

## Output-based aid in Cambodia

### Private operators and local communities help deliver water to the poor

By Yogita Mumssen

*After decades of war and social disruption in Cambodia, publicly run water and sanitation services are scarce and limited mainly to urban areas. Most communities have had to rely on self-provisioning, and this has increasingly meant turning to unlicensed and unregulated private providers. But while private providers offer relatively good service, their high one-time connection charges put that service out of reach for all but the more affluent. Exploring how best to reach unserved areas and poor people, the government of Cambodia is piloting an output-based approach in four towns. In these pilot schemes the private operator will be paid on the basis of performance—in large part only after it has made a connection to a customer. Where the connection is made to a poor household deemed unable to pay, the operator will receive an IDA-funded subsidy. The communities themselves decided which households would be eligible for the connection subsidy. The contracts for the pilot schemes were won by a joint venture between a Cambodian and a Singaporean company, which bid a connection charge 22–28 percent lower than the cost under public provision. A second batch of four towns is being developed for bidding.*

Cambodia is among the world's poorest countries, with per capita income of only \$321 a year and 41 percent of its population below the poverty line in 2002. Only a third of Cambodians have access to a safe water supply, and the record tends to be worse in rural and periurban areas. The result is one of the world's highest rate of infant mortality and morbidity caused by water-related diseases.

Publicly owned and operated water utilities provide service in Phnom Penh as well as more rudimentary service in several provincial towns. But because of decades of war and social disruption most communi-

ties have had to rely on self-provisioning. Many have made long-term arrangements with unregulated and often unlicensed private water vendors. While many of these vendors are small, some have invested thousands of dollars to deliver piped water service to customers.

Customers of the private utilities, some of which have recently been licensed by the Government, are happier with the service received due to better availability and quality than that provided by publicly-run utilities. But much of the population cannot afford the service the private companies offer, because of the high tariffs and, even more important, because of the high one-time connection fees (Garn, Isham, and Kahkonen 2000). Moreover, the bidding processes for the contracts these companies won were not always transparent or competitive, and regulatory monitoring, if it exists at all, tends to be weak.

### Testing the water with output-based aid

As part of an initiative to deliver water and sanitation services throughout Cambodia, the government is seeking ways to bring the benefits of privately run water services to unserved areas and especially to poor people. Using funds from an International Development Association (IDA) credit, it aims to provide water and sanitation facilities in about 23 towns through different forms of public-private partnership. Four of these towns will use an output-based aid (OBA)

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mechanism through design-build-and-operate contracts, while the other 19 will use design-build-and-lease (DBL) contracts. (The exact number of towns will depend on the government’s final investment plans and on bidding results.) All the contracts will cover 15 years.

### Designing the contracts

The four OBA contracts differ in design and implementation from the DBL contracts for one reason: to target connection subsidies to poor households. The provider will receive a subsidy payment for connecting each targeted poor household, while it will charge all other customers directly. Payment under the OBA contracts will be based on performance: the operator will receive most of its payment only after connecting poor households. But to reduce payment and prefinancing risk, the government will pay 5 percent of the total contract amount after the operator completes the initial drilling for deep wells and another 5 percent after it completes the detailed design and engineering of the system. The government will pay 80 percent of the subsidy per connection for all connections invoiced after receiving certification for each connection from an independent engineer. It will pay the last 10 percent (a “functional guarantee”) after water quality and hydraulic testing are done for each system. Late payments will include a modest interest penalty.

Because the operator will be paid the amount it bid, regardless of how much providing each connection actually costs, it has an incentive to make the connections as efficiently as possible. While the contracts detail technical specifications to some extent, they allow enough flexibility so that the operator can use the most efficient and effective means of meeting the service standards and requirements. A new regulatory entity—the Contract Administration Unit in the Ministry of Industry, Mines, and Energy—has been created to verify that operators do not reduce the costs of connections by lowering standards. An independent engineer will perform the verifications initially, until the regulator develops sufficient capacity to do so itself.

In contrast with the OBA contracts, the DBL contracts are not performance based. Instead, the private operator is paid on the basis of inputs. The operator must provide a connection to anyone within its initial service area without charging a connection fee. The costs of connection are covered by the IDA credit. As a result, the implicit capital expenditure subsidy under the DBL contracts is both higher than in the OBA schemes and spread over all customers, rich

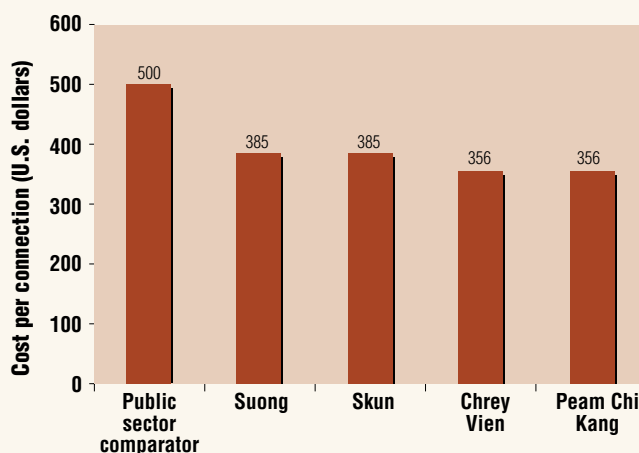
and poor. So the OBA schemes may be a relatively efficient use of subsidies, depending on the costs associated with targeting.

