

Angola

Local Development Project - Fundo de Apoio Social (FAS)

Impact Evaluation Concept Note



A school scorecard in Angola

Disentangling information from collective action

Development Impact Evaluation (DECIE/DIME)¹

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¹ This Concept Note was drafted by Vincenzo Di Maro (DECIE), Pedro Vicente (Univesidade Nova Lisboa) and Miguel Lino Ferreira (Oxford). For any comments or clarifications please contact vdimaro@worldbank.org and pedro.vicente@novasbe.pt

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Executive Summary

This document sets out the concept of the impact evaluation (IE) of the strengthening of local institution component of the Local Development Program implemented by the Fundo de Apoio Social (FAS), an agency of the Government of Angola. In particular, the IE focuses on the impact of a community school scorecard (CSS) intervention through which FAS wants to create a community feedback mechanism to improve the quality of services provided by local schools and the quality of local institutions and level of community social capital more generally.

The IE will study the impact of *shorter route of accountability* mechanisms on student learning outcomes in primary schools. In addition, the IE studies the impact of creating community feedback mechanisms and spaces for collective action on the level of social capital and quality of local institutions. In particular, the main interventions to be tested are (1) a full ***school scorecard*** activity, which include filling a score card questionnaire, dissemination and discussion of the results during school meetings, and an agreement on an action plan to deal with the issues identified in the report cards, (2) ***empowering parents with information*** on how to improve their children's learning and how to deal with teachers and principals, and (3) facilitating ***school meetings***, which are not going to be complemented by any report card activity. This evaluation addresses a very important knowledge gap in the literature on accountability mechanism for service delivery, namely what the relative importance of providing information to users is (about their rights and the minimum level of quality they should demand for the services), compared to providing means of increasing the collective action of the communities of users, and contrasted to the full school scorecard activity, which blends information and collective action.

The IE uses an experimental design under which 126 primary schools in the Kwanza-Sul province of Angola will be randomly assigned to 4 experimental groups: 3 receiving the interventions listed above and 1 control group.

This impact evaluation was designed through collaboration between FAS, the World Bank Project Task Team and the Development Impact Evaluation unit (DECIE/DIME). The fact that not only the intervention but also the IE itself are implemented directly by FAS maximizes policy relevance of the study. As such, results from this IE have the potential of feeding directly in the policy decision stream in Angola.

Background

The Fundo de Apoio Social agency

FAS is a nationwide agency of the Government of Angola created on 28 October 1994, pursuant to Decree n. 44/94 of the Council of Ministers. Its mission is to promote local development, in line with the Government's strategy to combat poverty. Their approach is participatory (community driven). The sectors of intervention are education, health, water and sanitation, and manufacturing. FAS is presently based in 13 provinces: Cabinda, Bengo, Bie, Luanda, Kwanza-Sul, Huambo, Benguela, Huila, Namibe, Cunene, Zaire, Malanje and Kwanza-Norte. A national unit located in Luanda coordinates it. FAS project was funded by the World Bank and other donors in three phases and is currently starting up its fourth phase, known as the Local Development Program (LDP).

FAS I (1994-2000) had as main objective the improvement of access to basic social services, through the provision and/or rehabilitation of community infrastructure, income generation and employment through micro-projects, and the improvement the capacity of communities and NGOs in the management of local infrastructure through the experiences gained from projects funded by FAS. FAS I also included a component for monitoring poverty.

FAS II (2000-2003) strengthened community involvement at the level of villages, namely through the creation of community-level meetings. Their guidelines focused on the sustainable use of basic social and economic services by beneficiaries, construction and/or rehabilitation of infrastructure at the community level, according to the demand of the communities themselves, and capacity building at the level of the community, partner, and local government.

FAS III (2004-2010) introduced a component of institutional strengthening at the municipal level. The perspective adopted was that of Community-driven Development (CDD). Besides the main objectives of past phases of the program, particularly in terms of access to basic services, FAS III focused on the emergence of a system of governance between the municipal authorities and the communities, with co-responsibility in the pursuit of development.

For the implementation of its activities, FAS received funding from the World Bank (55%), the state budget (19%), EU (18.5%), among other donors. The new phase of FAS, which was already approved (LDP), is expected to last five years. The LDP includes activities related to the provision of social and economic infrastructure (component 1), local economic development (component 2) and capacity building of local institutions (component 3).

