

Subsidizing Water Connections in Cameroon

How to Apply Output-Based Aid to an Affermage

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The Cameroon water connection scheme that started in 2008 is the first GPOBA project to be implemented under an *affermage* contract. It is also the first subsidized water connection program in West Africa to be implemented through an output-based aid (OBA) mechanism. This note highlights the emerging lessons learned from the design of the project, summarizing the challenges and opportunities in applying OBA to the *affermage* model and how they were dealt with. A second note will share lessons from the project's implementation.

Cameroon lags well behind other African countries in improved water supply. Network coverage is estimated at less than a third of the urban population, and water rationing is widespread as a result of insufficient production capacity and years of poor maintenance of the network. In 2007, with the support of the World Bank and other agencies, the government embarked on a major institutional reform of the urban water sector. At its core is delegation of service provision to an international private operator, following a public-private partnership (PPP) approach.

Introducing a private operator—and output-based aid

The PPP scheme follows the *affermage* model successfully used in Senegal for more than a decade, and replicated in Niger since 2001, which transfers operation of the utility to a private operator while investment remains a government responsibility. The assets of the former national water utility were transferred to a public asset-holding

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company created in 2006, Camwater, which signed a concession agreement with the government. After an international tender, a 10-year *affermage* contract was awarded in August 2007 to a consortium led by Office National de l'Eau Potable (ONEP), the largest public water utility in Morocco. The private operator took over in May 2008 under a newly established local company, Camerounaise des Eaux (CdE).

Coupled with the PPP is a major investment program funded by lenders, most of it to be executed by Camwater. The exception is a US\$10.5 million emergency rehabilitation program, funded by the International Development Association (IDA), which was delegated to the operator.

The project also includes an output-based aid (OBA) scheme to subsidize water connections, which is clearly justified. Before, new customers had paid a connection fee of US\$200–300, depending on the connection length, along with a guarantee deposit (for future consumption) of about US\$50. This up-front cost, equivalent to five months of income for households in the third income quintile and nine months for those in the fifth, was prohibitive for low- and middle-income households.

Subsidized connection schemes have been very successful in expanding access in several other West African countries, especially under *affermage* contracts in Côte d'Ivoire, Senegal, and Niger. Families living in urban neighborhoods identified by the government as poor were eligible for a free connection and required to pay only the guarantee deposit. Cameroon's government approached the Global Partnership on Output-Based Aid (GPOBA) during the early design phase for the *affermage* contract to discuss options for replicating such an approach with support from a GPOBA grant.

The *affermage* environment

The Cameroon program does not merely replicate the subsidized water connection programs implemented under *affermage* contracts in Côte d'Ivoire, Senegal, and Niger, all of which were based on a traditional, input-based disbursement approach. Indeed, it is the first such program designed around output-based principles.

It is also the first to be implemented by GPOBA under an *affermage* arrangement. All subsidized water connection programs previously implemented by GPOBA involved a concession (as in Manila, Philippines, or Casablanca, Morocco), small-scale providers owning the infrastructure (as in Uganda), or a public utility (as in Meknès, Morocco). In all such cases the service provider responsible for implementing the OBA project was also responsible for operating the utility and funding and carrying out investment. Deciding which entity should be in charge of implementing the OBA program and take the prefinancing risk was therefore straightforward.

This is not so under an *affermage* PPP arrangement, which splits the responsibilities for operation and investment between two main actors. In an OBA scheme this has important consequences for the design of the subsidy scheme and for the framework of risks and incentives.

- *The contractual arrangement for the OBA scheme must accommodate the presence of two players rather than just one:* the private operator, which has the direct relationship with customers, and the public asset-holding company, which is responsible for financing investment and carries the infrastructure assets on its books. That requires answering such key questions as who should be in charge of implementing the program and who should take the prefinancing risk.
- *The separation of operation and investment creates potential risks.* The private operator is the one

contractually responsible for installing new connections. Yet it is the public asset-holding company that decides whether, where, and when to expand the distribution network. Lack of funds, delays in civil works, or problems of coordination could all adversely affect the implementation of an OBA scheme.

Yet incentives for the private operator to expand access are stronger under an *affermage* than under a concession. As in a concession, the operator's remuneration is based on revenue from water sales, giving it a strong incentive to increase the number of connected households. But unlike in a concession, the operator does not invest its own money in system expansion, so it has every interest in pushing for more coverage.

