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DECENTRALIZATON AND CONTRACTUALIZED MANAGEMENT OF WATER WORKS: LESSONS FROM MBALMAYO, CENTER REGION-CAMEROON

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ABSTRACT

Within the ongoing context of decentralization in Cameroon, this paper assesses the importance of the contractual relations for the management of water points in Mbalmayo, especially their contribution for the supply of sustainable drinking water. To achieve this, semi-structured interviews were conducted with resource persons such as the water focal point in the municipality of Mbalmayo, the technical assistant of the PADDL/GIZ of the locality, two technical managers of the divisional delegation of the Ministry of Water and Energy as well as the expert in charge of repairs. Besides, questionnaires were administered to water users and some CGPE managers. The findings revealed that from 2008 to 2016, initiatives were carried out between the Mbalmayo council with the technical assistance from the German Cooperation with the aim of increasing access to drinking water for the rural population. These initiatives led to the contractualization of the maintenance and up-keep of the Mbalmayo EMPs. This approach brought significant positive impact on the local water service, thanks to a sustainable management approach for human-powered pumps initiated by the municipal authority. It has thus overcome the limits of purely community-based management, whose performance after decades of practice has not been equal to its challenges. Major risks, however, continue to weigh on the sustainability of this water service in the municipality of Mbalmayor including; inadequate maintenance (lack of spare parts), the lack of capacity for the water management committees (lack of training) and the weak enforcement of regulation at the level of the water service.

Keywords: Decentralization, contractualization, maintenance, water points, Mbalmayo

1-INTRODUCTION

The current decentralization process in African countries delegates the role of drinking water supply and sanitation to the Decentralized Territorial Communities (Temgoua *et al.*, 2019). As a result of the ongoing decentralization process in Cameroon, and in view of the difficulties in covering the recurrent costs of drinking water supply programs, the state has entrusted the management of drinking water supply infrastructure to the municipalities. Within the drinking water sector, the municipality is responsible for the construction and maintenance the water infrastructure as well as the supply and distribution of drinking water to the population. In the urban and rural areas of Cameroon, however, the issue of access to water is a major development

challenge. In these environments, the population is confronted with daily problems of water supply (Tchekote et al., 2018). That is why a lot of risks weigh on the sustainability of the water service in the municipality of Mbalmayo including; lack of spare parts for maintenance, the lack of capacity of the water management committees due to absence of training and the inadequacy of regulation by the Divisional Delegation of the Ministry of Water and Energy.

Within the context of decentralization and for the sustainable operation of human-powered pumps, a public-private partnership between the municipality and the artisan repairer, as well as other forms of contractual relations for the maintenance of hydraulic works have been established. From then on, the contractualized maintenance of modern water points (PEM) is part of a logic of alternative to the model of management under communal control and of opening up to the private sector in order to ensure the sustainability of the water service. This observation thus gives rise to an important question which forms the basis of this research: How does the contractualization of the maintenance of MSPs improve the management of these drinking water facilities in the municipality of Mbalmayo? The necessity and relevance of this study stems from the fact that it examines the efficiency of these contractual relations and especially their contribution for a sustainable drinking water supply in the municipality of Mbalmayo. Besides, it explains the practices to be perpetuated within the framework of this contractualization, in particular the timely execution of both preventive and curative maintenance of the drinking water supply works.

This article is in the wake of studies on the evolution of local public water management policies. It shows, with growing recognition, the role attributed by the state and decentralized local authorities to local user communities and private partners in the water service in the proper functioning of village water systems. It may, therefore, be used as a tool for rational and sustainable management of water infrastructures in Cameroon in particular and sub-Saharan Africa in general.

2 MATERIAL AND METHODS

2.1 The study Area

Mbalmayo is the headquarter of the Nyong and So'o division in the Center region of Cameroon. It is found some 48km South of Cameroon's political capital Yaounde. It is made up of six administrative units (Figure 1).

