Infrastructure procurement strategies to benefit the urban poor

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Infrastructure procurement strategies to benefit urban poor

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May 1999

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1. Introduction

The objective of the presentation is to introduce the participants to community based infrastructure procurement strategies for low-income urban communities.

The presentation provides an overview of the investigation and analysis of the mechanisms, both conventional and unconventional, government and non-government, which have been adopted in efforts to deliver improved services to the urban poor. These mechanisms are the agreements, procedures, and contracts whereby things actually get done. Such mechanisms also include community-partnered procurement (CPP), a part of which is community contracts.

Cases from Asia and Africa have shown how community groups have taken a wide range of roles, which can be compared to clients, contractors and supervisors in the formal sector. Discussions will focus on how to assimilate and institutionalise good practices.

2. Partnering with community-A procurement strategy

Procurement is the process of buying the goods, works or services. In our case these are related to the infrastructure and services in poor urban areas.

Procurement strategies could be classified into two generic categories

- In which the community is not involved, and
- In which community gets involved

The “community” in infrastructure provision normally consists of people directly benefiting from the infrastructure and therefore geographic boundaries are used to define the community.

Communities can be involved in the procurement in various ways. For example communities can represent the client and be involved in the planning, design and tendering procedures. Communities can also act as a contractor and actually implement the works under a contract with the client. In community partnered procurement the community is one of the partners in the procurement process and can be seen as a way of achieving real participation of beneficiaries in the process.

There are various reasons for involving the community in the procurement. In Tanzania and Uganda for example reasons for carrying out the work under community contracts are:

- Strong involvement of the community is necessary to avoid conflicts and demands for compensation.
- To create employment opportunities for the un- or under-employed in the settlement
To improve skills and capacity of local people to address services and maintenance requirements.

Weak local private sector contractors.

The community contractor not only benefited from the contract but also from the assets created. Shirking of contract less common.

To formalise relations (participation) between the government (city council) and the community.

In Asia for example in Pakistan, India and Sri-Lanka the reasons to involve the community are:

- Lack of municipal capacity to meet demands on their own due to massive urbanisation.
- Political pressure both from national and international organisations.
- Generation and support to: employment creation, improvement in income and small enterprise development.
- Assumption that if community are involved the municipal authorities will have to spend less resources on operation and maintenance of assets created.

3. What is community partnering?

It is proposed to use the term Community Partnering as a concept to embrace this variety of roles and responsibilities of the actors involved in improving the infrastructure and services in an area. In its broadest sense, it reflects the continued involvement of the people, who are demanding and benefiting from the infrastructure, with the planning, implementation and sustenance of local infrastructure and service improvements, and with income generation, enterprise development and skills training.

Partnering implies the non-adversarial (where partners complement each other to achieve a common goal) and equitable power relationships between the parties and is a way of defining the participation of the beneficiaries in the process.

**The underlying implications are:**

- Full acceptance of the urban poor as primary stakeholders in local infrastructure provision
- The development of longer term more open-ended relationships, encompassing joint financing, planning, design, implementation, hand over and maintenance

- **Promoting co-operation both formally and informally with government agencies and NGOs**

- Full acceptance of the need to promote the local construction industry and small enterprises

Communities should not be forced to enter into a partnering relationship. That would be against the spirit of the partnering. The relationship should be on equal terms and on voluntary basis.
Experiences indicate that, contrary to the views of a number of professionals, urban infrastructure at the local (tertiary) level is not ‘too complicated’ for ordinary people to get to grips with. Urban infrastructure is complex, but nevertheless community groups in different situations demonstrate their ability to play a positive role. The key point to emerge is that there is no single identifiable role model for participation in urban infrastructure provision.

4. Conventional procurement procedures-Options
Following are some of the options that are generally used in public works departments.

- **Force account Departmental Works** in which work may be executed directly by the ED through employing daily skilled and unskilled labour. A muster roll of the labourers has to be maintained. The materials required are issued from the government store by indent or purchase directly chargeable to an authorised agent.

- **Piece work agreements and Work Orders** are strictly ‘contract types’; they are included here as they can be used for very small works, up to about RS 2000-3000. They can be undertaken at the discretion of the Engineer and do not have to be submitted to such lengthy procedures as larger contracts.

- **Entrustment of Works by Negotiation**; Registered voluntary organisations or co-operatives engaged in ‘social service’ or ‘local improvement efforts’, or one or more ‘beneficiaries of works’ may be entrusted to carry out the works. The ED negotiates rates.

- **Co-operative Societies** can be formed for the purposes of undertaking minor works. These exist in India; examples are ‘unemployed engineers’ and ‘labour’ co-operatives. In some cases the ED is empowered to award a certain quota of work at a discount which can be as much as 10% on the tender price.