Adapting output-based aid

The design of the OBA scheme follows the broad logic of an *affermage* PPP arrangement, in which the asset-holding company is the concessionaire of the services and delegates their management and delivery to a private operator. Thus Camwater is the contractual counterpart of GPOBA and de facto recipient of the grant, while a special clause in the *affermage* contract specifies that it delegates implementation of the GPOBA program to the private operator. An annex to the contract outlines the OBA scheme, clarifying the allocation of risks and responsibilities.

The project partners decided that Camwater, not the private operator, would take the prefinancing risk for new connections. Having the operator, as service provider, directly bear the up-front prefinancing risk would have been more in line with the traditional OBA approach. But it would have departed from the spirit of an *affermage*, where most financing risks remain with the public partner. The more typical OBA option was abandoned after consultation with potential bidders, which were reluctant to take additional financial risks in Cameroon.

Financial incentives for expanding access to poor households were enhanced. Under an *affermage* the private operator normally has a financial incentive to expand access, since its remuneration is directly linked to sales volume. But poor households often have very low water consumption (one to three cubic meters a month), which may make them unprofitable customers. The Cameroon *affermage* introduced a new feature: in addition to the volumetric fee (about US\$0.36 per cubic meter), the operator is entitled to receive the fixed monthly subscription paid by each customer (about US\$3), which in the *affermages* in Senegal and

Niger goes instead to the asset-holding company. This greatly increases the operator's revenue from providing services to newly connected poor households.

Structuring the subsidy scheme

The project partners agreed that responsibility for funding the subsidy would be broadly shared between Camwater and GPOBA and that beneficiaries would have to pay at least 10 percent of the remaining connection cost (depending on connection length) in addition to a guarantee deposit covering three months of consumption. This means a slightly higher connection cost for beneficiaries than in other subsidized connection schemes in West Africa. But the larger contribution from beneficiaries in Cameroon, where the very low initial coverage was expected to lead to strong demand for connections, would mean that more households—hopefully, more poor households—could be funded through the program than would otherwise be possible.

GPOBA approved a grant of US\$5 million to fund the project over four years. With the counterpart funding to come from Camwater, the subsidy amounts to about US\$10 million over four years, enough to install about 40,000 new water connections. This is expected to translate into an increase of about 5 percentage points in national urban water coverage.

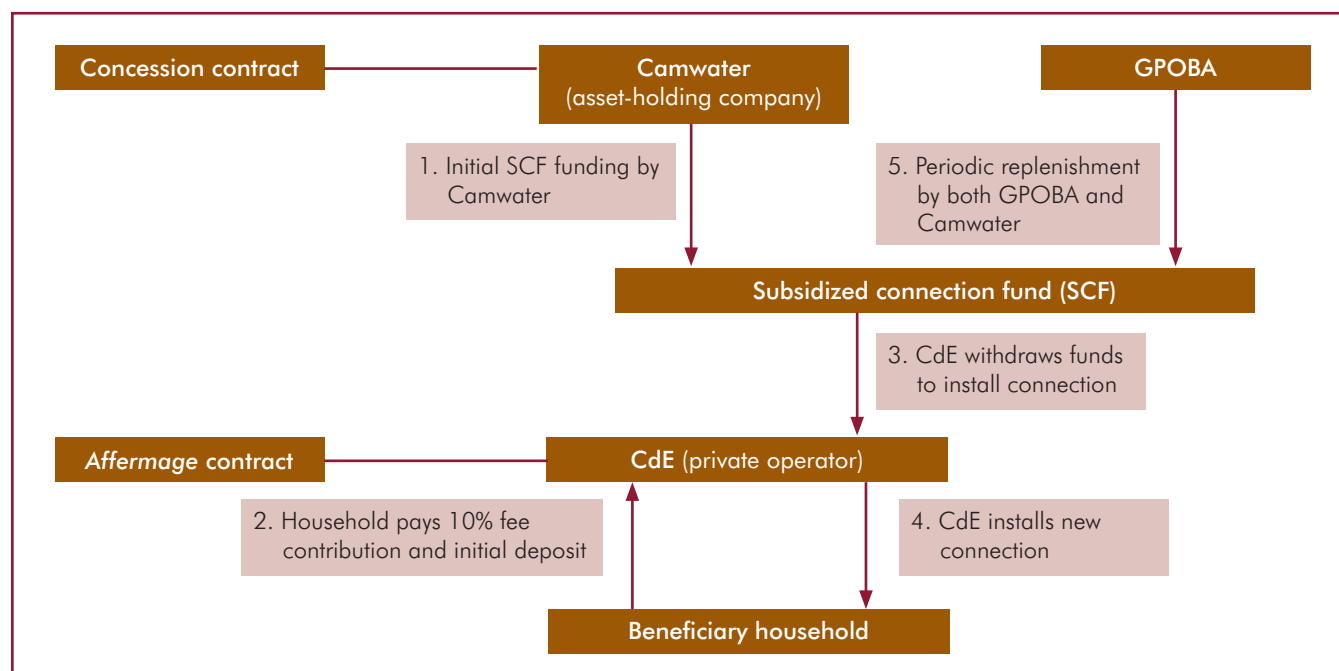
Targeting or no targeting? The project partners decided that during the early phase the project would not establish specific targeting criteria based on the so-