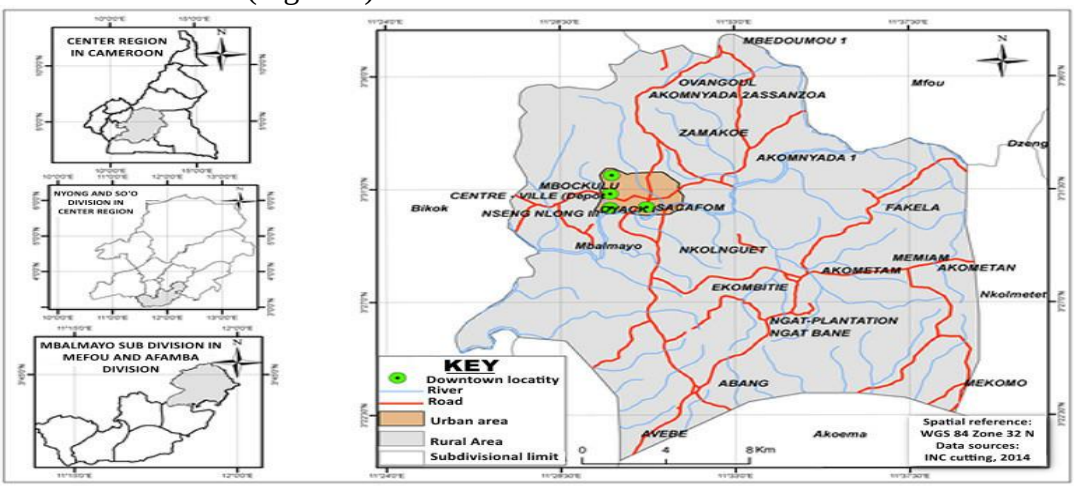

Figure 1: Location of the Municipality of Mbalmayo

Mbalmayo was created by decree n°431 of August 31, 1950. It extends between latitudes 3°5' and 3°58' North and between Longitudes 11°15' and 11°52' East, with a surface area of about 650 km^2. This sub division is made up of two sections, namely the Mbalmayo city and the Bane group (rural area of Mbalmayo) which constitutes the study area.

2.2 Research Methods

To verify our hypothesis that; 'the contractualization of the maintenance of village hydraulic infrastructures improves the maintenance of these structures in the municipality of Mbalmayo, we used a hypothetico-deductive working method that is structured around two phases which included; the collection of data from secondary and primary sources and the processing of data from primary sources and their dissemination in the form of information throughout the work. Surveys were conducted from the months of July to August 2018. Two sets of questionaires were administered to households in the municipality of Mbalmayo. The first set of questionaires were addressed and administered to water users on the appropriation practices of water works resulting from the implementation of decentralization**.** The second set of questionnaires was administered to the CGPEs**.** The latter dealt with the process of participation of rural communities in the management of their water points. Besides, semi-structured interviews were conducted with resource persons such as the water focal point of the municipality of Mbalmayo, the PADDL/GIZ technical assistant of the locality, two technical managers of the Divisional delegation of Water and Energy, and the local craftsman repairman. From this, the following results were obtained.

3 RESULTS

3.I The main forms of contractual relations for the upkeep and maintenance of modern water points in force in Mbalmayo

There are two main forms of contractual relationships for the upkeep and maintenance of water points. These are the agreement for the monitoring and repair of water points in the municipality of Mbalmayo signed between the artisan repairer and the municipality of Mbalmayo as well as the various agreements for the delegation of the management of modern water points signed between the Council and the CGPE.

1 The convention of monitoring and repair of water points on the territory of the commune of Mbalmayo

The convention for monitoring and repairing water points in the municipality of Mbalmayo is a water management tool set up by PADDL/GIZ. It is a contract that binds the public and private actors of the water management of Mbalmayo, (the Municipality and the artisan repairer) through a certain number of attributions. The main responsibilities of the artisanal repairer include:

- The internal diagnosis of the water points;

- The replacement of obsolete parts;
- Repairing all breakdowns observed at the water point, apart from surface repairs reserved for management committees;
- Preventive monitoring of water points to avoid recurring breakdowns;
- Coaching or assistance of the management committee in surface maintenance.

As for the municipality, it provides:

- The management of the artisan repairer according to the repairs and descents carried out in the field;

- The definition of a cost grid for labor and transport in case of repairs or follow-up visits by the artisan repairer in collaboration with the management committees;
- The monitoring/evaluation of this agreement;
- The supply of spare parts directly or indirectly.

