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Revisiting the Capacity Development Approach through Comparative Case Analysis

# What Makes the Bangladesh Local Government Engineering Department (LGED) So Effective?

-Complementarity Between LGED Capacity and Donor Capacity Development Support-

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## **What Makes the Bangladesh Local Government Engineering Department (LGED)**

### **So Effective?**

#### **- Complementarity Between LGED Capacity and Donor Capacity Development Support-**

Yasuo Fujita \*

#### **Abstract**

The Local Government Engineering Department (LGED) is renowned for its superior effectiveness compared with other public organizations in Bangladesh. Using the management and organizational theory framework, this paper attempts to answer the following two related questions: (i) why is LGED so effective, and (ii) has there been complementarity between LGED's own strengths and the capacity development support of its donors. LGED's business domain has been conducive to its effectiveness and to the mobilization of resources which it has used tactically to improve its effectiveness. LGED's main strengths have been in the organizational behavior elements, which were formed over time by the leadership and practices of the founding chief executive and his close associates, but LGED has also created a certain effective level of organizational structure. While weaknesses have persisted in procedures/rules of financial management, audit, quality assurance, etc, they have been balanced by the strengths in organizational behavior and structure, and further strengthened since the 1980s through capacity development support from donors. LGED is an interesting case because it has been successful without having fully adopted key recommendations of New Public Management on organizational management, such as transformation to agency, merit-based personnel management, and decompression of salary structure. In the final section of this paper, policy implications are presented for improving the performances of other public organizations in Bangladesh and for enhancing the performance of LGED.

**Keywords:** capacity development, public administration, organizational analysis, rural development, Bangladesh

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## **List of Abbreviations and Acronyms**

ADB: Asian Development Bank

ADP: Annual Development Program

CA: Capacity Assessment

CD: Capacity Development

ERG: Existence, Relatedness and Growth

GIS: Geographic Information System

GOB: Government of Bangladesh

ICT: Information and Communication Technology

ISAP: Institutional Strengthening Action Plan

ISO: International Standards Organization

ISP: Institutional Support Project

JICA: Japan International Cooperation Agency

LGEB: Local Government Engineering Bureau

LGED: Local Government Engineering Department

LGI: Local Government Institution

MANCAPS: Management Capability Strengthening Project

MLGRD&C: Ministry of Local Government, Rural Development and Cooperatives

MOFA: Ministry of Foreign Affairs

NPM: New Public Management

ORA: Operational Risk Assessment

PRSP: Poverty Reduction Strategy Paper

RDEC: Rural Development Engineering Center

REB: Rural Electrification Board

SIDA: Swedish International Development Cooperation Agency

SWOT: Strength, Weakness, Opportunity and Threat

T/A: Technical Assistance

## 1. Introduction

While there is a general consensus that public organizations in Bangladesh are inefficient, the Local Government Engineering Department (LGED) under the Ministry of Local Government, Rural Development and Cooperatives (MLGRD&C) is acknowledged to be one of the few exceptions. LGED is the organization in charge of planning and implementing rural, urban and small scale water resources infrastructure development projects. It also provides technical support to local government institutions (LGIs) to improve the country's socio-economic condition through infrastructure supply at the local level and stakeholder capacity building. LGED is one of the largest public sector organizations in Bangladesh, with a staff exceeding 10,000 and a development budget of 39.2bn taka<sup>1</sup> accounting for 14% (FY2009-10<sup>2</sup>) of the total development budget of the Government of Bangladesh (GOB).<sup>3</sup>

LGED's effectiveness is widely recognized by its donors as well as by the Bangladeshi people (e.g., MOFA 2006 and World Bank 2009). Technical assistance (T/A) and evaluation reports have identified leadership, decentralization and delegation, team work, and a strong work ethic as being among LGED's strengths. Many people praise in particular the strong leadership of Quamrul Islam Siddique, the founding LGED Chief Engineer<sup>4</sup> who served as architect of the organization since the 1960s. Over the past 30 years, many donors, including the Swedish Government, the World Bank, the Asian Development Bank (ADB) and the Japanese Government have extended assistance to LGED for capacity development (CD).

According to management and organizational theory and empirical research, for an organization to perform well, the major elements of strategy, organizational structure, and

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<sup>1</sup> US\$1= 70.4 taka (as of 30 November 2010; source: the Bangladesh Bank website)

<sup>2</sup> The fiscal year (FY) for Bangladesh runs from July to June of the following year.

<sup>3</sup> The description of LGED in this paragraph is based on LGED (2009b). See Table 1 regarding the development budget data.

<sup>4</sup> Chief Engineer is the title of the LGED chief executive.

organizational behavior all must function well.<sup>5</sup> The present paper considers broadly that the CD of public organizations in developing countries should strengthen these major elements of organizational management. It further hypothesizes that LGED is effective because its management elements function better than those of other GOB organizations, and that this is a product of LGED capacity in combination with donor assistance.

In pursuing this inquiry, through the management and organizational theory framework, the present paper attempts to answer the following two related questions: (i) Why is LGED more effective than other GOB organizations; and, (ii) how complementary have been donor assistance and LGED's own strengths. The contribution of this paper is in the following two points: Firstly, LGED presents an interesting and unusual case because it has been effective without having fully adopted key recommendations of New Public Management (NPM) on organizational management, such as the transformation of government organizations into agencies, merit-based personnel management, and decompression of salary structure. LGED is not an agency entity; its staff are civil servants; and its salaries and personnel matters are managed in accordance with GOB's civil service and salary rules. Secondly, while it has been suggested that the LGED model should be replicated in other GOB organizations (e.g., ISO et al. 1998a and MOFA 2006), very few studies have tried to explain the model's effectiveness using a coherent theoretical framework.<sup>6</sup>

The present paper is organized as follows: Section 2 explains LGED and outlines donor CD support to the organization. Section 3 reviews the relevant literature and presents the analytical framework. Section 4 contains the paper's main analysis, looking at LGED strengths and weaknesses from the perspectives of strategy, organizational structure and behavior, and the complementarity of donor assistance. Section 5 presents conclusions and policy

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<sup>5</sup> For example, Itami and Kagono (2003), "Balanced Scorecard," and the McKinsey "7S model."

<sup>6</sup> It may be natural that these T/A and evaluation reports did not explicitly apply the framework of management and organizational theory because their primary objectives were usually to identify achievements and LGED constraints, and to draw lessons from them.

implications.

## **2. LGED features and capacity development support by donors**

### **2.1 LGED features**

LGED currently performs the following major functions: (i) develops and maintains rural and urban infrastructure and small scale water resources infrastructure (refer to Annex 1); (ii) provides technical support to line ministries and LGIs;<sup>7</sup> (iii) provides human resources development for LGED, LGIs and other stakeholders; and (iv) creates planning maps, databases, technical specifications and manuals. LGED is a highly decentralized organization, where almost 99% of the staff work at either district or upazila (sub-district) levels. This decentralization is a key factor in its high implementation capacity in rural areas. LGED's role and tasks have been expanding, due to Bangladesh's development needs and to the organization's good performance. In FY2008-09, it implemented 66 projects funded by GOB (44) and donors (22), and 12 projects in agriculture and primary/mass education, among others, that were commissioned by other ministries.<sup>8</sup>

The origin of LGED dates back to the 1960s and implementation of the Works Program under the Comilla Model. The Engineering Cell was created in the 1970s and expanded to be the Works Program Wing in 1982. Then, in 1984 the Local Government Engineering Bureau (LGEB) was established with significantly strengthened status and autonomy. During this period also, the Upazila Decentralization Act (1982) strengthened the administrative structure at the upazila level, and external assistance to rural Bangladesh was oriented away from the relief operations of the 1970s toward sustainable rural development. In 1992, LGEB was upgraded to its current Department status so that it could receive and manage

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<sup>7</sup> In Bangladesh, local administration in rural areas is composed of four layers: division, district, upazila (sub-district) and union. In urban areas, city corporations and pourshava (municipalities) are in charge of respective jurisdictions. LGED supports the council and administration of pourshava, city corporation, district, upazila and union.