Project interventions and the IE

The IE will focus on component 3 of the project, which is about building capacity of local institutions component. While the IE research program intends to study more than one aspects of component 3 (including the institution of local councils at level of municipality, commune and community), the current of the IE and of this concept note is about the implementation of a *community school scorecard*

(CSS) *intervention* through which FAS wants to create a community feedback mechanism to improve the quality of services provided by local schools and opening spaces for collective action for communities.

The level of activity of the impact evaluation will be the community covered by the primary schools previously funded by FAS in Kwanza-Sul. The number of schools covered by the intervention of FAS will be 126. Schools funded by FAS in previous phases of the program are distributed by the municipalities of Sumbe (55), Porto Amboim (35), Amboim (13), Conda (9), Ebo (5), Quilenda (3), Quibala (2), Seles (2), and Cassongue (1). During the numerous field visits to schools conducted by the impact evaluation team in preparation for this project, the interest of directions of school, teachers, and parent committees regarding the implementation of this feedback system has been very clear.

The planned activities of FAS under the CSS are divided into: (i) awareness/information campaign aiming to get parents and guardians more engaged in improving their children school attendance, performance and to deal in a more successful way with teacher and principals; (ii) implementation of a scorecard questionnaire to be filled by parents and guardians, (iii) dissemination and discussion of the results of the CSS among parents and guardians in school meetings, with agreement on action plans, (iv) subsequent meetings centered on the monitoring of action plans. As explained below, the IE will test the effect of some of these interventions separately and the effect of their interactions.

As for the awareness campaign directed at parents and guardians, it is important to note that it only includes some more general information about the local school. However it will not provide specific information on the performance of educational agents, as in the CSS. In addition, the awareness campaign will take the form of a campaign door to door; as such it does not contribute to the collective action underlying the incentives that are central to the CSS.

As for the process of CSS beyond submission of the questionnaire and its discussion in school meetings, it is also expected that action plans are discussed and decided upon in order to address deficiencies in the service provided by the school. These action plans will be followed through monthly follow-up meetings at schools open to all parents and guardians. The whole process described above, from the awareness campaign targeting parents and guardians to the last follow-up meeting, should have duration of one academic year.

Motivation and Policy Relevance of the IE

The IE will study the impact of shorter route of accountability mechanisms on student learning outcome in primary schools. The IE will build on the CSS activities FAS will implement in 126 primary schools as explained above. This evaluation addresses a very important knowledge gap in the literature on accountability mechanism for service delivery, namely what the relative importance of providing information to users is (about their rights and the minimum level of quality they should demand for the services), compared to providing means of increasing the collective action of the communities of users, and contrasted to the full school scorecard activity, which blends information and collective action. The conceptual motivation of the IE is very much in line with the conclusions in Bruns, Filmer and Patrinos

(2011), which state that one of the priority areas for future research on the information for accountability in education service delivery is the interaction between information and collective action. Indeed, while the short route of accountability has solid theoretical foundations, it is still not clear how to design and apply on the ground shorter route mechanisms (see, among others, Banerjee et al., 2010). This IE will contribute to generate evidence on these mechanisms.

In particular, the will test: (1) a **full school scorecard activity**, which include filling a score card questionnaire, dissemination and discussion of the results during school meetings, and an agreement on an action plan to deal with the issues identified in the report cards, (2) **empowering parents with information** on how to improve their children's learning and how to deal with teachers and principals, and (3) **facilitating school meetings**, which are not going to be complemented by any report card activity or information campaign. The idea here is that (1) is a combination of information and collective action, while (2) and (3) are based only on information and collective action mechanisms, respectively.

