

**Community Contribution for Water Supply and Sanitation**

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**Introduction:**

More than seventy per cent of India's population live in rural areas where water-borne diseases are major health hazards. To reduce the water-borne diseases, over the past two decades, India has made heavy investment in programme in related to the rural water supply and sanitation (RWS) and in support of this, the National Drinking Water Mission (NDWM) was created in addition to already existing water supply programmes<sup>1</sup> to provide potable water in a time bound period. The total amount invested in India's rural water supply programme since 1952-57 (first Five-year Plan) is \$6.5 billion. In spite of this, many habitations have been partially covered and also, a considerable number of drinking water supply facilities defunct due to poor maintenance and many are not sustainable.

Nevertheless, the funding from the government alone is not sufficient to operate and maintenance the assets and this has led to the introduction of innovative approaches in this sector to provide an alternative delivery system through the community participatory approach. According to it, the community should play a major role in sharing part of the cost and pay user / service charges, and also own the responsibility of operation and maintenance of systems. And this provides a place for the community to have their voice and choice in choosing the type of service and technology<sup>2</sup>. With this objective, a couple of bilateral projects related to Rural Water Supply and Sanitation were implemented in Karnataka. Among them, the World Bank's 'The Karnataka Integrated Rural Water Supply and Sanitation Program (1993-99), which is demand driven and based on community participation<sup>3</sup>. The community participate at all stages of development, viz., planning, implementation and, operation and maintenance by locally developed institution called Village Water Supply Committee (VWSC)<sup>4</sup>. Under the programme, the community shares 30 per cent of the capital cost of environmental sanitation through mobilizing household contribution. The shift in the approach of the government from the provider of basic services to that of motivating people to own, operate and maintain such services is consistent with the current thinking. Besides, experience has it that community participation in the provisioning, operation and maintenance of basic

services is both cost-effective and sustainable. In this paper an attempt has been made to examine the role of community in mobilizing the required amount for sharing the capital cost and *vis-a-vis* the outcomes with the following objectives:

**Objectives:**

- What was the amount agreed to be contributed by the village community?
- What was the actual amount contributed?
- What proportion of the total contribution came from the households?
- Apart from the households, from what other sources did the community mobilise funds?

**Methodology**

The World Bank assisted 'Integrated Rural Water Supply and Sanitation' program was implemented in 12 districts of Karnataka, in 1,200 villages in three phases during the period 1993-99. In all, ten per cent of the villages were selected by random sampling method for this study and data obtained from VWSC, details of which have been provided in table 1<sup>5</sup>. The presentation has been made in three sections, in first section is devoted introduction and methodology, followed by second section which brings out the problems in community contribution, and in the last section presents the conclusions.

**Community Contribution at the Aggregate Level**

At the aggregate level, all the districts under study have actually contributed more than the agreed amount except two districts, Belgaum and Bidar, and the contribution varied more than the agreed amount from 16.6 (Hassan) to 37.8 (Raichur) per cent. Only in the

**Table 1— Number of villages selected**

Phase	Number of villages	
	Covered	Selected
Pilot phase	11	1
Phase I	257	25
Phase II	937	86

Table 2—District-wise contribution by household and its proportion to agreed amount

District	Proportion of contribution to the Agreed Amount (in %)	Per household contribution on an average (Rs)		Household contribution	
		Agreed	Actually	As a Proportion of Total Contribution	As a Proportion of what was Agreed upon
1	2	3	4	5	6
Bangalore	142.8	131.40	187.70	56.7	81.0
Mandya	123.7	342.90	424.00	45.4	56.1
Hassan	259.1	71.70	186.30	17.6	45.5
Belgaum	98.6	392.30	386.80	98.5	97.1
Gulbarga	129.0	170.20	219.50	54.1	69.7
Bellary	116.6	141.70	165.20	31.7	36.9
D. Kannada	100.0	71.70	71.70	100.0	100.0
Raichur	477.8	105.70	473.30	33.2	148.4
Shimoga	153.0	209.90	321.20	73.3	112.1
Tumkur	223.0	90.50	201.20	72.0	160.4
Bidar	99.6	145.60	145.00	87.3	87.0
Mysore	151.9	293.20	445.30	43.9	66.6
All Districts	142.2	193.70	275.50	56.3	81.1

case of Bidar, the actual amount was slightly less than (by 0.4 per cent) the agreed figure, whereas in Dakshina Kannada district the community there contributed exactly what had been agreed. As already mentioned, the households were expected to contribute the entire agreed amount, but in fact, in none of the districts this condition has been met.

According to Table 2, the share of the household contribution as proportion to the total community contribution varied from as low as 17.6 per cent in Hassan district to 87.3 per cent in Bidar (col 5). What was even more disturbing was that except Dakshin Kannada, Raichur, Tumkur and Shimoga, in all other districts, the actual amount contributed by the households was much less than what was agreed (col 6).

From the above table three points emerge:

1. Except two districts, the agreed amount in other districts exceeded at the aggregate.
2. The contribution of the households, except in Dakshin Kannada, has only a certain proportion of what was contributed by the community as a whole.
3. The contribution of households, except in Dakshin Kannada, Raichur, Shimoga and Tumkur, in all other districts has less than what was agreed upon by them. Thus, out of 12 district only in four districts, thus

the households were able to mobilise the agreed amount through household contribution.

#### Sources of Contribution

According to Table 3, the contributions from other sources, which supplemented the household contribution were from Grama Panchayats, Cooperative societies, shops and industrial establishments, fairs and festivals, local leaders, Non-resident Indians and contractors. Of these, the role of local leaders, contractors and panchayats are important in that order. For, together they met the biggest chunk of the gap left by the households as much as 43.7 per cent. NRIs also figure in four districts but the proportion accounted by them was comparatively insignificant.