<sup>8</sup> This paragraph is drawn from the LGED website as of 20 December 2010, and LGED (2009b).

the Revenue Budget<sup>9</sup> for maintenance of rural infrastructure. The number of staff, which was 500-600 in early 1980s, grew to some 3,000 in 1992 and is now greater than 10,000 (FY2008-09). The budget also increased, with its share in Annual Development Program (ADP) allocation increasing from 10% (FY2000-01) to 14% (FY2009-10), one of largest shares among GOB's departments (Table 1).<sup>10</sup>

A main reason for LGED's reputation in Bangladesh for effectiveness is that it implements projects faster than other organizations, delivering project benefits more quickly. This is very much appreciated by project beneficiaries, local contractors, policy-makers and donors because Bangladesh's lack of basic infrastructure services and economic opportunities is due in part to slow bureaucratic procedures including decision-making. While there is considerable debate about how to measure the performance of a public organization (Ashworth et al. eds. 2010:1-6), Table 1 illustrates LGED's effectiveness through its utilization rate of the development budget. This measure has consistently been higher than that of GOB as a whole (LGED 98% and GOB 90% in FY2009-10).

**Table 1.** LGED's operational effectiveness

(Unit: billion taka)

	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
<b>LGED</b>										
Revised ADP allocation (A)	18.69	16.74	17.24	22.64	25.42	30.69	34.25	29.18	31.54	39.20
(% of GOB ADP)	10%	10%	10%	12%	12%	14%	16%	13%	14%	14%
Revised ADP expenditure (B)	17.50	15.32	16.22	21.76	24.44	30.26	31.26	25.36	29.96	38.37
(Utilization Rate: (B)/(A))	94%	92%	94%	96%	96%	99%	91%	87%	95%	98%
<b>GOB</b>										
Revised ADP allocation (A)	182.0	160.0	171.0	190.0	205.0	215.0	216.0	225.0	230.0	285.0
Revised ADP expenditure (B)	161.5	140.9	154.3	168.2	187.7	194.7	179.2	184.6	196.7	256.1
(Utilization Rate: (B)/(A))	89%	88%	90%	89%	92%	91%	83%	82%	86%	90%

Source: Made by author from the GOB and LGED data

Notes: The GOB data of 2000-01 to 2008-09 is from Appendix 17 of Bangladesh Economic Review (2009) and that of 2009/10 is from [http://www.mof.gov.bd/en/budget/adp/adp\\_july10.pdf](http://www.mof.gov.bd/en/budget/adp/adp_july10.pdf).

The LGED data was provided by LGED.

<sup>9</sup> GOB budget is broadly categorized into the Revenue Budget (for current expenditures, such as staff salary, maintenance, etc.) and the Annual Development Program (ADP) (for development expenditures).

<sup>10</sup> This paragraph is drawn from the LGED website as of 20 December 2010 and MOFA (2006, 8-9).

## 2.2 Capacity development support by donors

LGED began receiving donor support in the 1980s. The Swedish Government, the World Bank, ADB and the Japanese Government were the four main donors supporting its institutional strengthening while other donors provided various T/As (management support, staff training, etc.). This sub-section outlines coordinated CD support by the four major donors (see Table 2 for the timeline of LGED organizational change and the CD support).

**Table 2.** Change in LGED organization and major CD support

	Organizational change	Related events	Sweden	World Bank	ADB	Japan
1960s	Works Program					
1970s	Engineering Cell	The independence of Bangladesh(1971)				
1980s	Works Program Wing (1982) LGEB (1984)	Upazila Decentralization Act (1982) Rural Development Strategy (1984)				
1990s	LGED (1992)	Rural Infrastructure Strategy (1996)	ISP (1990 -2001)		MANCAPS (1994 -1998)	
2000s		PRSP-I (2005-07)  PRSP-II (2009-11)		ISAP (2002-08)  ORA (2008-09)		RDEC-1 (2002-05)  RDEC-2 (2007-11)

Source: Made by author from MOFA (2006), Wilbur Smith et al. (2008) and World Bank (2009)

Notes: PRSP: Poverty Reduction Strategy Paper

ISP: Institutional Support Project, ISAP: Institutional Strengthening Action Plan

ORA: Operational Risk Assessment, MANCAPS: Management Capability Strengthening Project

RDEC: Rural Development Engineering Center

Apart from the CD support, the four donors started their assistance for rural development implemented by LGED in the mid to late 1980s.

The Swedish Government (through Swedish International Development Cooperation Agency: SIDA) and other Nordic donors, working particularly through the Institutional Support Project (ISP), 1990-2001, supported institutional strengthening at headquarters and field levels for staff development, physical planning and mapping, and technical and management development (Wilbur Smith et al. 2008, 5). ISP helped strengthen LGED's institutional capacity in the initial stage by providing policy advice and resources to implement it. However a serious risk to LGED was created by over-dependence on ISP resources; circa 1998, some 70% of the headquarter officials were financed by ISP (ISO et al. 1998a, 21). In view of SIDA's prospective

phase-out, LGED was challenged by how smoothly it could cope with the transition.

A T/A called the Management Capability Strengthening Project (MANCAPS), 1994-1998, was provided by ADB with the objective of identifying requirements and making recommendations for institutional strengthening of LGED. Its key issues were how to ensure long-term organizational sustainability after the SIDA phase-out and after the founding Chief Engineer retirement because LGED was heavily dependent on both ISP resources and the Chief Engineer's strong leadership (ISO et al. 1998a). Under MANCAPS, institutional analyses were conducted and practical recommendations were made on institutional, financial, and engineering management aspects. Recommendations were made also for the long-term architecture of the organization, including a revised organizational structure, an organogram, and key position job descriptions. Some of the recommendations were implemented during the T/A period. This helped LGED move from ISP dependence toward more diversified resources. The main shortcoming to MANCAPS was that it did not provide financial means for implementing most of its recommendations.

Two T/As were provided by the World Bank, the Institutional Strengthening Action Plan (ISAP), 2002-2008, and the Operational Risk Assessment (ORA), 2008-2009. ISAP was based on MANCAPS findings and focused on improving LGED responsiveness in fulfilling its core task/competencies for rural infrastructure and LGI capacity building (Wilbur Smith et al. 2008). ISAP examined the following features: strategic framework, organizational development, financial management and internal audit, quality assurance and technical audit, maintenance and asset management, transport safety, and environmental and social mitigation management (Wilbur Smith et al.). Related short-, medium- and long-term agreed reform actions have been implemented. ORA identified weaknesses in risk mitigation and control systems, while still acknowledging LGED's excellent reputation. It examined the following areas: risks and recommended risk mitigation measures for internal organization, information and communication technology (ICT), engineering systems and work practices, financial

management, procurement, land use and resettlement, and strategy for communication and civil society participation (World Bank 2009). An ORA Implementation Plan was jointly prepared by LGED and the World Bank ORA team. Both ISAP and ORA recommendations are related mostly to the strengthening of LGED strategy, systems, procedures and standards. While the ISAP recommendations have been substantially completed, LGED must still mobilize financial resources for the implementation of most of the ORA Implementation Plan.

