Bangladesh:

The Experience and Perceptions of Public Officials

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World Bank

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Foreword

Recognizing that strong institutions are an integral part of a well-performing public sector, this paper is part of a larger effort in the Poverty Reduction and Economic Management Network to develop practical strategies for reform. The objective is to present results to policymakers in a format that leads to more informed choices about the public sector.

This study is based on the findings of surveys of public officials in Bangladesh. Funding for this and fifteen other country-studies came from the Bank-Netherlands Partnership Program. The report emphasizes that public officials respond to their environment. They are neither intrinsically selfless nor intrinsically rapacious, and their behavior must be understood in the context of the incentive structure that they face. The approach has been to start with the existing knowledge about the country's public sector and then use officials' responses to deepen understanding of strengths and weaknesses of the public sector institutional environment. The report sets out the key lessons from the survey that will encourage debate on priorities for reform, and which institutions might be further strengthened and how.

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Abstract

This report summarizes the responses of Bangladeshi class I (highest level) public sector officials to a survey seeking opinions on a number of civil service issues, from personnel management practices to rewards and disciplinary actions, and from employees' sources of income to the budget environment and procurement processes. Survey results show instances in Bangladesh's civil service where professional conduct is perceived to be sacrificed at the expense of personal and political concerns. Surveyed officials express a concern over patronage appointments in the recruitment of Class III and IV staff and unfavorable postings and transfers at the higher level. Corruption, insufficient budgetary allocation, and unpredictable budgets are identified as key impediments to achieving organizational objectives. The report utilizes the survey data to test prior assertions against the survey data—e.g., "excellent performance does not result in promotion," "transfers are used a means of punishment," and "public officials do not want to move to private sector jobs." Data is analyzed to establish that institutions do matter for accountability; to explore an empirical association between elements of institutional environment and accountability; and to generate potential accountability payoffs for certain reform interventions. The analyses show that reduced interference by politicians from outside and within the organizations, less micro-management by very senior civil servants and merit-based recruitment to Class I jobs will be most effective in reducing the perception of pervasive corruption.

Keywords : Public Sector, Institutional Environment, Performance, Bangladesh

Acknowledgments

Abbreviations

AEO	Agriculture Extension Office
ACR	Annual Confidential Report
ADC	Additional Deputy Commissioner
BNPP	Bank Netherlands Partnership Program
BWDB	Bangladesh Water Development Board
DNFE	Department of Non Formal Education
DC	Deputy Commissioner
EIU	Economist Intelligence Unit
GDP	Gross Domestic Product
HDC	Human Development Center
IMF	International Monetary Fund
LGED	Local Government Engineering Department
OSD	Officer on Special Duty
NBR	National Board of Revenue
PDB	Power Development Board

Currency Equivalents
(as of February 7, 2001)

Currency	= Taka
$1.00	= Taka 54.09

Introduction

The immediate objective of this survey was to map the points of weakness within the public sector, and to identify the characteristics of those organizations that seem to be working well. The broader aim of the study was to draw conclusions about those institutional weaknesses that should be immediate targets for reform.

The premise for the survey design and data analysis is that public officials' performance depends on their institutional environment, and that understanding the formal rules is necessary but insufficient to understand the reality that officials face.[1] Formal rules do matter, but public officials' actions are also shaped by the degree to which they believe that rules will be enforced in practice, that resources will be provided as promised, and that policies are stable and implementable. This survey set out to obtain a better understanding of where and why formal rules are not applied, and what informal incentives constitute working reality for officials.

The survey provides the opportunity to test empirically a series of commonly held assertions about the civil service in Bangladesh. This 'common knowledge' includes assertions about patronage, interest groups, and excessively centralized and hierarchical management arrangements. It also allows some associations to be identified between specific elements of the institutional environment and the pervasive perceptions of corruption. The survey employs a particular empirical approach which moves beyond theory into a practical investigation of which institutions matter particularly, and where the largest "performance pay-offs" might be found. The intention of this device is to elaborate on the general finding that institutions matter for performance, and to open up consideration of which institutions matter particularly.

This report is divided into 4 sections: Section 1 draws an outline of the public sector in Bangladesh, highlighting pay and employment in the civil service. Section 2 summarizes the survey instrument, sampling, and the survey implementation methodology. Section 3 shows the findings from the surveys. A profile of surveyed officials is presented, and prior assertions about Bangladesh's public sector performance are tested from survey results. Section 4 describes how institutional environment and corruption are measured. Survey data is analyzed to assess which elements of officials' institutional environment are closely associated with lack of accountability and corruption. Potential pay-offs of different reform interventions are presented. The institutional environment of different organizations is analyzed to obtain lessons from the better-performing ones. The concluding section summarizes how survey findings can inform selection of reform interventions most likely to succeed in the Bangladeshi public sector's institutional environment. Except where cited, all figures and tables are based on author calculations.

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[1]   For details, see Manning, Mukherjee and Gokcekus (2000).

1. Public employment in Bangladesh

Bangladesh has a parliamentary form of government with the prime minister as its chief executive and the president as the head of state. The Prime Minister heads the cabinet that is collectively responsible to the national parliament.

Figure 1. Structure of the executive branch in Bangladesh
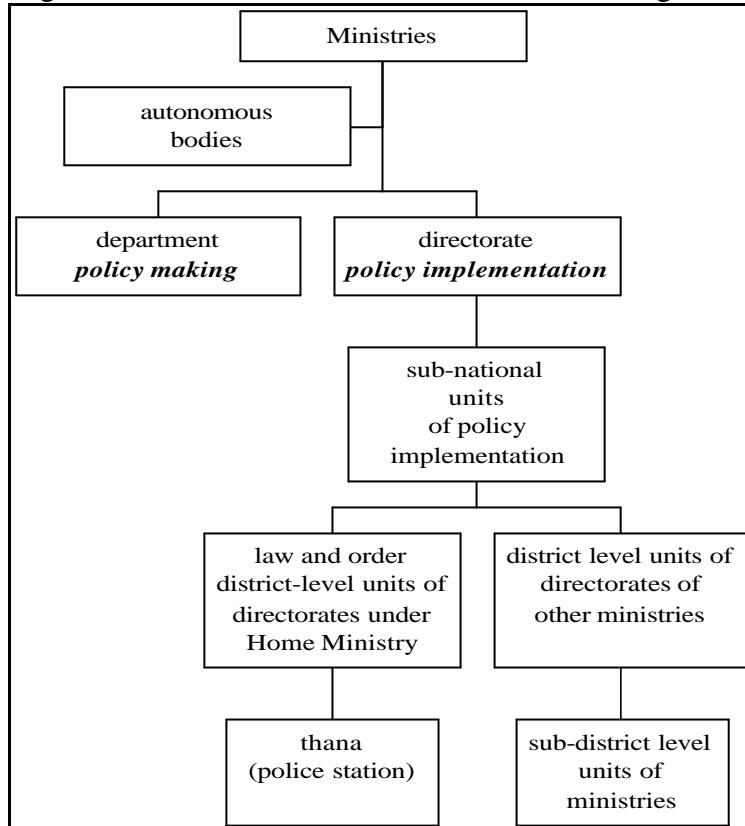
The ministries fulfill policy-making and oversight functions at the national level, and have staff at the district level who provide law and order, land administration, service delivery and program implementation, loosely coordinated by the District Commissioner. There are also local governments: municipal corporations in cities, district councils, and *thana* (police station) committees. They have some elected representatives and perform limited but diverse administrative and development functions.

The *district* still remains the most commonly used unit of administration. For administrative convenience, some contiguous districts are considered to comprise a *division*, while a *district* is subdivided into smaller areas under the responsibility of several police stations (*thanas*). Thus, division, district, and *thana* comprise the administrative sub-units of the country; several *thana*s constitute a district, and some ten to twelve districts constitute a division. In 1994, the average population of a *thana* was 250,000; the average population of a district was 2 million and that of a division was 24 million.

Table 1. Number of ministries, autonomous bodies, departments and directorates

	Number of *Ministries*	*Autonomous Bodies*	*Departments & Directorates*
1971	21	--------------------Not available------------------	
1982	18	109	181
1994	35	139	221

Source: World Bank (1996).

Size and growth of public sector employment

Figure 2. Public sector employment in Bangladesh

Source: IMF (2000).
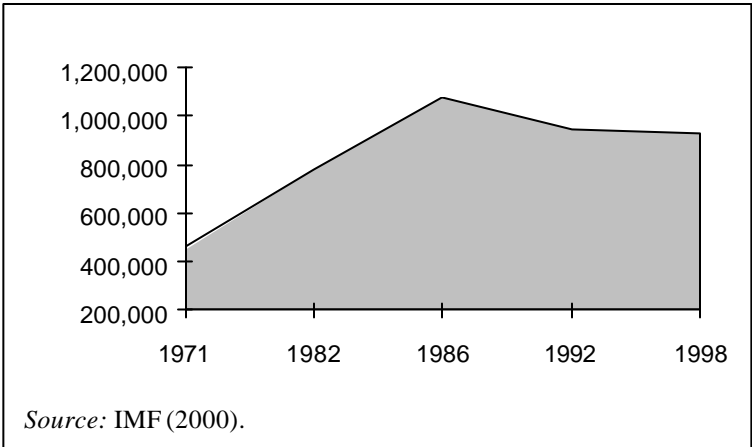
When Bangladesh became independent in 1972, the number of ministries was 21; but this rose to 35 by 1994. During the same period, public employment[2] grew at the annual compounded rate of 3.6% to almost 1 million in 1992, after which it has remained nearly steady. The nearly 1 million people employed by government agencies amount to one-third of all formal sector employment. As a percentage of the country's total labor force, government employment in Bangladesh is lower than most other countries in South Asia, as shown in the table below.

Table 2. Size of Bangladeshi government – the perspective

	Bangla-desh	India	Pakistan	Nepal	Sri Lanka
Total government employees as % of labor force	1.8	4.7	8	0.97	14

Source: Human Development Centre (1999).

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[2]   In civilian government comprising state owned enterprises, ministries, departments, directorates, autonomous bodies and sub-national governments.

Fiscal weight

During the period 1992-93 to 1998-99, personnel expenditure (pay and allowances) in the public sector has declined, both as a proportion of current expenditure and of GDP.

Table 3. Trends in central government expenditure

	1994-95	1995-96	1996-97	1997-98
Personnel expenditure as a % of GDP	2.6	2.6	2.5	2.4
Personnel expenditure as a % of current expenditure	38.4	37.2	35.5	32.5

Source: IMF (2000).

Public sector pay

A national pay scale applies to all employees of the central government and nationalized corporations, except for defense, police officers, and workers in state-owned manufacturing industries.[3]

The compression ratio[4] has declined sharply since 1962. In 1997, for every Taka earned by staff at the lowest level, officers at the highest level earned 10 Takas, as opposed to 46 in 1962.[5]

The average monthly salary of surveyed officials was about Tk 7000, with ministry officials earning 37 percent more than the district officials. Although measures of adequacy of government wages are difficult to obtain,[6] public salaries are normally considered low. Some of the non-survey evidence is suggestive: bureaucrats in the top management level in Bangladesh earn one-seventh the salaries of their private-sector counterparts.[7] Also, salaries in the private sector remain four to six times above the public sector for mid-to-senior level officials.[8] Since 1971, the extent of wage-fall in real terms has been dramatic: 87 percent at the highest level and 43 percent at the lowest level. The salary compression ratio between the highest and the lowest-level staff has fallen steadily between the period 1962-91, though it has remained stagnant thereafter, partly due to the recent wage revisions in the public sector.

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3   IMF (2000): 13.
4   The midpoint of highest salary scale to the midpoint of the lowest
5   World Bank (1996); EIU (1998).
6   Schiavo-Campo (1998), notes: "The only reliable measure of the adequacy of government wages is through a statistically representative survey of public and private salaries . . . for comparable skills, in a given country and at a given time, and taking into account the different terms and conditions of public and private employment."
7   HDC (1999): 63.
8   Chowdhury (1999).

Public sector pay was substantially raised in the government's 1997 pay awards. During the 1990s, two adjustments in national pay scales were introduced, the first in 1991 and the other effective from July 1, 1997. The 1997 national pay scale comprises 20 scales with the highest and lowest monthly scales fixed at Tk15, 000 and Tk 1,500 against Tk 10,000 and Tk 900 in 1991.[9]

Effectiveness of the public sector

Governance challenges in Bangladesh have been described in World Bank reports and other documents.[10] The following table presents some highlights of Bangladesh public sector performance compared with the weighted average for South Asia.[11] Relative to its neighbors, Bangladesh had a lower budget deficit in 1998 and a lower proportion of government employees in the total labor force. However, the levels of per capita GNP, government's consumption expenditure, proportion of tax revenue in GDP, non-performing loans by public sector banks, and systems losses in public sector utilities, are all below that of the rest of South Asia.

Table 4. Some macro indicators of government performance in Bangladesh

	Bangladesh	Weighted average for South Asia
GNP in US $ (1997)	360	393
Government consumption as % of GDP	14.0	10.6
Tax revenue as % of GDP	9.6	11.0
Overall budget deficit (as % of GDP) 1998	-4.2	-6.0
Total government employees (As % of total labor force) 1996-7	1.8	5
Non-performing loans as % of total advances by public sector banks	37	21[a]
Systems losses in public power utilities in %	33	24

a. Not weighted average.
Source: HDC (1999): 182-9.

Currently, Bangladesh's government is not known for its effectiveness, nor is the public service known for its efficiency and effectiveness. Its bureaucratic efficiency is rated at 4.7 on a 0 to 10 scale (10 = best) that puts Sri Lanka at 6.7, India at 5.5 and Pakistan at

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[9]   IMF (2000): 13.
[10]   See, for instance, World Bank (1996), Transparency International at
       http://www.ti-bangladesh.org/docs/survey/overview.htm and EIU Country Report (2000).
       Comprises the seven SAARC nations: India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan, and Maldives.

4.3.[12] In addition, Bangladesh's bureaucratic quality and government effectiveness compare unfavorably with the South Asia mean.

Corruption is part of service delivery by the public sector. Transparency International[13] indicates that in Bangladesh:
?? 74% of households used "extra regular"(i.e., unofficial) methods for admission of their children into school;
?? 65% of urban households expressed the view that it was almost impossible to get a trade license without money or influence;
?? 33% of households paid bribes for electricity connection; and
?? 97% of households completely or generally agreed that it was almost impossible to get help from the police without money or influence.

Table 5. Bureaucratic quality and government effectiveness in Bangladesh

	Bangladesh	South Asia mean	Scale
Bureaucratic quality[14]	2.00	2.25	0 to 4: 4 = best
Government effectiveness[15]	-0.56	-0.27	Not within set limits, the higher the better

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12   Mauro (1995) quoted in HDC (1999).
13   See results of corruption survey (survey dates unspecified, but recent) at http://www.ti-bangladesh.org/docs/survey/overview.htm

14   International Country Risk Guide (ICRG), February 2000.
15   Kaufmann (1999).

2. The survey of officials in Bangladesh

Why were public officials surveyed?