#### Village-wise Contribution

As stated earlier, data were obtained from 112 villages from the districts under reference. It would be then of some interest to examine the village-wise contribution of the community.

As part of this exercise, in Table four, it has been presented the frequency distribution of the villages by the proportion of contribution by source. According to it, in four villages the households did not contribute at all; the entire contribution in their case would have come

Table 3—Source-wise distribution of actual contribution across districts (in %)

Districts	House holds	Gramapanchayat				Local leader st	Coop erative societies	Shops & Indus tries	Fairs & Festival	NRIs	Contr actors
		Loans	Grants	Auction	Tax						
1	2	3	4	5	6	7	8	9	10	11	12
Bangalore	56.7	-	-	4.5	-	27.0	5.9	2.4	0.4	1.2	1.7
Mandya	45.4	-	7.5	-	-	15.3	3.4	6.4	6.7	-	15.3
Hassan	17.6	-	1.0	5.0	-	13.2	-	-	3.7	-	59.5
Belgaum	98.6	-	-	-	-	-	-	-	-	-	-
Gulbarga	54.1	-	-1.6	-	3.7	21.0	0.1	1.4	-	-	13.6
Bellary	31.7	2.1	-	14	-	51.2	2.8	4.0	-	-	6.8
Dakshin Kannada	100.0	-	-	-	-	-	-	-	-	-	-
Raichur	33.2	2.9	-	-	-	-	0.7	-	-	-	6.7
Shimoga	73.3	3.8	2.5	11.6	-	3.3	-	-	1.6	0.9	3.0
Turnkur	72.0	-	-	3.3	-	15.5	0.2	5.5	-	3.5	-
Bidar	87.3	-	-	-	4.6	5.9	0.3	1.4	-	0.3	0.1
Mysore	43.9	-	11	-	-	40.7	6.2	3.9	4.3	-	-
All Districts	56.3	0.9	2.0	2.3	0.5	16.9	1.9	1.3	0.5	0.4	19.0

Table 4—Distribution of villages by source of contribution

Class Intervals (per cent of Contribution)	Number of Villages				
	Households	GPs*	Leaders and NRIs	Contractors	Others**
0	4	75	59	80	73
0.1 - 10.0	4	17	12	9	16
10.1 - 20.0	6	5	7	2	6
20.1 - 30.0	7	5	11	3	5
30.1 - 40.0	13	6	6	5	3
40.1 - 50.0	12	1	3	1	3
50.1 - 60.0	10	2	0	3	5
60.1 - 70.0	8	0	0	2	0
70.1 and above	48	1	5	7	1
Total	112	112	112	112	112

Note: \* Under this source are included loans, grants, proceeds from auctioning of fuel, fodder etc., and property tax.

\*\* Under this item are included sources such as societies and co-operatives, shops and industrial establishment, fairs and festivals.

from other sources like Grampanchayats, local leaders, contractors and the like. There was as many as 17 villages where the households contribute less than 30 per cent of the total, and nearly half the number of villages (53 villages which includes 4 which did not contribute), the contribution of the households was less than 60 per cent of the total contribution from the community. The other half of the contributed 60 per cent and more of the total. The interesting part is that out of the total 112 villages, in 5 and 7 villages the leader and contractor respectively

contributed more than 70 per cent of the required amount.

### Conclusions

From the above analysis, the following conclusions can be drawn. The average contribution of the households was about 56 per cent of the total contribution, which was less than the agreed amount. In fact, in four villages, the households did not contribute anything at all, and as a result, the entire amount came

from sources other than the households. What was the status of the households, who did not contribute?. It has been observed that, the household which has not contributed derived benefits through household connection or from the public stand post located near to the house. Most of the household, which had contributed obtained the subsidized individual household latrines (IHL).

Now, the question is how to bring / integrate the households which were not part of the contribution. Since the proportion of households below the poverty line was 30 per cent, to protect the interest of these households the proportion of contribution from these household had to be subsidised from Grampanchayat funds in the form of loan and cross subsidization from rich people. Cross-subsidisation appears to be quite justified considering that the income inequalities in the country as seen from the high value of standard deviation and the rising progression observed in regard to incremental income as one moves from one percentile to the other upwards. Further, more than the income, it was the need that turned out to be the important determinant of willingness to pay. Obviously, if the people were convinced that their needs would be met, there is not hesitation to come forward to share the cost of providing this service. The fact that this cost was within the capacity of the households and panchayats will make the cost sharing proposal of the State Government a viable proposition.

#### Notes/References

1. Government of India (1995), 'Eight Five Year Plan 1992-97', Vol II, Planning Commission, New Delhi, Government of India (1999), 'Rural Water Supply and Sanitation', Allied Publication, New Delhi.
2. Anthony A Churchill (1994), 'Rural Water Supply and Sanitation - Time For A Change', World Bank Development Project, The World Bank, Washington; David Harmeyer and Ashok Mody (1997), 'Private Capital in Water and Sanitation' *Finance and Development*, March 1997; Pushpangdan, K and Murgan, G (1998), 'User Financing and Collective Action: Relevance for Sustainable Rural water Supply in India', *Economic And Political Weekly*, vol xxxiii(14) 793-798.
3. Veerashekharappa (2002), 'Community Participation in Rural Drinking Water Supply and Sanitation: A Case Study of Karnataka, *Journal of Indian Water Works Association*, Vol xxxiv (1) 13; 23, January - March.
4. For details see, Veerashekharappa (1999) 'Reforms in Rural Drinking Water Supply: Perspective and Problems', *Economic and Political Weekly*, Vol xxxiv (52), 3695-3696.
5. This data is collected to carry out major study to examine the community participation in planning, monitoring and operation and maintenance.

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