The preponderance of the Japanese Government support (through Japan International Cooperation Agency: JICA) consists of two phases of the Rural Development Engineering Center (RDEC) Technical Cooperation Project, 2002-2005 and 2007-2011. Phase 1 was initiated in conjunction with MANCAPS recommendations, and in coordination with ISAP it focused on the strengthening of LGED's technical aspects. Its major achievements were the following: creation of a rural development database and establishment of a library; revision of technical standards and/or manuals for planning, design and maintenance; upgrade of training system through needs assessment and set-up of technical training courses; production of an RDEC step-up plan and guidelines for its technical management; and provision of equipment for geographic information system (GIS), quality control and maintenance (MOFA 2006). At present, Phase 2 is being implemented with a main objective of developing the technical capacity of LGED engineers in the following areas: planning by GIS; construction design; quality control and maintenance; and project monitoring and evaluation. The RDEC project focuses on concrete technical CD support in combination with financial resources (meaning not simply advisory services), entrusting policy, strategic and managerial aspects to the World Bank T/As.

### **3. Literature review and analytical framework**

#### **3.1 Literature review**

Improvement in public service and public organization performance in both developed and developing countries have been studied for many years. Theories on public sector

performance, including NPM, have been based to large degree on management and organizational theory and on empirical research concerning the private sector, such as Deal and Kennedy (1982), Peters and Waterman (1983), Collins and Porras (1995), Collins (2001), Mintzberg (1993), Mintzberg et al. (1999), Robbins (1990), Robbins and Judge (2010) and Schein (2004).

Recently published Talbot (2010) and Ashworth et al. eds. (2010) discuss the public sector performance of developed countries in response to growing interest in public sector effectiveness. Talbot integrates a wide range of social science theories and empirical evidence into a coherent explanation of public sector performance, and presents a framework for understanding what shapes it: (i) the external performance regime within which public organizations operate (i.e, institutional context and interventions); (ii) organizational performance models (i.e, the internal managerial factors of an organization); and (iii) competing public values (i.e, solidarity, equality and equity, authority, and autonomy) that frame both of these and shape what the public expects in terms of public services. Ashworth et al. (eds.) investigates the theoretical and empirical validity of various mechanisms for improving public service, including the external environment (i.e., organizational environment and regulations), organizational characteristics (i.e., strategic planning, leadership, culture, and human resource management), and organizational strategies (i.e, innovation, collaboration and learning). They conclude that “the extent of theoretical validity is generally strong, but varies across the improvement mechanisms” (p.216). Regarding empirical validity, their work reveals “that a munificent, simple and stable organizational environment has a clear and positive impact on the improvement of public service, and that strategic planning, regulation, collaboration and organizational learning are associated with public service improvement” (p.216).

Regarding developing countries, Krishna et al. eds. (1997) and Uphoff et al. (1998)

analyzed successful rural development agencies and programs.<sup>11</sup> Examining exceptionally well-functioning public organizations in weak governance states (“pockets of effective organizations”), Leonard (2010) condensed existing hypotheses into five meta-hypotheses, two of which are concerned with internal characteristics of the organizations and the rest are related to contextual political-economy conditions.

Capacity assessment (CA) tools for recipient governments, public organizations and communities in developing states are prepared by donor organizations based on their operational priorities (JICA 2008, 106-133). CA tools for public organizations usually are drawn on the framework and elements of management and organizational theory, with due consideration given to the characteristics of the developing countries and their public sectors. JICA (2008, 18-19), for example, proposed that CA of public organizations be conducted in four aspects: human resources, management (strategy, organizational design and organizational culture), external environmental elements, and input resources.<sup>12</sup>

Talbot, Ashworth et al. (eds.), and Leonard cover a wide range of determinants of public sector performance. They find that internal managerial factors have been relatively more studied than external factors, such as performance regime and public values (in Talbot’s terms). Regarding the managerial factors, however, Talbot’s multidimensional performance model is tentative (p.215); Ashworth et al. (eds.) indicates mixed validity of existing theories, as indicated above; and what Leonard presents is meta-hypotheses. It is instructive to add another example of a well-functioning organization in a developing country analyzed in terms of management and organizational theory: LGED.

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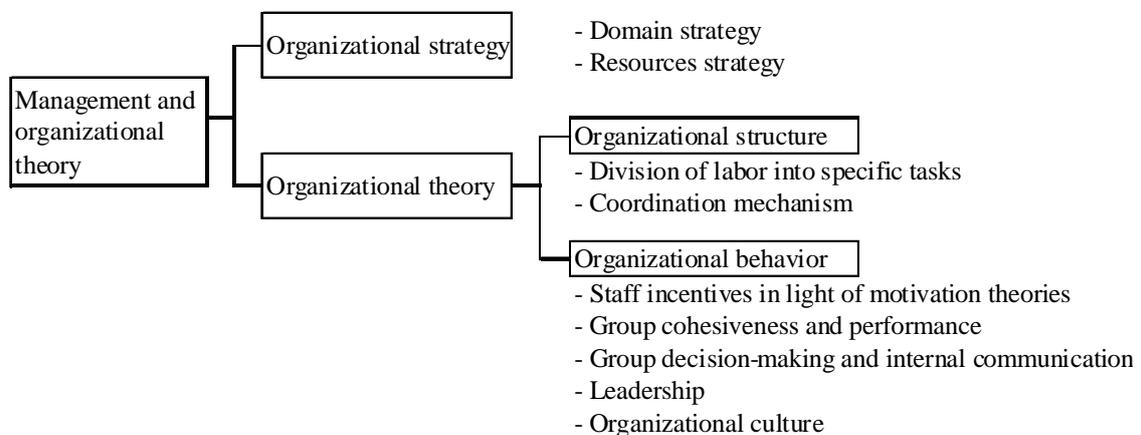
<sup>11</sup> These two analyses included Grameen Bank and Bangladesh Rural Advancement Committee (BRAC) from Bangladesh, but not LGED.

<sup>12</sup> Other donors, such as the Inter-American Development Bank, the Department for International Development, and SIDA, have similar CA frameworks.

### 3.2 Analytical framework

The focus of this paper is the internal managerial aspects of LGED, although the author is aware of growing argument that it is external political and institutional factors which influence or determine public sector effectiveness (Talbot 2010 and Leonard 2010). Bangladesh's political and institutional factors generally are not conducive to effectiveness in its public sector;<sup>13</sup> therefore, other factors – i.e, managerial factors – are likely to be the main sources of LGED's superior performance. This paper explicitly applies the framework of management and organizational theory, with necessary adjustments, to the public sector context. In general, the framework is composed of organizational strategy and organizational theory (in the broad sense); with the latter usually further divided into organizational structure and behavior (Figure 1).

**Figure 1.** Analytical framework



Source: Made by author from Sakakibara (2002), Numagami (2004), and Itami and Kagono (2003)

<sup>13</sup> Some literature cited in this paper does look to some extent into the political and institutional aspects of Bangladesh (for example, World Bank 1996). Some donors already are implementing various public sector reform programs and are asking GOB to eliminate certain time-consuming bureaucratic procedures.

### *Organizational strategy*

Organizational strategy – defined as the “fundamental decisions of an organization for achieving its mission, objectives, and goals” - is indispensable for giving direction to staff and others to encourage effective collaboration (Otaki et al. 2006, 5). For private firms, an organizational strategy is usually composed of domain, resources, and competition strategies (Sakakibara 2002, 36-38). The LGED organizational strategy was established in 2006, with help from the World Bank ISAP, so it is still quite new and as yet has had little real impact on performance. The present paper investigates how the “de-facto” domain and resource strategies of LGED have affected its performance. LGED as a government department has almost nothing to do with competition strategy.

### *Organizational theory*

Organizational theory in the broad sense includes both organizational theory in the narrow sense – also known as organizational structure<sup>14</sup> – and also organizational behavior, although these two cannot be completely separated. Organizational structure is concerned with the division of labor and associated coordination mechanisms and how structure affects an organization’s effectiveness while organizational behavior is concerned with the behavior in an organization of employees as individuals and also when functioning as groups.<sup>15</sup>

The purpose of studying the behavior of individual employees is to understand how they can be motivated to do what is required for the organization to perform well. Students of management have established various motivation theories which guide the design of incentives and human resources management. Regarding groups, organizational behavior theory deals with mechanisms of collective decision-making, internal communication systems, and factors which enable groups to function better within the organization: leadership, organization culture,

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<sup>14</sup> Hereafter, “organizational structure” is used to mean the narrow sense of organizational theory.