The survey of Bangladeshi public officials was one of a series funded by the Bank Netherlands Partnership Program (BNPP).[16] It was one of the preparatory exercises to the Bank's Institutional and Governance Review (IGR) of Bangladesh.[17]

The need for an analytical framework emerged from the lessons of past experience in the World Bank. The Operations Evaluation Department reported that during 1980-97, only one-third of the Bank's closed civil service reform interventions had successful outcomes.[18] Other reviews of the Bank's public sector reform efforts have identified shortcomings of the Bank's approach in this area, pointing out the risks of a narrow and 'technocratic' view of what is needed for public sector reform, and of a reliance on 'best practice' models that have not been feasible in the particular country setting.[19] The Bank's most recent strategy for reforming public institutions has identified that for the approach to be effective, ". . . we need to work with our partners to understand and address the broad range of incentives and pressures—both inside and outside of government—that affect public sector performance."[20]

The strategy paper also points out that for the analytic work to be useful, "We need to start with a thorough understanding of what exists on the ground and emphasize good fit rather than any one-size-fits-all notion of best practice. And we need to work with our clients and other partners to develop and apply analytic tools effectively."

Public officials are not inherently rapacious rent-seekers; they respond to the incentive structure they face. There is ample evidence, both theoretical and empirical, to suggest that the performance of public officials is greatly determined by the institutional environment in which they find themselves. The survey approach used in Bangladesh recognizes that incentive systems vary across types of organizations and types of officials and uncovers the sanctions and rewards that drive behavior from those who may be subjected to them—the public officials themselves.

The survey covers several important areas. It provides a contextual description of the public sector, including characteristics of respondents, their reasons for joining the public sector and the length of time worked in government. It offers the possibility of presenting policy-makers with robust confirmation of the theory-based assertion that it is the

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[16]   BNPP surveys of public officials have been completed in Albania, Argentina, Bolivia, five countries in the Organization of East Caribbean States, Guyana, Indonesia, Kenya and Moldova. Survey results are being displayed on the World Bank's web site http://www1.worldbank.org/publicsector/civilservice/surveys.htm for the use of independent researchers, policy makers, practitioners, and other interested parties.

[17]   World Bank (2000).

[18]   World Bank (1999).

[19]   World Bank (2000a).

[20]   Ibid, p.4-5.

institutional environment that drives performance. The survey also enables the testing of hypotheses about the Bangladesh civil service. Many widely held views on public officials are often repeated but without substantive evidence—more akin to "urban myths" than to empirical observations. The survey allows such assertions to be tested and supported or refuted. Finally, with important cautions, the survey allows some assessment of *which* aspects of institutional environment are particularly affecting performance. This helps identify likely reform strategies.

Survey design

The survey questionnaire was adapted from a tested template, tailoring questions to the Bangladesh situation based on focus group interviews held with senior officials in August 1999. The structure and the main focus of the questions asked are presented in Box 1.

The survey was conducted in Bengali. It was administered between July and December 1999. The survey questionnaire was designed for administration to Class I i.e. 'higher category' civil servants only from ministries (departments and directorates) and from statutory bodies. However, during the survey, the sample was extended to include district-level officials and some officials not belonging to Class I. Apart from class, public sector employees are classified also by grade. As they climb the rungs of the civil service, employees move into higher grades (1 being the highest). 483 of the surveyed officials (representing 59% of the total sample of 821) belonged to grades 6 and above. Grade 6 is the entry-level grade for Class I officials,[21] but those who are promoted to Class I from lower classes could enter Class I at higher grades through pay protection mechanisms.[22] Consequently, the available information does not permit analysis by *classes* of respondents. The distribution of the sample among different *grades* is given in Table 6.

Table 6. Distribution of sample by employees' grades

Grade	Number	%
1	6	1
2	7	1
3	33	4
4	69	8
5	154	19
6	214	26
7	106	13
8	29	4
9	201	24
10	2	0

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[21] World Bank (2000b).

[22] For example a public official could start with a Class III job at a level below grade 6, and through a series of promotions he could become a Class I official. When this happens, his salary in the Class III post could be at the very top end of scales of Class III officials. Because scales extend across grades, when this official becomes a Class I official, he is not expected to take a pay cut, and his salary could be fixed at a point within a scale corresponding to grade 7.

Sampling features

The sample size was 821. At the national level, the sample of 397 respondents was drawn from ministries and autonomous bodies. At the sub-national level, the sample of 424 was drawn from district-level officials in general administration (i.e., magistracy, development officials and staff); and from officials of line ministries posted at the district and sub-district-level. Organizations included in the sample have been listed in Table A1 in Appendix 1.

The survey managers reported that the agency sampling was based on ease of access and a balance between perceived good and bad performers. Within departments and service providing agencies, officials were mostly selected on a random basis.

Box 1. Main areas probed by the questionnaire

The survey questionnaire contained 100 questions and was divided into seven sections covering the following areas:

Profile of respondents: This section probes the size of the respondent's work unit; the length of his or her tenure with the public sector; age; gender; grade and pay scale; previous work experience; and education and training received.

Experience, perception, of personnel management practices: Views were sought on recruitment and promotion practices and the degree to which such practices are influenced by patronage from politicians, senior civilian or / military officials, employee unions, village ties or informal payments.

Decision-making: This section assessed whether the respondent was supplied a job description and if so, whether it reflected the actual tasks performed on the job; how much authority senior officials delegate; whether each official's authority is commensurate with the official responsibilities; and whether supervisors (who are responsible for outputs) have any say in choosing the staff allotted to their unit.

Rewards and discipline: Views were obtained on disciplinary measures and rewards; how often these are applied and at what levels; informal systems of reward and punishment, such as transfer to another post at the same level with same pay or as Officer on Special Duty (OSD),[23] and when re-employment after retirement serves as reward.

Sources of income: This section assessed whether the respondent maintains a reasonable standard of living when the salary from government is inadequate; what the respondent considers a reservation wage for taking a job outside of government; how many officials leave the public sector to take other jobs; perceived prevalence of corruption and its effect on achieving the organization's mission; and the magnitude of bribes.

The budget environment: Budget and senior officials were asked about the budget process and shortfalls in 1998-99; the impact on outputs of cuts; bills to external creditors that remained unpaid because of budget cuts; estimates of shortfall; where decisions are made about how spending cuts are selected; what happens when the respondent disagrees with a government policy or a decision made by a superior officer; how (s)he acts upon receiving conflicting or contradictory instructions.

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[23]   This is known as "shunting out." See also Box 3 for a detailed explanation.

Profile of the respondents

Respondents were drawn from ministry officials at national, district and sub-district-level, and from autonomous bodies. Both cadred and non-cadred officials were included in the sample. 5% of the sample was comprised of female employees. Some sample details are given in Table A2 in Appendix 1.

Box 2. Cadres in the Bangladeshi civil service

Cadres distinguish particular occupational groups to which a civil servant might belong, either at the time of recruitment or subsequently through lateral mobility. Cadres constitute a relatively small but distinctly elite subset of the civil service. Cadres include Bangladesh Civil Service (despite the confusing title, this is a small group within the larger civil service), education service, trade and economic services. The National Pay Scale (NPS) and Unified Grade System (UGS) apply regardless of the cadre to which the official belongs.

Class I officials formed 59% of the sample. The distribution of the rest of the sample between Classes II (less senior officers), III (generally clerks) and IV (e.g., water-carriers, night-guards, messengers) staff is not known.

Figure 3. Some sample characteristics
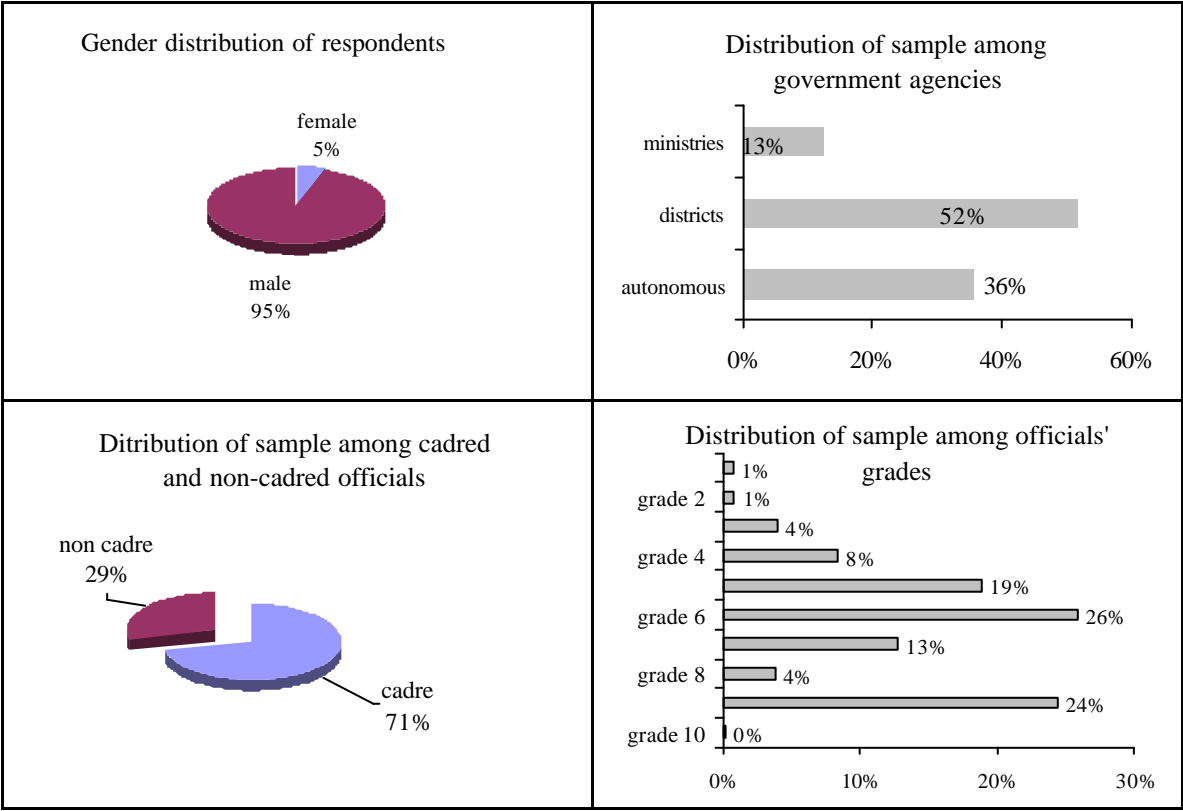
The average respondent was a college-educated male, with a median age of 44, who had been working in government for eighteen years, of which 6 years had been in his current position. His monthly salary was Tk 7,238, and he had filed a wealth report with the National Board of Revenue.

Within the sample, there are differences between the officials serving in districts and those in ministries/autonomous bodies, as set out in the table below.

Table 7. Differences between sampled officials working in district-level organizations and those in ministries and autonomous bodies

	Officials serving in ministries and autonomous bodies	Officials serving in district-level posts	Differential: Ministries & autonomous districts
Average age in years	47	41	+ 6 years
Average monthly salary (in Taka)	8,912	5,922	+ 2,990
Number of years in government	21	14	+ 7 years
Number of years in the same position	5	7	- 2 years
Officials who attended training programs in the past three years	61%	55%	+ 6%
Respondents who regarded training to have been effective in improving performance	55%	63%	- 8 %
Officials holding foreign degrees	22%	4%	+ 18 %
Perception of percentage shortfall of allotted funds from budget estimate	15%	26%	-11%

District officials are younger, have served fewer years in government, earn less salary, have had fewer training opportunities and hold fewer foreign academic degrees. This is consistent with a system based on seniority. 54% of district officials—compared to 64% of ministry and autonomous bodies officials—had been trained within the previous three-year period. Training was perceived to be more effective by district officials than by their colleagues in the ministries and autonomous bodies. Officials serving in ministries and autonomous bodies were much more likely to have foreign academic degrees (22% compared to 3% for district officials) and as they were younger and with fewer years in service, it suggests that they acquire foreign degrees while being employed in government. Compared with colleagues from ministries and autonomous bodies, district-level officials also perceived that they made final decisions more often but faced more severe budget-cuts.

Figure 4. Sampled officials: job experience in the public sector
(Number of years at the current position, previous position,
and other public sector positions)[24]

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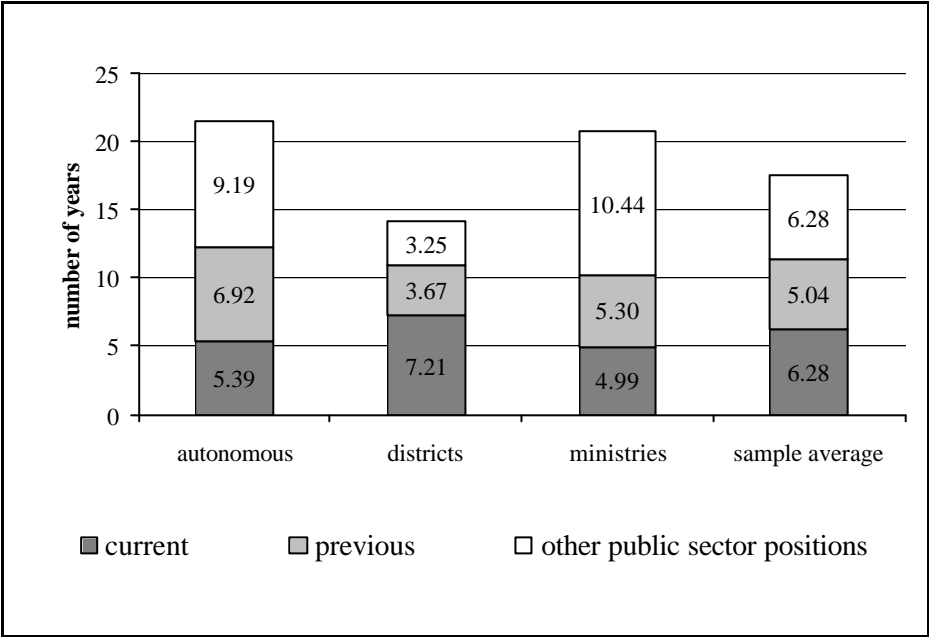
24   Normally, only Class I and II officials are expected to move from district assignments to
      ministries, autonomous bodies

3. Survey findings

The survey data was used to test seven "commonly held views."[25] These prior assertions were developed by reviewing the literature on Bangladesh's public sector.[26]

Table 8. Popular perceptions: the evidence

Commonly held view	Does the survey support this?
I. Politicians and senior officials show favoritism in awarding employment opportunities and contracts	Partially supported
II. There are very few rewards for excellent performance	Partially supported
III. Bad performance is seldom <u>formally</u> punished	Strongly supported
IV. Staff are assigned tasks for which they were not recruited	Not supported
V. Control is not delegated sufficiently	Strongly supported
VI. Public officials make more than their official salaries	Strongly supported
VII. Budget management is weak	Supported

I.   Politicians and senior officials show favoritism in awarding employment opportunities and contracts

Higher echelons of state power are able to use state resources to extend patronage. Recruitment is often based on such patronage: one-third of surveyed officials believed that recruitment to Classes III and IV jobs was *not* based on merit. Senior government officials from within the organization or outside it, and politicians (even when they do not have any direct stakes in the organization) are able to influence such recruitment decisions.