Financial and administrative provisions regulating this collaboration exists. Thus, any assumption of responsibility for the work carried out by the artisanal repairer is subject to the establishment of a repair or monitoring program developed by the artisanal repairer and approved by the municipality. Photo 1 shows the Artisan repairer (A) carrying out maintenance work on the Modern Water Pump (PEM), (B) of Ngat-Bané close to the Mayor's residence. The Water Users (C and D) assist him. This is a testimony of the close collaboration that exists between these two actors in the management of the water infrastructure of Mbalmayo for a better supply of local drinking water.

Photo 1: Craftsman repairer carrying out maintenance of the EMP of Ngat- Bané

The activity involving the maintenance of the modern water pump includes the production of repair and follow-up reports by the artisan repairer; these reports are filed with the communal focal point in charge of water issues, who verifies the information contained before forwarding them to the mayor for validation. The reports may be transmitted to the Divisional Delegate of the Ministry of Water and Energy for exploitation if need arises. The collaboration contract between the council and the repairer stipulates that the latter is not an employee of the municipality. His expenses are, therefore, covered by the contributions collected from the population within the framework of the management committees and additional contributions from the municipal authority.

2 Conventions for the delegation of the management of modern water points signed between the Council and the CGPEs

The collaboration between the municipal council and the CGPEs (Water Point Management Committees) is specified in the various modern water point management delegation agreements that have been signed. Thus, the municipal council is responsible for:

- The selection, supervision and monitoring of the artisan repairer for the internal maintenance of the water point;
- The creation and implementation of the Water Point Management Committee;

- Providing support in the form of a grant to the Water Points Management Committees in the event of a major breakdown;
- Monitoring and evaluation of the activities of the management committee.

From the foregoing, it is glaring that within the framework of decentralization, the State has transferred competencies and drinking water supply works to the municipal council. Similarly, the municipal council of Mbalmayo has delegated the management of the water service (wells and boreholes) to the Water points management Committees, which are structures set up by the population, through a PEM management delegation agreement. Currently, according to our field surveys, nearly 90% of the CGPEs have signed this agreement with the council and 85% of the signatory Water points management Committees have already experienced maintenance works from the artisan repairer.

Photo 2 shows 2 members of water point management committees, the water fountain attendant and the officer in charge of hygiene carrying out surface maintenance work on the EMP in Ekombitié. This is part of the missions of the management committee. Photo 3 shows a general assembly organized by the CGPE of Ngat-Bané for the regular maintenance of the EMP.

Photo 2: Rehabilitation of the anti-burial slab of an EMP in Ekombitié

Photo 3: General assembly of water point members in Ngat-Bané

According to the EMP management delegation agreement and from the observation of these two photos it is clear that the responsibilities of the Water points management Committee includes amongst others; the mobilization and sensitization of the users at the base around the objectives of participatory management of a water point; permanent distribution of drinking water to the users; securing the water point; collection of contributions from the population to support the municipality in the management and maintenance of the water point; the permanent collaboration with the artisan repairer designated by the municipality for the maintenance works of the water point; the collection of the users' contributions (monthly); the sanitation around the water points; the keeping of a monitoring sheet of the water point; the holding of meetings for the management of the water point and the transmission of the reports of these meetings to the municipal council.

3.2 Impact of the contractualization of the maintenance of the village water infrastructure of Mbalmayo

This section presents the benefits of the contractualized maintenance of the rural water infrastructures carried out in the locality of Mbalmayo. It thus deals with the system of

participatory and sustainable management of modern water points and that of predictive management of village waterworks.

A- The system of participatory and sustainable management of rural water infrastructures

This is a PEM management approach carried in the municipality since the implementation of the Decentralization and Local Development Support Program (PADDL) in the local water and sanitation sector in 2008. It aims to promote a concerted approach to the management of PEM with the involvement of all the actors in local water management. Thus, from the state represented by the Ministry of Water and Energy and its divisional delegation in the municipality, through the pump supplier, the artisan repairer, the CGPE and water users, everyone has a role to play in the smooth running of this system. Figure 2 is a synthesis of the system of participatory and sustainable management of rural water infrastructure.

