schools in Moçambique, Africa (3). Below is a map identifying all Mini Libraries presented in the project website, which have now spread to all of Brazil's regions.

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**1** Spaces dedicated to the education of youth living in rural and fishing areas. They provide technical, professional and managerial training. These qualifications offer alternative sources of income and employment aimed at benefitting the region and retaining its population.



**Figure 1** – Map of Mini Libraries

Source: Map made by the authors using CARTODB software. The data was collected from the project website (<http://hotsites.sct.embrapa.br/minibibliotecas>).

The project can be considered a social technology and an innovation in Brazilian public administration because it is an initiative to translate and provide technical knowledge produced by Embrapa to the general population.

For this reason, the initiative received several awards in Brazil: Innovation in Public Management, awarded by the Brazilian National School of Public Administration (ENAP); the ABERJE award, which recognizes best practices in business communication, in Brazil; *Viva Leitura*, granted to companies or institutions that have excelled in promoting reading; Fiema, recognizes the best initiatives aiming to minimize environmental impacts, ensuring sustainability for current and future generations and promoting environmental awareness (5).

## 2.2 The Collection

The Mini Library comprises a kit containing books, booklets, videotapes and audios, with all titles containing information useful to the development of regional agriculture and livestock. Each kit consists of two copies of each print publication title, one copy of each video title and a *Rural Prose* collection. When delivered to the local beneficiary, the kit comes with a shelf to display the publications, 120 print titles (two copies of each), 8 DVDs with 80 episodes of the *Farm Day on TV* show and 8 CDs with 160 *Rural Prose* audios.



The Mini Library collection mainly covers the following topics: alternative feeding for herds during periods of drought; apiculture; free range poultry; dairy cattle; goats and sheep; water acquisition, storage and economic use; food crops; industrial extraction; local, integrated and sustainable development; native fruits; kitchen garden; professional and social organization of farmers; inland water pisciculture; plants for wood/energy; processing products in production units or communities; organic food production (6).

### 2.3 Structure and Operation

The original intent was to distribute the Mini Library kits as a way to support schools in the development of actions that could contribute in helping people out of extreme poverty. According to the project coordinator, this goal was achieved in 2010. Since 2011, the project has tackled a new challenge: to not only distribute the documents, but also work with the local communities in order to use the knowledge produced by Embrapa in rural development, food production and security. To be eligible for the mini library kit, schools and other legal entities have to participate in a selection process. Counting with the resources of the “Brazil without Extreme Poverty” plan, the Project is allowed to choose initiatives from 14 “citizenship territories”<sup>2</sup>. The selected projects must address the issue of reading encouragement and productive inclusion, from the perspective of rural development, with the use of the Mini Library as a didactic and pedagogic support tool (7).

After applicants are selected, but before they receive the Mini Library kit, the project’s coordinating team schedules one day of training for mediators who are able to work with the contemplated communities. The mediators are identified by Embrapa units, located mainly in the northeastern region of Brazil, as well as by partners when the community is remote. The mediators can be librarians, educators, community leaders or local farmers, but it is essential that that they: know their community; empathize with people; demonstrate some practical knowledge on agriculture and the environment; understand their role as mediators; understand how this work fits public policies focused on the democratization of access to information and social and productive inclusion in rural areas (8).

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<sup>2</sup> Rural areas with high poverty and low local development levels.

### **3 Proposed Actions: the Role of Librarians**

#### **3.1 Communication with the communities and mediators: Mini Library Portal**

One of the problems that the project currently faces is knowing how the collection is being used, if it is relevant to the community, if and how the initiative could be improved, if there are any difficulties in using the material, etc. It is unclear for the project coordinators how the kits are being used and what the impacts are on the communities that received them, especially for kits distributed before 2010.

A single survey was conducted in 2008 in order to assess the impact and usability of the Mini Library collection by teachers, students and the community. The survey was conducted in 122 schools located in the Jequitinhonha Valley (Minas Gerais State) and in all the nine states of the northeastern region (4).

The survey verified that, in a general way, the collection has been used by secondary schools in the preparation of texts, lectures and handouts, as well as in the execution of specific projects (gardening, waste disposal, science fairs, jam and bread production, among others). Most teachers, administrators and students viewed the project positively and expected its continuity and expansion, particularly in the Agricultural Family Schools and technical secondary schools. When questioned about the local communities' non-adoption of practices disseminated in the Mini Library collection – a fact observed in 55% of the schools surveyed –, respondents stated the main obstacles were the need for technical follow-up and additional information for the implementation of such practices (4).

The project's lack of human and financial resources is an obstacle to the realization of a constant monitoring of the use of the collection in the contemplated communities, in order to get feedback in terms of what is being done, users' perceptions and possible improvements.

An alternative to getting this feedback from the communities is to create an interactive, dynamic and informative area in the Mini Library project's website, inside Embrapa's online portal. The idea would be to create an area for communication among mediators, community users and project managers at Embrapa. This would allow mediators and users to present the activities taking place in their communities, ask questions on the use of the collection and propose improvements. Mediators could also interact with each other, sharing practices and exchanging ideas to enhance the use of the collection and its disseminated practices in their communities.