Twice as many respondents believed that *politicians* were able to influence recruitment decisions as those who considered that *senior officials* could do this. Half the respondents believed that such patronage appointments are influenced by personal and family connections, though it is also possible to buy such patronage. One out of six officials believed that paying a bribe purchases patronage.

Patronage is also used to influence decisions on whether an employee should be re-employed or not after superannuating. Very few employment opportunities in the private sector make re-employment beyond the statutory retirement age of 57 a valued reward,

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25   The questions probing these assertions have been listed in Appendix 2.
26   See, particularly, World Bank (1996), World Bank (1997) and World Bank (2000b).

and political loyalty was considered to be the single largest reason (by 44% of officials) why an official is awarded re-employment.

Patronage is also extended in awarding government contracts, and—during budget cuts—prioritizing who will be paid first (or paid at all) for goods and services rendered to government. One-third of surveyed officials believed that suppliers having connections with high-level officials enjoy an advantage when compared with those who do not.

To detect if rules have been complied with in governmental financial transactions, the Auditor General and his staff audit public sector organizations. But instead of audits being a routine procedure, these can be—and sometimes are—used as a political weapon to punish those who have not been loyal. [27] This is not as far-fetched as it may sound: one quarter of surveyed officials consider that Accountant General's audits are triggered by political reasons.

II.   *There are very few rewards for excellent performance*

To prevent favoritism in promotion decisions, some checks were earlier introduced by government in public sector promotion policies. But these have been carried out to the other extreme—of divorcing merit completely from promotion decisions. Currently, promotions are based not on who performs better but on who has held the job for a longer period. For example, among Class I officials, promotions to the posts Deputy Secretaries and Joint Secretaries is based on seniority rather than merit.

This means the Assistant Secretary who has been serving longest will be promoted to Deputy Secretary first, regardless of how (s)he has performed.

However, seniority is not the sole basis for promotions. Promotions also depend on reservations. Certain proportions of the more senior posts (to which officials will be promoted) are reserved for certain cadres, and cannot be filled up by other cadres even if there are excellent performers and very suitable candidates in the 'other' group. For example, 80% of Deputy Secretary posts are reserved for the administration cadre.[28]

Surveyed officials reported that accelerated promotions are never used as rewards. In the absence of such promotion-rewards commonly used in public sector organizations elsewhere, government-sponsored training abroad is awarded to those who perform well. Respondents reported that half the rewards they had known of in the three months prior to the survey were training abroad. The probability of receiving such a reward depends in part on whether the official is serving in a district or in a ministry or in an autonomous body. Class I officials in ministries are rewarded four times more often than those posted

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[27]   Formally, accounts of all organizations are supposed to be closed at the end of the financial year, and these accounts are audited any time early in the next financial year. What happens in practice is that the accounts of most organizations are never written or closed for several years at a stretch, and therefore can never be audited. With loose financial management such as this, there is abundant scope for inappropriate financial transactions, which audits can 'uncover.' Hence the potential for using audits as a political weapon.

[28]   World Bank (2000b) notes that this is a long-standing issue of dissent.

in districts. However, among Class III and IV staff the reverse is true: those posted in districts were rewarded three times more often than those in ministries. Non-monetary rewards such as public recognition were not probed by the survey.

Figure 5. Rewards and recognition for officials
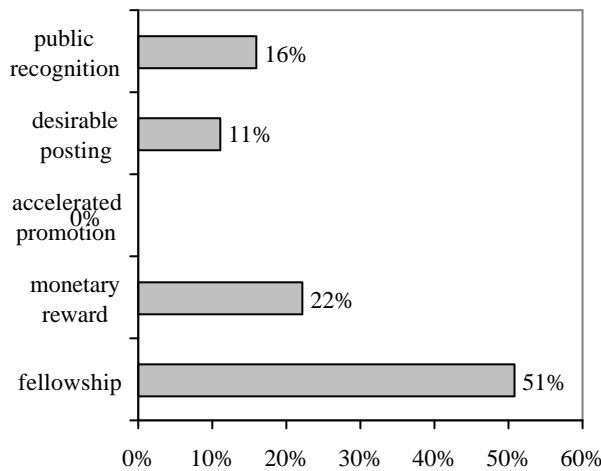
III. *Bad performance is seldom formally punished*

Disciplinary punishments for public officials range, in principle, from notes of caution and censures to suspension and dismissal. In practice, these options are rarely applied. Only 23% of surveyed officials reported having seen officials punished in the three months prior to the survey. The possibility of punishment for wrongdoing depends significantly on whether the official is posted in a district or in a ministry/autonomous body. In ministries, Class I officers are punished two times more often than Class III and IV staff; in districts, officers are punished ten times more often than staff. At any rate, officers are punished more often than Class III and IV employees. Whether this results from the strength of employee unions at this level, or because many of these are patronage appointees, is debatable. Also, fewer punishments for lower grade employees could diminish support for higher grade officers and become a source of poor morale. With the formal punishment system in disuse, transfers and postings—such as Officer on Special Duty (OSD)—are used to punish officials, and these are used quite arbitrarily.

IV.   *Staff are assigned tasks for which they are not recruited*

<div style="border:1px solid black;">

Box 3. Bureaucratic transfers in South Asia

Bureaucratic transfers and postings are frequently used as a means of rewarding and punishing public officials across the sub-continent. Politically-loyal officers are rewarded with key, financially lucrative positions whereas the non-compliant officers are punished by posting and transferring them to far-flung areas in positions of low administrative importance.

  In 1990, the change in government in the Indian state of Uttar Pradesh was accompanied by a large-scale transfer: 326 out of 520 top civil servants were transferred. In neighboring Pakistan, various heads of states carried out large-scale dismissals. Ayub Khan dismissed 1,300 civil servants in 1959 by a single order; Yahya Khan dismissed 303 in 1969; and Zulfiqar Ali Bhutto 1,400 in 1973.

  One of the more interesting classes of bureaucratic transfer is when a public official is made an Officer on Special Duty (OSD). An OSD is a particularly important classification in Bangladesh. It is a supernumerary post, equivalent to an official having been stripped of responsibility. It is widely accepted that, when applied unfairly or arbitrarily, this is a punishment, and agencies with high proportions of arbitrary OSD placements are identified as those with low morale.

Source: HDC, 1999.

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One assumption behind survey design was that accountability in the public sector is sometimes unenforceable because there are no directions or instructions about work priorities. How can government hold someone accountable for something (s)he is (not) doing when (s)he has never been told in the first place what to do, or has been assigned to a task for which (s)he was not recruited? The belief was that job descriptions do not exist; and where they do exist, the descriptions are not accurate.

However, this assertion was *not* supported by survey respondents. 85% of surveyed public officials believe that they did know their job descriptions before they applied for their positions, and 88% believe that these job descriptions accurately reflected the tasks they were performing.

V.   *Responsibility is not delegated sufficiently*

For ensuring efficient service delivery and accountability at all levels of government, control needs to be delegated from the central government to the operational level. Yet, one third of surveyed officials perceived that they either did not have, or had much less than, the authority necessary to carry out their responsibilities. To be able to deliver services adequately, a manger needs the freedom to select (from those available) the persons that (s)he will use to staff his unit/organization. Yet, an overwhelming 87% of managers believed that they have no choice in selecting persons to staff their units; they have to make do with whomever is allotted to their unit.

Control is also retained via notes on files. A file is a set of papers tracing the decision-making process on a particular operational issue; its value is archival, as well as to ensure transparency in decisions. To make sure that those concerned in the decision have reviewed all the facts, broad guidelines are laid down on *which level of officials* must see a file (and record her/his input) before a final decision is reached. However, over time, files have become more important than the issues whose papers they contain. Files (folders) containing papers move from desk to desk, accumulating little more than time and dust: 85% of surveyed officials believed that files passed unnecessarily across their desks under circumstances in which they had no decision to make other than passing it on to the next official in the chain. Files being records of decisions, and *mala fide* motives being easy to impute, officials often prefer to pass decisions along to the next officer in the hierarchy rather than making decisions themselves. 10% of officials said that even in cases where they could make a decision, they would "feel safe" in referring the file to their superior.

VI. *Public officials make more than their official salaries*

Figure 5. Sources of officials' non-salary income
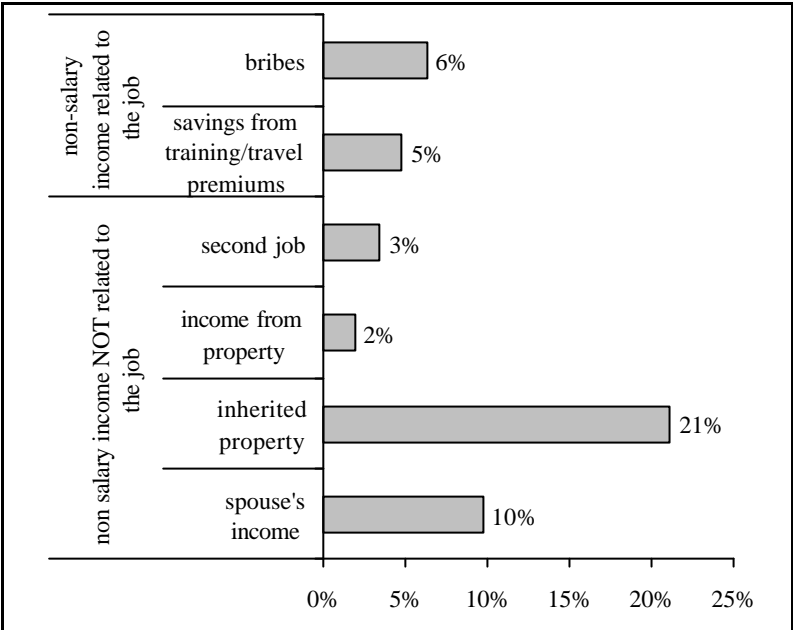
Public sector pay was substantially raised in the government's 1997 pay awards. Nevertheless, public officials reported that they supplement their government salaries with other sources of income. Income from inherited property, spouse's income, and bribes were the three major ways of supplementing insufficient government salaries.

Although only 13% percent of respondents mentioned bribes as a non-salary source of income, officials believe that corrupt colleagues make *more than seven times their salaries* from bribes and other illegal receipts.

Figure 6. Officials' estimates of salaries that will persuade them to move to the private sector (1 = present salary)
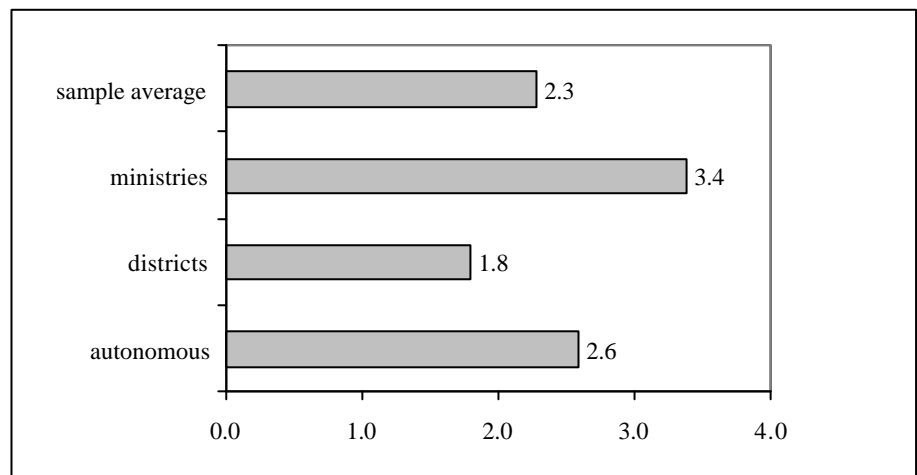
Although pay levels are widely perceived to be low, public officials do not want to move to other jobs.

Only 8% of the respondents said they were looking for jobs in the private sector. Furthermore, when asked how large an increase in salary they would require to move to a job in the private sector, the average officials' estimates of expected wages was 2.3 times the current salary, and 92% said they would expect double their current wages to consider moving to private sector jobs. As the figure above shows, officials from the ministries had particularly high expectations.

VII.   *Budget management is weak*

When well managed, the budget process can be an effective vehicle to convert governmental priorities into policies, via resource allocation. To make the budget a signal of the government's priorities, public officials who are responsible for delivering the government's programs need to know that, within reasonable limits, funds promised in budget estimates *will be* available to them during the financial year. Yet, during the fiscal year 1998-9, all three types of organizations in the sample received 23% less budget allocation than promised. The cuts (as percentage of estimates) were biggest in districts (policy implementing units), and smallest in the ministries (policy making units). It is not just that budgets are reduced; the significance is that they are reduced unpredictably. Indeed, nearly half the surveyed officials (46%) believed that insufficient and unpredictable budgets were the main barriers undermining their organization's ability to fulfill its objectives.

Figure 7. Comparison of promised and received budget allocations in 1998-99
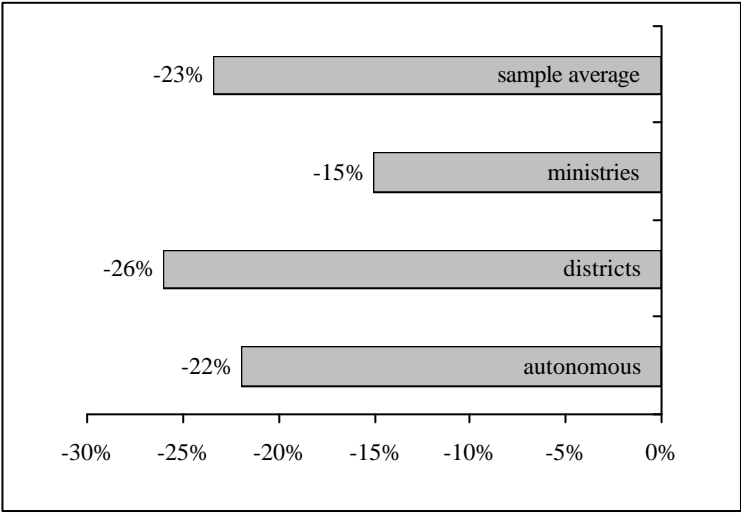
4. Looking for points of entry: the impact of institutional environment on performance

The model used for analyzing BNPP surveys

The BNPP surveys are guided by the need to provide policy makers with concrete proposals for action. The methodology is to look below generalized concerns about civil servants and their "rent-seeking" and uncover details of the incentives and constraints that can in fact be changed. The approach first checks that informality does not explain the entire pattern of behavior and that formal institutional arrangements do have significance. The approach then identifies the potential reforms at the whole of government level, before reviewing the more idiosyncratic difficulties faced by each individual agency and the micro-reforms that could address them.