This evaluation will estimate the cost-effectiveness of three important approaches that governments can use to improve accountability in the education sector. As such, this can feed in policy decision directly in Angola and in other similar contexts. In addition, the fact that not only the intervention but also the IE itself are implemented directly by FAS, an agency of the Government of Angola, makes the policy relevance even stronger. Indeed, this evaluation will be testing policy mechanisms on which the government deliberately wants to create evidence. The IE was designed in conjunction with a large group of representatives from FAS during the DIME Workshop in Dakar in April 2010. Since then there has been a field coordinator in Angola, who has kept the engagement with the FAS team and kept motivation strong for the IE. Indeed, this was instrumental as the project suffered some operational delays which caused the baseline data collection to be postponed. However, baseline data collection is now scheduled to happen in June, 2014 (a survey firm has been selected and contract signed) and a follow up to happen in mid-2015. As such, results from this IE will be available in a relatively short timeframe. The current political context in Angola is particularly suitable for the IE: the first local elections in the country are likely to be held in a 2-5 year horizon, and so the results of this IE may help tremendously on the design of local accountability institutions. This is the perfect timing and opportunity for this study, in a country that is changing fast (growing at close to 10 percent a year in terms of GDP), and that is still creating its post-conflict institutions.

Scalability of the results of this IE seems closely at hand. Indeed, FAS has been involved in all the stages of the design of the IE. As such, the IE is a product they own and therefore it is likely that they will make use of the IE results to decide about scaling up of the intervention. Equally important, FAS has a long record of intervention in the provinces of Angola and it is widely known in Angola for constructing social infrastructures like primary schools. In addition, the Government of Angola has shown a clear interest on improving quality of education delivery. The intervention that is being studied here is one of the first steps in the direction of quality improvement. As such, FAS has the capacity and the authorizing environment to easily scale up the intervention to all provinces of Angola. The main objective of this study is to support with rigorous evidence this policy choice.

Impact Evaluation Questions

The intervention that is the focus of this IE addresses a principal-agent problem in which the principals (ministry of education and citizens/clients) do not manage to write an ideal contract to incentivize the service providers (teachers and school principals) to exert the optimal level of quality. Final users could hold service providers accountable through their engagement in the political process, i.e. by first holding accountable politicians and policy-makers (long route of accountability). However, in those settings where citizens do not have sufficient voice in the political process (and Angola is a good example of such places) the long route can fail dramatically.

At the theoretical level, a shorter route that links final users directly with service providers could be more effective as citizens might find easier to hold local providers more accountable (short route of accountability). One reform strategy to pursue the short route of accountability is to give final users information about schooling rights and responsibilities, inputs, outputs, and outcomes. The intervention to be evaluated fits into this framework: households will receive increased information about their rights and responsibilities and will be able to express their preferences and satisfaction with services through the scorecard report. This increased information for parents can potentially act as a motivator to increased and more effective oversight of schools, which in turn will increase providers' effort and so improve educational quality. The evaluation will also test the role of providing only information and facilitating collective action only.

Another key expected change induced by the program refers to social cohesion within the treated schools. The strong collective action component of the intervention will likely increase time parents spend together to discuss school related issues and work out solutions for the problems identified. This can potentially lead to an increase in the degree of social cohesion within the community, especially in communities still feeling the scars from the prolonged armed conflict.

On this backdrop, the main research question of this IE is:

Do interventions that aim to strengthen accountability of education service providers increase the quality of teaching and student learning outcomes? In particular, what is the role of the interaction between information and collective action?

To answer this general key research question, several intermediate questions will be posed, which will also shed light on the mechanisms through which the program works (or does not). These include:

- (i) Do student learning outcomes increase
- (ii) Does the school scorecard activity increase parents' participation and their satisfaction with teachers' effort?, (ii) Do teachers' level of effort and quality of teaching increase?
- (iii) Does social cohesion increase?; (iv) Is information alone enough to affect these outcomes?
- (iv) Is increased collective action alone enough to affect these outcomes?

Evaluation design

Identification Strategy

The IE is based on an experimental design under which 126 primary schools in the Kwanza-Sul province will be randomly assigned to 4 experimental groups:

C-Control group: this group will not receive any of the interventions discussed above.

T1-School scorecard: these schools will receive the full treatment package which will include the school quality questionnaire, information provision to parents, the discussion during school meetings and the design/follow-up of the action plan.

T2-Information-only: households will only receive information/awareness campaign on how to improve their children's learning and how to deal with teachers and principals

T3-School meetings-only: households will be invited to school meetings but these meetings will not be complemented by the scorecard activity or by the information/awareness campaign.