<sup>15</sup> This paragraph is based on Sakakibara (2002, 23), and Robbins (1990).

power structure, internal conflict resolution, managerial skills, etc.<sup>16</sup> The analytical concept of internal groups is applied to LGED as a whole to understand how overall performance is affected by cohesiveness, collective decision-making and internal communication, leadership, and culture.

#### *Inter-relation and trade-offs of management elements*

In terms of management elements, there are two issues which require attention. Firstly, for an organization to function well, all the major elements of organizational strategy, organizational structure, and behavior must function well. McKinsey & Company's 7S-model emphasizes this point. Secondly, what is the best way to cope with management trade-offs? Collective decision-making has merits, such as better utilization of more knowledge; but it is often time-consuming. Awarding more benefits to employees may motivate them; but costs will increase. Such trade-off issues are even more complex in LGED than in private firms because LGED is subject to the rules, regulations<sup>17</sup> and budget constraints of GOB.

### **3.3 Methodology**

The methodology of this study is mainly review of published T/A and evaluation reports prepared by donors, review of LGED Annual Reports, and interviews with LGED officers and with donors.<sup>18</sup> The author also drew on his own field experience (April 2007 to March 2009) supervising Japanese ODA-funded projects implemented by LGED. The reports reviewed are ADB MANCAPS final reports (ISO et al. 1998a and 1998b), Japan/Bangladesh joint program evaluation of Japanese assistance implemented by LGED (MOFA 2006), ISAP

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<sup>16</sup> The contents of this paragraph up to this sentence are based on Sakakibara (2002, 50).

<sup>17</sup> For example, promotion and remuneration of LGED staff is subject to rules applied to all GOB civil servants. The creation and staffing of new positions need approval from relevant ministries including the Ministry of Establishment.

<sup>18</sup> This was done in August 2009. The LGED officers were Md. Shahidul Hassan, former Chief Engineer, the present Chief Engineer, the Superintending Engineer (Administration), and the Project Director (Eastern Bangladesh Rural Infrastructure Development Project). The author interviewed the World Bank and ADB officers in charge of LGED projects.

final report (Wilbur Smith et al. 2008), and ORA final report (World Bank 2009). In this author's field survey in August 2009, LGED officers and donors suggested that these reports be referenced, and their contents were validated during interviews. The reports are well-balanced, with input from a wide-range of stakeholders and LGED ownership of the studies, and they reflect the views of LGED, donors, and management specialists. While the reports appear to provide ample evidence of LGED's effectiveness in terms of strategy, organizational structure and behavior, the author recognizes that reliance on the existing literatures is a limitation of this study.

#### **4. Analysis of LGED in light of the management and organizational theory**

This section analyzes reasons for LGED's effectiveness and the contribution of donor support in light of the management and organizational theory – i.e., organizational strategy, structure and behavior.

##### **4.1 Organizational strategy**

There was no formal charter of duties for LGED as an organization until recently (ISO et al. 1998a, 34-38). The Rural Development Strategy (1984) and the Rural Infrastructure Strategy (1996) were long considered to be the LGED strategies for these areas. ISO et al. (1998a and 1998b) recommended that a long-term vision for LGED and 18 strategic plans be formulated, and in 2006 ISAP proposed a mission, vision and strategic plans (See Annex 2). The relevance of LGED's organizational strategy to its performance has never been adequately analyzed, probably because it did not exist in a written form until quite recently.

##### **4.1.1 Domain strategy**

Domain strategy is the decision taken on the scope of an organization's business activities; whether an organization grows or shrinks depends on the selection of domain (Otaki

et al. 2006, 33). ISO et al. (1998a) notes that LGED is in an advantageous situation because it is in charge of rural development, a task which has been prioritized by GOB and donors and which consequently attracts necessary resources. Private firms decide their business domains based on such criteria as potential for growth of the domain, competitiveness of the firm in the domain, and ripple effects to other business areas (Itami and Kagono 2003, 101). Business domain also affects organizational structure and culture (Numagami 2004, and Deal and Kennedy 1982). In this paper, we examine the broader implications of an organization's domain, focusing in this sub-section on the implications for LGED of the domain designated to it by GOB.

#### *Implications for organizational structure*

The first implication relates to organizational structure, specifically to decentralized management. Rural infrastructure projects implemented by LGED are comprised of feeder roads, bridges/culverts, and village markets, among others, spread across the country which is transversed by numerous rivers. The Eastern Bangladesh Rural Infrastructure Development Project, funded by a Japanese ODA loan, for example, is constructing or improving some 140 road sections, 67 village markets, 18 boat landing facilities, among others, in an area that covers 9 administrative districts. The construction period for individual schemes is usually one to two years. It is impossible – and if possible very inefficient – to centrally plan, implement and monitor the numerous small project activities in a country like Bangladesh where transportation and telecommunication systems have not been developed adequately. Therefore, it was reasonable for LGED to set up local offices in rural areas and to decentralize functions and decision-making authority.

#### *Implications for organizational learning*

The second implication relates to organizational learning. In general, the smaller the

batch size of business activities, the faster the firms/employees can receive responses from consumers, detect failures in production processes, and note technological changes. If this information is quickly transmitted to relevant units and staff, the learning speed of the organization increases (Numagami 2004, 151-160). LGED has successfully built a fast-learning organization by taking advantage of the characteristics of its own activities, i.e. many small interventions with short execution periods. ISO et al. (1998a, 18) stated that “LGED has shown a remarkable willingness in ever modernizing itself with regard to technical developments and computer applications, ...the organization has quickly adapted itself to new experiments, technologies...”

#### *Implications for organizational culture*

Deal and Kennedy (1982, 156-188) argue that the socio-economic environment of an organization as well as its business domain influences its culture. They classify organizational culture into four according to two factors: the degree of risk associated with company activities; and, the speed at which companies – and their employees – get feedback on whether decisions or strategies are successful (Table 3). The risk associated with individual rural infrastructure, such as roads, bridges, and markets, is very small relative to LGED as a whole. Since the construction period for rural roads and markets is on average less than two years, the results, including development impact and response from beneficiaries, become known to LGED relatively quickly. Although Deal and Kennedy generally categorize government as a “process culture,” LGED seems to have a “work hard/play hard culture.” As defined in Table 3, the characteristics of a “work hard/play hard culture” appear suited to faster implementation of rural infrastructure, a possible reason for LGED’s effectiveness.