Public sector institutional literature often broadly describes public officials in developing countries as unskilled, incapable, and poorly motivated to perform their official tasks. This image of officials can lead to the automatic assumption that public officials are inherently rent-seekers and will inevitably use official privileges for engaging in opportunistic behavior. Given the poor performance of public bureaucracies in developing countries, and the reality of low public sector salaries, such an assumption is plausible. However, such broad-brush descriptions have little relevance for policy. The blanket portrayal of civil servants as "rapacious rent-seekers" masks the more nuanced details of what can be changed in the institutional environment that guides behavior and shapes performance.

Institutional environment comprises both formal constraints (e.g., rules, laws, constitutions) and, of course, informal constraints (e.g., norms of behavior, conventions, codes of conduct). For public officials, formal rules are laid down in their code of conduct and operation manuals, in the budget documents, and in the many decrees, directives and instructions through which policy is conveyed. The informal rules are what the officials collectively understand as appropriate behavior: "how we do things around here." For example, not vigorously implementing the minister's newly announced scheme might result in their transfer to a position in a remote and inaccessible area. While the formal aspects are in principle tractable, it is the informal dimensions that may be the dominant influence.

In unpacking the institutional environment, cultural factors certainly contribute, but again, the policy relevance is limited.[29] Put starkly, governments can be urged to change institutions, but asking for a culture change is rather ambitious.

Reform programs work in the first instance through changing formal arrangements. Therefore the first point to establish is that the strength of formal arrangements does in fact explain some of the observed behavior of public officials. If, in reality, informality

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[29]   World Bank (2000b) provides a fascinating insight into cultural patterns and the tradition of *Doya*, and the added force that male dominance gives to these traditions.

dominates, and formal institutional arrangements have no significance, then there is little value in understanding the formal but irrelevant rules and regulations that attempt in vain to set the incentive structure of public officials.[30] The first question is then, "Does the strength of the formal institutional environment have any significance for the behavior of public officials?"

Rule Credibility—The strength of institutions can be gauged by their impact on expectations.[31] If there is a rule about the management of records in the organization, or about methods of performance appraisal, do officials then expect that breaches of these rules will be really punished? Public officials in Bangladesh know that if they do not file their statement of assets, they will not be punished. Is this why, in consequence, that one-third of officials have not filed wealth reports with the National Board of Revenue?

Policy Credibility—The nature of officials' expectations is also important in relation to policy implementation. Willingness to gear actions to support Ministerial policies is somewhat greater if officials believe that policies will remain in force for a period of time, and will not be undermined by other contradictory policies. Expectations that policies are likely to be soon reversed lead, at best, to second-guessing of what the next ones might look like. At worst, they lead to cynical disregard for any announced policy.

Resource Adequacy and Predictability—Expectations concerning the future flow of budgetary and other resources are also significant determinants of behavior. Officials that doubt that the budget will be implemented as planned may have few reasons to implement policies vigorously and every reason to over-staff, as salaries will ultimately be paid even if program funds are reduced.

The recent Institutional and Governance Review for Bangladesh (World Bank 2000b) identifies "the centrality of achieving greater **accountability** and **transparency** in government operations" as essential. With this focus in mind, the design of the questionnaire administered to public officials in Bangladesh emphasized accountability.[32] The key performance question probed the views of officials as to what extent corruption prevented the respondent's organization from accomplishing its mission.[33]

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[30] See, for instance, Horn (1995).

[31] This point that institutional arrangements impact individuals' actions in the present by shaping their expectations about the future is made extensively in the institutional literature. See, for example, Bendor and Mookherjee (1987) and Mnookin and Kornhauser (1989). It is consistent with an assertion that the problem facing both public and private sector managers is one of maintaining their collective reputation as a relevant actor among their staff (See Seabright 1993). More generally, the literature on cooperation in the absence of third-party enforcement emphasizes that "the shadow of the future" (i.e., the degree to which actors expect to interact again under similar circumstances) significantly determines behavior in the present (See Axelrod and Keohane, 1985).

[32] Other BNPP surveys also probed for results focus and employee morale. For details, see Manning, Mukherjee, and Gokcekus (2000).

[33] The question asked was "How much would you say that corruption prevents your organization from achieving its mission?"

Therefore the analysis focused on the degree to which stronger institutions are associated with improved accountability and options for improving this performance across the entire public sector.

Institutions do matter

The institutional environment was measured along three dimensions: rule credibility, policy credibility and resource adequacy and predictability.[34] Indicators were constructed, with 0 being the worst and 10 being the best scores. Table 9 below shows how responses to questions were grouped in constructing the institutional environment indicators in Bangladesh.

Table 9. Indicators of institutional environment

Rule Credibility	Policy Credibility	Resource Adequacy and Predictability
Merit-based recruitment (Q17, 24)	Policy stability (78.4)	Adequate resources (financial & skilled manpower) (Q78.1, 78.5)
Effective tra ining (Q15)	Policy consistency (78.3)	
Accurate job description (Q43)	Policy support (Q82)	Resource predictability (Q 78.2)
Fairness in OSD postings (Q66)		
Effective auditing (Q98)		
No interference by politicians (Q19, 20, 26, 27, 32, 33, 38, 39)		
No micro-management by senior officials (Q18, 21, 25, 28, 31, 34, 37, 40)		
Appropriate authority to carry out responsibilities (Q44)		
Merit-based promotion (Q36)		

Note: The relevant question numbers from the questionnaire are in parentheses. The tests applied to grouping these elements of the institutional environment under "rule credibility," "policy credibility" or "resource adequacy and predictability" is described in Manning, Mukherjee and Gokcekus (2000), p. 41.

The calculation of indicators from the questions is described in Appendix 3.

An aggregate score for the overall institutional environment was constructed as the simple average of the scores for "rule credibility," "policy credibility" and "resource predictability."[35] Officials rated the institutional environments of twelve sampled organizations between 4.8/10.0 and 7.2/10.0. The aggregate score describes the strength

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[34]   This is one of many possible ways of describing the institutional environment, and has been chosen because it is consistent with the analytical framework described in Manning, Mukherjee and Gokcekus (2000) and extensively used for analyzing all BNPP-funded surveys.

[35]   See Appendix 3 for details of the indicators.

of an organization's environment: a high score signifies a "strong" environment, and low score a "weak" one.

Section 4.5 below highlights the differences in the institutional environment between diverse agencies.

The figure below shows how responses to the question of whether corruption prevents the respondent's organization from achieving its mission vary according to the institutional environment within the agency. The institutional environment of each organization is plotted along the x-axis, and officials' perception of corruption along the y-axis. It provides confirmation that the institutional environment does indeed matter. Formal institutions are significantly associated with the behavior of public officials.

Figure 8. Institutional environment matters in Bangladesh

AEO = Agricultural Extension Office, BWDB = Bangladesh water Development Board,
DNFE = Department of Non–Formal Education, LGED = Local Government Engineering Department,
NBR = National Board of Revenue, PDB = Power Development Board.
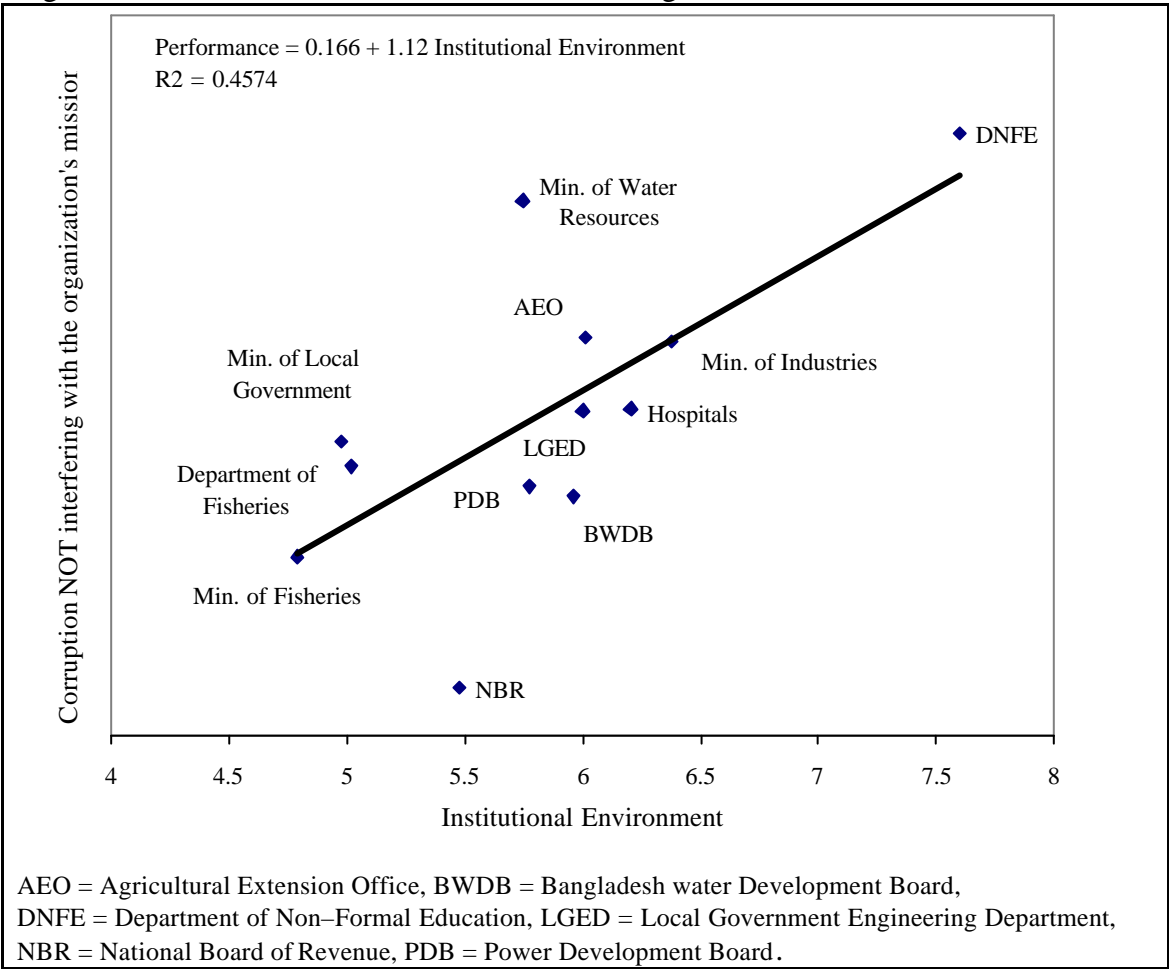
If the institutional environment matters in general, what matters in particular?

In moving from general observation toward identifying the specific drivers of performance, three cautions should be borne in mind. First, like any other data collection exercise, despite quality control on survey administration and data collection and entry, there are inevitably limitations on data quality.[36] Second, theory provides no guidance in suggesting which institutional area in particular most affects performance. Findings at this disaggregated level are purely empirical. Third, we can note associations and deduce some plausible policy implications, but ultimately cannot prove cause and effect.

Of the 14 elements of institutional environment used in this analysis and listed in Table 8, 10 were found to be significantly associated with officials' perceptions that corruption prevented the respondent's organization from accomplishing its mission.[37] Three examples—one for each element under "rule credibility," "policy credibility' and "resource adequacy and predictability"—are given in the figures below. The figures for the other associations are given in Appendix 4.[38]

The associations confirm that some elements of the environment within which officials are working are particularly significant. Views that corruption is preventing the respondent's organization from accomplishing its mission are likely to be exaggerated by other areas of dissatisfaction. For example, officials who consider resources to be inadequate are 1.2 times more likely than others to see corruption as an obstacle.[39]

However, other associations are markedly stronger. Compared with officials who believe that recruitment is merit-based, officials who think that recruitment is *not* merit-based are 1.5 times more likely to believe that corruption is preventing their organization from achieving its mission. Those who perceived political interference by politicians or senior officials from outside the organization to be an impediment to the organization's efficiency were 2.4 and 2.6 times more likely, respectively, to believe that corruption was also an obstacle to the organization's mission (compared with those who believed otherwise). Other forms of political interference generate odds ranging from 1.99 to 2.1.

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[36] For details, see Section 2: The Survey of Officials in Bangladesh.

[37] These were: "merit-based recruitment;" "political interference by political functionaries from inside the organization;" "political interference from politicians outside the organization;" "micro-management by senior officials inside the organization;" "micro-management by senior officials from outside the organization;" "policy consistency;" "policy stability;" "adequacy of resources;" and "resource predictability."

[38] In each case the sample was divided into two groups. For example, to check the association between merit-based recruitment and corruption, the sample was divided into two parts—those who believed that recruitment is merit-based and those who believed it is not. Then, these two groups' perceptions of whether corruption prevents the respondent's organization from achieving its mission were compared.

[39] To test the statistical significance of each assertion, odds ratio was derived and confidence intervals were constructed.

Figure 9. The association between perceptions of merit-based recruitment and corruption

Corruption prevents my organization from achieving its mission	YES	NO
merit-based recruitment	54%	37%

Odds ratio: 1.45 = 54/37
[Confidence interval (1.9, 1.1) at a = 0.05.]

Compared with officials who believe that recruitment is merit-based, officials who think that recruitment is *not* merit-based are 1.5 times more likely to believe that corruption is preventing their organization from achieving its mission.

Figure 10. The association between perceptions of policy consistency and corruption

policy consistency

Odds ratio: 1.58 = 51/32
[Confidence interval (2.3, 1.1) at a = 0.05.]

