

HOW TO MAKE 'STREET LEVEL' BUREAUCRACIES WORK BETTER: INDIA AND KOREA¹

Robert Wade

Even the most unblinking advocate of free markets accepts that the state must ensure the provision of some services to the citizenry. Whether by public or private agencies, many such services must be provided through what have been called 'street level' bureaucracies (SLBs).² They include, for example, departments of police, education, health, and agricultural extension. The operators of these departments (the police constables, classroom teachers, and agricultural extension agents who do the work that justifies the existence of the organization) have several features of their work in common. (1) They interact daily with citizen-clients in the course of their jobs. (2) They have substantial discretion in the execution of their work. (3) How they use their discretion is not closely monitorable after the fact, in the sense that it is difficult to identify precisely the results of what they do or do not do.

From the perspective of the 'new economics of organization',³ we would expect massive problems in such organizations. This new approach rests on the assumptions that (1) all bureaucracies can be treated as arenas in which the occupants of particular roles (owners, managers, operatives) create networks of contractual arrangements which allow each to maximize their own self-interest, (2) these individuals have no lasting commitments to goals other than the maximization of their own self-interest, and (3) they relate to others either as a 'principal' or as an 'agent' of a principal (a principal in relation to a subordinate, an agent in relation to a superior), and in their agent role they tend to shirk (do too little work) or subvert (do the wrong work) if they can get away with it. The approach focuses attention on how contracts and monitoring systems are more, or less, effective in checking the universal propensity of agents to shirk or subvert. From this perspective, the wonder about SLBs is that they do any work at all.

For all the bleakness of its assumption about human nature, the approach does have its uses. It brings questions of incentives and monitoring to the centre of attention, away from the margins where the more sociological theories of organizations have consigned

them. But having posed the questions, it answers them with an excessively narrow range of possibilities. The sense of mission, trust, fairness, comradeship towards others who are similarly wed in a common 'community of fate', and the cooperativeness in pursuit of organizational goals which these qualities breed — the possibility of generating these qualities other than through the specification of individual contracts is barely entertained. What matters is only getting the details of the dyadic contracts right, such that at each level the individual agent has a strong self-interest in meeting the intentions of the principal to the maximum. If that leads to cooperativeness and teamwork, well and good. If it doesn't there is no point in trying to design a structure and routines so as to generate these qualities in other ways. But we need not accept such a tight constraint on the range of possibilities. We can use the general ideas of the new economics of organization to guide an examination of the detailed incentives under which — in this case — street level bureaucrats work, without limiting our attention to the mechanisms which this particular approach embraces.

IRRIGATION

The organization for operating and maintaining a large canal is a species of SLB. The operators (or 'patrollers') patrol the channels to prevent interruptions in supply, raise and lower the water gates, undertake light maintenance work, and read the water gauges. The engineer-managers supervise the patrollers, allocate water between bigger units, and design and supervise the maintenance work. The patrollers are generally beyond any direct, visual supervision by the managers, they have substantial discretion as to which tasks they do when, and the tasks are difficult to specify in terms of how 'adequately' they must be done. Further, contact with farmers is a normal part of the job, and the farmers are often uncooperative, wanting more water than their share.

India and Korea have structured the patroller's incentives very differently. It is difficult to know how important organizational variables are in explaining the

¹ This paper is based on field work in Andhra Pradesh in 1975-82 and in Korea in 1979. See further Robert Wade, 1982, *Irrigation and Agricultural Politics in South Korea*, Boulder: Westview; and 1982, 'The management of irrigation systems — how to evoke trust and avoid Prisoner's Dilemma', *World Development* Vol 16 No 4, pp 489-500.

