



Decentralisation and supply efficiency of RWS in India

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IT IS GENERALLY accepted that the achievement of the Millennium goal of halving the proportion of people without access to safe drinking water by the year 2015 will require not just more investment but also more efficient use of that investment. One important piece of advice to developing countries in this respect is to decentralise the provision of RWS.

From the supply efficiency side, few scholars have challenged the validity of the decentralisation approach. Even those of who have raised doubts are of the view that while the provision of infrastructure could be centralised, maintenance should be decentralised because the local governments have comparative advantages in terms of information and incentive (*Prud'homme, 1995*).

The bias towards decentralisation in the RWS literature could be due to the fact that hardly any empirical studies relating to the comparative efficiency are available. Analysis is based on individual case studies and subjective assessments subject to the halo effect. The halo effect comes when something, which is politically or socially desirable, is also assumed to be economically efficient by the evaluators in their subjective evaluations (*Isham et al., 1995*).

This paper looks at supply of safe drinking water in India. In India the state and the local governments are responsible for providing safe drinking water. International aid in the field of drinking water is a very small proportion of total investment and so policy in this sector has largely been autonomous.

The setting

Generally, small villages and remote habitats in India are served by handpumps whereas larger villages, usually with a compact population exceeding 2,000 are covered through piped water schemes. The sample used in this study is part of a larger study undertaken with support from the University of Strathclyde, Glasgow and is based on two stage sampling method. List of villages with piped water supply schemes were obtained from the state governments in India. Unlike many developing countries, India has a century old tradition of census and comparatively reliable data. Resource constraints, however, permitted field visits to only two states. Field visits to these two states revealed that in two thirds of villages, piped water supply scheme was functioning continuously for the last three years or more. This yielded a fairly large sample of 1,708 functioning piped water schemes for which data was available.

The operation and maintenance of these rural piped water supply schemes presents a mixed picture. In 459

villages, the water supply schemes are operated by the agencies of the local government. In the remaining 1,249 villages, these schemes are operated by the agencies of the state governments through centralised management in terms of staffing, inventory control etc.

In general, NGOs have been in favour of decentralisation. The activist groups, however, hold the state governments responsible if there is an epidemic in an area even where the provision of water supply is under the control of the local authority. While the federal government has been urging the states to go ahead with decentralisation, the international aid agencies are even more insistent. The German aid agency KfW withdrew the second stage of their rural piped water supply project from the state of Madhya Pradesh because decentralisation was incomplete.

On the other hand, the State Human Rights Commissions often recommend that the maintenance and operation of drinking water schemes should be with agencies of the state government. Safe drinking water has long been recognised as a basic need (e.g., *I.L.O., 1966*). A consensus seems to be emerging that the right to water should also be regarded as a human right (*Iyer, 2003*). Some watchdogs feel that the state government is better placed to safeguard this human right as compared to a local authority (e.g., *MPHRC, 1999*).

Overall, the intuitively appealing idea of decentralisation is seems to be gaining ground.

Measurement of efficiency

Our empirical approach uses two alternative measures of efficiency: (i) operating expense scaled by annual production; and (ii) asset utilisation, which is annual production of potable water divided by assets.

Inefficient inventory control and corrupt practices reflect high operating expenses. This first measure indicates how effectively the operator controls its operating costs per litre of water supplied. The second measure indicates how effectively the assets are being used. Low productivity of employees will lower asset utilisation.

An efficiently run RWS scheme can be expected to have a low operating expense and a high asset utilisation.

The mean operating expense for decentralised RWS schemes is 51.9 whereas that for centralised schemes is 46.9. This is depicted in figure 1. This 5.0 difference is statistically significant at one per cent level. Looking at the asset utilisation ratio, we find that for equal assets the production by decentralised utilities (4.35) is less than that

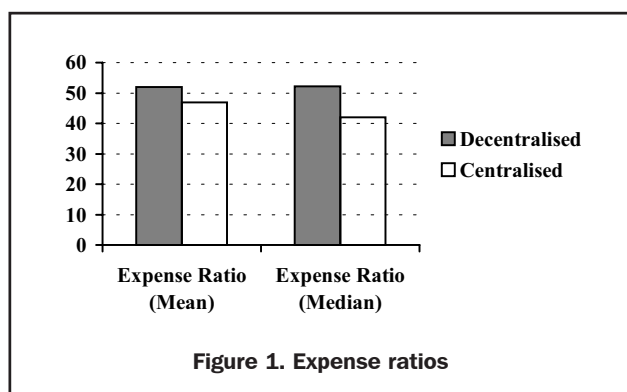


Figure 1. Expense ratios

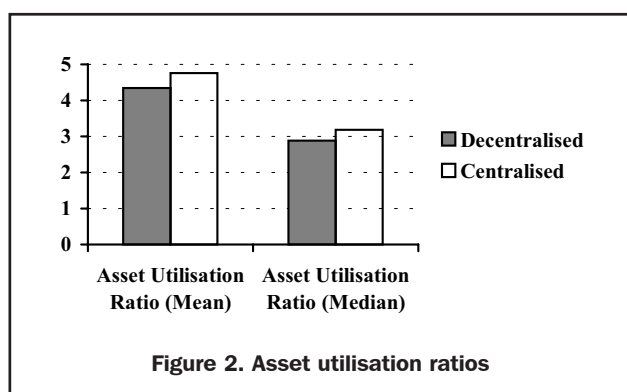


Figure 2. Asset utilisation ratios

of centralised utilities (4.76). This is depicted in figure 2. The 0.41 difference is statistically significant at 5 per cent level.

