

The role and the potential of the Federations to sustain the maintenance of the existing water points.

1. The initial challenge:

Let us first recall that Federations are made up of volunteers members, elected from the different Water Association from a same Kebele. Their main objective is to support their users, through the Water Associations, for the management of their water points. The Federations represent an intermediate level between the users and the corresponding Water Office (public sector). In very mountainous and remote areas like in Dawro or Gamo Gofa Zones, the creation of Federations undoubtedly provides an adequate solution to minimize the difficulties for the local institutions to follow a large number of distant communities. Considering the accessibility constraints, in relatively massive and sloppy areas, and the tight human and logistic resources of the Water Offices, it appeared indeed complicated to develop effective maintenance services for all water points, without any reliable relay actors.

Consequently, to facilitate the practical application of this measure, a new challenge is now to train and develop the skills of the newly created Federations so that they can fully play their role. That challenge comes in addition to the necessity to continue to develop the capacities of the Water Offices. Considering that there are about 20 Federations in each Woreda, and that the scope of intervention of Inter Aide covers 11 Woredas in 4 Zones, this challenge is substantial.

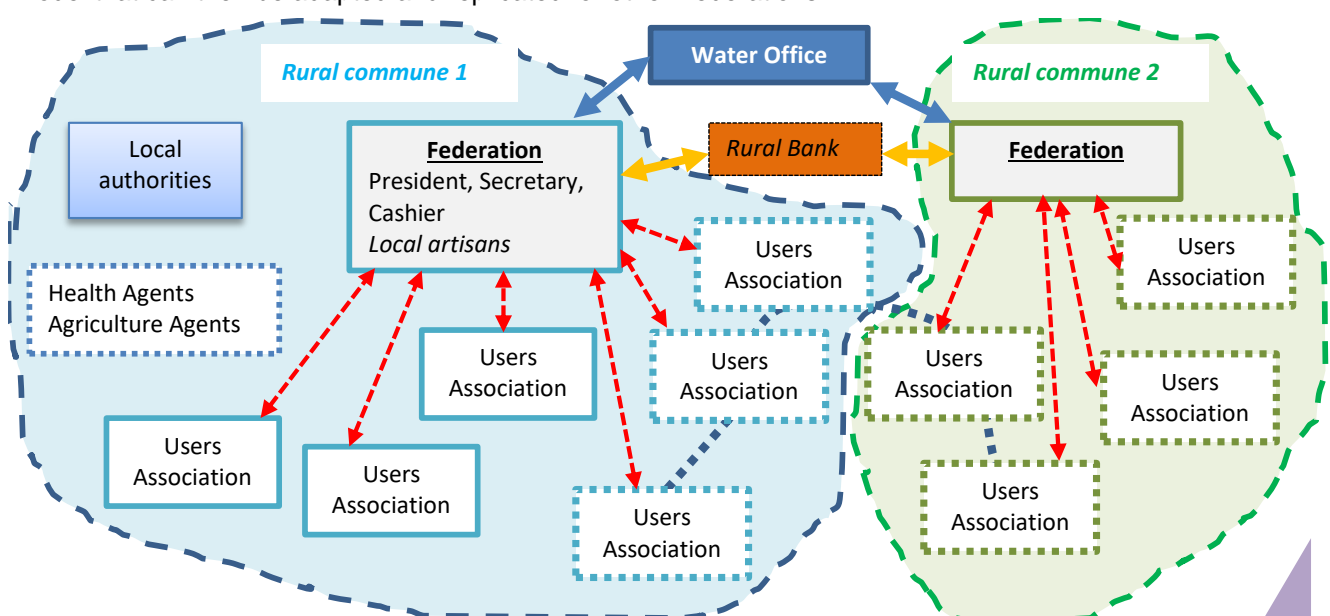


One may indeed worry about the multiplier effects of the directive, which transfers the management responsibilities to 20 times more actors. It leads to a huge increase of the needs in terms of training and social engineering. And unfortunately, the Water Offices are presently unable to answer to those needs alone.

However, the positive effects of that decision are also patent:

- i) Federations' members are elected towards the Water Associations' representatives, for their management qualities and experiences. The perception of their eligibility from the communities is thus excellent.
- ii) The creation of a legal status for the Federation (as well as for the Water Association) also contributes to reinforce their legitimacy. This official status did not exist in the past for the Water Committees. If this status gives them duties, it also grants them with some prerogatives, like the possibility to borrow money or the ability to control the activities and the finances of the Water Associations.
- iii) The decentralization of the responsibilities considerably increases the proximity with the users, as their members directly come from the Water Associations themselves. The impact of this new measure has rapidly been observable on the increase of amount of the fee collected among the users.

