

**Knowledge Network
Dutch Consortium for Rehabilitation
Research Brief #5**

**Deciding whether or not
to invest in the program
of ZOA: the influence of
(il) literacy and other
determining factors
Makamba, Burundi**

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This brief is part of a series of research briefs of the DCR consortium. The purpose is to communicate lessons and corresponding recommendations for programme quality improvement. For information on the research methodology and detailed results and recommendations please refer to the full report.

This research focuses on part of the DCR program that is implemented by ZOA Burundi in Makamba province, South Burundi. ZOA Burundi offers agricultural support packages¹ to eligible households². 80 percent of these packages are funded; the other 20 percent is to be paid by the beneficiaries of the package. The first payment of this 20 percent is a prerequisite to receive the support package, with the motivation to gain future returns from the project. Thus, accepting the support package is being considered as a decision to invest in agriculture. The aim of this case study was to analyze the relation between literacy and the decision of households to invest in order to improve their economic situation.

The following research questions have been addressed:

1. To what extent is illiteracy a limiting factor in the decision to pay 6.5USD/ 4.5 USD as a first payment to receive the support package of ZOA?³
2. What other factors influence decision making, and what is their potential interaction with the illiteracy factor?
3. What could motivate households to invest 4.5 USD?

This study is performed by conduction literacy tests with all respondents of the research, individual exploratory interviews, semi-structured interviews, focus group discussions and sampling of respondents. The participants of the survey were selected randomly from resident- and returning households, by taking into account the criteria of participants and non-participants of the ZOA program. The diversity in profiles of the respondents made it possible to see how literacy influences the investment behaviour of households in relation to the ZOA package, as well as exploring whether other variables, such as being resident or returnee, have consequences for household behaviour. The results of this study show that the factors that appear to determine the decision of households to invest in the ZOA-package are: good communication and understanding of the program; feeling capable to collect the required money for the first payment; an accurate estimation of costs and benefits related to participation in the program, as well as a pro-active attitude finding solutions for improved livelihoods. The study also shows that illiteracy doesn't directly influence the decision of households to invest in the package of ZOA.

¹This support package include seeds, fertilizers, and technical agricultural monitoring

²These are eligible households (residents and returnees) that agreed to amicably share a piece of land that was subject to land disputes

³6,5 USD = 10000 BIF (Burundian Francs) ; 4,5 USD = 7000 BIF

However, it seems to obstruct some of the above mentioned factors especially the accurate estimation of the costs to participate in the ZOA program, the diversification of means to collect money, and finding solutions for difficulties encountered in daily agricultural activities, appear to be the major factors that explain why households do not invest in the ZOA-package. This study demonstrates the need to develop capacities and knowledge of both literate⁴ and illiterate individuals with regard to the use of numeracy in the planning and execution of their daily agricultural activities.

Lesson 1:

Literacy does not seem to directly influence the decision to invest in the ZOA-package

Many individuals that participate in the ZOA program are illiterate, while certain literate individuals, who have the capacity to read and write as well as to perform calculations related to their agricultural activities, do not take the ZOA package. This means there are illiterates who decide to invest in the package, as well as literates that decide not to invest in the package of ZOA. There are other factors that play a determining role in this decision-making, with which literacy can interact to a certain extent.

Lesson 2:

The communication about the ZOA programme and the resulting understanding by eligible households influence the decision to invest or not in the programme

Some of the non-participants had not received as much information as the participants about the dates of the information meetings (mainly provided by the local elected community leader) or about the content of the meetings. A difference in access of information also seems to exist between residents and repatriates; the latter appearing to be less well informed. The lack of

⁴In fact, the study showed that most of these literate individuals are not functionally literate; that is to say that they do not use their numeracy and writing skills (correctly) in their daily farming activities.

Recommendations:

Increase access to information about the ZOA programme:

Improve communication about the dates of information meetings, the organisation of meetings on the level of communities and disseminate information in addition to these meetings

information among the eligible households, and the lack of communication between resident and repatriate households that share a piece of land, could be solved by a third person, such as a local elected community leader or a staff member from ZOA's partners. The latter should communicate not only the dates of the meetings, but more importantly, also information about the ZOA-programme.

Except for the technical agricultural monitoring that is offered, it seems that the majority of non-participants know which elements are included in the ZOA package. This can be explained by their observation of what the participants receive. However, several key elements of the program aren't well-understood by the non-participants including: the need to pay in order to receive support, the specific costs of the ZOA package and ZOA's eligibility criteria.⁵In addition, the analysis has shown that illiteracy does not seem to influence the understanding of these programme elements. Improving the communication and understanding of the program will ensure that eligible households make a well informed choice.

Lesson 3

Non-participants think they have the disadvantage of being incapable to pay the first contribution. Their financial capacities however don't seem to differ notably from those of the participants

Many non-participants feel unable to pay the first contribution. While the majority of them are motivated to take the package, very few people in this group (of respondents) are trying to collect the money needed to pay the first contribution. It is thus possible that the non-participants have lower financial capacities than the

⁵When households share a piece of land in one of ZOA's selected intervention areas, ZOA considers this household as eligible, even when someone is still involved in land conflicts over another piece of land. The latter is not well-understood by non-participants.

