



Water and Sanitation Program

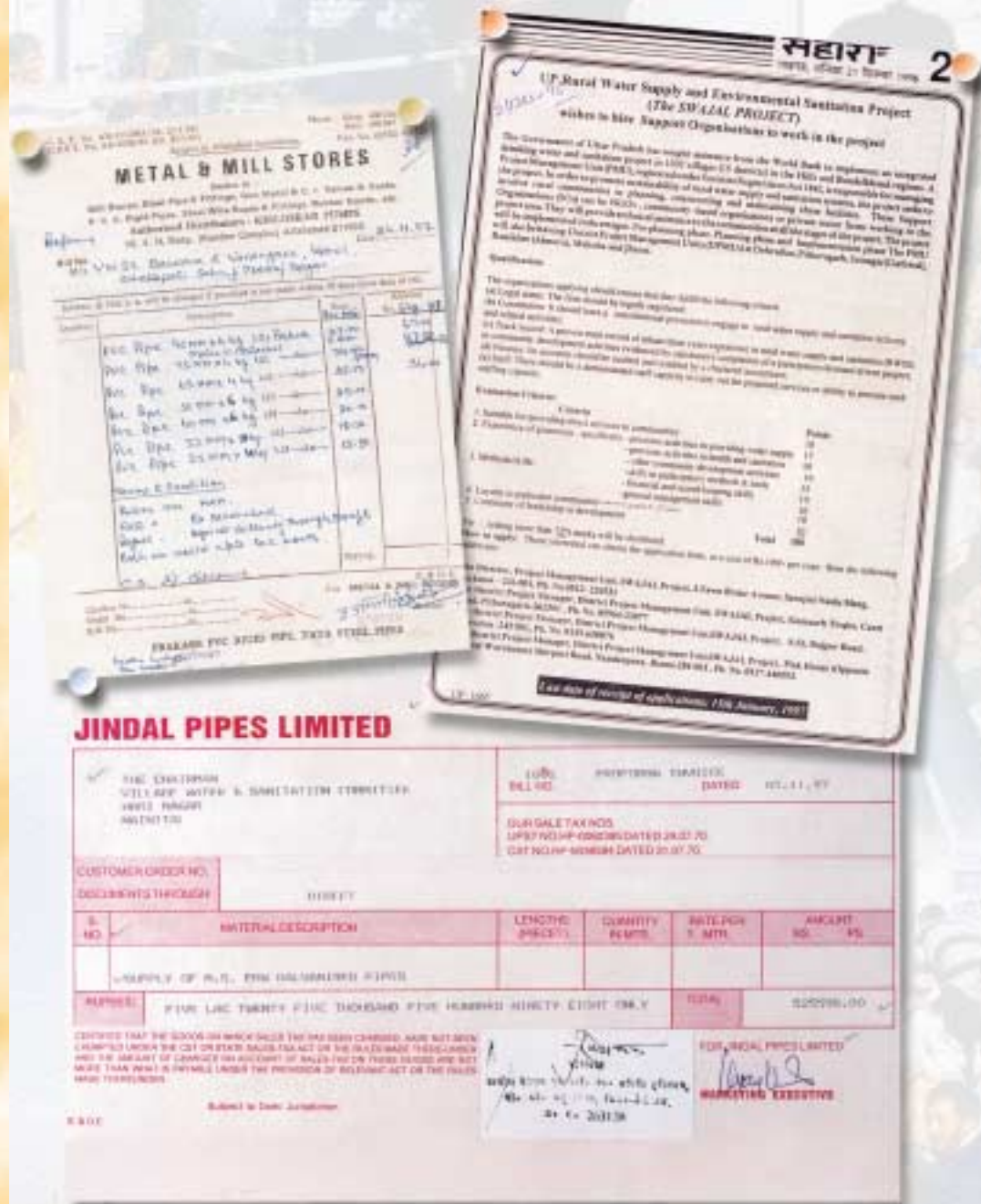
An international partnership to help the poor gain sustained access to improved water supply and sanitation services

Community Contracting in Rural Water and Sanitation: The Swajal Project, Uttar Pradesh, India

South Asia Region

Giving user communities control over financial resources is a key feature of community-driven development. The World Bank-assisted Swajal project was one of the first major rural water and sanitation projects to shift from centralized procurement and transfer investment funds to user communities, enabling them to procure materials, services and works by themselves, assisted by support organizations. The Swajal community contracting model and the lessons learned from it are described in this field note.