Officials who believe that policies are inconsistent are 1.6 times more likely to believe that corruption in their organization will prevent it from achieving its mission.
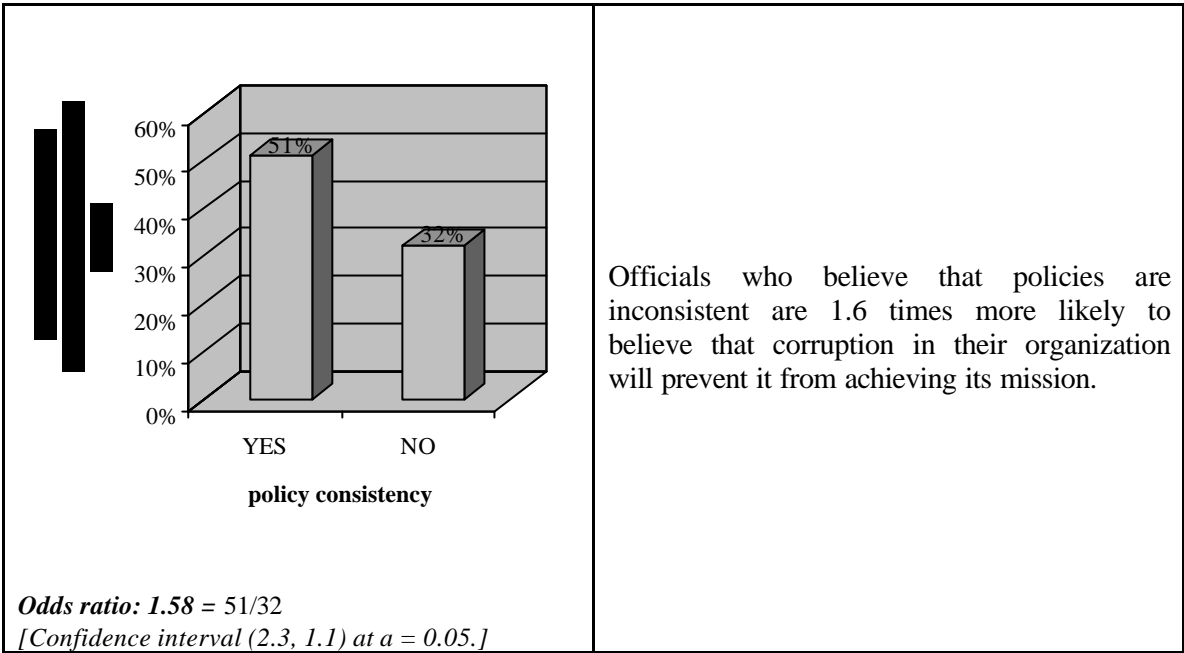
Figure 11. The association between perceptions of resource predictability and corruption

| Compared with those who believe otherwise, officials who believe that resource flow will *not* match budget estimates are 1.3 times more likely also to believe that corruption in their organization will prevent it from achieving its mission |

***Odds ratio: 1.26* =** 50/40
[Confidence interval (1.8, 0.9) at a = 0.05.]
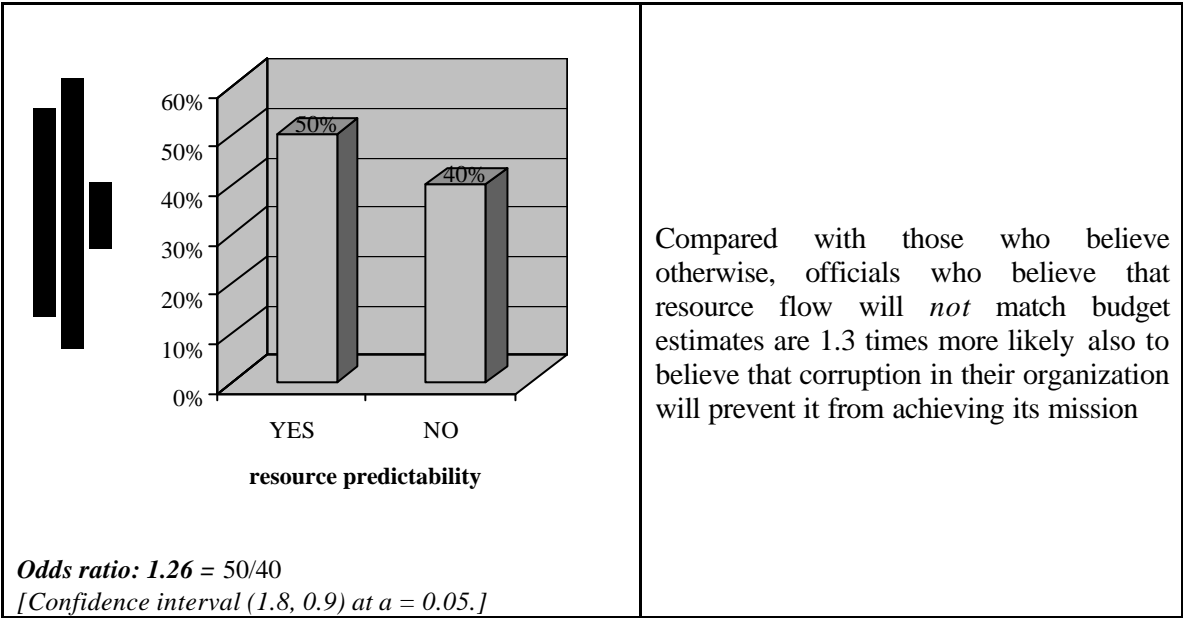
Potential pay-offs

Given limited resources, policymakers in Bangladesh will need to identify the reforms in the institutional environment that offer the greatest marginal impact of improvements on performance.[40] The details of the regression analysis presented in Appendix 5 demonstrate the partial effects of the institutional environment on public officials' perceptions of corruption.

The following figure summarizes the elements of institutional environment that, when considered together, have a statistically significant effect on officials' perceptions of how seriously corruption impedes the agency's mission.

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[40]   To calculate the partial effect of different aspects of the institutional environment on accountability, we derive the marginal effects of institutional environment on performance by utilizing discrete choice model, given the qualitative nature of the responses. Regression analysis allows us to calculate partial derivatives or marginal effects. However, conventional regression methods are inappropriate when the phenomenon we seek to model is discrete rather than continuous. Discrete models can be used when the dependent variable is not continuous but rather a discrete outcome such as "yes or no" or "always, sometimes, never." The marginal effects (i.e., "payoffs" are the maximum possible) are likely to require simultaneous movement on variables omitted from the regressions, and may require movement on political economy variables excluded from the analysis.

Figure 12. Potential pay-offs in reducing corruption through different reform interventions
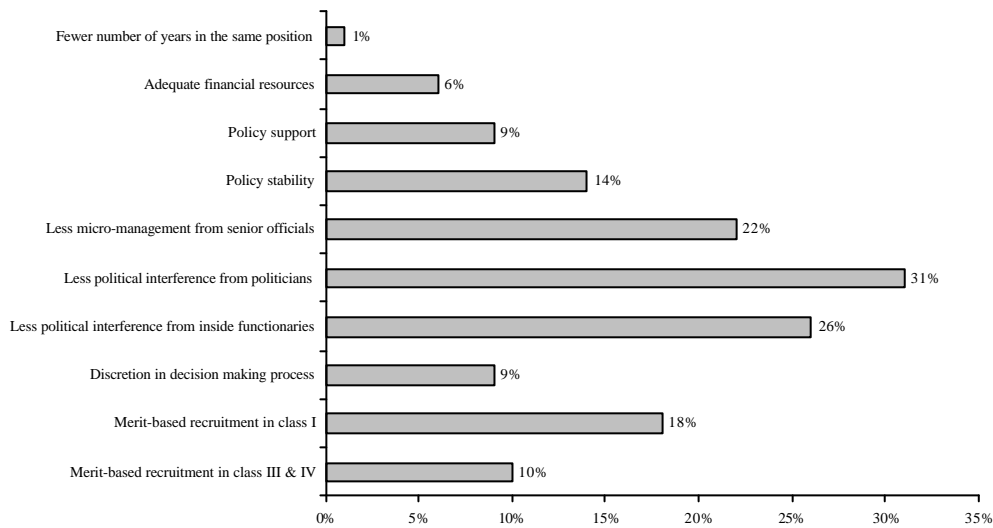
Notes: Only the statistically significant results are included in this figure. For details, see Appendix 4. The pay-offs are in terms of percentage increase in numbers of staff reporting performance improvements in consequence of improvements in the institutional environment.

Box 4. BWDB: the promise of reform

Facilitated by strong leadership from the top, and by donors' able supervision, the Bangladesh Water Development Board has undergone a radical transformation over the past two years, from a heavily over-staffed and corrupt agency to a much leaner public sector organization. Following a staffing review that recommended considerable downsizing, BWDB was persuaded to rationalize its internal structure and abolish directorates and redundant staff positions.

BWDB's first response was to raid the staff pension fund to pay salaries. The Minister and his Secretary explained to employee's representatives that drawing down the pension fund would leave retirees without pensions. Instead, it was argued, vacancies resulting each year from normal retirement should not be filled (these were positions traditionally "inherited" by the sons or relatives of the retirees). After no fewer than 18 meetings, staff reluctantly agreed to the downsizing plan. As BWDB is not a significant revenue-earning agency, faced by a determined Minister and Secretary, staff really had no other way to protect their pensions. The results have been encouraging: employment came down from 18,000 in 1996 to 12,000 in 1999, on target to reach 9,000 by the end of 2000.

Source: World Bank (2000b).

So, the regression analysis suggests that first and foremost the institutional challenge is one of protecting the bureaucracy from politics. This figure shows that when officials who believe that politicians from outside the organization stop interfering in day-to-day decisions, the perception of corruption will fall by almost one-third (31%). Similarly, reduced interference from within the organization by politicians and senior officials—coupled with practices to ensure that recruitment to Class I jobs is merit-based—will reduce the perception of pervasive corruption.

Politicization is fundamental to explaining poor performance. Reducing politically motivated interventions from external political actors would have the single largest impact, with reduction in the political interference from senior officials a close second. Consistent with the message of "Government that Works," increased delegation and a reduction in micro-management on the part of senior officials would also have a significant impact. The regression suggests that as a further approach to insulating the bureaucracy, merit-based recruitment for Class 1 staff would also have a significant impact on performance.

So, yet again, the survey highlights the significance of cross-cutting reforms that focus on merit-based recruitment and reduced political interference. The survey furthermore distinguishes some specific reforms that could ameliorate these elements. Section 3 noted that making it harder for managers to use OSD as punishment; further delegation of authority, as emphasized in "Government that Works;" improving the erratic budget management arrangements (and particularly improving the predictability of resource flows) would do much to restrict the channels through which political micro-management operates.

Box 5. LGED: allowing participation

The reform experience of the Local Government Engineering Department (LGED) allows lessons to be drawn. The hallmark of reform here was the adoption of a participatory approach to local public works project design, piloted by the IDA-supported Rural Roads and Markets project. As one of its many innovative practices, LGED has begun to solicit more actively the input of local groups (sometimes local government officials, sometimes representatives of community-based organizations) on such issues as the location of rural road works and the establishment of local markets. There is encouraging evidence that this input has persuaded LGED engineers to change plans and priorities. In this case, the idea was suggested by a development partner, but the concept was quickly embraced by the LGED management, and they have since begun training engineers in the use of participatory techniques.

Source: World Bank (2000b)

Agencies differ

Any general observations about institutional weaknesses in the Bangladesh public sector mask a variety of idiosyncratic difficulties faced by each individual agency. [41] Table A8 in the appendix presents the standardized indicators for the three components of institutional environment in twelve organizations.

Using these standardized indicators, relative strengths and weaknesses (in terms of their "rule credibility," "policy credibility" and "resource predictability") have been summarized in the table below. [42]

Table 10. Institutional environment in different organizations

Organization	Scores[?]	Summary
Ministry of Fisheries	Low RC, PC	- -
Ministry of Industries	High RP	+
Ministry of Local Government	Low RP	-
Ministry of Water Resources	Average	
DNFE	High RC, PC, RP	+ + +
Department of Fisheries	Low RP	-
Local Government Engineering Department	Average	
National Board of Revenue	Average	
Power Development Board	Average	
Water Development Board	High RC	+
Agriculture Extension Office	High PC	+
Hospitals	Low RC, High PC	+ -

? Scores in three indicators of institutional environment: rule credibility (RC); policy consistency (PC); and resource predictability (RP).

Agency-level reforms might be the best hope of providing local communities with greater voice in the production of local public services. The findings of the survey at agency-level show the variety in the institutional environments within which officials work. The

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[41]   The Anna Karenina principle applies: "all well-performing agencies are alike; there are so many preconditions for effective performance that every dysfunctional agency is dysfunctional in its own way". Tolstoy's original words were that "Happy families are all alike; every unhappy family is unhappy in its own way." Gary Reid pointed out the relevance of the observation for public sector performance.

[42]   In making that determination, +/- one standard deviation was used as the criteria for whether an organization is relatively weak or strong.

Water Development Board seems to be an entity in which rules are enforced, and scores for policy credibility and resource predictability are adequate.

Figure 13. Capturing variety in institutional environment in different organizations

Ministry of Fisheries | *Local Government Engineering Department*
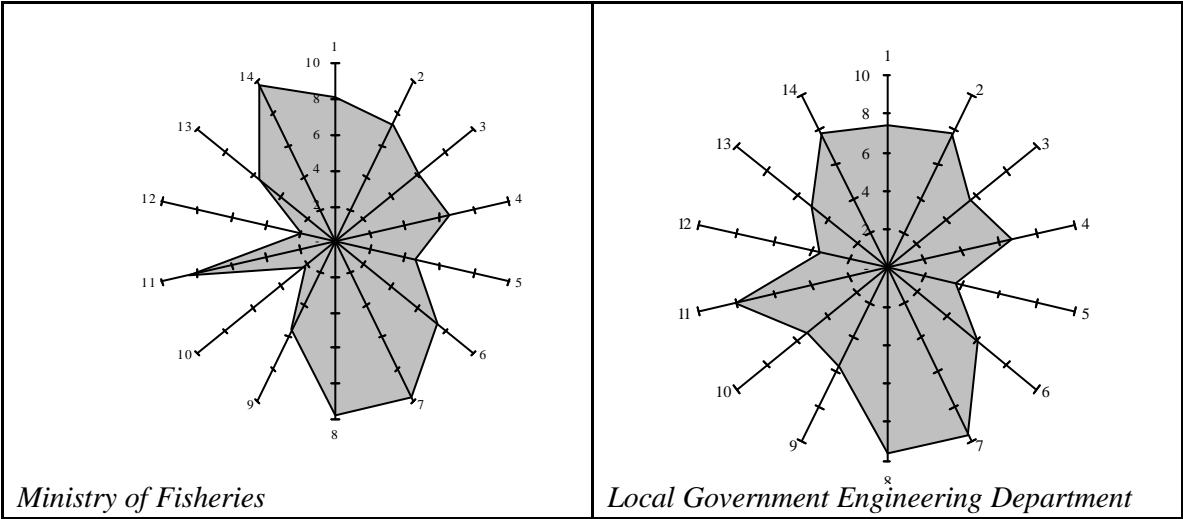
1=merit-based recruitment, 2=effective training, 3=accurate job description, 4=discretion in decision making, 5=fair treatment: OSD placement, 6=thorough audit, 7=politicization, 8=micro-management, 9=policy stability, 10=policy consistency, 11=policy support, 12=resource adequacy, 13=resource predictability, 14=merit-based promotion.

The institutional environment within the Local Government Engineering Department can be contrasted with the situation faced by staff in the Ministry of Fisheries.

The lesson to be learnt is that agencies show distinctly different institutional environments for staff—and that it is possible to track changes over time. The institutional impact of involving stakeholders in participatory exercises can be seen by tracking the institutional environment indicators.

In this respect, the message from the survey is an encouraging one. There is every reason for pessimism about the cross-cutting reforms, as yet one more survey is unlikely to overcome the deep-seated resistances to institutional change that have been so often noted. However, it is possible that reforms at the agency level, if carefully tracked and fine-tuned through repeated surveys, could provide the means by which some changes can be introduced.