Recommendations:

Conduct a weekly survey concerning the purchasing power of households for at least one season among both participants as non-participants, in order to analyse their different financial capacities

Increase the possibilities for households to prepare themselves for the payment of the first contribution;

More time between the information meetings of ZOA and the payment of the first contribution is required. In addition, inform the households that are supported in the first season about the possibility to participate in the second season

Increase the capacity of households to prepare themselves for investments, through the 'agricultural professionalization project' for literates and illiterates:

Promote saving practices in order to make profitable and productive investments

Promote the use of credits for profitable and productive investments for those households that have access to credit

Develop better capacities to plan expenditure and to manage revenues.

participants. To verify this, a weekly survey on the purchasing power of households should be conducted for at least one season. The results of this study did not show that participants have significantly higher financial capacities than non-participants. This is based on the analysis of means that are used to pay the first contribution and the access to credit, as explained below. Participants and non-participants that have tried to collect the amount money required for the ZOA package mainly did this through selling alimentary products. The participants also used additional means, such as their own savings or a loan, but only small amounts. In general, the means that are used to collect the required money do not significantly differ between participants and non-participants; however, they do differ between the literates and illiterates. While the majority of illiterates only use the selling of alimentary products, the literates use more diverse ways. In addition to selling alimentary products, they also use their own savings or income from work. This could indicate that illiterates have higher revenues and/or better manage their revenues, but a sample at larger scale would be needed to verify this.

This study also showed that participants save more than non-participants. Yet very few participants, regardless their level of literacy, actually use their savings to pay their first contribution to ZOA. However, this might indicate that they use their savings for other expenses, which makes other money (from the sale of food for example) available to pay the first contribution, this in contrast to the non-participants, who save less money.

Finally, the participants do not seem to have easier access to credit⁶ and do not have more credit than the non-participants. The majority of the respondents mentioned two main reasons for this lack of credit; the lack of access to a relative or friend (mainly mentioned by participants), and the fear of not being able to reimburse the debt that is associated with contracting a loan (mainly mentioned by non-participants and to a lesser extent by

⁶Access to credit was measured by asking respondents if they had the Opportunity to access credit through family or friends, and/or through an association or a bank.

Recommendations:

Improve the capacities of households, especially the illiterate and non-participants, to estimate the costs and benefits of an investment

Support households in their consideration regarding the decision to invest in the ZOA program; encourage peer education (field visits, testimonies)

Inform households that the actual price of the support package is notably higher than the price that the participants have to pay for the package.

the participants). Illiteracy seems to play a role in this fear, but it would be useful to examine this on a larger scale to confirm this. This fear could also be due to the fact that the majority of respondents (participants and non-participants) use the loans to cover non-remunerative expenses (consumption, health care, tuition fees) rather than to invest it in a remunerative project.

Lesson 4:

The decision of non-participants not to invest in the ZOA package does not seem to result from an accurate estimation of costs and benefits of participating in the ZOA program nor from a consideration that the investment risk is too high

The participants make better estimations of the costs related to participation of the program⁷ than the non-participants, and the costs that are taken into account in this estimation differ according to the level of literacy of the respondents. It seems that the majority of the participants of this study did not make precise calculations before deciding not to invest in the ZOA package. In addition, most of the illiterate respondents didn't take the accurate price of the package into account, but for the indirect costs related to the participation in the program, the link between literacy and a good estimation of costs is not clear. The question remains whether it is not the experience of participating in the ZOA programme, rather than literacy that enables participants to better estimate the costs⁸. It has to be concluded that it is uncertain if an accurate and systematic estimation of costs has been carried out by the participants of this study, before making the decision to participate in the ZOA programme, especially the estimation of future profits remains vague. Finally, the risk for households to lose their land, which could discourage them from making long-term investments, did not appear to be reason not to participate in the ZOA programme.

⁷These costs comprise the price that the participants have to pay for the ZOA package (direct costs), but so also include indirect costs such as the required physical efforts, the time that is required to cultivate with modern techniques, the need for labor, etc.

⁸ Most of the interviewed participants of the ZOA programme already received the package for the first season and experienced to participate in the program

Recommendation:

Develop numeracy skills through the 'agricultural professionalization program' and promote the use of these skills in relation to the use of new agricultural techniques, among literates and illiterates.

Lesson 5:

The participants have better agricultural practices but - just as the non-participants, literate or illiterate - miss the knowledge to use numeracy as an instrument to increase the potential of their daily agricultural activities

The agricultural practices that are considered professional by ZOA and its partners are more used by participants of the program than by non-participants. It is difficult to retrieve if this is the result of the technical agricultural monitoring that is part of the support package of ZOA, or if the latter has helped to consider the importance of investing in the package. It is clear however that literate individuals make a better estimation of the value of the harvest, which can help to better estimate how to compensate the costs related to participating in the ZOA program. However, the way the harvest is managed (the division between the quantity to consume, to conserve and to sell) is similar for all respondents.