**Table 3.** Classification of organizational culture by Deal and Kennedy (1982)

		Speed of feedback on results of decisions or strategies	
		quick	slow
Degree of risk associated with the company's activities	high	<p><i>"Tough guy macho culture"</i></p> <p>A world of individualists who regularly take high risks and get quick feedback.</p> <p>&lt;industries&gt; construction, venture capital, advertising, entertainment, etc.</p> <p>&lt;characteristics&gt; toughness, speed (not endurance), severe internal competition, short-term orientation, etc.</p>	<p><i>"Bet your company culture"</i></p> <p>Cultures with big-stakes decisions where years pass before employees know the results.</p> <p>&lt;industries&gt; capital-goods, oil, mining, investment bank, etc.</p> <p>&lt;characteristics&gt; sense of deliberateness; analytical decision-making through meetings; focus on future; stamina to endure long-term ambiguity; authority and technical competence; maturity, etc.</p>
	low	<p><i>"Work hard/play hard culture"</i></p> <p>Fun and action are the rule. Employees take few risks, all with quick feedback. The culture encourages them to maintain a high level of relatively low-risk activity.</p> <p>&lt;industries&gt; sales, manufacturing, etc.</p> <p>&lt;characteristics&gt; Activity is everything; persistence; focus on customers and their needs; team work; volume; stamina, etc.</p>	<p><i>"Process culture"</i></p> <p>A world of little or no feedback; instead they concentrate on how it's done. This is called bureaucracy.</p> <p>&lt;industries&gt; power, insurance, financial-service, government, utilities, etc.</p> <p>&lt;characteristics&gt; technical perfection; getting process and the details right; protectiveness and caution, etc.</p>

Source: Made by author from Deal and Kennedy (1982:107-123) with reference to Sakakibara (2002:92)

LGED's business domain (numerous small rural infrastructures spread over the country) has implications for resources mobilization, management decentralization, organizational learning, and culture. Nonetheless, the possibility remains that the contribution a business domain makes to an organization's effectiveness depends on still other factors, including the decisions of top management. Public organizations with similar business domains do not necessarily perform as well as LGED, perhaps because their management style is different from that of LGED. The LGED business domain may have had a positive impact because the decisions and business practices of top management have been compatible with the domain characteristics.

#### **4.1.2 Resources strategy**

Resources strategy in management theory usually deals with decisions by which private firms acquire resources in competition with other firms and by which the resources are then allocated. LGED is a public entity, so its acquisition and resource allocation behavior is different from that of private firms. LGED gets financial resources from GOB and from donors on the basis of their development priorities for Bangladesh. Consequently, the possibilities for competition with other GOB organizations are quite limited. Due to GOB rules and donor requirements, there is also limited discretion for the allocation of the acquired resources. These features regarding acquisition and allocation of resources are particular to LGED.

##### *Resource mobilization*

LGED's budget and share (Table 1) and its human resources have been increasing steadily, which suggests that LGED's resource mobilization has been successful despite demands from other sectors and resource constraints of GOB. As previously mentioned, rural development, LGED's area of activity, is a sector much needed by the rural poor; therefore, it has great potential to receive resources from both GOB and donors. What are the factors that enable LGED actually to receive those resources?

The first factor is timely project implementation. That LGED implements projects with less delay than other GOB organizations is evident in LGED's higher budget utilization rate (Table 1). The second factor is the speediness of the impact evaluation. The recent trend emphasizing results-based budget allocation and assistance means that these two factors contribute to enhancing LGED resources. Thirdly, LGED has been adept in obtaining foreign assistance by taking advantage of the donor priority of pro-poor development. The Government of Sweden was the first to extend major foreign assistance. In 1984 LGED's founding Chief Engineer invited the then-Swedish Ambassador to rural Bangladesh and convinced him that assistance was necessary (MOFA 2006, Annex 10), an event which

launched long term donor assistance by way of LGED to Bangladesh rural development. In FY2008-09, 22 projects (33%) were foreign-funded and the foreign share in LGED's ADP allocation was 42% (LGED 2009b, 6-7).

### *Resource allocation*

How have acquired resources been used apart from investment in and maintenance of rural infrastructure and normal operating expenses? In comparison with the GOB-funded projects and the Revenue Budget, donor-funded projects provide broader financial spaces to accommodate LGED's need for capacity development.

LGED has used foreign funds tactically to build its capacity. The first tactical use is staff competency development, which is one of LGED's most striking characteristics (ISO et al. 1998a and MOFA 2006). Competency development is cost-effective for LGED because it works not only by improving staff capacity, but also by functioning as staff incentive. The second tactical use is supplementing human resources with contracted consultants. Due to GOB budget limitations, regular staff cannot easily be increased to meet a rapid increase in work volume. Consultants and experts, available through donor T/A, can be used to meet the shortfalls in terms both of numbers and technical expertise;<sup>19</sup> furthermore, they contribute to technology transfer.

The third tactical use is the construction of office space and other facilities. LGED's current headquarters was funded by the World Bank and ADB, and the RDEC building was funded partly by Japanese ODA. LGED has utilized foreign assistance funds also to acquire ICT facilities, associated software, project monitoring vehicles, etc. This has all contributed to the effectiveness of day-to-day operations by reducing coordination costs. The office premises are also a source of pride and motivation for the staff (ISO et al. 1998a, 19-20).

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<sup>19</sup> According to Shahidul Hassan, former Chief Engineer, it is not possible to employ certain specialists at the salary level of a GOB civil servant. In this situation, LGED funds the employment through foreign assistance (Author interview in August 2009).

### **4.1.3 Summary**

We have looked at de-facto domain and resources strategies. Because LGED's business domain, i.e., rural infrastructure, is important to the pro-poor growth of Bangladesh, if properly managed the organization is in a position with good potential to receive resources. Because it is effective and has development impact, LGED has in fact received an increasing share of both GOB budget and donor assistance. The business domain of many small interventions throughout the country is conducive also to a decentralized organizational structure, faster organizational learning, and a dedicated team-work culture. In its use of resources, LGED has emphasized the development of staff competency, construction of office space and ICT investment, all of which not only improve its effectiveness, but also motivate its staff.

## **4.2 Organizational structure**

Organizational structure is here defined as the system within an organization for dividing labor and coordinating among the divided tasks. With the exception of very small organizations, division of labor is common practice to achieve operational efficiency, and the coordination of the divided tasks is essential for arranging them in such a way that the organization can produce outputs.<sup>20</sup>

### **4.2.1 Division of labor system**

#### *Theory of division of labor system*

Activities in an organization are fragmented into tasks horizontally and vertically in terms of function and specialization, and then assigned to individual staff. While division of labor has merits, such as economy of scale and increased staff skills, it can also have

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<sup>20</sup> This paragraph is based on Itami and Kagono (2003, 261).

drawbacks, including reduced motivation because of work simplification and occurrence of internal conflicts. The degree of division has to be determined with due attention to these possibilities. Vertical division is related mainly to the degree of centralization or decentralization of decision-making authority. There are strengths and weaknesses associated with centralization and decentralization – in terms of speed of decision-making, quantity and quality of information available for decision-making, and feelings of independence and participation by staff, among others – which should be considered in deciding the degree of each.<sup>21</sup>

### *The LGED Organogram*

Figure 2 is a condensed version of the LGED Organogram (as of 7 April 2009)<sup>22</sup> which gives the basic information on its organizational structure. LGED consists of a head office and three-layer local offices. The head office is organized by function. Under the Chief Engineer, there are five Additional Chief Engineers – for maintenance, implementation, urban management, planning, and education. The Additional Chief Engineers' tasks are divided among eight Superintending Engineers and their tasks are further sub-divided among 19 Executive Engineers. Some specialists, such as a urban planner, an architect, and a transport economist, are attached to the Additional Chief Engineers and the Superintending Engineers who are in charge of those respective fields. The head office has 15 functional units.<sup>23</sup> Apart from these line staff, officers at the Executive Engineer level are appointed as project directors

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<sup>21</sup> This paragraph is based on Itami and Kagono (2003, 262-266).

<sup>22</sup> Note that this organogram as of 7 April 2009 (provided by LGED to the author in August 2009) is a little different from the actual organogram in the LGED website as of 20 December 2010. The differences are due to the fact that the former includes some positions which still need to be approved by relevant ministries. Nevertheless, the author used the former in this paper since it gives a more detailed picture of LGED than the latter.

<sup>23</sup> Planning Unit, Monitoring and Evaluation Unit, Training Unit, Design Unit, GIS Unit, MIS (Management Information System) Unit, Maintenance Unit, Procurement Unit, Urban Management Support Unit, IWRM (Irrigation and Water Resources Management) Unit, Road Safety Unit, Quality Control Unit, Library, Map Library, and Digital Library (Source: the LGED website as of 20 December 2010).

for particular projects and lead the associated project teams, although these are not indicated in the Organogram.