Random allocation of the schools to the 4 treatment groups maximizes the internal validity of the estimated impacts. However, to ensure maximum comparability across the 4 groups, randomization will be conducted within predetermined groups of 4 schools based on geographical distance and other basic indicators (in case the very thin data available allows for that). Minimum distance is to be imposed for schools to be included in the study, in order to minimize the possibility of contamination. We will focus on intent-to-treat effects and so the level of participation by parents is not a threat to internal validity. At the same time, we recognize that if level of participation is very low then this would limit the validity of the study. Additionally, we will put extra effort in studying the characteristics of those families that participate as opposed to those that do not to assess whether there some selection pattern explaining participation of the parents.

Data sources

Most of the data will be collected as part of the evaluation. Some initial basic data on the schools was already provided by FAS and the Angolan National Statistical Institute (INE). Competitive contracting of a survey firm for the baseline (on the basis of detailed technical and financial proposals) has been completed and field activities are expected to start in the next few weeks. Several instruments will be used to measure outcomes:

- (i) survey for parents to elicit satisfaction and problems with education service delivery;
- (ii) behavioral games to measure teachers' intrinsic motivation (dictator and generalized trust games) and social cohesion (public goods game);
- (iii) tests on key subjects for pupils in all 126 schools;
- (iv) school level surveys;

(v) general household survey which will complement the survey in point (i).

The current design includes measurement at the baseline and for one follow-up. Discussions are ongoing to extend the design to the estimation on long term effects, with this meaning that an additional round of data collection after about 3 years would be added to the design.

The IE research team already designed the data collection instruments (including questionnaires, sampling strategies, and field manuals) in conjunction with FAS. Several quality control measures have been and will keep being implemented to ensure the reliability of the data collected. These include questionnaires in local language, instrument testing and training of survey staff led by the IE research team, supervision of data collection by a field coordinating team, consistency checks as data is collected. Data on the marginal cost of each of the interventions tested will be obtained directly from FAS. Data on the opportunity cost for program participants will be collected through the general household survey. This will allow comparing the cost-effectiveness across the 3 alternative treatment arms tested in this IE.

We include in the appendix the data collection instruments (in Portuguese).

Outcome measurement

Consistently with the research questions described above, we divide our attention between indicators of (i) participation of parents and guardians, (ii) performance of students, (iii) performance of teachers, (iv) satisfaction with the performance of the school, and (v) social cohesion. Next we describe, in more detail, measurement indicators within each class mentioned.

(i) Indicators of participation of parents and guardians:

These indicators will be collected through surveys to parents and guardians. Examples of related questions are:

- How many times in the last year did you participate in meetings with the teacher of your child to talk about his/her performance?
- Did you find that the teacher would be available to meet with you outside the scheduled meetings with parents, if necessary?
- Did you participate in the most recent election of representatives of the committee of parents and guardians?

The collection of additional data from schools will be conducted through surveys of schools, which include collecting primary data on participation of parents and guardians in meetings (number of meetings per year, level of active involvement of parents, how representative the parents are).

(ii) Performance of students:

To measure the quality of student learning (the ultimate objective of any intervention at the school level), we will focus attention on test scores for all schools. These tests will allow a reliable assessment of the impact of the different interventions relative to the control group. The academic performance of the students is the product of providing teachers, aides and managerial bodies of schools, as well as of the influence of their parents and families. All schools visited were receptive to standardized tests for measuring the knowledge of their students. The provincial office in Kwanza-Sul of the Ministry of Education also showed openness to the inclusion of these tests in the calendar year of primary schools.

Attendance and punctuality of students will be measured by collecting primary data from the school, namely through school surveys.

(iii) Performance of teachers:

We will measure the performance of teachers through surveys administered to parents and guardians and surveys directed to teachers and school directors. Some of these questions are subjective, trying to assess the intrinsic motivation of teachers. Others will be centered on attendance and punctuality of teachers, including teaching standards (e.g., methods of teaching and disciplinary methods applied in the classroom). Note that with regard to attendance and punctuality of teachers, they will also be measured by collecting data directly from schools through surveys at that level (which will imply access to evaluations of teachers in all schools).

A recent alternative to survey-based measurement is behavioral games. These have been implemented in the context of recent DIME impact evaluations. The crucial difference to the survey questions is that behavioral games add a real monetary element, which incentivizes truth-telling measurement.