As a first step, Inter Aide has first decided to focus on a limited number of Federations (47 totally). The main objective was to elaborate practical examples, to evaluate the impact on the status of the existing water points, in order then to diffuse and promote them. In turn, the successful Federations can be used as a model that can then be adapted and replicated for other Federations.



2. Methodology:

The first step was to facilitate the establishment of the newly created Federations: help them to get an office (usually with the support of the Kebele cabinet), to acquire basic furniture to archives the files, to open a bank account...

Secondly, a first assessment of the water access status at Kebele level can be done. With the support of Inter Aide and possibly with one person of the Water Office, the Federation makes a situational analysis of all the water points and the existing Water Associations. When necessary, the Federation has to support the creation of Water Association and/or the election of new members as well as its official record at Woreda or Zonal level.

Then, a longer phase focuses on providing "on-job" training and support to the Federation, so that they:

- Provide assistance to the Water Associations to jointly conduct regular diagnoses of their water points;
- Identify the maintenance and repairing needs
- Prioritise and handle the maintenance operation and repairs

To conduct these diagnostics, specific forms and tools have been designed¹. These diagnostics result then to a list of recommendation and the production of an action plan and a budget forecast. A grading system has been established to help the Federation classifying the water points based on the severity of the diagnosed problems (as described in the frame below).



A: The system works properly and only requires regular and preventive maintenance operations, which can directly be managed at the level of the community.

B: The system requires one or several light interventions that can independently be managed by the Federation, with the support of a local artisan.

C: The system needs a more complex and heavier intervention, which requires the support of the Water Office (for the design of the solution) and/or a skilled technician (possibly from the Woreda) to operate it.

D: The system has to be entirely rehabilitated.

E: The system can no more be repaired or rehabilitated

X: The water point has not yet been diagnosed.

At the same time, the Federation assess the financial situation of each Water Association, and work with them on a budget forecasts. To define and adjust the amount of users' contribution, a census of the users is updated to identify the number of contributing families² and an annual fee (usually per household) is determined. One of the first visible effects of the creation of the Federations was the significant increase of the collected amounts by the Water Associations. It is a very positive impact!

Others important related issues concern:

- ⇒ **The availability of local technical skills capable to support the Federation to operate the required maintenances.** Local artisans (who have been trained by the project when doing the new constructions) usually know how the systems work and are able to perform basic repairing operations, which represent the majority of the interventions. However, some systems require operations that are beyond their capacities (classified as grade C – see below for details). This kind of situations is the most challenging for the Federation because they have to call external skills that are not available at Kebele level (and usually also rare within the Woreda). It raises the issue of the scarcity of local competencies, but also the problem of the cost to cover the remuneration of the operator. As the involvement of the Water Offices experts is fluctuating, it seems at the moment more efficient to rely on private operators; which means the best local artisans. Some trials are underway in order to evaluate if these actors (with some initial technical support of the project and the Water Office) have the competences to deal with this type of situation (grade C systems).

¹ See: <http://www.interaide.org/pratiques/content/notebook-diagnosis-and-maintenance-gravity-flow-systems-ia-ethiopia-0?language=en>

² Some families can be exempted if they are considered socially and economically very vulnerable

- ⇒ **Access to the spare parts is also essential:** despite several trials, it was not possible to involve on a long term the Water Offices on the issue of the spare parts, because of the impossibility to initiate a revolving fund. Here also, the involvement of the private sector also appears necessary for long term viability. One experience is on progress with a shop in the city of Soddo: a list of prices has been issued by the shop and distributed, and Inter Aide has helped the pilot Federations to evaluate their needs according to the specificities of their water access systems and the results of the diagnostics. The idea is to establish a buffer stock at Kebele level (or possibly at a group of Kebele), so that the Federation can then sell the spare parts to the associations when needed. A revolving system would be used to renew the stock when necessary. In most of the cases, the Federations can deal with the Kebele leaders to find a small place to store the parts (possible in the Federation Office or in another office of the Kebele). In the course of 2009 Ethiopian calendar (2016), the first Federations of the areas have bought spare parts. This experience is expected to gradually be extended.