² M. Lipsky, 1980, *Street-Level Bureaucracy: Dilemmas of the Individual in Public Services*, Russel Sage, New York

³ See Terry Moe, 1984, 'The new economics of organization', *American Journal of Political Science*, Vol 28 No 4, November; Charles Perrow, 1986, *Complex Organizations: A Critical Essay*, McGraw-Hill, New York

big difference in the productivity of canal irrigated agriculture in the two countries; climate and scale of system also differ hugely, not to mention culture. But there is not much doubt that India suffers from a form of canal organization which allows the assumptions of the new economics of organization full reign, and that some improvements in agricultural performance could be brought about without massive capital investment through organizational changes.⁴ Comparison of the Indian and Korean forms of organization can help to stimulate thinking about what these changes might be. Space constraints preclude a full-blown comparison. We shall consider only the patroller, and the overall structure of irrigation organization.

THE IRRIGATION PATROLLER IN INDIA AND KOREA

In the Indian state of Andhra Pradesh the recruitment and posting of patrollers is governed by several rules. (1) He must be full-time, not part-time; so he cannot farm more than marginal amounts of land. (2) He is selected by the engineer-manager responsible for the subdivision in which he will work. (3) He is employed 'permanently', after a probation. (4) He must be rotated to another post every six years (involving a shift in residence of several miles at the last). (5) He must not be posted in the jurisdiction which includes his native village.

The Korean rules neatly tip the Indian ones on their head. (1) The patroller must be a part-time farmer, so that he experiences the problems of irrigation at first hand. (2) He is nominated by the headmen of the villages within his jurisdiction, and approved by the irrigation bureaucracy. (3) He must be renominated every year. (4) He is not posted from one place to another; because (5) his land and residence must be within his own jurisdiction.

The thrust of the Indian rules is to minimize identification between the patroller and the locality, and maximize identification with the irrigation bureaucracy — with the 'bureaucracy' at large, but not with particular individuals whether equals or superiors, because those people are themselves being rotated from place to place fairly frequently. The thrust of the Korean rules is almost the reverse. The Korean rules find people who will themselves suffer irrigation difficulties along with all the other farmers in their jurisdiction, who are 'embedded' with those other farmers within a larger structure of personal relations

and social networks, and who are accountable in a direct way to the leaders among those other farmers.

Consider next the supervision arrangements. The Indian ones are classic Weberian. Some five or six patrollers with contiguous jurisdiction are supervised by a foreman. Four or five foremen are supervised by a Supervisor, and so on up in nested geographical jurisdictions. The Korean ones, on the other hand, would make Weber turn in his grave. Each non-patroller employee of the canal organization has a responsibility to supervise one patroller, in addition to other duties. Once or twice a week, without notification, they travel to the patroller's area during the hours when he is supposed to be on the job, to ensure that he is there and perhaps stop for a chat. The organization provides light motorcycles for staff to travel to and from their supervisory jurisdictions. This is of course a very expensive method of supervision, for it entails massive redundancy of staff travelling up and down the command area. But it also has an interesting consequence for information. Instead of information about the command area travelling up a hierarchy, being distorted at each level, information about the command area comes into the canal organization at all levels. It is common for staff en route to see their patroller to stop and chat to groups of farmers whether inside or outside their own particular supervisory jurisdiction. In this way information is dehierarchalized. This is all the more important because there are no formal mechanisms of consultation between farmers and irrigation staff; in terms of the formal organization chart the farmers are completely excluded.

They are also formally excluded in India; but there the information system is much more hierarchical, with people at one level having some monopoly over the supply of information to higher levels.⁵ The monopoly power of information provision helps staff at each level to enlarge their discretion over what it would otherwise be. And since they are engaged in allocating a vital resource whose cost to the farmers is often much less than they would be prepared to pay rather than go without, the staff can make use of their discretion to earn large amounts of illicit money.⁶

ORGANIZATIONAL STRUCTURE IN INDIA AND KOREA

These differences are in turn part of a wider structural difference in organizational design. The Indian system uses a single vast hierarchy for designing, supervising

⁴ R. Wade and R. Chambers, 1980, 'Managing the main system: canal irrigation's blind spot', *Economic and Political Weekly*, Vol 15 No 39, Review of Agriculture, December: 147-60.