cioeconomic profile of beneficiaries. Two factors drove this decision: the difficulty of applying such criteria objectively in Cameroon and the de facto social segregation resulting from the lack of network expansion over many years, with well-off households concentrated in neighborhoods already covered by the network. Only two “ring-fencing” eligibility criteria were established: the connection should be of small diameter (up to 15 millimeters) and the beneficiary households should not be in newly developed residential areas.

To complement this approach, the project team decided that detailed socioeconomic data on beneficiary households would be collected during the quarterly audits and that the project could include enhanced targeting criteria after the midterm review if the data show that a significant share of beneficiary households are not poor. Most households lacking connections can hardly be considered rich, however, as even households in the third income quintile live on only about US\$2 a day.¹

Disbursement. Camwater is responsible for establishing a dedicated account, the subsidized connection fund, with an initial deposit of US\$0.8 million. The private operator draws from this fund to finance the installation of eligible new connections. Following quarterly audits by the independent verification agent confirming that the physical installation of new connections charged to the fund complies with project rules, the account must be replenished by both Camwater and GPOBA (figure 1).

Figure 1. Flow of funds and sequence of actions under the Cameroon OBA water scheme



Early progress and lessons

The experience in Cameroon shows that the OBA approach can be successfully adapted to an *affermage* scheme, despite the complications and additional risks created by the separation of operation and investment responsibilities and the presence of a public asset-holding company. Given the market context and significant country risk, the project partners opted for a two-layer structure, with the asset-holding company being the nominal recipient of the GPOBA grant and bearing the operational risk. This was essential for the successful tender of the PPP.

The private operator has rapidly put in place what is needed for sustained expansion. Before the start of the *affermage*, the national utility was able to install only a few hundred new connections a year (essentially benefiting a few developers in rich neighborhoods of Yaoundé and Douala). That left a backlog of 8,000 connections, already paid for by households, to be installed. The first task of the new operator was to import the parts and equipment for installing connections and put in place teams to carry out the work. The operator decided to rely on local subcontractors, which were identified and trained. In the first three months the operator cleared 60 percent of the backlog, confirming its strong commitment to expanding access. Having won the contract through a very competitive offer, the operator needs to greatly expand access so as to recover its costs over the life of the PPP.

Coordination for network extension is an urgent priority. As the population has become aware that a credible operator is in place and a subsidy program exists, demand for new connections is increasing. Under the current arrangement, households far from

the existing network theoretically can request a connection of more than 50 meters. But in most cases it is more efficient to install a tertiary network, reducing the connection length while allowing more households in the same street to connect. The need to install tertiary networks is testing Camwater's capacity to rapidly execute the civil works necessary to expand the distribution system.

The future

It is still too early to predict whether the OBA project will succeed. Its outcome rests almost entirely on the success of the PPP scheme. The scope of the institutional reform being implemented makes achieving that success a challenge. Yet the PPP approach chosen has worked well in other West African countries, and Camwater and the private operator have from the outset collaborated closely in finding practical solutions to critical issues (such as network extensions). The two partners are now carrying out an extensive communication campaign to inform the public about the scheme. In the future Camwater may consider disbursing the project's IDA funds, earmarked for the installation of 20,000 social connections, through the subsidized connection fund put in place for the OBA project rather than using a traditional input-based mechanism.

¹ To learn more about targeting methodologies used in OBA projects, see Yogita Mumssen, Geeta Kumar, and Lars Johannes, "Targeting Subsidies through Output-Based Aid," OBAApproaches 22 (GPOBA, Washington, DC, 2008), <http://www.gpoba.org/gpoba/node/118>.

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