As part of this impact evaluation, we will implement a behavioral game directed at teachers, while interacting with students. In particular we will hold games where we will observe the level of altruism (intrinsic motivation) and social pressure demonstrated by the teachers of the schools under analysis. We will focus on dictator games.

This simple game is very popular in the experimental literature. The dictator receives X amount to spend for the benefit of the student. The student is passive, just observing the behavior of the dictator. The X amount may be very small, but it must be clearly greater than zero. We then observe the behavior of the dictator in terms of how much of X he/she directs to the student. In theory, there is nothing leading the dictator to spend resources with the student. The only pressure is the informal one by the

student/community that observes the decision. Teachers have by definition discretionary power over their students. Whether they apply it in favor of students through exercising greater effort (e.g., in terms of time devoted to students) is the question. The decision in the dictator game resembles the real decisions of teachers. A greater effort on the part of teachers can be the product of increased motivation and/or greater pressure from parents. Both can be achieved through the CSS process.

(iv) Indicators of satisfaction with school performance:

These indicators will be gathered through surveys administered to parents and guardians. We will formulate questions concerning subjective satisfaction with the performance of teachers and schools using subjective scales. Related to these questions are objective indicators of living conditions of households:

- Household consumption.
- Access/consumption relative to basic social services (education, housing).

(v) Social cohesion:

As for the grouping (iii), the measurement of social cohesion is a strong challenge for impact evaluation. We will proceed by way of surveys to parents and guardians and to the schools. But also here we have an alternative type of measurement, in which one can observe the behavior of citizens confronted with situations in which real resources are at stake. We propose to conduct public good games. We describe this game as follows. A group of 10 community members is selected for this activity in each school. The amount X is given to each person. Each person is told he/she has two options to save money: a private account, where 1 unit invested corresponds to 1 unit at the end of the game, and the public account, where 1 unit invested is multiplied by 3 and divided by all 10 members of the community at the end of the game. In theory, the equilibrium of this game (when each person pursues his interest) is investing all money in the private account. However, the social optimum is to invest all money in the public account: each person would earn $3X$. According to the abundant literature on this game, when played, it typically results in positive amounts invested in the public account. The interpretation of this result is that people value the common good beyond the private interest. It is hoped that this type of behavior, i.e., revealing a greater degree of social cohesion, is more common in those schools where the CSS process is at work.

Power Calculations

There is no specific data on the main outcomes available to inform power calculations ex-ante. As such, we give some scenarios below based on some a priori reasonable assumption. As we have 126 schools to be distributed equally across the 4 treatment group, we consider a cluster size of 31. In addition, we assume a significance level of 5% and a target statistical power of 80%. Table below summarize the requirements in terms of number of units (students) needed in each school for different levels of the minimum detectable standard effect size (MDES) and intra-cluster correlation (ICC).

ICC \ MDES	0	0.1	0.2
.20 (small)	28	Not powered	Not powered
.40 (medium)	7	20	Not powered
.60 (large)	4	5	7

The table shows that for a very small expected effect (.2 SD) the IE will not be powered, or in other terms it will not reach power=80% for any number of students (no matter how large) within the 31 clusters if we assume (as it is very reasonable) positive ICC. If we focus on a medium expected effect size (.4 SD) and a low but positive ICC we would then need around 20 students in each cluster for a total of 2520 students, 630 in each of the 4 treatment group. As the study can afford to have around 40 students surveyed in each cluster (total of around 5000 students) we conclude that we have a sufficient power at least for those indicators for which the expectation of having a medium effect size is meaningful.

It should also be noted that this above applies to the comparison between any of the 3 treatment groups and the control group. If we consider the difference between any two treatment groups (for example, T1 - T2, then we might not have power to estimate that difference as one can argue that difference is going to be very small (and so bringing us back to the case of .2 SD in the table above)

Multiple survey rounds will also improve on the power calculations above. When analyzing the results, the small number of clusters will need to be taken into account, and therefore appropriate corrections will need to be made to the standard errors (see Cameron et al. (2008) for details).