⁵ R. Wade, 1985, 'On the sociology of irrigation statistics: how do we know the truth about canal irrigation?', *Agricultural Administration*, Vol 19 No 2: 63-79.

⁶ R. Wade, 1982, 'The system of political and administrative corruption: canal irrigation in South India', *Journal of Development Studies*, Vol 18 No 3: 287-328; 1985, 'The market for public office: why the Indian state is not better at development', *World Development*, Vol 13 No 4, 1985: 467-497.

the construction, and operating and maintaining all canal systems in a state (Andhra Pradesh's Irrigation department has about 40,000 employees, in a state of roughly 40 million people). The patrollers at the bottom are meant to be responsive upwards to higher authorities in this hierarchy, not responsive laterally to particular groups of farmers. But even at the level of the engineer-managers, and still more so at the level of the operatives, no attempt is made to foster integration of the hierarchy by other than material means, by other than the dependence of individuals on the Irrigation department for their salary. In practice there is a strong social and economic cleavage between operatives and the engineer-managers, with operatives in practice identifying much more closely with local people than with the hierarchy.

In Korea, too, there is a similar cleavage between operatives and staff of the canal organization. The differences with India are, first, that the rules of patroller selection are such as to regularize this local identification, making the patroller accountable to a generic rather than particularistic local interest (through renomination by the village heads); and second, that the staff other than the patrollers are knitted into a cohesive organization. Unlike an Indian state there is no single hierarchy for the whole country. Each system or each watershed has its own parastatal canal organization, while design and construction is handled by a national organization. The watershed-based canal organizations (misleadingly called 'associations') draw their staff from their own area, and depend for most of their operating budget on farmers' water payments. There is much less marking out of rank differences within the organization than there is in India, in terms of dress, vehicles, and other prerequisites. It is quite normal for everyone — sometimes excepting the President, appointed by the Ministry of Agriculture in the case of the bigger canals and normally the only non-local on the staff — to eat lunch together in the same lunch room. On top of these aids to organizational cohesion, a variety of collectivity-enhancing methods are used, ranging from athletic competitions between organizational subdivisions to massed callisthenics in the forecourt of the headquarter's building every Friday morning.

WHAT MIGHT INDIA LEARN FROM KOREA?

Massed callisthenics in the forecourt in India? The sheer difficulty of imagining the staff of an irrigation subdivision assembling at subdivisional headquarters for morning callisthenics raises the question of organizational transfer in vivid form. Behind the

⁷ See J. Coleman, *Foundations of Social Theory*, Harvard University Press, Cambridge: 300-321.

⁸ See Wade, 1988, *Village Republics: Economic Conditions for Collective Action in South India*, Cambridge: Cambridge University Press, for evidence on low trust in rural India; and H. Triandis, et al., 1972, *The*

transfer question is one more basic still, which is the extent to which organizational structure determines organizational behaviour.

Many sociologists would say: not much. They would stress the influence of the 'environment' outside the organization on behaviour within it, and so on the organization's performance of its central tasks. One quite plausible line of argument might go as follows; effective performance of organizations-in-general, including irrigation bureaucracies, is inversely related to the magnitude of opportunistic behaviour by the staff. Opportunistic behaviour is related not only to the details of principal-agent contracts (as in the new economics of organization), but also and inversely to the amount of 'social capital' in the organization and in the wider community in which it operates. Social capital here refers to trust, norms of reciprocity and social networks.⁷ In other words, the greater the amount of social capital in an organization and in its wider community, the greater the likelihood that organizational members will behave cooperatively, and so the better the organizational performance (measured in our case by water to the fields).

