RURAL WATER SUPPLY MANAGEMENT IN TANZANIA: AN EMPIRICAL STUDY ON COWSO STRATEGY IMPLEMENTATION AND PRIVATE SECTOR PARTICIPATION

Alberto Fierro[1], Elina Nelaj[2],Ephraim Mwendamseke[3],Luca Traini[4], Claudio Muggianu[5].

[1]Doctoral School of Political Science, International Relations and Public Policy, Central European University, Budapest, fierro_alberto@phd.ceu.edu

[2]University of Turin, Italy, elinanelaj@gmail.com

[3]University of Dodoma (Udom), Tanzania, ephraim.benson@yahoo.com

[4]Lay Volunteer International Association (Lvia), Kongwa, Tanzania [Headquarter - Cuneo, Italy], luca.traini1985@gmail.com

[5]Lay Volunteer International Association (Lvia), Kongwa, Tanzania[Headquarter - Cuneo, Italy] claudio.muggianu@gmail.com

Abstract: The paper develops an analysis of the Tanzanian legislative and policy framework on rural water supply. It investigates the Cowsos system and assesses the private sector participation in the management of rural water projects. The research developed a quantitative-qualitative integrated approach through a semi-structured questionnaire submitted to District Water Engineers of Dodoma Region. The research shows that Cowsos establishment and registration process lacks of dedicated financial resources, clear guidelines and adequate directives from Central Government to Local Government Authorities, and highlights that Cowsos and the private sector can coexist in a management formula that holds together independence and community participation.

Keywords: *rural, water, management, Cowso, private.*

Sommario: L'articolo fornisce inizialmente un'analisi completa del quadro normativo nazionale sulla gestione delle risorse idriche in Tanzania, e successivamente esamina il sistema di gestione delle COWSO e la partecipazione del settore privato. Attraverso un approccio integrato quantitativo-qualitativoil team di ricerca ha sviluppato un questionario semi-strutturato destinato agli ingegneri dei distretti della Regione di Dodoma. I risultati dimostrano che l'iter di registrazione delle COWSO è rallentato da insufficienti fondi, assenza di linee guida chiare e di direttive adeguate per le autorità locali. Il rapporto evidenzia infine come COWSO e settore privato possano co-esistere secondo una modalità che garantisca indipendenza e partecipazione delle comunità

Parole chiave: *sviluppo, rurale, gestione, acqua, privato.*

1 Introduction

The aim of this paper is to contribute to the general objective of improving access to sustainable water service in rural areas of Tanzania. This goal is a priority for the Tanzanian government and for international organizations: availability of clean and safe water is a human right and also a key element of United Nations Sustainable Development Goals (Sdg 2016, Target 6.1) Despite general acknowledgement of this priority, the percentage of people with sustainable access to improved water supply has not increased considerably in the past twenty years. Therefore, a joint effort of all the relevant stakeholders is required.

At the basis of government's policy for improving access to sustainable water service there are three strategic actions:

- Increasing water supply coverage through new projects and rehabilitations of old ones;
- Improving water management systems;
- Strengthening supervision and monitoring of the sector.

The National Water Policy (Nawapo) launched in 2002 established "community participation" as one of the main principles for the management of rural water supply. The Water Supply and Sanitation Act (Wssa) No. 12 of 2009 presents Community Owner Water Supply Organizations (Cowso) as the only legal management entity entitled to implement Nawapo's principle. The Wssa introduces Cowsos in order to improve local water management systems by ensuring communities participation, ownership and independence in the management. Cowsos are organizations elected at water scheme level (single or multi-village water scheme), where members represent each sub-village or each water point, and with a management board composed by chairperson, secretary and treasurer. Through Cowsos, a community can effectively participate in owning, planning, maintaining and operating water supply projects and sanitation facilities.

Wssa illustrates how Cowsos are formed and registered. Established Cowsos may take the following prescribed forms: water consumer association, water trust, cooperative society, non-governmental organization, company, any other body as may be approved by the Minister (Wssa, 2009, p. 450). In accordance with the Act, the registration responsibility has been shifted from the Ministry of Water (Mow) to the local level. From the date of the registration the community organization shall be responsible for the water supply system (Water Supply and Sanitation Act, 2009, p.451)

Two Government's reports - Water Status Report – Making the end of Water Sector Development Programme (Wsdp, 2014) and The National Rural Water Sustainability Strategy (Nrwss 2015) – state that Cowso registration needs to become a priority and underline poor results achieved. They also identify the shortening of the Cowso registration and formation process as one of the short-term priorities.

The Nrwss identifies roles and responsibilities of Lga and presents main gaps between policies and practice: local authorities are often unable to meet their obligation in the facilitation of Cowso. "There are not efficient mechanisms to assure transparency, integrity and accountability for income and expenditure at community level. Capacities and skills are inadequate to manage rural water supply services" (Nrwss, 2015, p. 23). The consequence of these problems can be serious: as stated by the strategy, often Cowso have inherited the same challenges of former water management organizations (Ibid.).

Nawapo also highlights the importance of involving the private sector in rural water supply management. Two other policies - the Wsdp (Wsdp2006, Annex V) and the Wsdp II - suggest the promotion and strengthening of independent management entities, including private agents/operators as providers of goods and services. Wsdp II states that in some areas autonomous entities are found to be more sustainable, although there is a higher risk of excessive profiteering for

private operators. However, this risk can be reduced or avoided by stipulating well-designed contracts.

Tanzanian law - Act no. 12/2009 - regulates private sector participation in water supply, establishing - under section 35 - that a "service provider" may be hired by Cowsos for performing its functions and exercising its powers. In order to accomplish this role, providers shall sign an agreement with specific terms and conditions that has to be approved by the local government authority.

The next section briefly highlights the aims of the paper. Section three provides a description of the methods used to conduct the research. Section four presents the main results: first through a focus on Cowsos and the registration process; then it discusses the role the private sector in management of water schemes and finally it underlines problems and areas of interventions. Section five concludes.

2 Aim of the Research

The present research provides an analysis of water schemes management in the Dodoma region. Specifically, the paper illustrates characteristics and problems of the Cowso system. In fact, Cowso are the key actor chosen by the government to achieve the objectives set in the rural water policy. Cowso space of formation and registration is low: as Wsdp II underlines, the registered Cowsos are only 460 over 2,727 planned (i.e. 17 %) (Water and Sanitation Sector Review, 2014, p. 17). In order to transfer legal ownership of water projects to local communities, Cowso must be established and registered and must participate in "owning, planning, maintaining and operating water supply projects and sanitation facilities" (Nrwss 2015, p.6).