A back-of-the-envelope calculation will show that for the same level of water supply, decentralised schemes spend ten percent more. Their asset utilisation is ten percent less than that of centralised units.

The rough calculation described above ignores other variables like geological variables, financing variables as also the relative size and age of the individual WSS schemes. To get more accurate results, a series of regression was run. For want of space, tables of these results are not being reproduced here. The results are available from the author and will also be reported in the *Journal of Development Studies*. We find robust results to the effect that centralised RWS schemes are more efficient. It may be clarified that 'centralised' in our context means managed by state government, not federal government; whereas 'decentralised' means managed by the local village government.

Supply inefficiency of decentralisation

Admittedly, the losses on account of decentralisation are small, but they are statistically significant. More important, their signs go against the prevailing policy advice against centralisation.

Economies of scale in terms of inventory control and supervision may not be the only reason for increase efficiency. Probably, the human factor is more important. Even in developed countries, decentralisation may lead to deterioration of prestigious institutions like Ingénieurs des Ponts et Chaussées of France without equivalent progress

in local government bureaucracies (*Prud'homme, 1995*). In the developing countries, the technical skill of the local bureaucracies is at a primary level.

There is enough evidence to believe that there is widespread corruption in the provision of public services in developing countries. Decentralisation of the provision of public services can have the beneficial effect in terms of decentralisation of corruption and consequent redistributive effects. But there is also evidence that corruption is more prevalent at a local level as compared to regional and national levels. There are many reasons why this may be so. Local politicians are likely to be more subject to pressure demands from local interest groups. A major theoretical advantage of decentralisation is more discretion at the local level (*Oates, 1972*); but this discretion could be a source of higher level of corruption.

At present political decentralization is much more advanced in India than the administrative decentralization. Once administrative decentralization is complete, the local bureaucrats will be under full control of the local politicians. Managers working for the regional governments move from place to place and have less unethical relationships with the local politicians. The pressures of caste, tribe and local politics are too strong even for a well-meaning local government official. Location of public water stand posts and handpumps is an example. The state governments have issued clear guidelines as to how these should be located with a view to serve the disadvantaged sections of the population. Often, the local level functionaries are compelled to install the standposts and handpumps near the influential households.

More important is the role of audit and the media. Monitoring and auditing are better developed at the state level. At the national and regional level, the media provide information on political markets, exposing corrupt and unethical politicians (*World Bank, 2002, pp.181*). Since the media at the local level is underdeveloped, it is not in a position to play a constructive role.

Corruption is very difficult to measure. Most of the studies relating to 'corruption perception' analyse the effect of corruption on business. Moreover, these studies compare national governments and sub-national governments. Relevant comparison would be within the category of 'sub-national', i.e., regional and local governments. Studies in Zaire and Tunisia, point towards higher levels of corruption in local governments (*Prud'homme, 1992*). Recently studies in Uganda and the Philippines (*Azfar et al., 2000*) points out the lack of accountability at the local level. Corruption is bound to increase the cost of provision and lower efficiency.

There is some evidence that community participation by the beneficiaries in drinking water projects leads to better project outcomes (*Briscoe and de Ferranti, 1988; Isham et al., 1995*). The view that decentralization is a requirement for effective community participation and management, however, is open to question. When social inequalities supplement economic inequalities, the process of de-

centralisation is political rather than participative and liable to be captured by the local elite. It is nobody's case to minimise the participation of stakeholders. The point being made is that decentralisation to a local government does not necessarily increase community participation and management.

Political arguments in favour of decentralisation are strong. Notwithstanding many outliers (e.g., communist Yugoslavia was far more decentralised than France) democratic countries have more decentralisation. On the economic side, it is true that richer countries are far more decentralised than poor ones; but the causality is not established.

In the water sector, the review articles (e.g., Gadgil, 1998) focus on technology and policy relating to tariffs etc. It is usually taken for granted that a decentralised service is more efficient. It is often assumed that the only reason complete decentralisation has not taken place is that the vested interests of the regional level politicians and technocrats are too strong. It is often assumed that the people want decentralisation while the regional level governments oppose it. This view is open to question. There has never been any referendum to determine what the people want. Paradoxically, the decisions relating to decentralisation are taken at the central level without consulting the people.

The only valid argument in favour of decentralisation, rarely advanced, is that of learning by doing. Under the guidance of the state governments and under pressure from the people and the NGOs, the local governments are likely to be more efficient, less corrupt and more responsible. This would take time even if a carefully formulated strategy were put in place. Another strategy could be to sidetrack centralisation-decentralisation dichotomy, empower the people to group together, form NGOs and engage in provision of public services that the local governments may fail to provide satisfactorily. In a multicultural multiethnic society, it is a difficult task. Even strong votaries of decentralisation have warned that we should not idealise village community and that community ownership has lowered the capacity of public authorities in India and other developing countries (Petrella, 2001, pp.15-16). In most developing countries no long-term viable strategy relating to decentralisation with empowerment is in place. There is only ham handed pressure from the metropolitan elite and the donor community for decentralisation.

Conclusion

The millennium goal seeks to halve, by the year 2015, the proportion of people without access to safe drinking water. The jury is still out as to the level of government that is best suited for achievement of the goal set.

Comparison between regional and local governments needs to be studied further. The assumption that a government that is 'closer to the people' will provide better services is intuitively appealing but does not pass the test of empirical analysis.

There may be sound political reasons for decentralisation; however the economic efficiency is doubtful at least in the short and medium term.

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