One of the difficulties facing this proposal is that many of the communities lack internet access. However, according to one of the project coordinators, the little feedback they would receive from mediators and communities would already be of great help to knowing what is being done and how they could improve the project's actions (answering questions posted by users, visiting communities to support the implementation of the practices disseminated in the collection etc.).

Embrapa recently introduced a new web portal using the Liferay platform. This new platform makes it easy to create an interactive and collaborative space for exchanges between mediators, users and project managers. Liferay offers a robust suite of collaboration applications that can be used to build communities of users in a web portal. This suite of

collaborative applications includes a blog, a chat application, message boards, a wiki, a polling system, and personal productivity applications, e.g. calendar and email (9).

These applications would be extremely useful for the Mini Library project. The **Blog** can be used by project managers to post short articles on the use of the Mini Library collection, presenting practical detailed examples using text, video or other means, demonstrating pedagogical practices for mediators, among other topics, as well as receiving comments from users. Mediators would also be able to post articles in the blog talking about the projects in their communities using the Mini Library collection.

The **Calendar** application can be used to schedule training sessions for mediators and visits for the communities. **Message boards** could be used as forums in which individuals can discuss a topic, receive feedback from other users and project managers, ask and answer questions related to the Mini Library project, etc. **Wikis** are very useful in the collaborative building of a repository of information regarding the Mini Library project. Users can work together to create knowledge on the use of the Mini Library collection and best practices on using this knowledge. For mediators, they could be used to build a knowledge base of tips for using the collection, pedagogical practices, etc. The **Chat** function could be used for immediate communication among mediators, users and project coordinators, serving as a convenient platform for users to send each other instant messages, ask questions and exchange information.

In addition, Liferay allows the publication of documents in various formats (videos, e-books, pdfs, audio files, etc.), which would be interesting in that mediators and users could access new Embrapa publications not available in the starter kit. The *Farm Day on TV* and *Rural Prose* programs, for example, broadcast new episodes once a month, but which are not sent to these communities in physical media format, being freely available online. Other collections of documents that would be interesting for the communities are also available for free online, such as the book collection *500 questions and 500 answers*. This collection presents questions posed by farmers on a variety of topics involving animal or plant species, like apple, banana, grape, rice, pineapple, corn, dairy cattle, beef cattle, ovine animals and swine, among other topics. These questions are answered by Embrapa research units, which present information and explanations in a clear and objective way on the topics (8).

### 3.2 Mini Library collection: control and borrowing

Embrapa has more than 40 librarians distributed among its research units throughout Brazil. However, there was little participation from them over the development of the Mini Libraries project. At the start of the project, when the editorial team was assembled, library science, education, communication and language professionals were present (3), but the library science professionals participated in only a limited fashion afterward. It was the professionals with qualifications in rural extension and education who were most involved and active during the project's development.

Currently, only one librarian contributes to the project, in Maranhão State. Since she began working with the project, it became clear that some processes could be improved through the use of library science techniques. At one of the training sessions with teachers, she identified the need to use these techniques for the borrowing of books in the mini library collection. The teachers had simple questions, such as the most suitable way to lend out books, how long should the borrower stay with the book, the best way to organize the material, etc. She then

created a simple Lending Guide intended to provide those responsible with basic orientation on the organization of the collection (for example, how to register the publications, CDs and DVDs) and the identification of its volumes (with the use of stickers and lending forms).

Despite the collection being small, there was a constant circulation of the volumes and the teachers involved were unsure on how to control it. The guidance provided by the librarian was well received. It was important for these teachers that the Mini Libraries collection was dealt with in the same way as normal libraries. This care with the collection demonstrates the participants' commitment and engagement, through their desire to see the Mini Library as more than a simple bookshelf.

As regards the collection, the librarian observed that books of a scientific nature did not get much attention and were rarely consulted. Books with information of a "how to do" nature were the most sought after. This observation confirms the results of one survey conducted in 2007: *Vegetables (Hortaliças)* and *Raising Free Range Poultry (Criação de galinha caipira)* were the top two volumes consulted, respectively (10).

The Mini Libraries project has already established itself as an important social inclusion and exchange tool between scientific knowledge and rural communities. Its use has been incorporated into the daily routines of students at institutions/schools, as well as of their families (10). This is why participation by librarians can contribute to even greater improvement. Having librarians participating in the Mini Libraries training would add more value to the project, for example, by providing the respective interested parties with guidance on how to prepare for the collection's expansion. The fifth law of library science: "the library is a growing organism", means that a library should be a continually changing institution, never static in its outlook (11). Books, methods and the physical library itself should be updated over time.

The librarian's experience demonstrates that the participation of information professionals can result in important contributions and significant innovation of the project. However, the professionals to be invited to participate should have a specific profile: librarians interested in facilitating access to books, encouraging pleasure in reading, inserting the library into people's daily routines and encouraging research habits among the public.

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