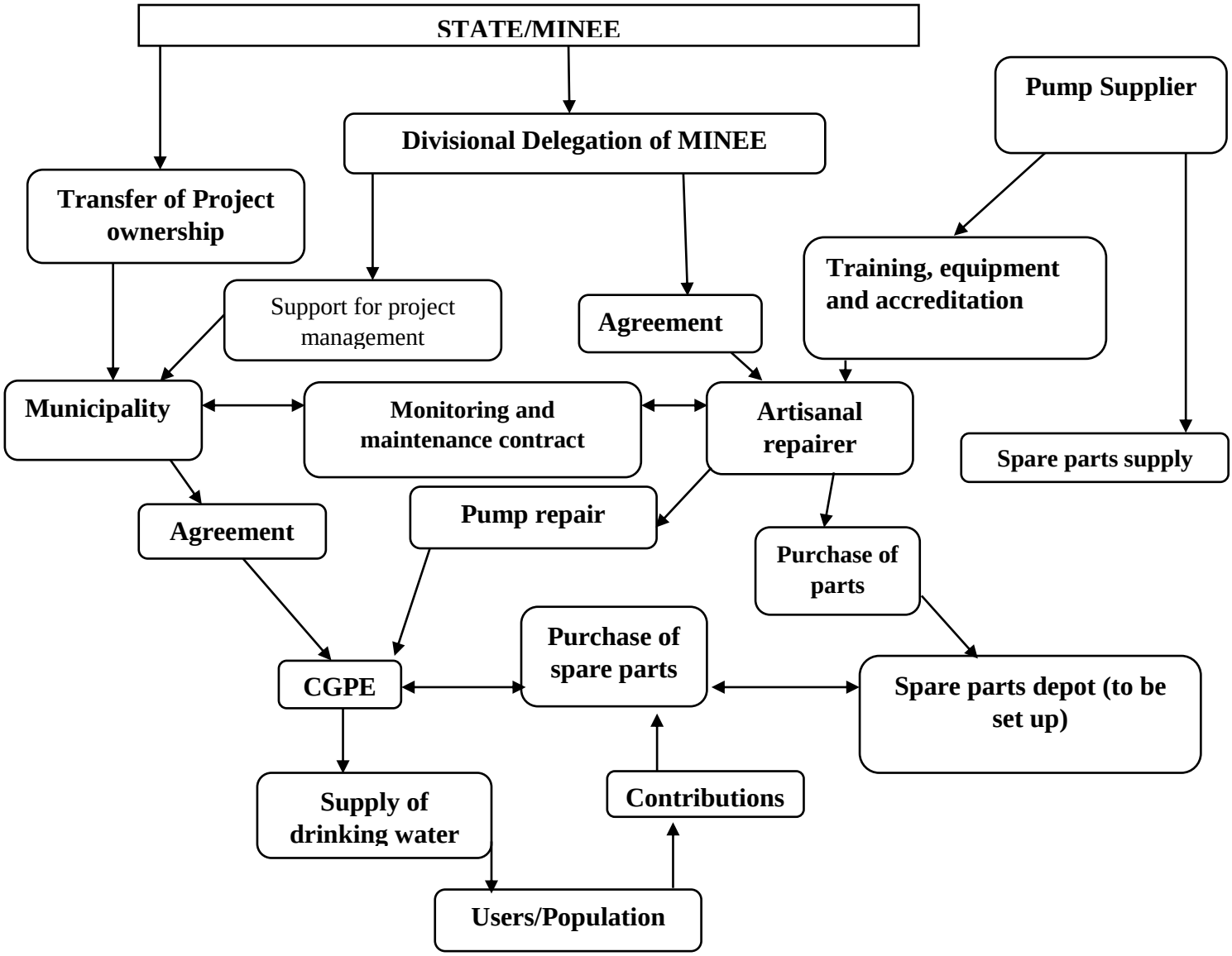

Figure 2: Participatory and sustainable management system for rural water infrastructures
Source: Millogo (2013)

According to Figure 2, the decentralization process has brought about changes in the water sector in Mbalmayo, characterized by the rise of the municipality and a new dynamic calling for the various actors to play an innovative role. These actors can be categorized into four main groups interacting in the management of the PEM:

1-Water users: Usually villagers, they use the pump under the control of the CGPE, which they have also elected and to which they pay monthly contributions generally amounting to 500 CFA francs per month per household.