Samples of community contracting documents used in the Swajal Project



Background



Map of Uttar Pradesh, India. The shaded areas represents Hill and Bundelkhand Regions under Swajal. The boundaries of this state have recently been redrawn.

Existing rural water supply service delivery in Uttar Pradesh, India is undertaken through a large state-level public sector organization, the Uttar Pradesh Jal Nigam. Funded mainly by government grants, the Jal Nigam constructs and maintains water supply schemes in most parts of the state. It adopts a top-down approach to service delivery, rarely taking into account consumer preferences. There is no capital cost recovery, and operation and maintenance costs are seldom collected.

The poor sustainability of investments in the rural water supply

sector encouraged the UP government to adopt two major policy reforms through the World Bank-assisted Swajal project:

- Partial capital cost recovery and full operation and maintenance cost recovery from user communities.
- The creation of an alternative service delivery mechanism for rural water supply and sanitation.

The new institutional model is specially designed to serve as a vehicle for the community-based, demand-responsive approach envisaged in the project. This consists of a partnership of three organizations: village communities (represented by their water and sanitation committees), NGOs and the Project Management Unit, an autonomous registered society at the state level. There is a close inter relationship between these three partners, going beyond a mere contractual obligation.

Project Scope

The Swajal project has four main components:

- (i) Water supply through piped water supply systems, handpumps, rainwater harvesting structures and dug wells.
- (ii) Environment sanitation, including individual latrines, drainage system and compost pits.
- (iii) Community empowerment activities, including health and environmental



VWSC members inspecting quality of goods

sanitation awareness, women's development initiatives and non-formal education.

- (iv) Preparation of a rural water and sanitation sector development plan for the entire state.

The project size was originally \$ 71* million, which was subsequently reduced to US\$ 63 million after the Mid-Term Review Mission in October 1999. The project covers approximately 1,200 villages with a population of 1.2 million in 19 districts in the Hill and Bundelkhand regions over a period of six years (1996-2002). It is being implemented in five overlapping batches. Each village goes through a pre-planning phase (7 months), a planning phase (12 months), an implementation phase (14 to 19 months) and finally an operation and maintenance phase. The project commenced in mid-1996 and had, in June 2001 about 250 villages in the operation and maintenance stage, about 350

Community Contribution

The following rules govern cost recovery from the communities:

- 10% capital cost sharing for water supply (Upfront cash contribution varying from 1% to 5%)
- 100% O&M cost and management by community.
- About 60% cost sharing for individual latrines, garbage pits and compost pits.

*Rate of conversion: 1 US \$ = 43.30, as on June 11, 2001

undergoing construction and about 600 in the planning stage.

Community Contracting

In keeping with the community-driven approach of the project, all important decisions at the village level, such as technology choice, management of investment funds and contracting of goods, works and services, are made by the community. For perhaps the first time in India, under the Swajal project, communities control investments in water supply and sanitation infrastructure on a large scale.

All construction-related funds are transferred by the Project Management Unit to community-managed bank accounts at the village level. These accounts are jointly operated with a support organization, usually a local NGO. Once the community receives funds at the commencement of the implementation phase, it proceeds to procure goods, works and services with the assistance of the support

organization. The total value of such procurement in the entire project is estimated at US\$ 30 million.

Legal Environment for Community Contracting

The Swajal project legally empowers the village water and sanitation committee, a community-level organization, to manage all project construction funds; procure goods, works and services; manage all construction activities; and operate and maintain constructed systems. This is formalized in the Implementation Phase Tripartite Agreement (IPTA), a three-way agreement between the village water and sanitation committee, the support organization and the Project Management Unit. This 100-page document, spells out the roles and responsibilities of each party. Before the document is signed, a two-day training workshop is organized in the village to familiarize community members and the village water and sanitation committee with the provisions of the IPTA.