The second focus of the paper is the role of the private sector in rural water supply. There are many public water schemes run by private operators. Since Nawapo, Tanzanian government suggests fostering the involvement of privates in water service delivery, and the decision to transfer the legal property of water projects to communities should not be interpreted as an obstacle to this aim. Cowsos and the private sector can coexist in a formula where the first is the owner of the water scheme, legally recognised by the Tanzanian Government, and the second is the one entitle to daily manage it through a proper contract which sets among the other things an equitable water price.

3 Materials and Methods

The general aim of the research, the methodology and the expected outcomes has been deeply discussed with three crucial stakeholders: the National Water Network (Tawasanet), the Minister of Water and the University of Dodoma. At an early stage of research planning, a meeting with Tawasanet helped in conceptualizing the research: the research team considered rural water supply policies as a flow of information and responsibilities: starting from the normative and national framework of the Government, moving to districts – which are the administrative and political bodies that have the specific duty of implementing government's plans– and then to villages, where the water schemes are concretely realized and managed.

Study area

Thus, the research team conducted field research in the Dodoma region, focusing on the districts. This paper can be considered as the result of a pilot project, in which objectives and methodology are easily extendible to other regions or to the national level.

The selected area of investigation includes all seven Districts of the Dodoma region. These are: Bahi, Chamwino, Chemba, Dodoma, Kondoa, Kongwa and Mpwapwa. The Dodoma region was selected as consequence of the fact that Lvia (international non-governmental organization based in Italy) works in Kongwa and Chamwino districts since more than twenty five years, enabling the research team to have enough background knowledge about the water supply situation in those areas. The Dodoma region, located in the central plateau of Tanzania and one of the poorest regions of the Country, is highly in need of effective and sustainable water supply services. The climate is semi-arid, with a unique rainy season of 4-5 months. The annual rainfall is about 400 mm per year, with rainfall pattern very variable and cyclic drought event every six-seven years.

Data collection and analysis

The field research consisted of seven semi-structured interviews with the District Water Engineers (Dwes). These officers are employed by the District and manage the Water Department. They are responsible for the water supply and the sanitation services; furthermore, they constitute the main reference for the managers of water schemes in the villages.

Based on the mentioned meetings and a careful review of existing laws, policy and the water sector scientific literature, the research team prepared a questionnaire for conducting the semi-structured interview with the Dwe. The questionnaire was divided into three sections:i) Cowso establishment and registration; ii) Private sector involvement into water supply system; and iii) Monitoring & Supervision.

The research team conducted all interviews to Dwe during July and August 2015. The questionnaires were drafted in English, although the composition of the field research team (four people with two Kiswahili native speakers) allowed switching from English to Kiswahili in case of misunderstandings or linguistic problems. After having concluded the field research, in some cases it was necessary to contact again the Dwe for completing the dataset. The average time needed for the semi-structured interviews was 1 hour and 30 minutes.

4 Results

Types of management

The first question to District Water Engineers assessed the total number of water schemes in each district. In the region of Dodoma a water scheme is usually serving one or few villages, and is technically composed by a borehole, a pumping system, a reservoir and the distribution network. According to their answers, in the region of Dodoma there are 397 water schemes, divided in seven districts.(Fig. 1)

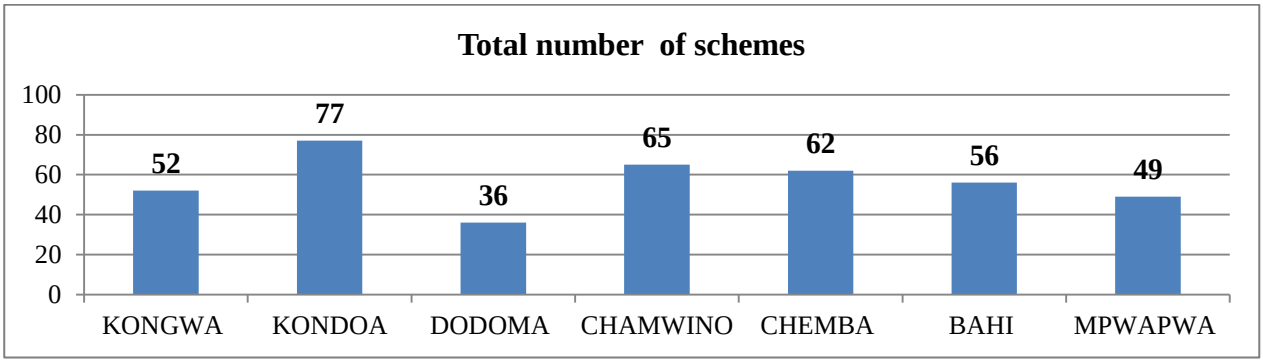


Fig.1- Total number of water schemes in each district of the Dodoma region

The quantity of water schemes differs from to the number of villages: in fact, some water schemes serve more than one village. The district with the highest number of schemes is Kondoa (77). Five districts have a number of schemes between 49 and 65, while Dodoma Municipal Area has 36 water schemes.

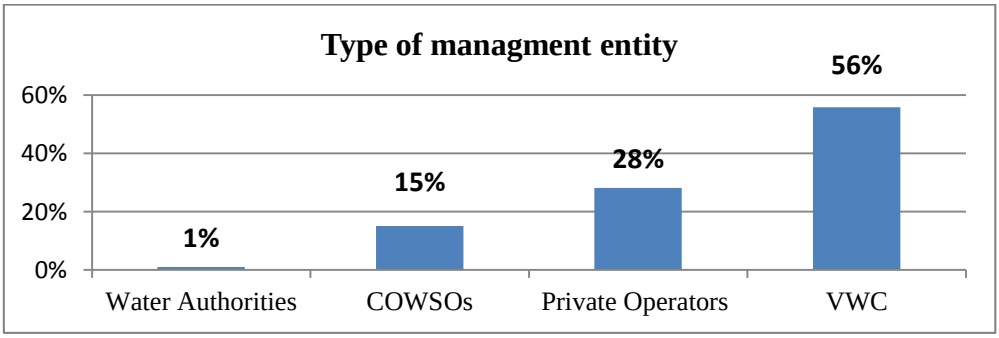


Fig.2 - Types of management (in percentage) in the Dodoma region

Figure 2 presents the percentage of each management entity at regional level. More than half of the

schemes are run by "Village Water Committees" (Vwc). This kind of management entities existed in Tanzania long before Cowsos and Private Operators (Po), and that's why Vwc run the majority of water schemes.

"Private Operators"are usually citizens of the village who become managers of the water scheme. They use to sign contracts with the Village Government, agreeing on financial and technical issues concerning the scheme.