To assess the likelihood that a Korean-type irrigation structure would indeed generate improved irrigation performance in India we need to know, therefore, the extent to which the amount of social capital in an organization is a function of the amount in the organization's environment, and the extent to which it is a function of the structure of that particular organization. In the Korea-India comparison, it is likely — I know of no evidence — that social capital in Korean rural districts has for many decades been higher than in Indian rural districts. (One could examine evidence on various forms of mutual aid practices, such as rotating credit associations, which require high levels of trust and in turn generate some more; and evidence on word association tests, which show that in India the idea of 'trust' is closely associated with the idea of 'treachery'.)⁸

But in addition, the Korean type of irrigation structure itself maximizes the spillover of community social capital into the irrigation organization and then generates more inside the organization, while the Indian structure minimizes it. The Korean type does so by drawing its staff from the local area, where they and their families, kin and neighbours have repeated exchange over long periods of time. This, we know, tends to encourage the development of trust and a norm of generalized reciprocity, and to discourage malfeasance.⁹ Interactions at work, where the

Analysis of Subjective Culture, Wiley-Interscience, New York

⁹ Mark Granovetter, 1985, 'Economic action and social structure: the problem of embeddedness, *American Journal of Sociology*, Vol 91: 481-510

individual deals with the same set of perhaps 50 to 150 people for most of his career, have a reinforcing effect. Of course, this is not the end of the Korean story; if it were, we would not know why such embeddedness in local networks and repeated interactions within the organization did not generate cosily corrupt irrigation organizations devoted to maximizing the rental income of the staff, which is the haunting Indian fear. The Korean irrigation parastatals are subject to quite severe inspections from nationally-based organizations at fairly frequent and often irregular intervals. And all Korean organizations operate in a climate of enveloping threat from the North, and in an authoritarian political structure. (But authoritarian to very different effect than in, say, Latin American authoritarianism, as seen in the dense and egalitarian contact between irrigation staff and farmers engineered through the patroller supervision arrangements.)

So there can be no strong presumption that the same organizational structure in India would be operated in much the same way. The point of the comparison is to widen the range of options to consider in the Indian case. It would be desirable to experiment with an employment contract for patrollers more like the Korean one; and, much more ambitiously, to experiment with decentralized watershed-based parastatals more like the Korean. There are good a priori reasons for thinking that reforms in the Korean direction would probably lead to better irrigation performance, even though Indian canals are typically far bigger than Korean ones. As the fiscal crisis of the Indian state grinds worse and worse, organizational change, offering the prospect of improved performance without much accompanying capital expenditure, becomes an increasingly attractive route to explore; other options are running out. If such experiments were attempted, it would be foolish not first to understand the nuts and bolts of the Korean structure — and not only the Korean, but also the Japanese and Taiwanese, which are all the same family.

But the point of the comparison is also to illustrate the limits of the principal-agent approach to organizations. Here we have two very differently structured organizations for doing the same thing. They appear to have significantly different effects on the extent of shirking and subverting. The Indian form — with a single tall hierarchy, a high cost of moving information, and no connection between farmers' water payments and staff salaries, for example — facilitates opportunistic behaviour by both principals and agents towards each other. The Korean form inhibits such behaviour, instead generating higher levels of trust and cooperativeness. Principal-agent theory, by contrast, downplays the extent to which those features of organizational design which are not reducible to individual contracts affect the magnitude of opportunistic behaviour; it has no concept of social capital and its effects on cooperation; nor does it consider the possibility that principals might behave opportunistically towards agents, rather than vice versa, a failure which would prompt a hollow laugh from the field staff of Indian irrigation departments.

And notice something else. The Indian and Korean forms of irrigation organization have remained unchanged from the time they were created many decades ago. It is difficult to argue that the Indian form represents the most 'efficient' form in Indian conditions. Yet principal-agent theory (and also the related transactions cost approach) does incline towards the view that organizations evolve in the direction of greater efficiency. The absence of such a trend in the Indian case may reflect the fact that the organization is publicly owned and dependent on the state budget for its revenue rather than on sale of services. It is not exposed to competition from other organizations. But almost certainly there is more to its inertia than this. Perhaps Richard Nelson and Sidney Winter's book, 'An Evolutionary Theory of Economic Change',¹⁰ with its emphasis on accident and path-dependence, is a more useful guide.

¹⁰ Nelson and Winter, 1982, *An Evolutionary Theory of Economic Change*, Belknap Press, Boston