In general, literate individuals, although able to make calculations in their agricultural activities⁹, need to learn how to improve their level of numeracy skills in order to make their agricultural activities more effective (e.g. use less seeds on their land to produce more). ZOA's 'agricultural professionalization project'¹⁰ thus appears to be useful, not only for illiterates, but also for literates.

Lesson 6:

Depending on the literacy levels of individuals, there are different challenges encountered in daily agricultural activities, and different solutions to cope with them.

Based on what the participants and non-participants report, it seems that they both encounter different challenges in their agricultural activities. Moreover, among those individuals who are able to come up with solutions for the difficulties they are faced with, it appears that literates use more diverse solutions than illiterates. For example, slightly more literates than illiterates mention savings or credits to collect the money they need to solve their problems. On the other hand, illiterates rely more on selling for their basic needs.

Finally, the participants of the ZOA package seem to be involved in other associations¹¹ than the non-participants. Among all respondents participating in other associations than ZOA, literacy seems to influence the type of associations in which those individuals participate. In fact, illiterates are more

⁹ According to the literacy test that has been conducted with all respondents of this study; which is developed according the concept of functional literacy.

¹⁰ This program was established by ZOA in Makamba province, Burundi, with literate farmers (participants and non-participants of the ZOA package support program). This program aims to train these farmers in modern agricultural techniques and in the application of their numeracy skills in their daily agricultural activities in order to increase their agricultural production. This program also focuses on the functional literacy of the farmers. It should be noted that this program was not yet implemented in the area where surveys were conducted for this study. In addition, a project to extent this program for illiterates is being developed.

¹¹ These are agricultural-, livestock and beekeeper groups, saving and loan associations and social organisations

involved in associations where participation is for free, in contrast to literates. However, this could be explained by many other factors than literacy, such as structural or contextual factors.

Implication of research findings for DCR program¹²

This study, realized by Maud Bakirdjian on the theme ‘deciding whether or not to invest in the program of ZOA: the influence of (il)literacy and other determining factors’, was performed in a participatory way, involving ZOA staff in Makamba in different conceptual and analytical phases and interpretation of data. This approach has helped us to interact with Maud about the ideas, recommendations and learned lessons, which we captured throughout the process. We would like to clarify the above and specifically highlight the points on which we have already started to work(while continuing to reflect and examine the opportunities and additional means) in order to improve the performance of our interventions in the field. These include:

Communication of the ZOA programme: Based on the results of this study, ZOA already decided to improve the information sharing during the recruitment of the new generation of beneficiaries. All stages of the recruitment (communication about the program with the households, registration of participants, verification of eligibility of the candidates, and the payment of the first contribution before final registration of the candidates) will now all be held in the communities of the intervention area. ZOA agreed to double the number of staff working for the implementing NGOs which will conduct outreach campaigns to ensure that all potential candidates have access to information and can register easier.

Accountability: will be automatically enforced through above mentioned measures. Also, ZOA has instructed its partners so that the time spent to monitor the beneficiaries is also being used to better communicate the costs for inputs – the

Recommendation:

More research should be performed, by using square data performance and by conduction a large scale literacy test under the beneficiaries of ZOA. This should give insight to whether literates harvest more than illiterates, and should also explain the underlying reasons for this (e.g. better use of modern agricultural techniques through numeracy skills)

¹² This section is written by André Galyaam Yanogo, responsible for the projects of ZOA Makamba

percentage of their contributions, the reasons etc. In addition, new software (MonQi) will be tested in a sample of beneficiaries on livelihoods, starting in August 2013. The proximity analysis will be conducted in order to monitor all parameters of households' agricultural exploitation and their profits. The collected data will be shared with involved households through regular meetings. This way they will stay informed about the evolution of their exploitation and the ways to improve. This could also help households to make strategic choices, such as investments to improve their livelihoods.

Access of illiterates to the training sessions and interventions of ZOA: The new action plan of August 2013 – July 2014 of our Agricultural Professionalization program already taken this aspect into account. If this plan is funded, literate and illiterate individuals can take part in this adult training. A specific curriculum for the second group is elaborated. This curriculum differs from the one that is already developed for the literates, so that the illiterates also have access to basic knowledge (numeracy as well as reading and writing according to their level).

Responding to the purchasing power of beneficiaries and their difficulty to gather the money to contribute to the agricultural support package: For the recruitment of new beneficiaries, a plan has already been shared with the partners, which provides twice the time as before for potential candidates to pay the contribution of \$ 4,5 as condition to have access to the support package. More vulnerable candidates, who are eager to join the program of ZOA, will also have more time to collect the necessary amount.

This study did not confirm a direct relation between illiteracy and the choice to invest in the medium-long term as we expected, nevertheless it allowed us to deepen the reflection on the work of ZOA and to extract directions for improvement. This study also raises the need for further studies to clarify certain grey areas that remained.