- ⇒ **Finally, the creation of the Federations also led to a significant revision of the project approach in newly targeted areas.** The aim is that they have the capacity to define an immediate action plan for the maintenance, while supporting the new demands from communities not yet served, prioritizing the responses and acting as a mediator between the communities and the stakeholders. In doing so, Federations build technical and situational baselines by considering both existing and potentially new water points.

In summary, the objective of the project is to enable the Federations to:

- Know the situation of the different Water Associations in their Kebele, represent them and provide them with adequate support for the management and the maintenance of their water supply infrastructures.
- Trigger periodic diagnoses for the existing water points and conduct regular assessment of the accounts and financial situation of the Water Associations.
- Make sure that the recommendations are considered and that the maintenance needs are properly and effectively handled by the Water Associations.
- Rely on a network of trustworthy and experienced local artisans.
- Setup a frontline spare parts stock that can be used on a revolving basis.
- Handle and prioritise the new requests for water access, by acting as an interface between the users and the institutions and operators.



3. Results:

The support to emerging Federations was initiated in 3 Zones (Dawro, Wolayta and Gamo Gofa). To evaluate the impact of the supported Federations' involvements, comparative measures of the water points' status have been taken in one year interval (at the onset of the intervention and one year latter). This comparative assessment was based on the grading system presented here above. Indeed, an effective way to evaluate the effects of the work with the Federations is to assess the evolution of the water points (it is what matters at the end!). The following tables present the results for 31 Federations.

| MAIN INDICATORS | Loma - Gena (Dawro) | Ofa (Wolayta) | Daramalo (Gamo Gofa) |
|--|---------------------|---------------|----------------------|
| Number of Federations | 14 | 8 | 9 |
| Number of corresponding Water Associations | 67 | 54 | 42 |
| Average number of Water Associations per Federation | 4,8 | 6,8 | 4,6 |
| Number of water points | 99 | 123 | 85 |
| Number of water point per Water Associations | 1,5 | 2,3 | 2,0 |
| Number of families per water point | 48 | 40 | 46 |
| Number of families per Water Association | 72 | 92 | 79 |
| Total amount available in bank | 134 585 ETB | 159 450 ETB | 59 805 ETB |
| Average amount per Water Association | 2 010 ETB | 2 950 ETB | 1 424 ETB |
| Total amount paid by the Water Associations to the Federations | 47 538 ETB | 15 895 ETB | 5 816 ETB |
| Average amount paid by the WA to the Federations | 3 400 ETB | 1 985 ETB | 727 ETB |
| Average amount available in bank per water point | 1 330 ETB | 1 500 ETB | 738 ETB |

| COMPARATIVE ASSESSMENT | 2007EC (2015) | | 2008EC (2016) | | 2007EC (2015) | | 2008EC (2016) | | 2007EC (2015) | | 2008EC (2016) | |
|--|---------------|-----|---------------|-----|---------------|-----|---------------|-----|---------------|-----|---------------|-----|
| Number of Water Associations | 80 | | 67 | | 59 | | 54 | | 40 | | 42 | |
| Functional or reparable Water Points | 98 | | 99 | | 120 | | 123 | | 78 | | 85 | |
| Built with support of Inter Aide | 78 | | 78 | | 93 | | 96 | | 77 | | 82 | |
| Built by others stakeholders | 20 | | 21 | | 27 | | 27 | | 1 | | 3 | |
| Condition of the Water Points (excluding water points of grade E that can no more be rehabilitated) | | | | | | | | | | | | |
| Grade A | 10 | 10% | 46 | 47% | 48 | 40% | 63 | 51% | 18 | 23% | 48 | 56% |
| Grade B | 20 | 20% | 18 | 18% | 39 | 33% | 23 | 19% | 11 | 14% | 21 | 25% |
| Grade C | 16 | 16% | 20 | 20% | 10 | 8% | 14 | 11% | 16 | 21% | 13 | 15% |
| Grade D | 10 | 10% | 12 | 12% | 14 | 12% | 17 | 14% | 45 | 53% | 82 | 92% |
| Grade X (not yet diagnosed) | 42 | 42% | 3 | 3% | 16 | 13% | 6 | 5% | 37 | 47% | 7 | 8% |

4. Comments:

In this table, two indicators are particularly important:

- **The number of water points that get a full diagnostic** (to determine the maintenance needs and trigger the maintenance operations): The objective is therefore to reduce the "not yet diagnosed existing water points" (Grade X category). Before the intervention with the Federations (that start in 2006 EC – 2014), none of the Federations were involved in the diagnostic of the system. The latest results show that nearly 95% of the water points have been diagnosed. It underlines the role that Federation can play in pushing the Water Associations to jointly assess the status of their water points and the need of preventive or curative maintenances.
- **The evolution of the status of the water points shown by the grading system:** the objective is of course to bring a maximum number of water points from grade C or B to grade A. Here also, the table shows considerable progresses: the percentage of grade A water points has nearly more than doubled everywhere, whereas the number of C grade has decreased.