2-The CGPEs: They manage the water point on a daily basis, control its use, guarantee its cleanliness and basic maintenance and provide water to the population. These bodies were quickly set up with the installation of the PEMs. However, in some cases they have proved to be non-operational. We had to wait until March 2011 to see the municipality, in partnership with the GIZ within the framework of the PADDL, help the CGPEs to self-assess and restructure themselves. This enabled them to better understand the challenges of maintaining modern water points and to ensure the long-term operation of these structures.

3-The artisan repairer: He is in charge of the maintenance of the structures - their preventive maintenance (every 6 months) and repair in case of breakdown. He is trained by a supplier of spare parts (the CAMATEL company based in Yaounde). In addition, the repairing craftsman receives the approval of the Divisional Delegation of the Ministry of Water and Energy. Thus by 2010, no artisan repairer was under contract with the municipality. The technical adviser in charge of the PEM called on the first to come; as a result, the repairers took away parts and money from the CGPE. Also, the poor execution of the repair work on the water works was noted. In addition, no maintenance was carried out but rather ad hoc repairs. This increased the recurrence of breakdowns. It was not until March 2012 that a maintenance and monitoring contract for the PEM was established between the commune and the artisan repairer. This contract specifies the obligations of each party. It also sets out the services provided by the artisan repairer at the expense of the CGPE. At present, there is a craftsman repairer for the entire district of Mbalmayo.

4-Administration: This comprises mainly the municipality and the Divisional Delegation of water and Energy (DD MINEE). The DD MINEE ensures compliance with the legislative and regulatory framework (laws and decrees) regarding the supply of drinking water. It provides assistance to the communal project owner (DD MINEE) and certifies the professional and technical capacities of the artisanal repairer. The municipality is responsible for project management, delegates the management of the PEM to the CGPE, collects the contribution to the monitoring and maintenance of the PEM, signs a PEM monitoring and maintenance contract with the artisanal repairer and pays the latter for the services carried out. In consultation with the MINEE delegation and the GIZ, it organizes exchange platforms in order to lay the foundations for closer collaboration between water stakeholders.

B- Rural water infrastructure management planning system

The management of rural water infrastructures is a method of management of hydraulic works which consists in ensuring in a recurring way the maintenance and the upkeep of these infrastructures - their preventive revision every 6 months whether these works are broken down

or not. This allows a real-time diagnosis of the functionality of these structures and to prevent the occurrence of a possible breakdown. In the following lines we will revisit the responsibilities of each actor involved in local water management. The following table summarizes these mechanisms in force in the rural area of Mbalmayo.

Table 1: Summary of water stakeholders' responsibilities for financing the maintenance of village water infrastructure

Municipality	Existence of contracts with RA	Existence of agreement of delegation of management of the EMP	Number of AR	Funding mechanism for for maintenance
Mbalmayo	Yes	24 conventions Signées	01	Levy of a contribution from the contributions of EMP users contributions from EMP users (2000 FCFA / month / CGPE) User contributions of which part is paid back to the Commune and the other retained locally. **<u>Responsibilities of the municipality</u>**: - Assuming the costs of maintenance maintenance costs for preventive preventive monitoring of the RA ; - Covering 50% of the cost of of the cost of repairs if it is greater than or equal to 50,000 FCFA; **<u>Responsibilities of the EPMC :</u>** **- 100% coverage of the cost of** the breakdown by the 100% of the cost of the breakdown by the CGPE when it is less than 50 50,000 FCFA and at 50% when the the cost of the breakdown is equal to or greater than 50,000 FCFA

According to Table 6, funds collected by the municipal authority is used for the management and planned maintenance of the rural water infrastructure in Mbalmayo. At the end of each month, each CGPE pays a sum of 2,000frs to the municipal authority. This money, 6000frs per quarter,

is placed in a local microfinance institution. It is used to cover maintenance costs during preventive monitoring by the RA, which amounts to 5000frs per visit, as well as 50% of the cost of repairing the breakdown if equal to or greater than 50,000frs. This money is further used to pay the labor force (animators and technicians) who provide maintenance and repair services for the water points as well as the monitoring of the CGPEs, to pool the resources of the different CGPEs for major breakdowns, and to set up a fund to carry out new drinking water supply projects (Figure 3)