Cowsos are the entities entitled to legally own the water schemes. Additionally, they can manage directly the water systems or they can appoint "service providers". The process of establishing Cowsos in the rural areas of Tanzania has still to improve and the Dodoma region can be considered an example of this challenge: only 15% of all management entities are Cowsos.

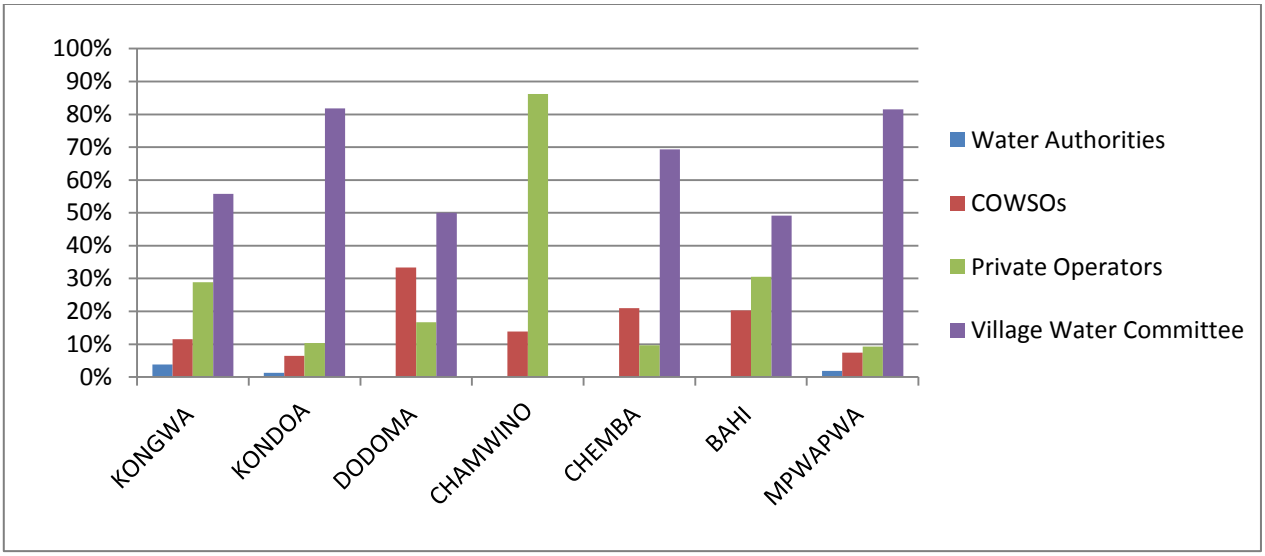


Fig.3 - Percentage of each management entity in the seven districts of the Dodoma region

Figure 3 shows the distribution of different management models across Dodoma's districts. Almost in all cases the most common management is the Village Water Committee. Chamwino District is a peculiar exception, having the highest number of Private Operators. Then, just three districts have a percentage of Cowso from 20 to more than 30%, while the other four districts have approximately from 0 up to 10% of Cowsos.

Role of Private Operators

It is difficult to deduce unequivocally the role of private operators in the management of rural water projects from the normative and policy framework. Since the approval of Wssa in 2009, every scheme should be owned by a registered Cowso that can appoint a (private) service provider to perform management functions. The government suggested in many documents to increase the participation of private operators in rural water supply; yet, the only normative framework that can include private operators seems to be the Cowso system. The reality in the Dodoma region is very different because almost all Private Operators have made written or oral agreements with the Village Governments (Vg) rather than Cowsos (the only exception are three schemes of Bahi District that have Cowso and Po together).

In all districts analysed, private operators are not companies, but citizens appointed by village authorities - usually through open calls - to run the water schemes. As previously mentioned, they manage water supply under all points of view. All Dwe highlighted that Po are collecting water fees, paying tap attendants and are responsible of ordinary technical maintenance of the scheme (for extraordinary works it is normally the village covering costs). They usually pay a monthly fee to the Vg as a kind of rent for the water scheme, which - in the large majority of the cases - remains property of the village.

Although Po can be considered fully responsible for the management under a practical point of view, in Chemba District the Dwe had a slightly different view: “Po are within the control of Village Governments or Water Committees, so it is the Vg that can be considered to manage the scheme”. This observation highlights the fact that the communities shall always be considered the “real” managers, which can freely decide to delegate their functions to other actors.

Resources for Cowso

In order to be able to establish and register Cowso according to the normative framework, districts

need basically three elements: adequate financial resources, proper information/guidelines and trained officers. The following graph presents, for each district, the percentage of water department's budget (2015) dedicated to Cowso establishment and registration.

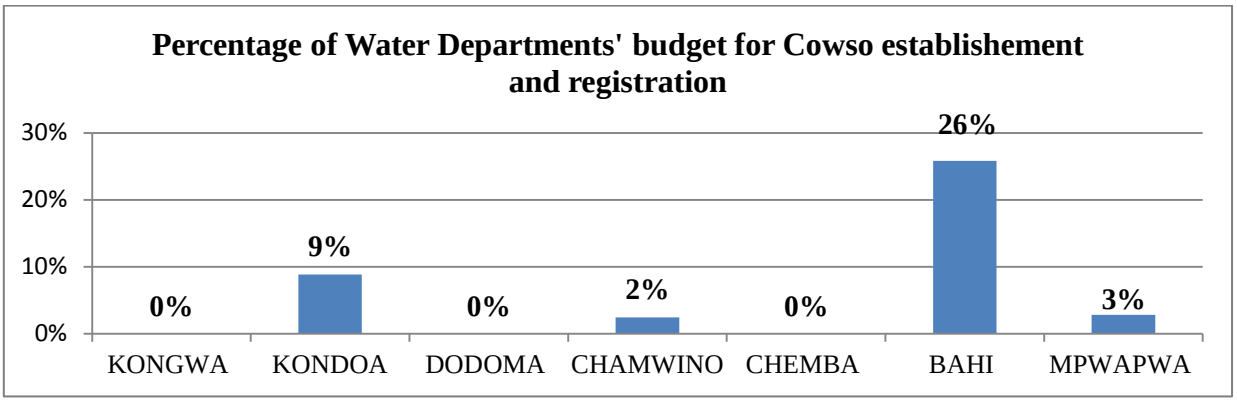


Fig.4 - Percentage of Water Departments' budget (2015) for Cowso establishment and registration.