The local offices are set-up as three-layer hierarchies: regional, district and upazila. Regional offices were created nation-wide to monitor and supervise the activities of district offices.<sup>24</sup> Bangladesh is divided into ten regions, each with an office headed by a Superintending Engineer (at the regional level) who is supported by 6 positions. District offices are deployed, one in each of sixty-four districts, for basic functions that include planning and implementation of LGED projects, related financial management, and supervision of the activities of upazila offices in the district. Each district office is headed by an Executive Engineer who has 12 or 13 staff. The 482 upazila offices are distributed throughout the country. Their basic function is the planning and implementation of LGED work and related financial management at their level. Each upazila office is headed by an Upazila Engineer with approximately 18 support staff.

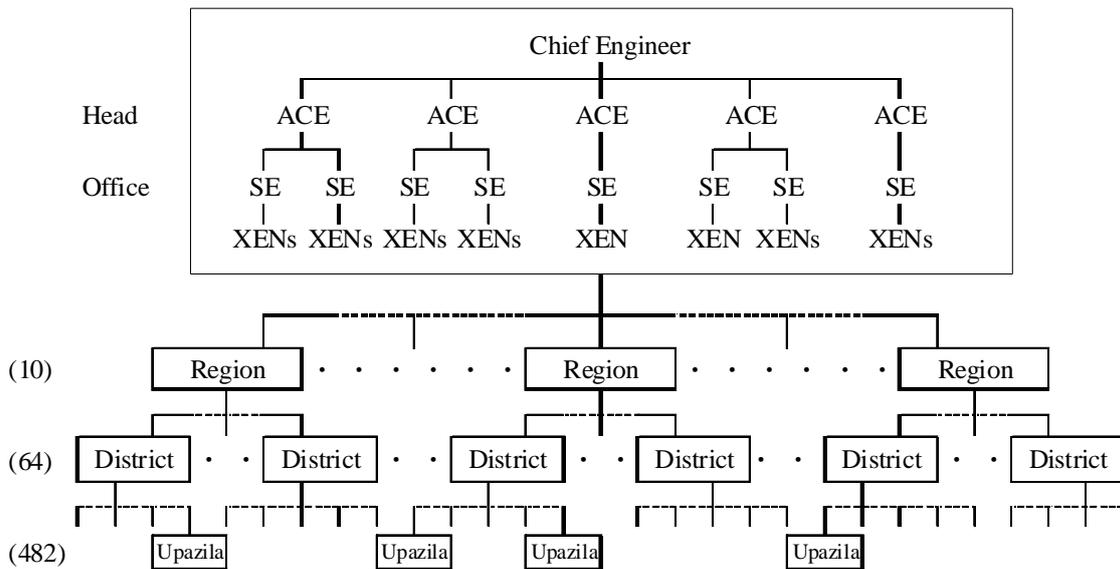
According to LGED, a broad vertical division of labor has been created between the head office and the local offices as follows: Both the head and regional offices give direction to the district and upazila offices and supervise and monitor their activities. The district and upazila offices are principal agents for the planning and implementation of LGED projects. Decision-making authority regarding procurement, financial management, etc. below a certain value is largely delegated to them.<sup>25</sup>

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<sup>24</sup> The creation of Circles (or regional offices) was recommended by ADB's MANCAPS to reduce the workload of the headquarters and to strengthen monitoring function at the local level.

<sup>25</sup> Author interview in August 2009

**Figure 2.** The LGED Organogram



Source: Made by author from the LGED Organogram as of 7 April 2009

Notes: The numbers of the respective offices are in parentheses.

ACE: Additional Chief Engineer

SE: Superintending Engineer

XEN: Executive Engineer

*Assessment of the LGED division of labor system*

It is not immediately clear whether the system of horizontal and vertical division of labor in itself is efficient because much depends on the coordination mechanism. But at this stage, two problems should be noted. Firstly, as World Bank (2009) pointed out, the head office structure is complex and should be reorganized, a recommendation with which LGED agrees. There are, for example, three Additional Chief Engineers directly concerned with works programs: urban management, planning, and education. While the two Additional Chief Engineers for urban management and education are in charge only of those respective sectors, Additional Chief Engineer for planning supervises two Superintending Engineers for water resources management, and for planning and design. Under the latter Superintending Engineer, there are an Environmental Engineer, and three Executive Engineers for design, planning, and GIS, respectively. This complicated situation stems from delay in creating new positions despite an increase in tasks. There is clearly a need for realignment of the head office

organization.

Secondly, in the geographically parallel division of labor system which LGED adopts, there is a risk of an overload of supervisory responsibility on higher officials when the number of lower-tier units proliferates (Numagami 2004, 48-51). The geographically parallel division of labor is suitable for executing standardized activities in different places simultaneously. The background in which this type of division works effectively for LGED is the nature of its business domain; a number of small rural interventions requiring limited coordination between divisions and between upazilas.<sup>26</sup> We will look into this point in the next sub-section.

#### **4.2.2 Coordination mechanism**

##### *Theory of coordination mechanisms*

In large organizations the following coordination mechanisms generally are found: (i) standardization, (ii) hierarchical supervision and coordination, (iii) business environment management, (iv) slack resources creation, and (v) complementary horizontal mechanism (Numagami 2004, 87-88 and 220). In addition, the utilization of ICT helps coordination. This sub-section deals mainly with (i), (ii) and (v) above as particularly relevant to LGED.

Standardization is to determine in advance processes, outputs and inputs through manuals and rules so that outputs of individual tasks can be easily integrated into organization output. Standardization of process is to decide in advance and control how individual tasks will be conducted; and that of output is to determine in advance and control what will be produced by individual tasks. Standardization of inputs is to ensure uniform skills and knowledge through staff recruitment and training and through utilization of qualified external experts. While standardization is a powerful coordination tool, it has limitations because exceptional situations cannot be predicted in advance and because there is risk that rules will be applied too

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<sup>26</sup> A number of small rural infrastructures require minimum coordination between districts; if needed, it is most probably only between neighboring upazilas.

rigidly.<sup>27</sup>

Under hierarchical supervision and coordination, a unit manager coordinates activities and solves exceptional cases in his/her unit. While this serves to simplify coordination, there is a weakness because any manager has only a limited span of control and only limited ability to deal with exceptional cases. Remedies include capacity building of the manager and staff, and deployment of staff to support coordination efforts. Another possibility is to divide an organization into independent units and delegate maximum authority to them, thereby reducing need for coordination among units. The grouping of units by products, customers or regions is considered one way to create independent units.<sup>28</sup>

Nonetheless, when an organization is grouped into units, some coordination mechanism among those units is necessary. Such complementary horizontal mechanisms include (i) ad-hoc direct negotiation among officers-in-charge, (ii) creation of liaison officers, (iii) periodic meetings among officers-in-charge, (iv) creation of the post of “brand managers”<sup>29</sup> and (v) matrix organization.<sup>30</sup>

#### *Assessment of LGED’s coordination mechanisms*

Standardization: LGED standardizes process and outputs through a number of manuals and guidelines prepared in part through T/As provided by donors. Because LGED has been weak in standardization of process and outputs, donor support has emphasized preparation of manuals and guidelines regarding rules of financial management and audit quality assurance, among others (see sub-section 2.2 above). GIS and the mapping system also have contributed to inputs standardization by providing computerized identical information to all staff.

LGED is strong in the standardization of the inputs side through staff training.

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<sup>27</sup> This paragraph is based on Numagami (2004, 87-126) and Sakakibara (2002, 116-119).

<sup>28</sup> This paragraph is based on Numagami (2004, 284-285), and Itami and Kagono (2003, 266-267 and 275).

<sup>29</sup> They are also called product managers or project managers (Numagami 2004, 249).