Implementation

Potential risks and mitigation strategy

Note that, in a large number of schools supported by FAS, the implementation of the CSS could be hampered by low literacy levels in the population, which could impede full understanding of the feedback questionnaire as a mechanism for accountability at the school level. The questionnaire will be accompanied by an awareness campaign targeting parents and guardians aiming to increase

involvement in their children's education. Participation by the schools is guaranteed since all schools were built by FAS (are in close connection with that agency) and have agreed to participate in the IE.

The IE follows closely the roll-out of the project intervention on the ground. While this is positive from a policy relevance point of view, it means that any implementation delay in the project operations will also have consequences on the design of the IE. For example, the first follow up data collection would have to be delayed if interventions did not start well before that date (and so they did not have enough time to have an impact).

The mitigation strategy includes several measures. First, we have developed this IE together with the project task team and the local counterparts. As such, this is a joint product/activity and not an external research study with any connection with the operation realities. Being the IE completely embedded with the project, it means that it will follow and adjust its design to reflect what happens on the ground. In addition, the field coordinator will work day by day to make sure the project and the IE can blend together seamlessly. In particular, the field coordinator will supervise all the stages of the field data collections.

Budget

The data collection costs are covered by the project fund (government). All the other costs will be covered by World Bank TFs, WPA allocations and/or project supervisions funds.

Activities / deliverables	FY14	FY15	FY16	Total IE Budget
1. Impact evaluation design	20,000	0	0	20,000
2. Baseline stage:	20,000	240,000	0	260,000
Instruments preparation / pilot	20,000	10,000	0	30,000
Baseline data collection	0	200,000	0	200,000
Baseline data analysis	0	30,000	0	30,000
3. Follow-up stage:	0	0	300,000	300,000
Instruments preparation / pilot	0	0	70,000	70,000
Follow-up data collection (round 1)	0	0	200,000	200,000
Follow-up data collection (round 2)	0	0	0	0
Follow-up data collection (round 3)	0	0	0	0
Impact evaluation analysis	0	0	30,000	30,000
4. Data documentation	0	0	0	0
5. Results dissemination	0	15,000	30,000	45,000
6. Other expenditures (if not listed please specify):	0	12,500	12,500	25,000
Impact evaluation team coordination	0	12,500	12,500	25,000
	0			0
-	0	0	0	0
-	0	0	0	0
-	0	0	0	0
Total (USD)	40,000	267,500	342,500	650,000

[illegible]

Dissemination Strategy

The design of this IE is the result of a long lasting engagement between the AFRSP team, DIME and FAS. A key milestone of this process was the participation of the FAS team at the Global DIME workshop for Impact Evaluation of Agricultural Adaptations (AADAPT) (Dakar, Senegal, April 26-29, 2011) where the IE concept note was crafted. As the evaluation questions and the design of the IE were shaped together with FAS and reflect FAS' operational knowledge priorities, the evidence generated by this IE will feed into the policy dialogue directly. We believe that the results of this IE will be determinant for the design of the next phase (from 2017) of FAS support by the World Bank and other international donors.

The engagement with local policymakers and stakeholders will be kept alive through structuring the flow of information as an ongoing discussion, with intermediate and final results presented to them on an ongoing basis. The project implementation team participates in all stages of the impact evaluation, from design to analysis. This ensures ownership of the process and confidence in the results generated. The impact evaluation team includes a field coordinator, a junior researcher who is based within the client government for the duration of the impact evaluation. The field coordinator works with the government team on a daily basis, building research capacity within the line Ministry. Local research partners (for example, Universidade Catolica de Angola, UCAN, and Angola Business School, ABS) have been contacted and expressed interest and full availability to contribute to the study. Each impact evaluation is linked with a global research platform. Local policymakers participate in large annual workshops with invited speakers from academic and policy-making spheres. In these workshops, they work closely with researchers to design and refine their impact evaluations, and present their findings to other country teams. In addition to delivering evidence on key operational questions, the proposed evaluations will produce high-quality research papers that will be presented at BBLs at the Bank (e.g. DIME seminar series, DECRG seminar series), events and trainings as well as international development conferences. The findings will be published in the DIME working paper series and submitted to peer-reviewed economics and field journals, thus reaching a wide audience of researchers and graduate students worldwide. All data will be made available online on the databank for IE, following the Bank's open data policy.

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