The figure shows that the situation in the region is very heterogeneous. In two districts – Kongwa and Dodoma – Dwe explained that they do not have any specific budget line for Cowsos. When they need some funds for establishment or registration of Cowsos they reallocate resources from the general budget of the water department. Interestingly, two Dweaffirm that, sometimes, it is possible to use a part of water scheme savings in order to facilitate the development of the existent management into a Cowso. All Districts - except one - reported that it is impossible to reallocate the resources dedicated to Cowsos once the budget is approved.

In order to determine whether the District Water Engineers have all the necessary information on the government policy about Cowsos, the research team asked if the relevant documents and laws were available.

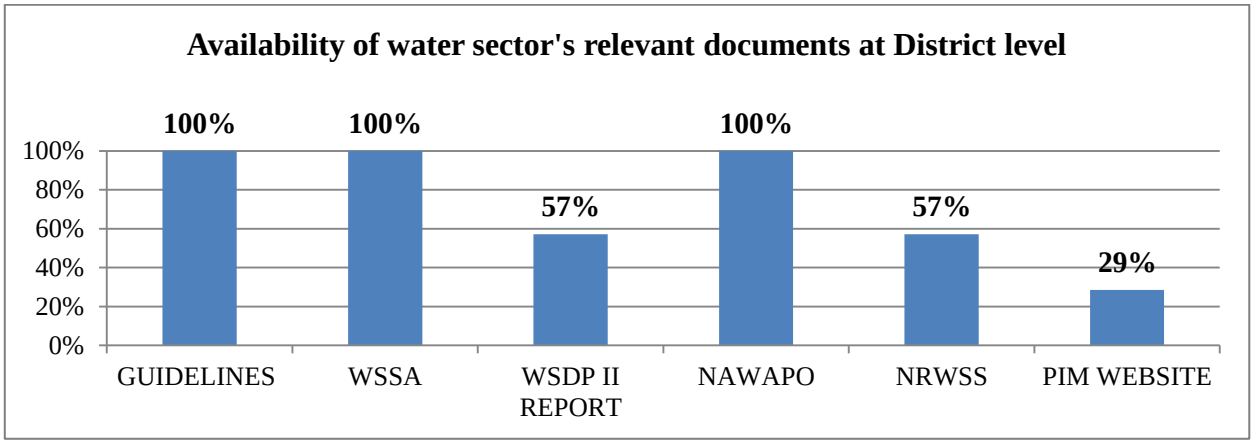


Fig.5 - Percentages of availability of some relevant documents at Dwe's offices.

The question focused on five paper documents and one website. Figure 5 shows the availability of the documents at regional level. From Dwe answers it is possible to recognize that the flow of information from government to Local Government Authorities face some challenges. Documents that are relatively old are known and available in the districts. In case of more recent policies, i.e. Wsdp II and Nrwss, three engineers reported not to have them. This implies that the engineers are not properly updated about the recent national strategies and new targets in rural water sector.

In order to understand deeper the role of the districts for Cowsos establishment, it is useful to look at their involvement for the facilitation of Cowso leaders' election. Figure 6 shows, at regional level, the type of activities conducted by districts (expressed in percentage of district) to facilitate the Cowsos establishment.

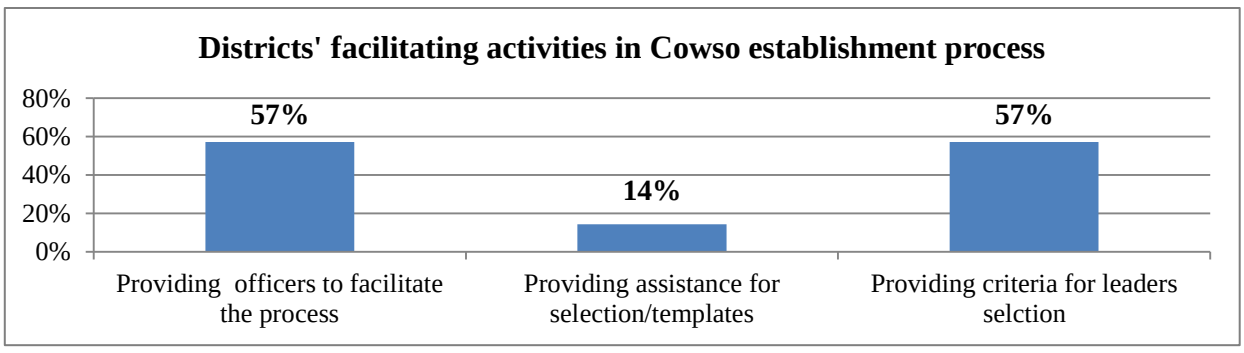


Fig.6 - Facilitating activities implemented by district (in percentage) in Cowso establishment process

In four districts (57%), the water department provides villages with the selection criteria for Cowso leaders. They include: a gender balanced selection, an appropriate level of education (at least being able to read, write and count), independence from the Village Government and a feeling of responsibility toward the Cowso. The same number of districts sends officers to facilitate the election process. In three cases the district employees only check if the guidelines for leader selection are followed.

Cowso's establishment and registration process

The status of registration of Cowsos at national level is low. The water sector report for marking the end of Wsdp phase-I 2014 underlined that, out of 2,728 Cowsos planned by June 2014, only 460 (17%) were established and registered. The main problem highlighted by the Ministry of Water is the lack of funds allocated by Lga for undertaking the process. Often, even when the funds are set, they are reallocated for other purposes (Wsdp II p.17).

In the Dodoma region there are 72 Cowsos: 41 already registered (57%) and 31 (43%) in the registration process. The unregistered Cowsos are composed by: i) Cowsos that are already managing the water schemes although the process is not completed (36% of all 72 Cowsos, ii) Cowsos that are not operative during the registration process (7% of all 72 Cowsos). In the last case, Vwc usually keep on running the water projects.