<sup>30</sup> This paragraph is based on Numagami (2004, 233-277), and Itami and Kagono (2003, 268-269).

LGED places great importance on competency development and provides training at all levels in a variety of areas: project management, ICT, financial management, quality control, construction technologies, etc. Training is also held at the district, upazila and union levels, depending on the situation (LGED 2009a, 55 and LGED 2008, 1). Training has a long history in LGED, dating back to 1982, and is reflected in a management principle espoused by Shahidul Hassan, former Chief Engineer during his tenure: “Both mechanics and men behind the mechanics are essential in good organizational management.”<sup>31</sup> LGED-offered training for stakeholders – including LGI officials, NGOs, contractors, consultants, and beneficiaries – has contributed to the standardization of various aspects of LGED’s work (planning, maintenance, quality, etc), thereby reducing coordination costs. More than 90% of the people trained are other than LGED staff (LGED 2009a and 2009b). Through training, the capacity of LGED has been scaled up more broadly to stakeholders concerned with rural development.

Hierarchical supervision and coordination: Except for the complications related to the headquarters, the LGED hierarchy appears to be well established in the organization overall and in the regional/district/upazila offices. Particularly at local levels, the offices do not usually require horizontal coordination; they can, therefore, focus on internal and vertical coordination. There are a few problems regarding span of control. Firstly, the staffing of regional, district, and upazila offices are almost the same across respective levels despite different local situations (area, population, geography, projects to be implemented, etc.). Although more experienced officers are assigned to areas with higher workloads, there is room for greater flexibility in the staffing of local offices. Secondly, LGED has been reliant on a strong work ethic among staff members from top to bottom. ISO et al. (1998b, 15-18) stated 10 years ago that “the management span of the Chief Engineer over professionals is about 1:81 and for most Superintending Engineers the corresponding figure is 1:67.” This is the problem arising from the geographically parallel division of labor mentioned at the end of the sub-section 4.2.1.

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<sup>31</sup> Author interview in August 2009

Although this extraordinary overload situation of a decade ago has been mitigated through organizational restructuring and expansion, higher management officials continue to work late and on weekends; and according to the author's observation, their subordinates do the same.

Complementary horizontal mechanism: Complementary horizontal mechanisms that have been institutionalized in LGED in line with organizational theory function well. Firstly, the physical setting of office premises, vehicles, and communication devices make communications direct, easy and smooth on a daily basis. The integrated head office readily accommodates face-to-face communication with and among consultants and experts working with donor T/A projects. Secondly, there are frequent visits to the field and to district offices by headquarter executives and by the Executive Engineers at district offices. LGED is one of the rare government organizations, where staff members at same and different levels are frequently in touch with each other, both formally and informally through various channels, which serves as glue of the organization (MOFA 2006, 42).

LGED has regular monthly and weekly meetings chaired by the Chief Engineer and attended by the relevant officers. At these meetings on-going projects and operations are reviewed, problems are discussed, and solutions are adopted. According to LGED high level officials, this meeting mechanism is one of the most powerful tools for swift problem solving.<sup>32</sup>

LGED's usual practice is to appoint a Project Director for each project. The Project Director is given considerable decision-making authority and coordinates project related issues with GOB ministries, headquarters units, regional/district/upazila offices, contractors/consultants, donors (if foreign funded), and any other stakeholders. In principle, the same officer (at the Executive Engineer level or above) continues to serve as the Project Director from the beginning of the project (project identification and preparation stage) to the end. This is in a sharp contrast with other GOB organizations, where Project Directors are

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<sup>32</sup> Author interview with the current Chief Engineer in August 2009.

frequently replaced due to regular personnel rotation, hampering project implementation.

#### **4.2.3 Summary**

LGED is decentralized. Almost 99% of its staff are deployed to local areas, and authority is delegated to local levels. The head office is organized by function, and local offices are setup in a three-layer hierarchy (region, district and upazila) in which coordination is simplified mostly in the vertical direction. LGED has institutionalized excellent coordination mechanisms, including the use of ICT, in keeping with organizational theory. LGED standardizes processes, outputs and inputs; but its particular strength is in standardization of inputs: training of staff and other stakeholders, including beneficiaries and contractors. It has institutionalized clear hierarchical supervision and coordination in each unit and the necessary complementary horizontal mechanisms: direct communication and coordination among concerned staff, monthly/weekly meetings, and a project director system.

The main weakness of LGED has also been in organizational structure. To overcome this weakness, donors have provided T/A for the preparation of manuals and guidelines regarding planning, financial management, quality control, ICT, GIS, etc. In addition, the World Bank has recommended realignment of the headquarters office structure. The weaknesses of LGED's organizational structure, however, have been compensated for by organizational behavior, as explained in the following sub-section.

### **4.3 Organizational behavior**

This sub-section analyzes major elements of organizational behavior - staff incentives, group cohesiveness, group decision-making and internal communication, leadership, and culture (refer to Figure 1). As discussed below, all are deeply related to LGED's performance.

#### **4.3.1 Staff incentives in light of motivation theory**

Motivation theory analyzes factors which encourage individual staff members to make the high-level efforts required to achieve their own and the organization's goals. There are various motivation theories, from the classical (e.g., Hierarchy of needs theory, Theory-X and theory-Y, and Motivation-hygiene theory, etc.) to the modern (e.g., ERG theory, Needs theory, Equity theory, Expectancy theory, etc.). The incentive systems of many organizations are designed with reference to these motivation theories. But while incentives can motivate staff to work hard and realize higher performance, there are limits to the provision of incentives because of constraints on financial resources and positions. Organizations, therefore, must balance the necessity of higher performance against the cost for granting incentives to employees.<sup>33</sup>

Because LGED is subject to rigid GOB rules and regulations on personnel management and remuneration, there are limitations on the degree to which good performance by its staff can lead to early promotion and/or higher salary. The excellent aspect of LGED's incentive system, however, is that within these limitations it exercises maximum latitude to devise and give incentives to its staff. Followings are examples of this:

- (i) Early promotion of well performing officers through recommendation by top management: In GOB, the most important factor in staff promotion is seniority rather than competence and performance. Although this principle generally is followed by LGED, this organization is more positive than others in promoting competent officers (MOFA 2006, 43).
- (ii) Private use of official vehicles: Staff members above a certain level are allowed the private use of official vehicles provided that they bear the charges.<sup>34</sup> This is a monetary incentive that works well because government employees have difficulty

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<sup>33</sup> This paragraph is based on Sakakibara (2002, 60-61) and Itami and Kagono (2003, 301-320).

<sup>34</sup> This arrangement is in accordance with GOB rules.

purchasing automobiles due to the high prices.

- (iii) Training opportunities (overseas and domestic): While the main objective of training is to develop the knowledge and skills of staff, it is also an incentive for those who value self-development through their work (Hierarchy of needs theory). Overseas training opportunities have been a huge incentive for LGED's staff.
- (iv) Official recognition and awards for good performance in projects/activities: One example of this is the ADB annual award, which is awarded to LGED projects and staff almost every year. Official recognition and awards cost little for the organization; but for staff members, they help satisfy their need for recognition and increase their chances for early promotion.
- (v) Services provided by the employees' welfare association: The staff welfare association, which is a special feature of LGED, provides mutual aid among staff members for emergency needs (such as medical treatment and children's education), and to provide common facilities (such as an ICT center and guesthouse) and joint recreational opportunities (MOFA 2006, 44).
- (vi) Well-equipped office premises: The head office, including RDEC, is well equipped with various facilities (ICT equipment, conference and meeting rooms, air conditioners, etc.) to support good and efficient work by the staff (MOFA 2006, 44). LGED district office compounds also are well developed and equipped.