Village Water and Sanitation Committees (VWSCs)

The village water and sanitation committee is a formal body, with legal status as a sub-committee of the statutory gram panchayat (local government). The committee consists of seven to 12 democratically elected and representative members, with at least 20 percent representation from the socially and economically backward sections of the community. At least 30 percent of the members are women. Unlike the gram panchayat, which is responsible for multi-sectoral development in the village, the village water and sanitation committee is a user association set up specifically for the project. Each committee has a Chairperson and Treasurer who jointly operate the bank account. Over 50 percent of the treasurers are women. While all the elected members work in an honorary capacity, the village committee usually employs a local technician, who is known as a village maintenance worker, to operate and maintain the water supply scheme after construction is completed.

Community Contracting Models in Water Supply and Sanitation Technologies

Table 1

Technology	Average Value (US \$)	Type of Contract	Type of Contractor	Selection Process
Mechanized borewell with overhead tank and distribution network	30,000 (mid-sized scheme)	Written	Private/ public sector corporation	Bidding/market survey by VWSC/SO
Boreholes with handpumps (8 handpumps per village on an average)	4,000	Verbal	Private/government corporation	Market survey by VWSC/SO
Hand dug wells	4,000	Verbal	Private/government corporation	Market survey by VWSC/SO
Gravity-flow system	20,000	Verbal	Community technician	Community consensus
Individual household latrine	80	Verbal	Local mason	Household chooses
Drainage soakpit	50	Verbal	Community technician	Household chooses

Kamtoli Village: Women buying Pipes

In Kamtoli village, the village water and sanitation committee consists only of women members. The Chairperson is a dynamic woman called Shanti Maluda.

On the issue of procurement of pipes, the Chairperson and the Treasurer decided that only the best would do. They traveled 350 km from the hills of Pithoragarh to Jindal Pipe Factory on the outskirts of Delhi. With the support organization engineer accompanying them, Shanti Maluda and fellow committee members visited the factory and, after carefully scrutinizing and weighing all the pipes, took the goods back by truck. When selecting fittings and taps, Shanti Maluda opened the gunnysacks and checked each piece. If any item was found without the Indian Standards Institute (ISI) mark, she insisted on a replacement.



Woman play an active role in all aspects of contracting and procurement

Contracting Models for Different Technical Options

Community contracting is used for different kinds of water supply and sanitation technologies in the Swajal project. Where more expensive and complex technology chosen (such as power pumping), the community usually opts for a written contract with a service agency. Table 1 illustrates the

community contracting models used for different water supply and sanitation technologies in the project.

Suppliers of Goods and Services

The supply chain for goods and services in the Swajal project is almost entirely fed by the private sector. In case of materials, most Swajal villages procure stone and sand locally, cement and steel from the local market or district headquarters, and pipes from large suppliers which are, on an average, 200km from the village. In most cases, there are more than three suppliers and the rates quoted are invariably competitive.

Contracting for skilled services, such as community technicians to build gravity systems, fitters, plumbers and masons is mainly done at the local level. For more sophisticated services, such as the construction of overhead tanks and drilling deep-bore tubewells, skills are usually not available locally and have to be contracted out. This contracting is also done by the village water and sanitation committee, with the assistance of the support organization. Village committee uses a formal contracting process, usually by inviting bids and awarding contracts on the basis of quality and

Procurement of materials under the Swajal Project

Table 2

Material	Average value for each scheme (US \$)	Average distance from supply point to village (kms.)	Average no. of Dealers/Manufacturers (in each project region)	Type of supplier (all private)
GI Pipes and Fittings	4300	190	> 3	Manufacturer
Cement	900	103	> 3	Distributor
Steel	400	103	> 3	Distributor
Latrine Pans and Fittings	250	165	> 4	Local Market
HP Machines	1100	> 300	> 5	Manufacturer

price. The Project Management Unit also plays a proactive role in this kind of contracting to help village committees identify and select the right contractors.

Community Contracting Process

Flow of Funds

Investment funds in the project flow directly from the PMU to the VWSC,

back to village committees and support organizations to increase the efficiency of community contracting.

- Region-wise data on material and works procured by village water and sanitation committees.
- Regularly updated market rates of materials and works.
- Rates of materials according to approved engineering designs and those actually produced by village committees.
- Innovative, efficient and cost-

report is being drafted, community members, at a village-level meeting, decide the brand of all non local material (mainly pipes, cement and steel) to be purchased and nominate two representatives to the purchase committee. A representative from the support organization, who is usually a junior engineer, is also a member of the purchase committee.