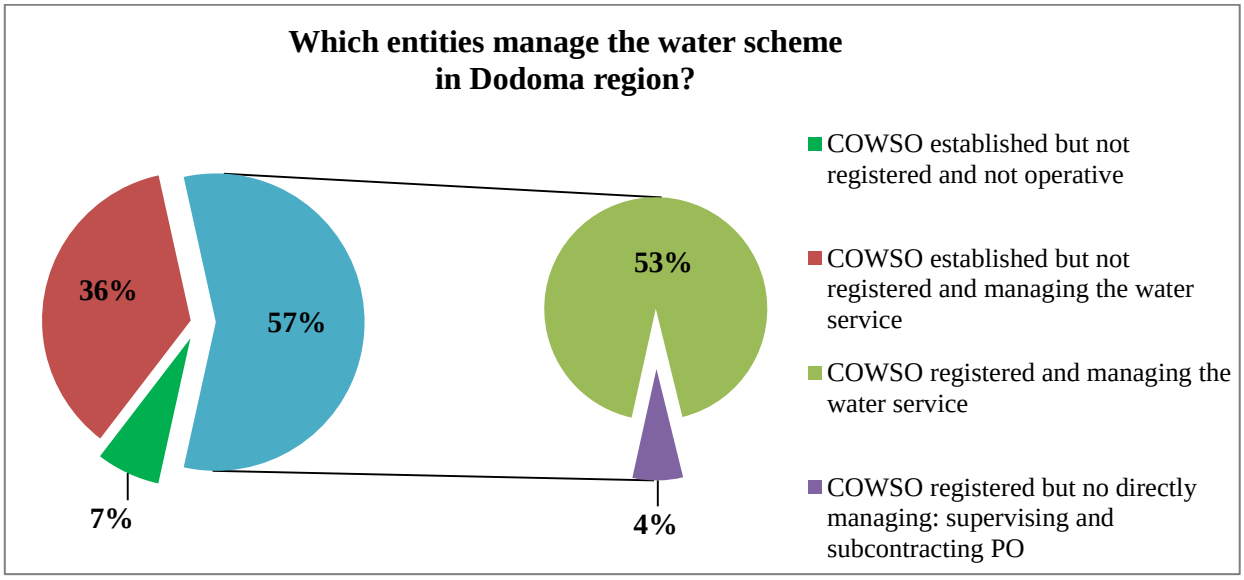


Fig. 7 - Percentage of registered and unregistered Cowsos in the Dodoma Region

In 2014, districts have registered the 49% of the total amount of registered Cowsos (41) in the region. Three districts did not register any Cowsos until 2014. The Cowsos planned to be registered last year in all districts were 79 while only 25% were registered. The total number of registrations planned in 2015 dropped with respect to last year by 9%.

In the Dodoma region the districts have different budgets for establishment and registration of Cowsos; this affects the homogeneity of their plans. In fact, the number of Cowsos to be registered yearly depends on the available resources.

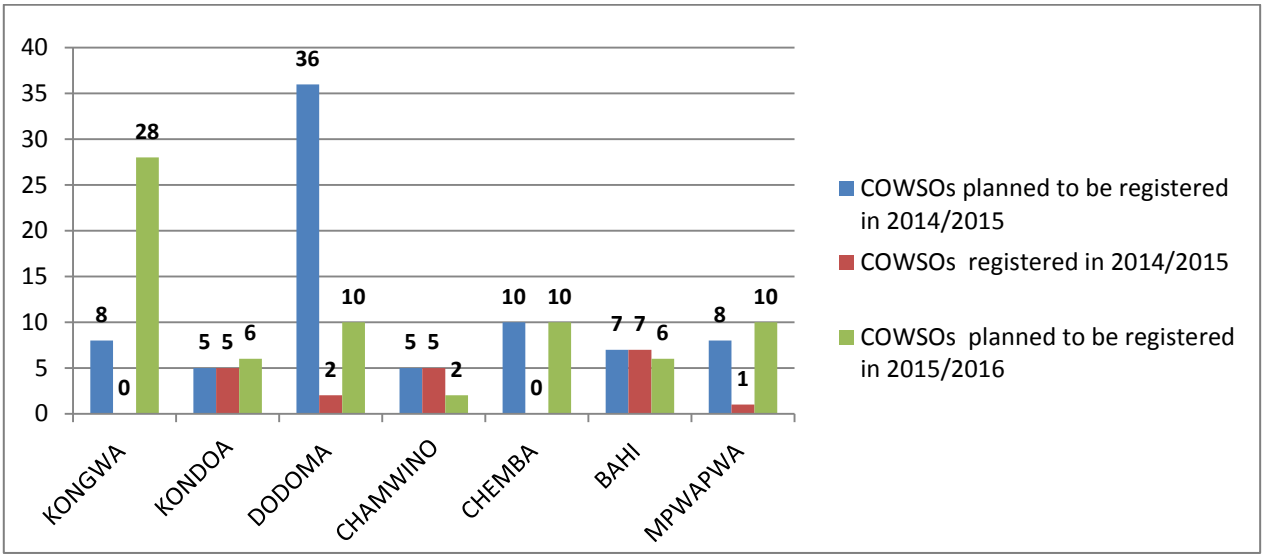


Fig 7 - Percentage of planned and registered Cowsos

Interestingly, the two districts that did not register any Cowso in 2014 are the ones not having a specific budget line for establishment and registration (Kongwa and Chemba). The third district without separate budget is Dodoma that last year planned a very high number of registrations. It is fair to say that districts with no dedicate budget for Cowso registration face more challenges in planning the annual objectives as well as estimating the needed funds. Moreover, a detailed plan with exact expenditures could speed the implementation phase and increase the performances of the districts. Also the amount of budget dedicated to Cowsos seems to play an important role for the registration rate: the two districts that achieved to register 100% of last year plans (Bahi and Kondoa), are the ones which dedicated the highest percentages of water budget to Cowsos (Bahi 26% and Kondoa 9%).

In order to guarantee a smooth establishment and registration process of Cowsos, the government prepared guidelines that describe in details all the necessary steps and the actors involved. The guidelines divided the procedure for creating a new Cowso in three distinct activities:

- Establishment
- Registration
- Election of permanent committee

The establishment phase consists of ten steps. Among others, they include the presentation of the general idea to the village assembly, the choice of which is the most suitable type of Cowso, the drafting of constitution guided by an interim committee and final approval by the district.

The registration process consists of nine steps, starting from the village application (which shall include, also the draft of the constitution and the minutes of meetings), to the examination of the application by the district registrar, the payment of registration fee and the final approval with the issue of the registration certificate.

Districts simplify the procedure suggested by the guidelines. Indeed, the division into three activities (establishment, registration and election of permanent committee) for a total of twenty steps seems too complicated. The consequence of this complex procedure is the heterogeneity across districts. Probably, districts are just adapting to a procedure which is too complicated.

To constitute a Cowso (i.e. registration included) districts need, on average, from a minimum of 48 days (Mpwapwa) to a maximum of 90 (Bahi, Chemba and Dodoma). In figure 9, Dwe answers are represented together with the amount of days suggested by Nrwss. In fact, according to government calculations, the current process last on average 252 days, while the proposed procedure will last 42 days. The main difference between the two procedures is the absence of Ward (the political entity between districts and villages) level approval: policy suggests eliminating this step because it requires time.