Summary

The public sector in Bangladesh is a diverse environment in which to work. Although there are some general conclusions that can be drawn, staff perform better or worse in different agencies for highly diverse reasons. However, there are some general truths, and we can confirm that aspects of the formal institutional arrangements, and particularly rule credibility, policy credibility, and resource adequacy and predictability, are significant drivers of performance.

This is not surprising. To perform well, public officials need to be confident about the future—not to the point of smugness, but certainly to the point that they can see the relationship between their efforts and any eventual outcome. The institutional environment within which they are working shapes these expectations. If the rules are not credible, with little prospect of enforcement, if they expect policies to be contradicted or resources to flow unpredictably, then they cannot envision any relationship between their effort and public sector performance. Rationally, there is little point in working purposefully in an environment where results are so uncertain.

The survey supports the widespread contention that poor performance is seldom *formally* punished, with OSD used as a particular lever that can deter whistle-blowers and any others prepared to speak out against patronage. Control is centralized with little delegation. Public officials do seem to have incomes that exceed their official salaries, and budget management is weak.

There are also some grounds for concern that Class I officials form a well-organized interest group, able to distort policy to their own ends, and that politicians and senior officials show favoritism in awarding employment opportunities and contracts. Consistent with the finding that there are few formal punishments for poor performance, there are very few rewards for excellent performance.

However, despite impressions to the contrary, staff are fully aware of their job descriptions.

Regression analysis suggests that first and foremost the institutional challenge is one of insulating the bureaucracy from politics.

Politicization is a key factor in shedding light on poor performance. Curtailment of improper interventions from external political actors would have the single most significant impact; minimizing political interference from senior officials runs a close second. In keeping with the message of "Government that Works," greater delegation of responsibility—coupled with reduced micro-management by senior officials—would have considerable effects as well. The regression analysis suggests that working to insulate the bureaucracy via merit-based recruitment for Class I staff would also do much to strengthen performance.

Again, the survey shows the importance of crosscutting reforms that stress merit-based recruitment and the curtailment of political influence. The survey highlights specific reform strategies that could provide crucial points of entry: restricting political executives' use of OSD as punishment; greater delegation of authority (as emphasized in the IGR and "Government that Works"); improving erratic budget management arrangements (and boosting the predictability of resource flows, in particular). Improvement in these areas would remove some of the main arteries through which political micro-management thrives.

Although highlighting these specific reforms offers better prospects for success than generalized criticisms, history shows that cross-cutting reforms are often prescribed but rarely implemented. The survey findings that managers should be constrained in their use of OSD as punishment, that further delegation of authority should be developed, and that the predictability of resource flows should be improved through budgetary reforms, are sensible and well-supported by the survey. However, based on past experience, these are unlikely to find many champions in the short term.

To make substantive improvements in the public sector's effectiveness, and also to empower local communities in the production of local public services, agency-level reforms should be implemented. The survey's findings at the agency-level show an encouraging variety of institutional environments in which public officials work.[43] The rightsizing of the Water Development Board may have contributed to the very different environment it now offers, compared to the Power Development Board. For example, a strategy of stakeholder participation undertaken by the Local Government Engineering Department might have accounted for some of the better elements of its environment, in contrast with the Ministry of Fisheries.

The message from the survey is fundamentally an optimistic one. It is possible that agency-level reforms, carefully tracked and refined through future studies, could be a viable means for effecting change.

These findings are contestable. Readers can readily take the same survey findings and reach different conclusions. To assist in deepening interpretations of the data, appropriately anonymized survey data is being placed on Internet sites (http://www1.worldbank.org/publicsector/civilservice/countries/bangladesh/index.htm). The challenge is not to prove or disprove the logic of particular reform proposals; the challenge is to raise the quality of debate and to instill some sense of optimism that change is indeed possible.[44]

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[43]   These findings were also true in Uganda, where a survey "showed that the performance of public facilities in different sectors can vary considerably even within one country, depending on the facilities' institutional context and incentives. In Uganda, schools keep systematic records of financial flows and enrollments. Health units and local governments (districts), by contrast, do not keep good records." (World Bank (1999b).

[44]   As a part of Governance and Institutional Quality Surveys, a subsequent survey of civil servants is planned for late-2000. Along with a survey of households and business enterprises, the survey of civil servants will examine possible ways of reducing politically motivated interventions in the civil service from external actors. Particular areas for further and more detailed consideration in

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the follow-up survey include the finding that politicians and senior officials show favoritism and engage in corrupt practices in awarding employment opportunities and contracts, and in particular that patronage is extended in awarding government contracts; filling openings in civil service; and awarding training and promotions. The follow-up survey will also make an attempt to deepen the understanding of when and how transfers and postings—such as Officer on Special Duty (OSD)—are used to punish officials. The remarkable finding of the previous survey that public officials earn considerably more than their official salaries will also be examined in more detail, including collecting information on methods used by the civil servants to generate these extra incomes.

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Appendix 1: Sample details

Table A1. Organizations from which the sample was drawn

1. Accounts Department	18. Hospitals (at the district-level)
2. Agriculture Ministry	19. Industry Ministry
3. BSTI/BITAC/Patent	20. Information Ministry
4. Bangladesh Water Development Board	21. Livestock Department
5. Colleges/schools (at the district-level)	22. Local Government & Local Government Engineering Department
6. Commerce Ministry	23. National Board of Revenue
7. Communication Ministry	24. Police Department
8. Co-operatives Ministry	25. Posts & Telecommunication Department
9. Dhaka Electric Supply Authority	26. Power Development Board
10. Economic Relations Division	27. Professional Association
11. District administration (DC, ADC, TNO)	28. Public Works Ministry
12. Education Ministry	29. Public Health Ministry
13. Election Department	30. Registration Department
14. Energy Ministry	31. Road & Highways Ministry
15. Fisheries Ministry	32. Social Welfare Department
16. Food Department	33. Water Resources Ministry
17. Health & Family Planning Ministry	34. Water Supply and Sewerage Authority

Table A2. Sample details

	Autonomous	District	Ministries	Bangladesh
Number of questionnaires administered	294	424	103	821
cadred officials	164	326	96	586
% of cadred officials	56%	77%	94%	71%
Number of females	15	21	7	43
% of females	5%	5%	7%	5%

Table A3. Pay scales and grades in the unified grade system

Grade	Pay Scale	Grade	Pay Scale
1st	15000 (fixed)	6th	7200-260X14-10800
2nd	12900-350X6-14300	7th	6150-225X16-9750
3rd	11700-300X6-13500	8th	4800-210X16-8160
4th	10700-300X8-13100	9th	4300-185X7-77
5th	9500-260X10-12100		4300-195X11-7740

Scales have been described by beginning and end-points and annual increments.

Appendix 2: Questions behind the assertions

Higher echelons of state power (e.g. politicians, senior officials) extend patronage using state resources

Q. 18. How many Class III and IV employees in your organization do you think received their positions primarily because they exhibited greater merit than other candidates?
? very few   ? some ? about half ? most ? almost

Q. 19. In how many of the cases where merit was not the primary deciding factor did senior officials from your organization help them get their jobs?
? very few   ? some ? about half ? most ? almost all

Q. 20. In how many of the cases where merit was not the primary deciding factor did politicians from your organization help them get their jobs?
? very few   ? some ? about half ? most ? almost all

Q. 21. In how many of the cases where merit was not the primary deciding factor did political functionaries from outside your organization (e.g. MPs, other ministers) help them get their jobs?
? very few   ? some ? about half ? most ? almost all

Q. 22. In how many of the cases where merit was not the primary deciding factor did other high officials, such as military officers or senior officials from other public or private organizations help them get their jobs?
? very few   ? some ? about half ? most ? almost all

Q. 23. Now I will give you a list of possible reasons why high officials and functionaries might help someone receive a class III or IV job. Could you please tell me, for each possible reason, whether you think the reason applies to 1) very few or none of the cases 2) some of the cases 3) to about half the cases 4) to most of the cases 5) or to almost all or all of the cases?
? family ties ? personal ties ? village ties ? political ties
? payment was made for the job ? union pressure

Q. 25. In how many of the non-merit cases did senior officials from your organization influence the selection of Class I officials after the exams?
? very few   ? some ? about half ? most ? almost all

Q. 64. Many officials request re-employment after retirement. What are the two most important reasons for which you think that employment requests are granted?
? family ties ? personal ties ? village ties ? political ties ? skill and expertise for the job

Q. 98 Which of the following best characterizes the audits?
? always superficial ? occasionally thorough, usually superficial ? sometimes thorough, sometimes superficial ? usually thorough, occasionally superficial ? always thorough

Q. 100. In obtaining contracts and resolving disputes over contract fulfillment and payment, how much of an advantage do suppliers with connections to high level officials have over other suppliers?
? very little advantage ? little advantage ? some advantage ? large advantage
? very large advantage

The selection of Class I officials is supposed to be on the basis of examination, but politicians and very senior officials are able to influence this as well.

Q. 25. In how many of the non-merit cases did senior officials from your organization influence the selection of Class I officials after the exams?
 ? very few   ? some ? about half ? most ? almost all

Q.26. In how many of the non-merit cases did political functionaries from your organization influence the selection of Class I officials after the exams?
 ? very few   ? some ? about half ? most ? almost all

Q. 27. In how many of the non-merit cases did political functionaries from outside your organization (e.g. MPs and other ministers) influence the selection of Class I officials after the exams?
 ? very few   ? some ? about half ? most ? almost all

Q. 28. In how many of the non-merit cases did other high officials, such as military officers or senior officials from other public or private organizations influence the selection of Class I officials after the exams?
 ? very few   ? some ? about half ? most ? almost all

Q. 30. How many Class I officials are given their first appointment or posting primarily because they expected greater merit than other candidates?
? very few   ? some ? about half ? most ? almost all

There are very few rewards for excellent performance

Q. 37. In how many of the cases where merit or seniority is not the primary deciding factor did senior officials from your organization influence the promotion?
? very few   ? some ? about half ? most ? almost all

Q. 38. In how many of the cases where merit or seniority is not the primary deciding factor did political functionaries from your organization influence the promotion?
? very few   ? some ? about half ? most ? almost all

Q. 39. In how many of the cases where merit or seniority is not the primary deciding factor did political functionaries from outside your organization (MPs and other ministers) influence the promotion?
? very few   ? some ? about half ? most ? almost all

Q. 40. In how many of the cases where merit or seniority is not the primary deciding factor did other high-level officials, such as military officers or senior officials from other public or private organization influence the promotion?
? very few ? some ? about half ? most ? almost all

Q. 54. In the last three months, how many staff members do you know of in your organization who have received official recognition or rewards (e.g. scholarship and training opportunities, monetary rewards, accelerated promotion, desirable posting?) ?
? Class III and IV employees (Number) ? Officials and officers (Number)

Q. 55. What was the form of reward given to officials and officers (Number)
? fellowships ? monetary rewards ? accelerated promotion ? desirable postings
? public recognition

Bad performance is seldom formally *punished*

Q. 51. In the last three months, how many instances do you recall in which staff members in your organization have been disciplined?
? Class III and IV employees (Number) ? Officials and officers (Number)

Q. 59. In the past year, how many officials do you know of who received unfavorable posting?…………….(Number)

Q. 60. What percentage of unfavorable postings were rescinded on appeal?
(% of the above or number)

Q. 61. How easy is it for superiors to give unfavorable postings to component officials?
 ? extremely easy ? easy ? neither easy nor difficult ? difficult ? very difficult

Q. 63. Now I will give you a list of possible reasons that officials receive unfavorable postings or involuntary OSD status. Could you please tell me, for each possible reason, whether you think it applies to 1) very few or none of the cases 2) some of the cases 3) to about half the cases 4) to most of the cases 5) or to almost all or all of the cases?
? non-performance of duties ? embezzlement or bribery ? holding second job
? personality conflict with superior ? unwillingness to cooperate with the superior in illegal activities ? to make position available for a candidate preferred by political functionaries or other high officials ? other (specify)

Q. 66. How would you characterize the process by which officials are against their will, transferred or placed on an OSD status?
? always arbitrary and never fair ? sometimes arbitrary and sometimes fair ? occasionally arbitrary and usually fair ? always fair

Staff are assigned tasks for which they were NOT recruited

Q. 42 Do you have a written job description for your current position?
? Yes ? No

Q. 43 How well does the written job description reflect your current functions and duties? On a 1 to 3 scale, how accurate would you say this job description is?
? not accurate ? more or less accurate ? entirely accurate

Staff are assigned tasks for which they were NOT recruited

Q. 44. To what extent do you have the authority to carry out your responsibilities, either as defined in your job description or as you are told to implement?
? practically none of the authority you need
? much less authority than you need
? some of the authority you need
? most of the authority you need
? nearly all of the authority you need

Q. 45. Consider those officials whom you write ACRs. If one of these officials were to leave, how much influence would you have in the replacement?
? practically none? the decision about the replacement is entirely in the hands of others
? some? you have some influence on which candidates are considered for the job
? complete? the selection of the replacement is entirely your responsibility

Q. 46. Which of the following best describes the responsibilities of your position?
? you supply technical, legal, or other professional guidance to superiors who make final decisions and dispositions regarding the business of your organization
? you make final decisions in consultation with your superior
? you make final decisions that are only occasionally reviewed by superiors before implementation

Q. 47 Consider the decisions that you are asked to make by your sub-ordinates (the files, for example, that are forwarded to you). The following are possible reasons why they might pass these decisions along. Could you please tell me, for each possible reason, whether you think it applies to very few or none of the cases (1) some of the cases (2) to about half of the cases (3) to most of the cases (4) to almost all or all of the cases
? because the rules of the business or other formal procedures of your organization require that you or your superior make the decision
? because the decision required your professional review
? because they felt that the decision was too risky to their careers
? because they did not want to be seen interfering with your authority.

Class I officials are a well-organized interest group

Q. 51. In the last three months, how many instances do you recall in which staff members in your organization have been disciplined?
? Class III and IV employees (number) ? Officials and officers (number)

Q. 53. What were the reasons for the disciplinary actions that you recall from the past three months that affected officials or officers from your organization? (put number)
? non-performance of duties, including chronic tardiness, absence, incompetence
? insubordination
? embezzlement or bribery
? holding second job
? personality conflict with superior
? unwillingness to cooperate with the superior in illegal activities
? other (specify)

Q. 63. Now I will give you a list of possible reasons why officials might receive unfavorable postings or involuntary OSD status. Could you please tell me, for each possible reason, whether you think it applies to 1) very few or none of the cases 2) some of the cases 3) to about half the cases 4) to most of the cases 5) or to almost all or all of the cases?
? non-performance of duties
? embezzlement or bribery
? holding second job
? personality conflict with superior
? unwillingness to cooperate with the superior in illegal activities
? to make position available for a candidate preferred by political functionaries or other high officials
? other (specify)

Although pay levels are perceived to be low, public officials do not want to move to the private sector

Q. 52. What were the reasons for the disciplinary actions that you recall from the past three months that affected class III or IV employees from your organization? (put number)
? non-performance of duties, including chronic tardiness, absence, incompetence
? insubordination
? embezzlement or bribery
? holding second job
? personality conflict with superior
? unwillingness to cooperate with the superior in illegal activities
? other (specify)

Q. 69. Many people complain that conditions of work in the private sector are better than in the public sector. Are you actively looking for a job in the private sector?
? Yes   ? No

Q. 70. Assume that you were offered a job in the private sector tomorrow in your area of professional expertise. What is the minimum amount, as a factor of counted salary and benefits, the total compensation package would have to be per month for you to consider taking it?……………Tk.