The purchase committee conducts a market survey of manufacturers/authorized dealers stocking India Standard Institute (ISI) stamped material and collects proforma invoices from them. If the prices in the proforma invoice are 20 percent higher than of the cost projected in the detailed project report, they have to be approved at a community-level meeting. Prices less are approved by the village committee. A 'no objection' to the proforma invoice is also obtained from the District Project Management Unit. The District Project Management Unit verifies the rates on the basis of a regularly updated unit price manual based on market prices. Finally, before the materials are dispatched from the dealer/manufacturer to the village, the construction supervision consultant engineers hired by the Project Management Unit check, on a sample basis, the quality of the material being dispatched. For local material, all the purchase, including rates of labor and cartage, is approved at a community-level meeting. Perhaps the biggest single quality assurance check in the project's community contracting system is the transparency of the entire operation.

Triggers for disbursing investment funds in the Swajal project

Table 3

Fund Release in Implementation Phase	Activities / Triggers
Installment 1 (50%)*	(i) IPTA signing (ii) Market survey (iii) Rates, quality and quantity endorsed (iv) Proforma invoice obtained and submitted to PMU (v) Rate, quality and quantity verified
Installment 2 (40%)	(i) 80% utilization of Installment 1 funds (ii) Achievement of construction and community development milestones as per IPTA (iii) Physical and financial audit
Installment 3 (10%)	(i) Implementation Phase Completion Report (ii) Physical and financial audit

* No first installment is more than US \$ 40,000

whose bank account is jointly managed by it and the SO. The triggers to authorize disbursement are presented in Table 3.

MIS for Community Contracting

The Project Management Unit collects the following information, which is fed

effective practices followed by project village committees.

Quality Assurance in Community Contracting

The Swajal project has evolved several safeguards to ensure quality in the community contracting process. When the detailed project

Problems Encountered

- Initially, the World Bank was reluctant to allow the PMU to advance \$ 40,000 without a bank guarantee to VWSCs as the first construction instalment.
- In a few cases, procurement became Support Organization-driven rather than community-driven.
- Extra time was taken initially to release construction funds from the Project Management Unit to village water and sanitation committees.
- In some cases, the testing of material took longer than planned, and this delayed the start of construction.
- There was initially no database of pre-qualified contractors for the larger schemes and it took a lot of effort for the communities to select the most appropriate one for their purposes.

Community accounting systems

Simple accounting systems have been adopted at the community level. A 'day book' (recording receipts and payments), receipt book and voucher files are maintained by the village committee treasurer. A register is also maintained to record and monitor household contributions to capital cost. The bank account operated by the village committee during the planning phase is converted into the operation and maintenance account after the implementation phase. In the implementation phase, a joint account is maintained between the village committee and the support organization. Community accounts are audited by chartered accountants appointed by the Project Management Unit.

Capacity building for Community Contracting

One of the key assumptions when adopting a community contracting model in the project is that along with the

responsibility of managing investment funds, the village community must have the capacity to undertake the not-so-simple task of contracting. The project addresses the capacity issue at the community level in three ways:

- (i) Training capsules on community contracting procedures for village water and sanitation committees are arranged at the village level. For example, before the key Implementation Phase Tripartite Agreement is signed, the support organization organizes a two-day training program in the village for the village water and sanitation committee to explain the details of the agreement and the roles and responsibilities of each signing party.
- (ii) Engineers of the Project Management Unit and the support organization help the village purchase committee choose suitable

Laxmipur village: Overhead Tank Construction and Tubewell Drilling

The village water and sanitation committee in Laxmipur village invited sealed bids from three private firms for each of the works to be executed. Some firms were from towns over 250 km away. To assess the capacity and quality of their work, committee members visited work sites of the firm offering the lowest bid. They were assisted by an engineer from the support organization. After being convinced of the capability of the firm, the village committee awarded the works contracts to Shiva Ground Water Works Pioneers Ltd for tubewell drilling (at Rs 5.4 lakh) and to Construction Care Ltd to build an overhead tank (at Rs 5.1 lakh).



materials and select good contractors to execute large works.

- (i) Cross-visits are arranged for village committee members to other project villages to show them how different groups are doing community contracting.