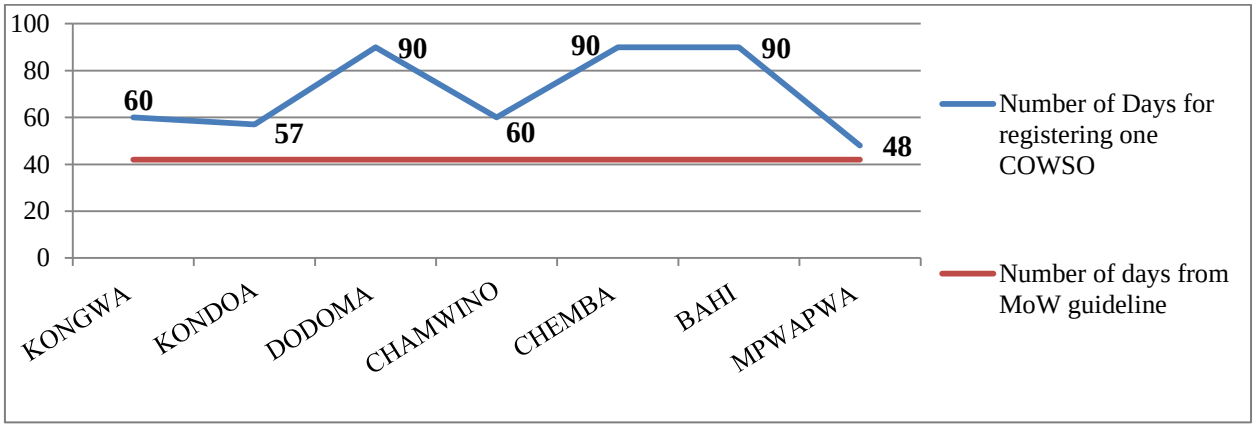


Fig.8 - Average time for Cowso establishment and registration in each district.

The following graph shows, for each district, the amount of money necessary to establish and register one Cowso. These data were collected through a direct question to Dwe. Some of them could not confirm an exact amount to establish one Cowso, so they provided a total amount spent for Cowso establishment and registration in the district that was then divided by the number of entities indicated by the engineers. Some others had a complete budget of all necessary costs and the final total amount. As it is possible to recognize by looking at the figure 9, Dwe's answers are very heterogeneous.

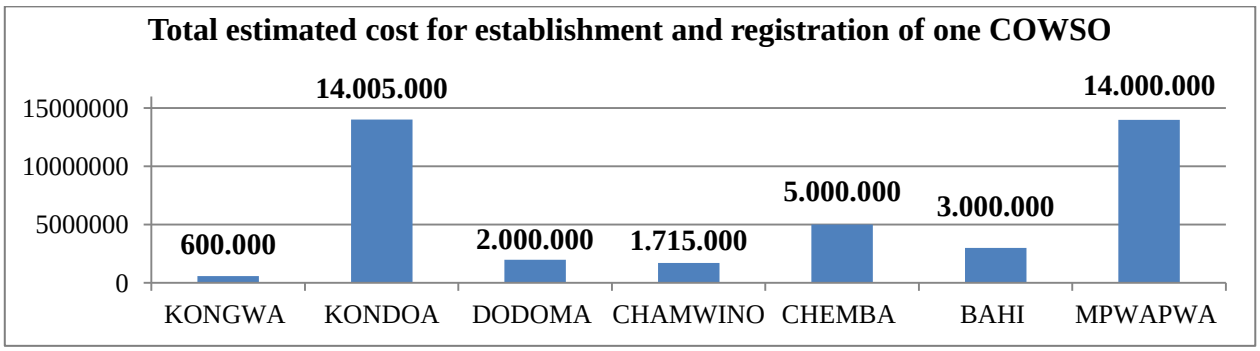


Fig.9 - Total cost, reported by Dwe, for establishing and registering one Cowso

The reported costs vary from a minimum of 600.000 Tsh, around 260 Euro, (Kongwa) to a maximum of 14 million Tsh, around 6.000 Euro, (Kondoa and Mpwapwa). It is beyond the scopes of present research to investigate in details the reasons of these discrepancies, yet it is necessary to underline that it is highly possible that Dwe calculated these total amounts referring to different

data. Yet, a brief analysis at district level can be useful to better understand the relative magnitude of funds dedicated to Cowsos. It is noteworthy, that in three out of seven districts, there are no dedicated budget lines for Cowsos. Dwe referred that when they need funds they reallocate resources from the general budget.

In the four districts that have a dedicated budget line, the funds available are not enough in three cases. Only one district calculated the amount of budget dedicated to Cowsos by multiplying the unit costs and the number of entities planned.

Problems hindering the establishment and registration of Cowsos

The major problem highlighted by Dwe is the lack of funds for facilitating registration activities. The districts need on average 71 days for establishing and registering one Cowso. The whole process needs time, human and financial resources. Some districts are blaming the central government for underprivileged allocation of budgets for Cowsos registration. Also lack of human resources is a problem for the proper implementation of the strategy, as 29% of districts highlighted.

57% of Dwe highlighted lack of awareness of villages as one of main problems. Cowsos strategy is a new idea in rural communities and even though it was legally established in 2009, many districts started the implementation only in 2013. Villagers often do not understand why they should establish Cowsos. In some cases districts go and train villagers several times but the community does not agree with the idea. Hence, districts need extra time and funds to train and raise awareness.

Conflicts between stakeholders are affecting 57% of the districts. Water schemes have been the main source of revenue of village authorities for many years and, now, the introduction of new management entities is raising a conflict of interest.