The main implementing agency for the IDA-funded water supply projects is the Ministry of Industry, Mines, and Energy, which, along with its Contract Administration Unit, has overall responsibility for controlling quality, scheduling activities, and monitoring performance. As regulator, the Contract Administration Unit will ultimately verify the quality of service provided, though here again initial verification will be undertaken by an independent engineer. Connection prices and tariffs are detailed in the contracts, and tariff adjustments will be made as needed by the Contract Administration Unit. More detailed monitoring and regulatory arrangements are being developed alongside a more comprehensive regulatory framework.

### Awarding the contracts

An open tender was held for the OBA contracts, with private service providers bidding on the basis of the lowest subsidy required to provide a connection to households in each of the four pilot towns. Of the eight firms preselected to bid, two made offers—a Cambodian company and a joint venture between a Cambodian and a Singaporean company. The joint venture, SINCAM, won all four OBA contracts (and eventually a few DBL contracts as well). SINCAM bid 22–28 percent less for the contracts than the public sector comparator price of \$500 per connection—the

Figure 1. Winning bids for the output-based aid contracts, by service area



total capital expenditure per household incurred by the government for similar donor-funded water projects in the past (figure 1). The OBA contracts were signed in March 2004.

The government believes that future OBA schemes will generate even more interest once greater efforts are made to disseminate information about such schemes and once their benefits for the poor and the private operators become clearer. The presence of an international agency like the World Bank—through the IDA grant funding of the subsidies—to backstop the flow of payments to the private operator has helped reduce the risk and attract small and local players.

### Community participation: targeting subsidies and building capacity

Two criteria were used to select the four OBA towns. First, the proximity of the town areas to one another to provide possibilities for some economies of scale and perhaps scope that could generate interest among private providers. And second, location along the route between Phnom Penh and Ho Chi Minh City, a dynamic area with relatively strong economic growth that could attract private operators because it includes not only low-income customers eligible for subsidies but also a large and growing population of middle- and high-income customers able to pay for service.<sup>1</sup>

After the pilot towns were selected, the next step was to determine which households would receive the connection subsidy. Communities played a big part in this. A household survey was developed within the communities to collect data, and village representatives and commune council members together determined poverty criteria. Based on these criteria and the results of the survey, the communities themselves identified the poor households that would receive the subsidy (table 1). An independent consultant later randomly verified the selection of households (O'Leary 2004). The survey also provided a way to inform households about the reforms being undertaken in the water and sanitation sector.

After the poor households were identified, a series of consultations were held in about 50 villages within the four pilot towns. These consultations provided another opportunity to inform households about the project. They also allowed an opportunity for introducing the concept of water user groups to represent villages and towns—eventually called Clean Water Groups—and identifying likely candidates for the

**Table 1. Households eligible for the connection subsidy, by service area**

Service area	Total households	Households eligible for subsidy <sup>a</sup>
Suong	4,408	990
Skun	2,578	1,004
Chrey Vien	2,682	354
Peam Chi Kang	3,456	660

<sup>a</sup> These are the initial numbers of households determined eligible for the subsidy. In some cases the numbers have been revised slightly, usually upward.

Source: O'Leary 2004

groups. These village consultations involved more than 1,600 household members, most of them women (O'Leary 2004).

Community consultations, including discussions relating to ability and willingness to pay, were also used to determine appropriate tariffs and connection fees for middle- and high-income households. And consultations about appropriate payment methods—such as installments or one-time payments—led to a decision to include different options in the service contract between the provider and each customer (O'Leary 2004).

### Progress so far—and next steps

Although the OBA schemes are still at a very early stage, the Cambodian government has so far generally considered them a success. Implementation has gone well, perhaps because the communities made the main decisions about who receives the connection subsidy and were also consulted about fees and payment options. Participation has also been key in building capacity and disseminating information within communities—and all this has led to a broad sense of ownership in the outcome of the OBA schemes. The private operator has also made clear progress. SINCAM has identified and tested potential water sources and will soon undertake an environmental impact assessment. Construction is under way, and connections should be made in 2005.

<sup>1</sup> Compared with the OBA pilot towns, those chosen for DBL contracts generally have lower growth potential, which should mitigate the less pro-poor subsidy targeting implicit in those contracts.

While the OBA mechanism enables the poor to gain access to service through the connection subsidy, it does not tackle the problem of affordability of consumption, since all water users pay the same rate per cubic meter of water consumed. So far, tariffs for private network providers have been set so as to allow them to recover their costs. Whether any detailed formula is used in practice is unclear. (O’Leary 2004). With tariffs for the OBA pilot towns ranging from 1,800 to 2,000 riels (around \$0.50) per cubic meter, households will spend an average of about 4.1–6.4 percent of their income on water (based on data from O’Leary 2002). Because these are average figures, poorer households—those eligible for connection subsidies—can be expected to spend a larger share of their income on water bills, perhaps even if (as is likely) they use other sources for some activities. A rough rule of thumb for the acceptable level of spending on water is around 5 percent of household income. Tariff-level affordability is an important issue being discussed by the Cambodian Government, the World Bank, and the communities themselves.

As part of the initiative to increase private participation in water and sanitation, the World Bank and other donors are advising the government on the introduction of a new water act to strengthen the regulatory framework. A clearer, more transparent

framework not only would help protect customers from abuse by private operators but also should provide operators with greater certainty.

The initial success of the project has prompted more such schemes in Cambodia, and a second batch of four towns is being prepared for a similar OBA mechanism. More than 1,660 poor households have been identified as eligible for a connection subsidy, and more are being considered, depending on available financing. Bidding for these towns should take place in early 2005.

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