Q. 75. Government compensation is widely recognized as too low for civil servants to maintain a family in a middle-class standard of living. What percent of colleagues in your organization of service obtain supplemental income from the following sources?
? wife's income ? income from inherited property ? savings from training and travel per diems, and other approved special payments ? second jobs ? bribes and other illicit payments

Q. 76. Considering those colleagues in your service or organization whom you believe might solicit bribes, or receive the proceeds from illicit gratuities throughout their organization, how high do you think the bribes are relative to their total official compensation
(50% if bribes equal half of their total official compensation; 200% if bribes are 2 times their total official compensation)………….%

Q. 97. What fraction of all contract payments are examined by an outside auditing body?

Budget management is weak

Q. 84. By what percent of the originally budgeted amount did actual funds received exceed or fall short of the original budget for your organization in fiscal year 1998-9?…..%
(less/more than originally budgeted)

Q. 85. This question asks how spending cuts are made when actual budget falls short of original budgets. I will identify different individuals and groups and ask you how influential each of them was in determining how your organization adjusted to mid-year budget cut. Please rate their influence on a scale of 1 to 5, from little or no influence (1); to moderate influence (3); to significant influence (4); to decisive influence (5).
? the top civil servants and political functionaries in your organization
? other members of the cabinet and the prime minister
? members of parliament
? trade unions, including staff association
? organized interest outside of government
? other

Q. 87. By what fraction did you expect the actual budgetary allocation in FY 2000 to differ from the originally budgeted amount?…….% (more/less than originally budgeted in your organization)

Q. 88. How much would it surprise you if the actual budgetary allocation diverged from budgeted funds by twice as much as your answer in the last question (2 times the percentage that you estimated in the last question)?
? you would not be surprised at all
? you would be a little surprised you would be moderately surprised
? you would be very surprised
? you would be extremely surprised, even shocked

Appendix 3: Construction of indicators

Relevant and related questions were grouped under the same category as shown in Table 9. Since the responses were all on a verbal scale, they were converted to a consistent numerical scale. For uniformity, qualitative responses from all questions were converted into numbers on the scale of 0 to 10. For example, yes/no questions were converted into "0" and "10". For questions with four qualitative responses such as strongly agree (1), agree (2), disagree (3), strongly disagree (4), the following formula was used for the conversion:

$$\text{Scaled response} = 40/3 - 10/3 \text{ (Un-scaled response).}[45]$$

After the conversion, to calculate rule credibility, policy credibility, resource adequacy and predictability, and eventually the institutional environment indicators, the following steps were taken.

First, the simple arithmetic average of all responses regarding the same specific aspect of the institutional environment were calculated. Second, by taking the simple average of the aspects of the institutional environment under the same component (rule credibility, policy credibility, and resource adequacy and predictability), these three components of the institutional environment were constructed. Finally, the institutional environment indicator was derived as a simple arithmetic average of the three components of the institutional environment.

For example, to calculate the policy credibility indicator in Bangladesh, the questions mentioned in Table 9 and listed in Appendix 5 were utilized. After converting responses into numbers on a 0-10 scale, measures of policy stability and policy consistency were derived. Then, a simple average of these three specific aspects of institutional environment was calculated. This was the policy credibility measure for the whole public sector in Bangladesh.

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[45] For consistency, the affirmative responses (e.g., "useful," "helpful," "working" [as opposed to "not working"]) were converted to "10." Negative responses (e.g., "not useful," "not helpful," "not working,") were converted to "0". For example, in the question "Are job openings advertised?" "yes" was converted to "10," and "no" was converted to "0." Similarly, in the question "How consistent are the various policies your organization?' "very consistent" was converted to "10"; "more consistent than consistent" to "6.7"; "more inconsistent than consistent" to "3.3"; and "very inconsistent" to "0".

Table A4. Indicator of overall rule credibility and components

	Merit-based recruitment	Effective training	Accurate job description	Discretion in decision making
Agriculture Extension Office	9.5	8.0	3.6	4.2
Water Development Board	8.1	7.3	6.0	6.6
DNFE	9.0	6.2	6.8	6.2
Department of Fisheries	7.5	7.9	7.5	4.1
Hospitals	7.6	6.7	2.3	3.0
Local Government Engineering Department	7.4	7.7	5.6	6.6
Ministry of Fisheries	7.7	6.3	4.7	4.1
Ministry of Industries	7.3	7.3	5.0	4.4
Ministry of Local Government	7.4	6.3	5.4	6.2
Ministry of Water Resources	9.0	7.9	5.7	7.1
National Board of Revenue	6.6	8.1	6.0	6.0
Power Development Board	8.0	7.3	4.5	5.5
Total	8.1	7.5	4.9	5.5

Indicator of overall rule credibility and components (continued)

	Fair treatment: OSD placement	Thorough audit	Politicization	Micro-management	Rule credibility
Agriculture Extension Office	3.3	7.3	10.0	9.9	7.0
Water Development Board	4.6	7.3	9.8	9.8	7.4
DNFE	4.5	7.3	9.9	9.8	7.5
Department of Fisheries	3.9	2.5	9.6	9.6	6.6
Hospitals	5.2	10.0	9.6	9.6	6.8
Local Government Engineering Department	2.5	6.1	9.6	9.6	6.9
Ministry of Fisheries	3.7	3.8	9.6	9.5	6.2
Ministry of Industries	4.9	6.0	9.6	9.6	6.8
Ministry of Local Government	4.7	8.1	9.5	9.5	7.1
Ministry of Water Resources	4.0	4.2	9.9	9.9	7.2
National Board of Revenue	4.6	5.4	9.5	9.4	6.9
Power Development Board	4.6	7.1	9.8	9.8	7.1
Total	4.0	6.3	9.7	9.7	7.0

Table A5. Indicators of overall policy credibility and components

	Policy stability	Policy consistency	Policy support	Policy credibility
Agriculture Extension Office	8.0	8.0	7.5	7.8
Water Development Board	5.6	2.2	8.4	5.4
DNFE	8.0	6.0	8.3	7.4
Department of Fisheries	6.7	3.3	7.5	5.8
Hospitals	8.3	5.0	8.2	7.2
Local Government Engineering Department	5.7	5.4	8.0	6.4
Ministry of Fisheries	6.0	1.0	8.3	5.1
Ministry of Industries	6.0	4.0	8.3	6.1
Ministry of Local Government	5.0	2.5	8.4	5.3
Ministry of Water Resources	5.0	4.0	8.9	6.0
National Board of Revenue	4.7	4.7	7.9	5.8
Power Development Board	5.0	3.0	8.3	5.4
Total	6.5	4.7	8.1	6.4

Table A6. Indicators of overall institutional environment and components

	Rule credibility	Policy credibility	Resource predictability	Institutional environment
Agriculture Extension Office	7.0	7.8	3.3	6.0
Water Development Board	7.4	5.4	3.8	5.5
DNFE	7.5	7.4	6.8	7.2
Department of Fisheries	6.6	5.8	2.5	5.0
Hospitals	6.8	7.2	5.0	6.3
Local Government Engineering Department	6.9	6.4	4.3	5.9
Ministry of Fisheries	6.2	5.1	3.0	4.8
Ministry of Industries	6.8	6.1	5.5	6.1
Ministry of Local Government	7.1	5.3	2.5	5.0
Ministry of Water Resources	7.2	6.0	4.0	5.7
National Board of Revenue	6.9	5.8	3.2	5.3
Power Development Board	7.1	5.4	4.0	5.5
Total	7.0	6.4	4.5	6.0

Table A7. Institutional environment in Bangladesh using standardized indicators

	Rule credibility (RC)	Policy credibility (PC)	Resource adequacy & predictability (RP)
Ministry of Fisheries	**-1.40**	**-1.18**	-0.78
Ministry of Industries	0.20	-0.03	**1.20**
Ministry of Local Government	-0.32	-0.93	**-1.17**
Ministry of Water Resources	-0.11	-0.20	0.02
DNFE	**1.64**	**1.43**	**2.19**
Department of Fisheries	-0.83	-0.34	**-1.17**
Local Government Engineering Department	0.00	0.24	0.24
National Board of Revenue	0.07	-0.40	-0.59
Power Development Board	0.69	-0.80	0.02
Water Development Board	**1.81**	-0.85	-0.18
Agriculture Extension Office	-0.52	**1.89**	-0.58
Hospitals	**-1.21**	**1.17**	0.81
Average	0.00	0.00	0.00
Standard deviation	1.00	1.00	1.00

Appendix 4: Associations

To test associations between each relevant individual element of institutional environment and performance, public officials in the sample were first grouped into two categories based on their perceptions of specific aspects of the institutional environment. For example, those who perceived the recruitment process to be merit-based would be placed in group "A," and those who perceived the recruitment process not to be merit-based would be placed in group "B." Then the average perceptions were calculated regarding accountability in each of the two groups. Finally, to test the statistical significance of each assertion, odds-ratios were derived and confidence intervals constructed.[46]

In addition to three associations in section 3, the following are also statistically significant.

Odds ratio: 1.20
[Confidence interval (1.6, 0.9) at a = 0.05.]

Odds ratio: 2.42
[Confidence interval (8.9, 0.7) at a = 0.05.]

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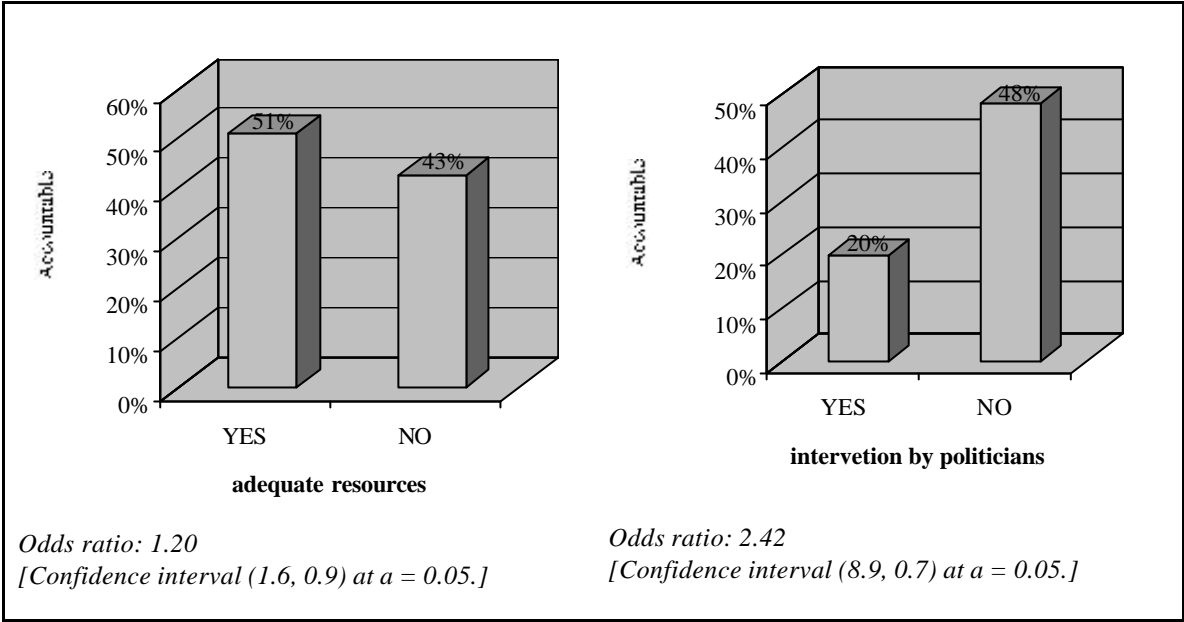
[46]   As a rule of thumb, if "1" is not in the calculated confidence interval, then the odds are not even among two groups, or the odds ratio is different than 1. For details, see Agresti, 1996.

intervention by internal political functionaries
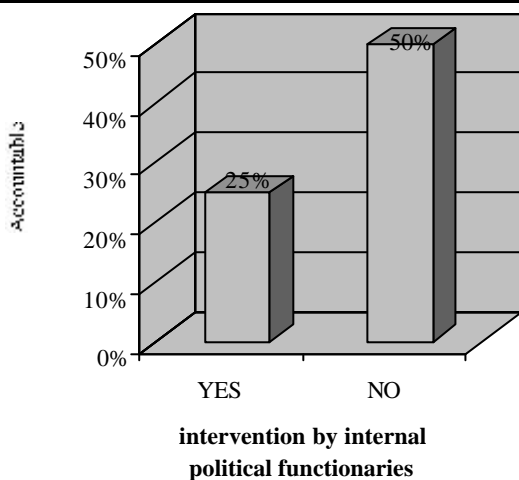
Odds ratio: 1.99
[Confidence interval (3.6, 1.1) at a = 0.05.]

intervetion by internal senior officials
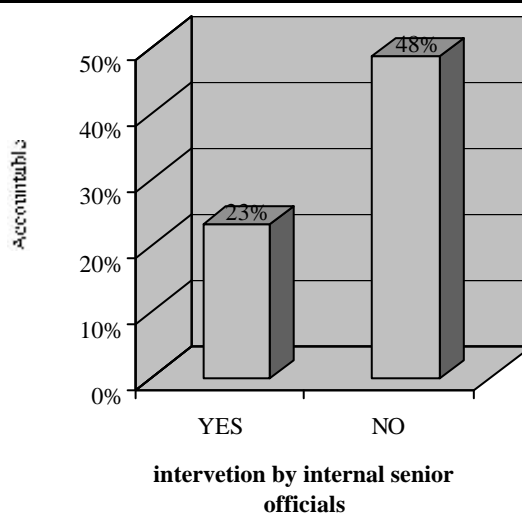
Odds ratio: 2.10
[Confidence interval (6.3, 0.7) at a = 0.05.]

intervetion by outside officials
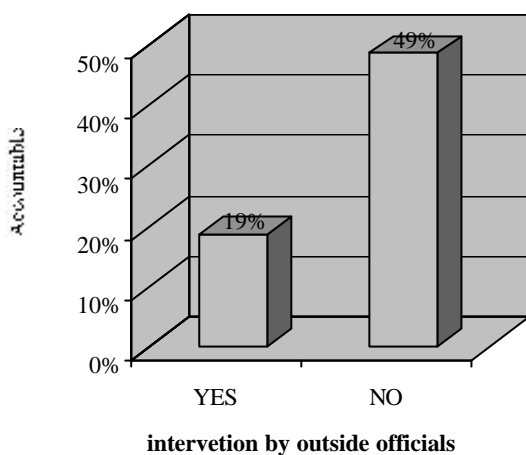
Odds ratio: 2.60
[Confidence interval (7.5, 0.9) at a = 0.05.]

policy stability
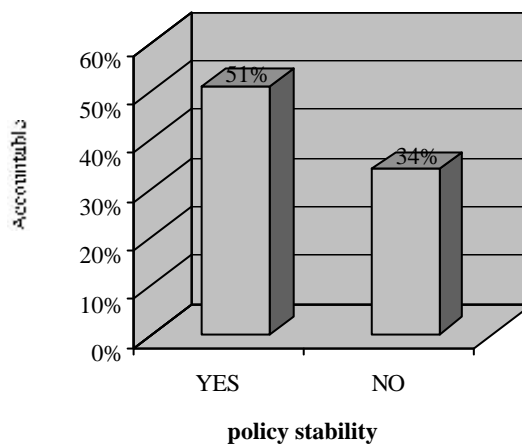
Odds ratio: 1.50
[Confidence interval (2.2, 1.0) at a = 0.05.]