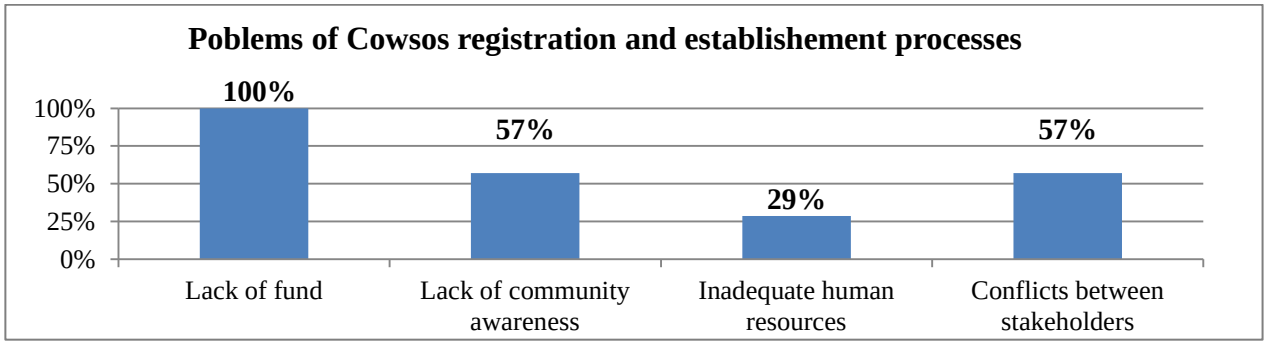
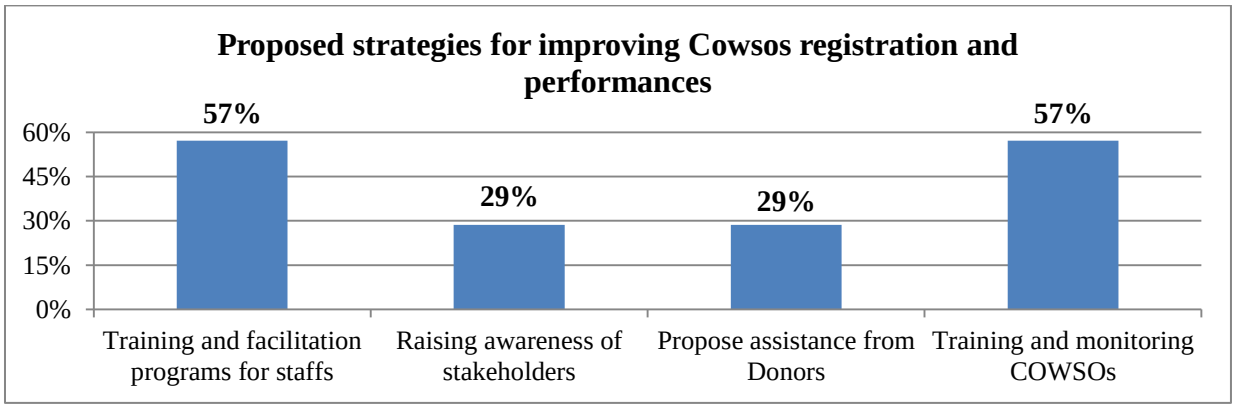


Fig.10 - In percentage, the problems reported by Dwe that hinder Cowsos establishment and registration

Since Cowsos strategy is new for many water stakeholders, 57% of districts proposed to develop training and facilitation programs addressed to districts' staff, as an important aspect for future improvement of establishment and registration process. 57% of districts highlighted that, training and frequent monitoring is a good strategy for improving Cowsos performance.



Graph 11 - Proposed Dwe's strategies (in percentage) to improve Cowsos registration and performances

Private Sector

The second part of the interviews with Dwe focused on the role of private sector in rural water management. As we have previously shown, in the Dodoma region private operators are the second largest group (28%) running water schemes. Generally, they are responsible for the operation of the scheme and for the ordinary maintenance. Usually they conclude agreements with village authorities, instead of Cowsos as it should be in accordance with the law.

The research team asked to the District Water Engineers if they received directives from the government on how to regulate the involvement of private operators. All of them reported that they never received any guideline or advice; the only normative source mentioned is the National Water Policy of 2002,which states that the involvement of privates (for service delivery) should be improved and facilitated (Nawapo 2002, p. 34).

District Water Engineers were asked to evaluate Private Operators' performances compared to other types of management. Figure 16 shows Dwe's answers: three of them (43%) think that Po perform "worse" than other types of management systems. On the contrary: two (29%) affirmed that they are "better", while other two are convinced that Po are "much better".

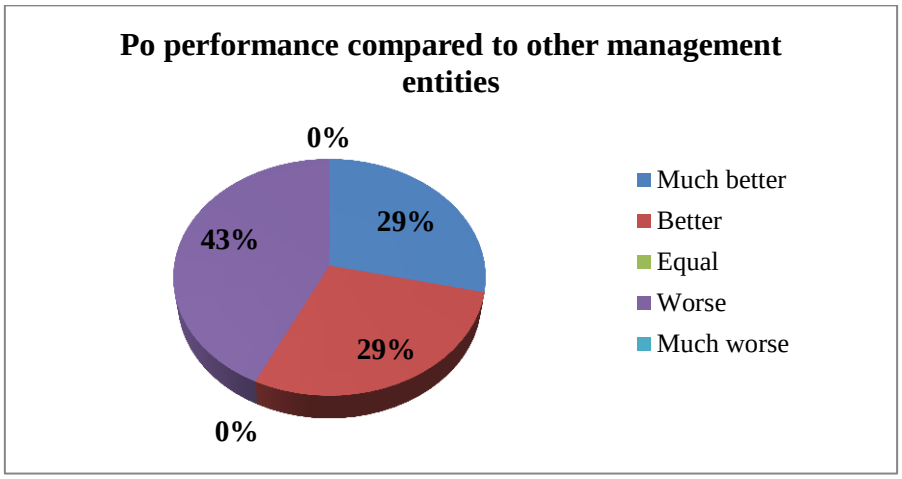


Fig.12 - Opinion of Dwe on Po's performances compared to other management systems

According to the Dwe's opinion, Po are better than other management entities in collecting revenues. They achieve to have high savings, pay regularly the fees to the villages and have enough resources for buying spare parts: four Dwe (57%) mentioned this financial advantage. Three District Engineers (43%) underlined that, when Po are managing the scheme there is less bureaucracy: decisions are taken faster and the reparations are more efficient and take less time.

On the other hand, five Dwe (71%) accused Po of excessive profiteering: they often pay low fee compared to what they earn. It is interesting to note that only two Dwe among those who evaluated

Po as "worse" reported this problem; hence, the other three engineers think that Po are generally better, even considering this factor. Three Dwe (43%) are convinced that Po are less sustainable in long-term: basically because they use too much the machine without taking enough in consideration the risks of breakdowns and the long-run maintenance.