To improve the maintenance of the existing infrastructures, Federations have to play a role of "alert" to remind (once a year) the Water Associations that it's time to conduct a complete diagnoses of the water schemes. If the Water Associations collect regular fees from the users and providing that local technicians can be found locally to design and implement the required maintenances, the diagnostic allows triggering the maintenance process. At the same time, the Water Office (with the support of the project) needs to create conducive environment especially regarding the emergence of locally available competent technicians: recognised local artisans for light operations at Kebele level and, for heavier and complex operations homologated local contractors at Woreda level).

Looking at the results, the following comments can be made:

- ⇒ The evolution of the number of Water Associations originates from an initial uncertainty linked to the sectorial policy related to the gravity-flow systems, first with one Water Association for one water point, then with one Water Association for one network.
- ⇒ In one year, the number of water points which has been fully diagnosed with the support of the Federation, has increased a lot, from 58 to 97% in Dawro, from 87 to 95% in Ofa and from 53 to 92% in Daramalo. This evolution had a significant impact on the improvement of the networks' functionality linked with the capacity of the Federations to launch the diagnostics.
- ⇒ The main issue for the Federation is to succeed in pushing forward the grade C water points to grade B or A, by encouraging the implementation of the diagnoses recommendations. This evolution of the water point status is a core indicator, as it traduces the first purpose of the Federations: to be able to mobilize the water users and the local actors to maintain or to recover access to safe water. This evolution of the water point status is indeed essential for the legitimacy of the Federations. The fact that diagnoses are conducted and followed by corrective actions shows the capacity of the Federations to play the role of maintenance operations driver. In this regard, the results are convincing, as shown by the spectacular increase of the grade A water points, from 10 to 47% in Dawro, 40 to 51% in Ofa and 23 to 56% in Daramalo.
- ⇒ Nevertheless, it is necessary to mention that most of the grade A water points come from the grade B or X (previously not yet diagnosed), and probably very few from grade C (which also increase because of more important number of diagnoses done). However, the credibility of the Federations will also depend on their capacity to obtain positive results on these grade C water points, needing maintenance operations that are beyond their capacities. Repairing those water points indeed requires external skills that are not present within the Kebele (and sometimes even within the Woreda). It presupposes having access to reliable service providers and corresponding resources. Transforming these grade C water points remains the major issue to be tackled jointly with the Water Offices.
- ⇒ Overall, financial information are consistent and confirm the strong influence of the Federations on the increase of the financial resources of the Water Associations.

5. Conclusion:

Referring to the 5 duties of their mission, Federations supported by the projects have now the capacity to conduct 2 of them:

- i) Water Associations are active and their resources increase because of better financial incomes.
- ii) Periodic diagnostic of the infrastructures are now regularly operated, as reflects the small ratio of non-diagnosed water points.
- iii) Part of these diagnostics leads to effective maintenance operations but the number of grade C water points (that need the intervention of external skills) still remains an issue beyond their capacity, even if some experiences are on progress.
- iv) The lack of local skilled technicians remains obviously a bottleneck for the implementation of complex operations, despite that the financial capacities of the Water Associations could yet cover the costs. Also Federations still lack confidence (and habits) to invest users' contribution for the provision of a spare parts' stock.
- v) There are still a significant number of communities without access to safe water. The Federations know these communities and they have the capacity to define priorities in a list of community requests. But, their ability to mediate between the communities and institution or programs still has not yet been experimented.

With the support of the Federation of Ela Bacho Kebele (Woreda of Loma), the Water Association has collected the necessary contributions from the water users to build a new reservoir on a gravity-flow network. Fifteen years after the construction of the system, this operation was justified by the population growth and a decrease of the spring yield related to deforestation. The entire costs have been covered by the users, and the construction of the reservoir was made by a local contractor, initially trained by Inter Aide and now working as a private.