Effectiveness of Community Contracting

Speed (comparison with the UP Jal Nigam): The Jal Nigam follows

Khankatiya Village: Contracting a Skilled Mason's Services

In Khankatiya village in the hills of Pithoragarh, a gravity flow water supply scheme was to be built. A skilled mason was required to construct a clear water reservoir for the system. Such a service was not available in the village or neighboring areas. The village water and sanitation committee scouted around and finally found a mason called Rajesh Chauhan (a migrant from another state) in Pithoragarh town, about 90 km away. His services were contracted and the clear water reservoir was built. Impressed by the quality of construction, other Swajal communities in the vicinity are hiring the same mason to work in their villages.



a highly centralized process for material procurement. Pipes are bought directly from the manufacturer after a lengthy tendering process of three or four months. The material procured centrally does not go directly to the construction site but is first sent to regional storage depots. While cement and steel are purchased at the regional level, the time spent in procuring these materials is not much less than the pipes. Apart from the delay due to the lengthy tendering process, time is also spent getting approvals for purchases: all purchases above a certain amount have to be approved by the Chief Engineer. Compared to this system, community contracting for material in the Swajal project is much quicker as the village committee, along with the support organization, is empowered to purchase directly either from the market or the manufacturers. On an average, community contracting of material is at least 30 days quicker than centralized procurement.

Cost: It is difficult to undertake an accurate cost comparison between community contracting and centralized procurement. On the face of it,

centralized procurement costs less, with economies of scale through purchase of materials and services directly from manufacturers and large agencies. In the Swajal project, village communities procure materials and services in small lots, which is usually more expensive than bulk order rates. However, the process cost of centralized procurement is very high, including the large staff cost, the storage cost and the delays in both procurement and materials/service reaching the construction site. In the case of community contracting, the process cost is usually very low. There is also an unquantifiable value through community contracting in the level of ownership and responsibility for the material and services procured, which contribute to greater sustainability of the scheme.

Quality: The quality of goods, materials and services obtained through community contracting is on par with central procurement. Quality control is maintained through external supervision of material procurement by independent service agencies through spot quality checks of material reaching the village. Sub-standard material is rejected and the supplier is responsible for replacing it. The material procured is also insured in transit. Field experience plus the reports of Bank supervision missions confirm that the quality of materials and services that they have procured is high, certainly higher than that of any centrally procured system.

The Way Forward

Village committees must independently undertake community contracting: One of the limitations of the Swajal model is that all contracting is done jointly by the village committee and the support organization, and decisions on purchases can sometime be influenced by the support organization engineer rather than the village committee. Ideally, the support organization should only act in an advisory capacity and the final decisions on contracting should be made by the community. This can only happen if investment funds are solely managed by the village committee and not jointly with the support organization, as at present, and adequate capacity building is done for the village committee to enable it to independently undertake community contracting.

Contracting processes need to be streamlined: With the

experience of three batches of construction, the Swajal project has learned a lot about community contracting. Although it has tried to streamline the processes involved, there is still scope to improve the process, especially in contract documentation. The IPTA is a long and cumbersome document, which needs to be made much shorter, crisper and 'signer-friendly'.

Scaling up community contracting: Community contracting seems to be working well in the Swajal environment. However, it would be difficult to replicate this system in the state's ongoing service delivery system in its current form. The government would have to agree to the principle of users managing construction funds and change its procurement rules accordingly. Along with this, user communities will need to have their capacity built to manage their own investment funds.



Community members involved in the procurement process

Water and Sanitation Program
- South Asia
55 Lodi Estate,
New Delhi 110 003
India

Tel: 011-469 0488/9
Fax: 011-462 8250
E-mail: wsp@worldbank.org
Website: <http://www.wsp.org>

More information can also be obtained from:



Project Management Unit, Swajal Project
3, Fawn Brake Avenue, Sarojini Naidu Marg,
Lucknow - 226 001

Tel: 91-522-237112, 239428
Fax: 91-522-237709
E-mail: swajal@lwl.vsnl.net.in

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The Water and Sanitation Program is an international partnership to help the poor gain sustained access to improved water supply and sanitation services. The Program's main funding partners are the Governments of Australia, Belgium, Canada, Denmark, Germany, Italy, Japan, Luxembourg, the Netherlands, Norway, Sweden, Switzerland, and the United Kingdom; the United Nations Development Programme, and The World Bank.

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