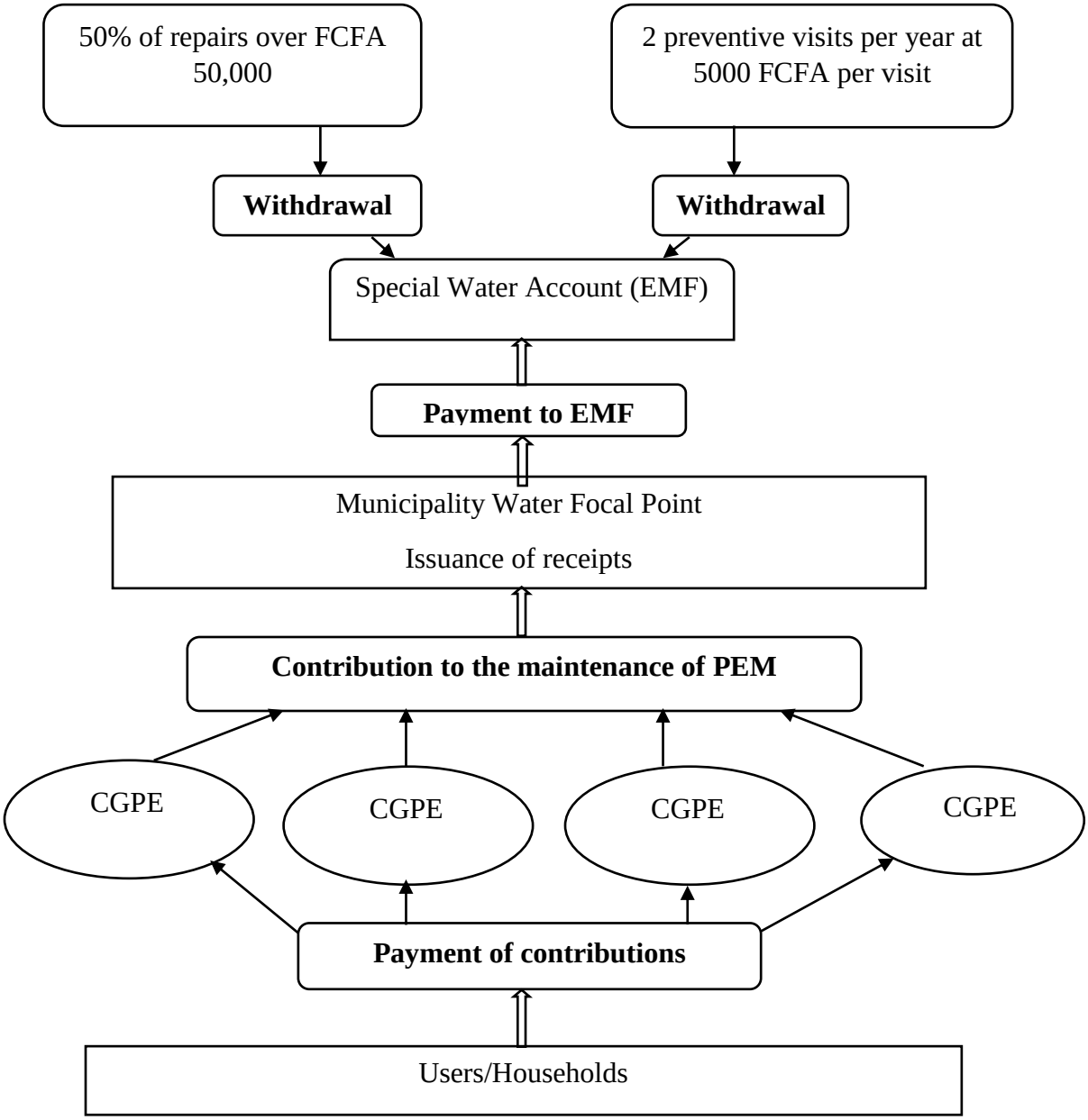

Figure 3: Mbalmayo Rural Water Infrastructure Financial Management System

Analysis of this figure 3 shows that the drinking water points in Mbalmayo have relatively good financial management. From the bottom to the top of the figure, users or households pay contributions to the CGPEs, which remit a good part of it to the municipality's water focal point, which issues receipts. The water focal point, on the other hand, secures the funds in a local microfinance institution, thus creating a special water account of the municipality, which is used to finance 50% of the cost of repairs to structures with breakdowns of more than 50,000 CFA francs or, if not, to finance two preventive visits by the repairing craftsman at a rate of 5,000 CFA francs per visit. This indicates that a set of practices of financial management of modern water points, has emerged. This is thanks to the decentralization measures implemented in the locality through partnership between the GIZ and the State of Cameroon under the support Program for Decentralization and Local Development (PADDL) which ended in 2016.