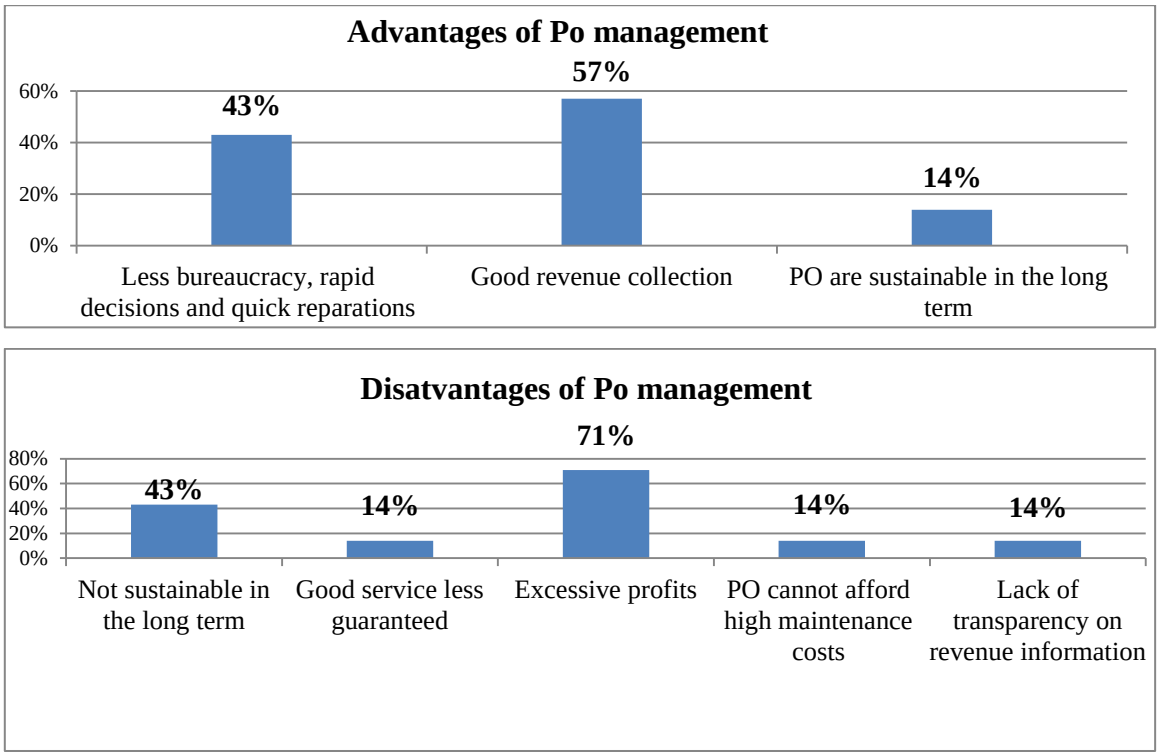


Fig.13 - Advantages and disadvantages of Po according to Dwe

Then, the interview with the District Water Engineers moved to the analysis of another important issue: how can Cowsos and Po coexist? Four interviewees (43%) reported that if a Cowso is present in the village, the Po should sign a contract with it rather than with the village government. Afterwards, the research team asked the District Water Engineers if they thought that the rural water supply sector was able to attract private investments. 71% (five out of seven) replied "yes". Yet, Dwe argued that there is need of more incentives to attract private financial resources in the sector.

Main problems and areas of interventions

Government strategy aims at establishing and training Cowsos to ensure sustainability of rural water projects (Nrwss, 2015 p. 35). Despite the efforts of the government, in the Dodoma region the system is still dominated by Village water committees (58% of the total).Most of Dwe highlighted as main problem the lack of funds to facilitate Cowsos registration. Furthermore, the study has showed other associated problems, including poor planning, unclear guidelines, inadequate directives and low information sharing from central government to Local Government Authorities.

The Cowsos' establishment and registration process needs adequate financial resources, proper information/guidelines and trained human resources. The inadequacy of these resources can affect the proper implementation of the plans. In the Dodoma region, only 25% of all Cowsos planned in 2014 were registered. The study found that, some districts do not have a specific budget line for Cowsos, which is a strong cause of the failure in achieving their objectives. On the other hand, districts which had a separate budget line for Cowsos performed better.

Availability of information and proper guidelines is also a challenge. The directive on Cowsos establishment and registration released in 2010 by the ministry is not very clear. Then, districts decided to modify/adapt it in their own ways, affecting the homogeneity ofprocedures across districts. The government also did not provide any guideline suggesting the cost of establishing and registering a Cowso, which could help Lga to plan and allocate adequate resources.As likely consequence, districts spend highly dissimilar amounts for similar processes.

Therefore, government and districts could improve the process of establishing and registering Cowsos by observing the following recommendations:

- The government should: i) increase its support to Lga for implementation of Cowsos strategy; ii) revise and update Cowsos guidelines; and iii) improve the flow of information to the districts about recent initiatives.

- Districts should i) develop detailed budgets for Cowsos registration and allocating sufficient funds, ii) prepare proper plans with all necessary activities for the whole establishment and registration processes.

Finally, the contracts between Private Operators and Village Government/Cowsos are often not properly drafted. There should be a standard format from central government that can be used all over the country. The contracts should highlight the average expected revenues and costs according to the type of scheme and the dimension of the village. Moreover, they should suggest the profit margin for the Po on the total revenue.

5 Conclusions

In the Dodoma region, Cowsos are still a small percentage (13) of all water schemes. So, it is necessary to increase training activities for Lga (as well as village communities) in order to clearly and effectively introduce the concept of Cowso. As this research pointed out, districts with a dedicated budget and plan for Cowso registration perform better. Therefore, district planning and budgeting capacity has to be strengthened in order to foster the implementation of the strategy.

Generally, we find that the role of the private sector is underestimated, and mainly involved as Private Operators. Therefore, the government should, on the one hand, stimulate private sector involvement and, on the other hand, it should not underestimate the risk that, without appropriate contracts and bonds, the private sector could get excessive profits.

The important principle of community participation in the management of water projects should go together with a stable support of the Lga. Autonomous decision making of the villages must not imply dereliction. The communities need more help for selecting, establishing and registering Cowsos. They and the private sector can coexist in a formula that holds together two advantages: first, Cowsos seem more independent from village government with respect to other entities; second, Po are often more efficient than others in the ordinary management of the scheme.

Finally, Lga should develop training programs to communities on project management, financial management, record keeping, business planning and report writing before handling the water project to the communities. Moreover, in order to strengthen and regulate the relations between Cowsos and private sector, Lga should draft model of contract, provide support trough expert lawyers, improve Cowso’s contractual capacity and ensure the Cowso’s right to contest contracts at all judicial levels.

6 List of Acronyms

Cowso	Community Owned Water Supply Organisation
Dwe	District Water Engineers
Lvia	Lay volunteers International Association
Lga	Local Government Authorities
Mow	Ministry of Water
Nawapo	National Water Policy 2002
Ngo	Non-Governmental Organization
Nrwss	National Rural Water Sustainability Strategy
Po	Private Operators
Tawasanet	Tanzania Water and Sanitation Network
Tsh	Tanzanian Shillings
Udom	The University of Dodoma
Vwc	Village Water Committees
Wca	Water Consumer Associations
Wsdp	Water Sector Development Program
Wssa	Water Supply and Sanitation Act
Wssr	Water and Sanitation Sector Review
Wua	Water User Associations

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