Appendix 5: Marginal Effects

Questions used and the way they are tabulated

To conduct the analyses in section 4, the responses on relevant questions are converted into binary responses. For example, the respondent (a) either believes that corruption prevents his organization from accomplishing its mission or not; (b) either transfers or placement on OSD status are fair (and not arbitrary) or not; and (c) either rewards and recognitions are justified by excellent performance or not. The details are in the following table.

Question No	Explanation	Possible Responses	YES=1	No=0
Q15	Training received in the past three years	1: yes 2: no	1	2
Q17	Recruitment of category 3 & 4 staff: merit based?	1:a few 2: some 3: about half 4: most 5: almost all	4, 5	1,2,3
Q18	Jobs for Class 3 and 4 positions: influence of senior officials	1:a few 2: some 3: about half 4: most 5: almost all	4, 5	1,2,3
Q19	Jobs for Class 3 and 4 positions: influence of political functionaries from the respondent's organization	1:a few 2: some 3: about half 4: most 5: almost all	4, 5	1,2,3
Q20	Jobs for Class 3 and 4 positions: influence of political functionaries from outside the respondent's organization	1:a few 2: some 3: about half 4: most 5: almost all	4, 5	1,2,3
Q24	Recruitment of Class I officials: merit-based?	1:a few 2: some 3: about half 4: most 5: almost all	4,5	1,2,3
Q25	Jobs for Class 1 officials: influence senior officials	1:a few 2: some 3: about half 4: most 5: almost all	4, 5	1,2,3

Q26	Jobs for Class 1 officials: influence of political functionaries from the respondent's organization senior officials	1:a few 2: some 3: about half 4: most 5: almost all	4, 5	1,2,3
Q27	Jobs for Class 1 officials: influence of political functionaries from outside the respondent's organization	1:a few 2: some 3: about half 4: most 5: almost all	4, 5	1,2,3
Q28	Selection of Class 1 officials: influence of high-level organizations from outside the respondent's organization	1:a few 2: some 3: about half 4: most 5: almost all	4, 5	1,2,3
Q31	First appointment or posting of Class 1 officials: role of senior officials outside the respondent's organization	1:a few 2: some 3: about half 4: most 5: almost all	4, 5	1,2,3
Q32	First appointment or posting of Class 1 officia ls: role of political functionaries from the respondent's organization	1:a few 2: some 3: about half 4: most 5: almost all	4, 5	1,2,3
Q33	First appointment or posting of Class 1 officials: role of political functionaries from outside the respondent's organization	1:a few 2: some 3: about half 4: most 5: almost all	4, 5	1,2,3
Q34	First appointment or posting of Class 1 officials: role of other high-level officials from outside the respondent's organization	1:a few 2: some 3: about half 4: most 5: almost all	4, 5	1,2,3
Q36	Promotion of mid-level class 1 officials: merit-based?	1:a few 2: some 3: about half 4: most 5: almost all	4, 5	1,2,3
Q37	Role of senior officials from the respondent's	1:a few 2: some	4, 5	1,2,3

	organization in promotion	3: about half 4: most 5: almost all		
Q38	Role of political functionaries from the respondent's organization in promotion	1:a few 2: some 3: about half 4: most 5: almost all	4, 5	1,2,3
Q39	Role of political functionaries from outside the respondent's organization in promotion	1:a few 2: some 3: about half 4: most 5: almost all	4, 5	1,2,3
Q40	Role of other high-level officials from outside the respondent's organization in promotion	1:a few 2: some 3: about half 4: most 5: almost all	4, 5	1,2,3
Q43	The accuracy of job description	1: No accurate 2: More or less accurate 3: Entirely accurate	3	1, 2
Q44	Do you have the authority to fulfill your responsibilities?	1: practically none of the authority you need 2: much less authority than you need 3: some of the authority you need 4: most of the authority you need 5: nearly all of the authority you need	4, 5	1,2, 3
Q66	Fairness of OSD postings	1: always arbitrary and never fair 2: usually arbitrary and occasionally fair 3: sometimes arbitrary and sometimes fair 4: occasionally arbitrary and usually fair 5: always fair	4, 5	1, 2, 3
Q77	Corruption prevents the organization from achieving its mission?	1: heavily 2: a great deal 3: somewhat 4: a little	1,2	3,4,5

		5: not at all		
Q78.1	Possible barriers to Achieving organizational objectives	**1: insufficient budgetary allocation** 2: unpredictable budgetary allocation 3: contradictory policies and directives 4: frequent and significant changes of policies and directives 5: insufficient skilled manpower 6: inadequate commitment on the part of the people that matter	1 = yes	1=no
Q78.2	Possible barriers to achieving organizational objectives	1: insufficient budgetary allocation **2: unpredictable budgetary allocation** 3: contradictory policies and directives 4: frequent and signific ant changes of policies and directives 5: insufficient skilled manpower 6: inadequate commitment on the part of the people that matter	2 = yes	2=no
Q78.3	Possible barriers to achieving organizational objectives	1: insufficient budgetary allocation 2: unpredictable budgetary allocation **3: contradictory policies and directives** 4: frequent and significant changes of policies and directives 5: insufficient skilled manpower 6: inadequate commitment on the part of the people that matter	3 = yes	3=no
Q78.4	Possible barriers to achieving organizational objectives	1: insufficient budgetary allocation 2: unpredictable budgetary allocation 3: contradictory policies and directives **4: frequent and significant changes of policies and directives**	4 = yes	4=no

		5: insufficient skilled manpower 6: inadequate commitment on the part of the people that matter		
Q78.5	Possible barriers to achieving organizational objectives	1: insufficient budgetary allocation 2: unpredictable budgetary allocation 3: contradictory policies and directives 4: frequent and significant changes of policies and directives **5: insufficient skilled manpower** 6: inadequate commitment on the part of the people that matter	5 = yes	5=no
Q82	Policy support	1: you agree with all or nearly all policies 2: you disagree with some policies 3: you disagree with about half of the policies 4: you disagree with most policies 5: you disagree with nearly all of the policies	1	2, 3, 4
Q98	Characteristics of audits	1: always superficial 2: usually superficial 3: neither nor 4: usually thorough 5: always thorough	4, 5	1,2,3

The logit models

The following logit model is used to calculate the partial derivative of probability with respect to the vector of characteristics. Then, the maximum likelihood estimate of the following model is derived.

Probability (corruption=serious problem) = ?(ß'x), and
Probability (corruption=not a serious problem) = 1 - ?(ß'x)

To capture the effects of different aspects of the institutional environment, a set of factors is gathered in a vector **X**, to explain the perception regarding corruption. The numbers in parentheses are the question numbers from the survey.

$$\mathbf{X}= \begin{array}{|l}
\text{Merit-based recruitment (Q 17, 24)} \\
\text{Effective training (Q 15)} \\
\text{Accurate job description (Q43)} \\
\text{Fair OSD postings (Q66)} \\
\text{Effective auditing (Q98)} \\
\text{No interference by politicians (Q19, 20,} \\
\text{26, 27, 32, 33, 38, 39)} \\
\text{No micro-management by senior} \\
\text{officials (Q18, 21, 25, 28, 31, 34, 37,} \\
\text{40)} \\
\text{Appropriate authority to carry out} \\
\text{responsibilities (Q44)} \\
\text{ Merit-based promotion (Q36)} \\
\text{Policy stability (Q78.4)} \\
\text{Policy consistency (Q78.3)} \\
\text{Policy support (Q82)} \\
\text{Adequate resources (financial \& skilled} \\
\text{manpower) (Q78.1, 78.5)} \\
\text{Resource predictability (Q78.2)}
\end{array}$$

The set of parameters **ß** reflects the impact of changes in **X** on the probability.

Table A8. The maximum likelihood estimates of the logit models

```
--------------------------------------------------
Variable  Coefficient Standard Error z=b/s.e. P[¦Z¦=z]  Mean of X
----------------------------------------------------------------------
Constant -0.6263308    0.50660     -1.236  0.21633
Q5    -0.3343288E-01  0.18229E-01  -1.834  0.06665  5.878
Q14    -0.6052692E-01  0.18729     -0.323  0.74657 0.5818
Q43    0.1127574    0.21801     0.517  0.60500 0.2673
Q44    0.3572567    0.20613     1.733  0.08307 0.3636
Q66    -0.6791736E-01  0.25648     -0.265  0.79116 0.1582
Q98    0.1911039    0.24470     0.781  0.43483 0.1891
Q4     0.1447259E-05  0.31311E-04  0.046  0.96313  7294.
Q82    0.3468444    0.25177     1.378  0.16832 0.1800
Q17    0.4068341    0.22276     1.826  0.06780 0.6164
Q18    0.2121870    0.35165     0.603  0.54624 0.1073
Q19    -1.032462    0.45476     -2.270  0.02319 0.8000E-01
Q20    0.2736095    0.46321     0.591  0.55473 0.6545E-01
Q21    -0.8697419    0.79302     -1.097  0.27275 0.2909E-01
Q781   -0.2449518    0.23679     -1.034  0.30092 0.4036
Q782    0.1206397    0.29619     0.407  0.68378 0.2364
Q783   -0.3227957    0.41259     -0.782  0.43400 0.1745
Q784   -0.5802248    0.39079     -1.485  0.13761 0.1873
Q785   -0.2300323E-01  0.29165     -0.079  0.93713 0.2836
Q24    0.7369368    0.48404     1.522  0.12789 0.9145
Q25    -0.5122655    0.80963     -0.633  0.52692 0.2364E-01
Q26    -0.1291871    1.2591      -0.103  0.91828 0.1636E-01
Q27     1.241951    0.90505     1.372  0.16999 0.2545E-01
Q28    -0.9832464    1.6329      -0.602  0.54708 0.7273E-02
Q30    0.9975627E-01  0.33999     0.293  0.76921 0.8418
Q31    -0.2007230    0.67809     -0.296  0.76722 0.4000E-01
Q32     1.302679    1.0090      1.291  0.19666 0.2364E-01
Q33    -0.9615091    1.1718      -0.821  0.41192 0.2545E-01
Q34    0.9329738E-01  1.3349      0.070  0.94428 0.1455E-01
Q36    -0.2448756    0.32894     -0.744  0.45662 0.8545
Q37    -0.4524153    0.99111     -0.456  0.64805 0.2364E-01
Q38    -1.188032    1.3147      -0.904  0.36619 0.1818E-01
Q39    -1.257201    0.90757     -1.385  0.16598 0.2182E-01
Q40     2.562089    1.3182      1.944  0.05193 0.1455E-01


   --------------------------------------------------
```

Table A9. Partial derivatives of the probabilities with respect to the vector of
          characteristics

```
------------------------------------------------------------------------
Variable  Coefficient Standard Error z=b/s.e. P[¦Z¦=z]  Mean of X
------------------------------------------------------------------------
Constant -0.1560026    0.12602     -1.238  0.21574
Q5    -0.8327253E-02  0.45400E-02  -1.834  0.06663  5.878
Q14    -0.1507567E-01  0.46649E-01  -0.323  0.74657 0.5818
Q43    0.2808491E-01  0.54301E-01   0.517  0.60501 0.2673
Q44    0.8898326E-01  0.51342E-01   1.733  0.08307 0.3636
Q66    -0.1691643E-01  0.63881E-01  -0.265  0.79116 0.1582
Q98    0.4759896E-01  0.60951E-01   0.781  0.43484 0.1891
Q4     0.3604742E-06  0.77988E-05   0.046  0.96313  7294.
Q82    0.8638985E-01  0.62711E-01   1.378  0.16833 0.1800
Q17    0.1013317    0.55480E-01   1.826  0.06778 0.6164
Q18    0.5285021E-01  0.87586E-01   0.603  0.54623 0.1073
Q19    -0.2571591    0.11318     -2.272  0.02308 0.8000E-01
Q20    0.6814895E-01  0.11537      0.591  0.55471 0.6545E-01
Q21    -0.2166299    0.19745     -1.097  0.27258 0.2909E-01
Q781   -0.6101108E-01  0.58980E-01  -1.034  0.30093 0.4036
Q782   0.3004818E-01  0.73772E-01   0.407  0.68378 0.2364
Q783   -0.8039995E-01  0.10275     -0.782  0.43395 0.1745
Q784   -0.1445188    0.97334E-01  -1.485  0.13760 0.1873
Q785   -0.5729501E-02  0.72641E-01  -0.079  0.93713 0.2836
Q24    0.1835516    0.12052      1.523  0.12775 0.9145
Q25    -0.1275919    0.20164     -0.633  0.52688 0.2364E-01
Q26    -0.3217713E-01  0.31360     -0.103  0.91828 0.1636E-01
Q27    0.3093374    0.22535      1.373  0.16985 0.2545E-01
Q28    -0.2449009    0.40668     -0.602  0.54704 0.7273E-02
Q30    0.2484667E-01  0.84685E-01   0.293  0.76921 0.8418
Q31    -0.4999483E-01  0.16889     -0.296  0.76721 0.4000E-01
Q32    0.3244633    0.25128      1.291  0.19663 0.2364E-01
Q33    -0.2394867    0.29183     -0.821  0.41185 0.2545E-01
Q34    0.2323793E-01  0.33248      0.070  0.94428 0.1455E-01
Q36    -0.6099208E-01  0.81928E-01  -0.744  0.45660 0.8545
Q37    -0.1126848    0.24685     -0.456  0.64803 0.2364E-01
Q38    -0.2959077    0.32737     -0.904  0.36605 0.1818E-01
Q39    -0.3131359    0.22599     -1.386  0.16587 0.2182E-01
Q40    0.6381491    0.32813      1.945  0.05180 0.1455E-01
------------------------------------------------------------------------
```
The partial derivatives are computed at the means of the **X**s.
Observations used for means are from all of the observations.

Partial Frequencies of actual & predicted outcomes

(Predicted outcome has maximum probability.)			
	Predicted		
Actual	*0*	*1*	*Total*
0	170	117	287
1	92	171	253
Total	252	288	550