DISCUSSIONS

All local actors involved in the management of EMPs feel empowered in their roles and tasks thanks to a better formalization of relationships. Sustainability is perceptible through the good functioning of contractualization. Indeed, the water management committees have a clear understanding of their maintenance responsibilities as well as those devolved to the municipality. The outsourcing of maintenance has comparative advantages in terms of efficiency and capacity for initiatives to improve the quality of this service. Within the current configuration of municipal management, outsourced maintenance would be less sustainable than contractualization with a third party because of the often-observed salary delays that could affect the motivation of the municipal agents who would be in charge of maintaining modern water points.

The gradual adherence of the population to the principle of paying for water through contributions is a good indicator of the sustainability of the maintenance of the facilities, even if efforts still need to be made in this direction. However, the sustainability of all the achievements must be compared with the overall management of the municipality. The water focal point-as previously mentioned-although motivated, remains strongly handicapped by the lack of a means of transport to ensure the monitoring of the water management committees and the recovery of the contribution to the monitoring of the PEMs. Such a lack of monitoring may end up discouraging the CGPEs, which are currently in a good dynamic. The sustainability of the system depends in part on the political will of the municipal executives to support it adequately. While the Mayor has rarely opposed the implementation of initiatives taken to improve the management of the EMPs, he has, on the other hand, been very timid in releasing the substantial financial resources to support the system of participatory and sustainable management of the EMPs. In this context, Baron and Bonnessieux (2011) noted that the tensions that arise around water points are not only related to the diversity of ecosystems but a function of the availability of hydraulic infrastructures, their state of operation and the nature of their management mode. This is verifiable in the municipality of Mbalmayo as major risks weigh on the sustainability of the water service, namely the weakness of the maintenance services and the lack of capacity of the water management committees. In Mbalmayo, the high competence of the artisan repairer is not accompanied by a good availability of spare parts. He is often forced to make numerous and frequent trips to Yaounde to have enough stock on spare parts for repairs, whereas a spare part depot in Mbalmayo would have the advantage of shortening the RA's response time and supplying all the surrounding communes.

In addition, members of the CGPEs have more recently been chosen on relatively objective bases. While there is no doubt about the objectivity of the selection criteria, the fact remains that the elections of the water management committees members have not always been conducted as desired: it has often been difficult in some cases to find candidates for the position of president, since this position was held by the village chief in the outgoing office. There is also a tendency for the CGPEs to be made up in some cases of people living near the EMP, which contributes to making the other inhabitants little concerned about the water point, with the risk in the long run that some families closer to the EMP will tend to take it over. This is in line with the findings of Djedji (2011) that efforts are being made by the populations, the state and development partners to solve the problems of water needs, however, the management committees set up in some places are for the most part at the root of the conflicts that affect the maintenance of the structures.

CONCLUSION

In the context of decentralization, the contractualization of the maintenance of modern water points has impacted positively on the Mbalmayo water service. This is thanks to a sustainable management approach for human-powered pumps (PMH) in the public domain initiated by the municipal authority. This approach has thus put the municipality at the center of the problem of access to drinking water. Similarly, it is part of the logic of an alternative to the model of management in municipal control and of opening up to the private sector in order to ensure the sustainability of the water service. This approach also overcome the limitations of purely community-based management, whose performance after decades of practice has not been equal to the stakes. The contractualized management of PEM must, however, respond to three major challenges; appropriation of the concept of contractualized management by local stakeholders, securing continuity service and the implementation of local regulation. Local resistance must, therefore, be properly understood and addressed in order to guarantee the adoption of the approaches by all actors concerned. This challenge must be met by the Divisional Delegation of the Ministry of Water and Energy, which plays a regulatory role for the functioning of these water management system.

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