- **Labour Contract**: The ED arranges for construction materials to be available at the site; the labour contractor hires the necessary labour and undertakes to carry out the work. Payment is based on the measured quantity of work carried out.

- **Micro Contracts**: Contracts which are very small in cost and duration are grouped under the term micro-contracts. The most commonly used method for micro contracts is for tenders to be submitted on a ‘percentage plus’ basis; that is, rather than fill in his/her own rate for each item of work, the contractor takes the engineers estimate as per the government schedule of rates and adds on a percentage of the total. This percentage has to include his/her profit, but more importantly it must allow for the difference between the schedule of rates and the actual market rates for materials and labour.

In all the above options the contractor needs to have a legal status to be able to tender on works and to open a bank account. In the conventional procurement procedures,
whereby the work normally is not entrusted to the community, this contractor needs to be registered as a contractor. In community partnered procurement the community or an economic group within the community can operate as a contractor without being actually registered as a contractor. However also in case of community contractors there is a need for registration and a clear legal status of the community contractor.

5. Micro Contracts
Urban infrastructure facilities that relate to services such as water and sanitation, access, street lighting and solid waste management in urban areas at neighbourhood level are frequently procured through micro-contracts. This is due to; contract packaging, more frequent demand of small jobs and local capacity to handle the contracts. Micro-contracts are contracts that are less than approximately £10000 and less than one year in duration.

It depends on the procedural framework adopted if tendering is necessary under micro contracts. In any case for public sector organisation some sort of apparently transparent mechanism is used to demonstrate that the decision is taken is the most advantageous.

To monitor the contracts consideration to the following triangle of objectives is important:
1. **Cost**: has the work been completed within the costs agreed in the contract?

2. **Quality**: has the work been done in accordance with what was specified?

3. **Time**: has the work been satisfactorily completed within the time specified?

6. Roles of contract partners under community procurement
In each contracting situation there will be a client who requires the work to be carried out and pays for the work and a contractor who implements the work. In most cases consulting engineers will assist the client in preparing the design and the contract documents, evaluate the tenders and supervise the work of the contractor.

In community partnered procurement the beneficiaries of the infrastructure or services to be provided play an important role. Communities can benefits from the works in various ways:

- Due to the created assets or improved services (as in conventional procurement procedures). To ensure that the created assets or services meet the demand of the community the community needs to be closely related to the client or be the client.
- As workers on the site. The technology choice should benefit many workers to take advantage. In a beneficiary setting the workers will be able to work under proper working conditions and be trained.
• As contractors. Representatives of the community can act as contractor and the profit will go to the community bank account to finance other interventions or maintenance of the created assets. It is also possible to contract out the work to economic groups in the community, promoting the local private sector capacity.

• As partner in the entire process the community build capacity to take more initiatives to improve their own living and working conditions. Partnerships between the community and the other partners (government and private sector) could facilitate further understanding and cooperation.

7. Kind of works potentially suitable for community partnered procurement.

Broadly speaking two categories of questions that need to be considered before the decision is taken to involve the community in the implementation of the work:

- 1 What kind of work is suitable for community involvement

- 2 What role or combinations of roles are appropriate for community groups.

It is noteworthy that in reaching the decision regarding the roles and the kinds of work that a community can undertake, the community should be given the chance to participate in the decision process.

Based on experience certain guidelines could be deduced regarding the kind of work where the community could be involved. The kind of work suitable for community partnering should:

• Not be of high risk or hazard.

• Not be technically or managerially complex.

• Not very mechanised.

• Not capital intensive.

• Be of routine nature-know how is available or can be relatively easily accessioned.

• Not be requiring special skills or equipment that takes a long time to acquire.

Some examples include (but are not restricted to): Excavation of water and sewerage lines, laying of pipes, jointing of pipes, cleaning of manholes, minor repairs,
maintenance routine checks, operation of small infrastructure facilities, collection of domestic refuse, street cleaning, construction of small and medium size manholes, general labour based works, plastering, masonry works, small buildings, small access pavements. Some of the above activities are of recurrent nature.

**Resources needed could be classified into;**

- *Skilled labourers*
- *Un-skilled labourers*
  - Standard artisan tools and special tools
  - Material
  - Equipment

It is important to keep track whether the contract is meeting the objective. One way is to develop indicators. A detailed account of performance monitoring indicators for urban infrastructure procurement will be available from the first author.

8. Performance indicators

A performance indicator can be defined as an item of information collected at regular intervals to track the performance of a system. Performance indicators are important in monitoring and evaluation. For this presentation the information is related to micro-contracts used in the procurement of urban infrastructure.

**Operational definitions of some performance indicators**

The performance indicators have been defined as dimensionless ratios to enable data, related to the micro-contracts, to be compared more easily. The use of ratios made it possible to compare the cost related data without normalisation, as comparison is not the costs themselves but the ratios.

1. R1 Cost Growth-The ratio of final contract cost and the initial contract cost. This ratio will reflect the effectiveness of cost controls and changes in the scope of works in the project.
2. R2 Time Growth-The ratio of the final contract duration and the initial contract duration at the time of award. This reflects the extent to which the time schedule was controlled and the risk encountered.
3. R3 Ratio of the time taken from establishment of necessity (approval) to the commencement of contract and the duration of the contract. This reflects time
taken in the pre-contract stages as a proportion of the actual contract duration. The lead-time is important in the overall delivery of the infrastructure improvement.

4. R4 Ratio of the estimated cost to the contract cost. This ratio compares the estimate to the tender price. A government-approved schedule of rates forms the basis of the Engineer's estimates. So this indicator also reflects any disparity between the government rates and the prevailing market rates. This indicator is particularly useful for procurement under public sector.

5. R5 Ratio of the estimated cost to the actual completion cost. This ratio reflects the accuracy of the estimates compared to the actual completion cost. This complements the idea of ‘cost growth’

The use of ratios has also made it possible to compare the cost related data without normalisation, as the comparison is not between the costs themselves but the ratios.

The indicators can also be used as benchmarks with a class of micro-contract and may help in improving performance. For example, one local authority or community could learn from a better performing organisation. Table 1 and 2 are presented as an example. The data belongs to Dr. M. Sohail and should not be used without consent. The data was collected unto 1997.

Table 1: Some selected statistics related to contract cost and duration in different contexts.

<table>
<thead>
<tr>
<th>Contract contexts</th>
<th>Country</th>
<th>Numbers of Contracts</th>
<th>Mean Local currencies</th>
<th>Equivalent UK Pounds</th>
<th>Mean Calendar days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community participated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPP. (Pk.Rupees)</td>
<td>Pakistan</td>
<td>32</td>
<td>8,308</td>
<td>119</td>
<td>NS</td>
</tr>
<tr>
<td>SIP community contracts. (Ind.Rupees)</td>
<td>India</td>
<td>7</td>
<td>48,500</td>
<td>746</td>
<td>39</td>
</tr>
<tr>
<td>CSPU contracts. (Sr.Rupees)</td>
<td>Sr-Lanka</td>
<td>4</td>
<td>390,669</td>
<td>4883</td>
<td>62</td>
</tr>
<tr>
<td>SKAA Departmental works. (Pk.Rupees)</td>
<td>Pakistan</td>
<td>10</td>
<td>250,790</td>
<td>3583</td>
<td>NS</td>
</tr>
<tr>
<td>NHDA contracts. (Sr.Rupees)</td>
<td>Community</td>
<td>42</td>
<td>347,794</td>
<td>4347</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td>Sri-Lanka</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NS The value is not specified

Notes: For conversion:

1 £ = 80 Sri Lankan Rupees
    = 65 Indian Rupees
    = 70 Pakistani Rupees

It can be seen that in countries where the community contracting is just starting the contracts are relatively small in cost and duration. In organisations where the practice
of community contracting is going on for some time, the cost and duration have increased.

Table 2: Performance indicators of different contracts

<table>
<thead>
<tr>
<th>Contract contexts</th>
<th>Indicators</th>
<th>Means</th>
<th>R1</th>
<th>R2</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPP. Community participated</td>
<td>OPP.</td>
<td>1.08</td>
<td>N.C</td>
<td></td>
</tr>
<tr>
<td>SIP contracts.</td>
<td>Community contracts</td>
<td>0.97</td>
<td>2.06</td>
<td></td>
</tr>
<tr>
<td>CSPU contracts.</td>
<td>Departmental works</td>
<td>0.97</td>
<td>1.37</td>
<td></td>
</tr>
<tr>
<td>NHDA Community contracts.</td>
<td>Community contracts</td>
<td>0.88</td>
<td>1.89</td>
<td></td>
</tr>
</tbody>
</table>

R1 is cost-growth ratio
R2 is time-growth ratio
N.C Not calculated

The cost performance is satisfactory. Time performance needs improvements. However, these community contracts are comparable with the conventional contracts if not better. Under all community contracts the quality was reported to be better than under conventional contracts.

9. Summing up

Partnering with community is an appropriate and socially sensitive procurement strategy for procurement of tertiary infrastructure for low-income urban communities.