In addition to the above, delegation of decision making authority is a motivating factor for staff. On the other hand, low performance and staff irregularities are strictly penalized. LGED (2009a:51-52) states that the "highest importance has been given to performing LGED's overall activities including implementation of development programmes in a highly disciplined order." Disciplinary actions that have been taken are in the annual report.

### 4.3.2 Group cohesiveness and performance

Group cohesiveness is defined as the degree to which members of some group attract each other and strive to stay a part of the group. The productivity of a group is influenced by its cohesiveness which is determined by length of time members spend together, difficulty in being admitted to the group, size of the group, gender structure, any external threats to the group, and success experiences. When group cohesiveness and performance-related norms both are high, the productivity of the group also is high. If group cohesiveness is high but performance related norms are low, however, productivity will be low because the group is apt collectively to slow its work (Table 4).<sup>35</sup>

**Table 4.** Relation between cohesiveness of group, performance-related norms and productivity

		Group cohesiveness	
		Strong	Weak
Performance- related norms	High	Productivity: High	Productivity: Medium
	Low	Productivity: Low	Productivity: Medium or Low

Source: Adapted by author from Sakakibara (2002:66)

Whether cohesiveness at LGED is strong cannot be determined by the six general criteria mentioned above because they may not be applicable to a large organization overall. There is, however, some evidence that organizational cohesiveness is strong in LGED as a whole. ISO et al. (1998a, 17) observed strong “team work” in LGED, saying” most members are proud to be part of ‘Team LGED’.” The Chief Engineer and higher officials often emphasize that “LGED is like a family.” The well functioning staff association is also evidence that the staff are united.<sup>36</sup> In addition, performance-related norms have been kept high in

<sup>35</sup> This paragraph is based on Robbins and Judge (2010, 146), and Sakakibara (2002, 65-66).

<sup>36</sup> There is no trade union in LGED. This would be another factor unifying all staff levels.

LGED due to the heavy workloads demanded by hard-working Chief Engineers. Thus, strong group cohesiveness in combination with the high performance-related norms has led to high LGED performance.

#### **4.3.3 Collective decision-making and internal communication**

In organizations, group decision-making and individual decision-making are both employed on case-by-case bases. The former has benefits, including increased availability of information and increased legitimacy, but it also has drawbacks, such as delayed decisions (Sakakibara 2002, 66-69). The speed of group decision-making depends on various factors including internal communication patterns and means.

The patterns of formal communications are categorized into “chain,” “wheel,” and “all-channel.” “Wheel” or “all-channel” are preferred for speed, “chain” or “wheel” for precision, and “all-channel” for member satisfaction. The speed of decision-making as well as richness of information differs depending on communication means – (i) face-to-face, (ii) telephone, (iii) electronic mail, (iv) memos and letters, and (v) documents; with information richness decreasing from (i) to (v).<sup>37</sup>

One of the most serious problems of GOB organizations is the slow decision-making, which results from several factors: Firstly, decision-making by each separate group in GOB is slow. Secondly, decisions are usually made by elevating documentation from lower to higher officers-in-charge. When relevant officials are absent or when corrections are necessary, time is lost. Sometimes, to hedge their risk, departments or public corporations which have final decision making authority seek clearance from some supervisory ministry, even if not required by GOB’s rules. These behaviors and practices have hampered public service delivery in Bangladesh for a long time.

By contrast, LGED has devised several practices that facilitate quick decision-making

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<sup>37</sup> This paragraph is based on Robbins and Judge (2010, 172-174) and Sakakibara (2002, 50 and 69-73).

and effective internal communication. First is informal decision-making. When necessary and appropriate, concerned officers first discuss issues verbally (by telephone, fax and e-mail) and reach provisional decisions; thereafter, they complete the formal process using documentation (MOFA 2006, 42-43). Second is the frequent use of face-to-face communication, including the regular monthly/weekly meetings among a wide range of concerned officers and the frequent field visits by headquarters and regional/district officials. LGED's office premises and telecommunication devices, which are more advanced than those of other GOB organizations, also help the staff communicate smoothly. Third, as Shahidul Hassan, former Chief Engineer told this author, when several options are available that are compatible with GOB rules and regulations, LGED management will take the innovative one even if it poses risks.<sup>38</sup> In so doing, LGED tries to counter bad practices within the Bangladesh bureaucracy. In short, LGED minimizes the drawbacks of group decision-making by using information-rich and mixed patterns of communication.

#### **4.3.4 Leadership**

Leadership is the ability to influence an organization or group to achieve their goals. Leadership theory in business administration deals with leadership in mid- and top-management. The present paper focuses on the latter.

A leader who can motivate his followers and exert strong influence on them is termed a "charismatic leader." This kind of leader displays the following characteristics: a clear vision; a willingness to incur risk to attain the vision; full attention to environmental constraints; consideration of followers' needs; and extraordinary action. Charismatic leaders are apt to emerge when an organization is newly established or in a critical situation. Research on charismatic leaders has mixed conclusions, but whether they have a positive impact on the achievements of organizations and the satisfaction of their followers depends on situational

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<sup>38</sup> Author interview in August 2009.

factors.<sup>39</sup>

The chief executive of LGED holds the title of Chief Engineer, the current one being the sixth. The term of the first Chief Engineer (Q. I. Siddique) lasted six years and eight months, and that of the fourth (Shahidul Hassan), seven years and eight months. These tenures were exceptionally long relative to the usual GOB practice. The terms of the third and fifth were quite short, only about four months.<sup>40</sup>

Q. I. Siddique, the first Chief Engineer (1992-99), was a top LGED leader from the beginning of the Works Program (1960s). He had the above-noted charismatic leadership qualities and he used them very effectively in the inaugural period and during the organization's rapid expansion, which occurred at a time of political and social instability for Bangladesh. He designed the strategy, organizational structure and incentive systems, creating an organizational culture distinct from that of other GOB organizations. Many LGED characteristics - emphasis on competence development, work ethic, rapid decision-making, and team work – were introduced during his term (ISO et al. 1998a and MOFA 2006).

Successor Chief Engineers do not appear to have had the charismatic quality of Q. I. Siddique. Even after he retired, Siddique supplemented LGED leadership by monitoring the organization and its officers, thereby continuing to influence management. The fourth Chief Engineer, whose tenure lasted more than seven years, appears to have been a different type of leader, holding the position in a situation of relative stability for LGED. Thus far, the leadership factor has worked positively for LGED. This is in contrast to other GOB organizations where frequent changes of chief executives have negatively affected performance, in turn weakening leadership quality and continuity of organizational culture.<sup>41</sup>

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<sup>39</sup> This paragraph is based on Robbins (2008, 256 and 273-76).

<sup>40</sup> Terms in office of the former Chief Engineers were taken from the LGED website as of 20 December 2010.

<sup>41</sup> This kind of short-term assignment occurs because a professional reputation is improved by serving as chief executive of a public organization before retirement, even if only for a short time. But this ignores the adverse effects to organizations.

### **4.3.5 Organizational culture**

Organizational culture is defined as a system of values, norms and beliefs shared among members of an organization. Its benefits include the following two: (i) it can be a strong motivator through unofficial rather than official means; and (ii) it can guide members implicitly to function in accord with the goals of their organizations, thereby reducing the burden on formal communication and control systems. Organizational culture can complement formal systems such as strategy, incentive, communication, planning and control, meaning that it is important to the smooth operation of the organization. There is, however, the risk that an organization will have difficulty adapting to changes in business environment if its culture is too strongly embedded in the organization as it is.<sup>42</sup>

Organizational culture is formed through an accumulation of successful practices; hence, the ultimate source is the organization's founder. Organizational culture first emerges from interaction among the ideas of the founder, the understanding of his early associates, and the experiences of the initial employees. Once a certain culture is established, various business practices maintain it by allowing staff to have shared experiences. Staff recruitment, behavior of management and socialization (training) are key factors for maintaining organizational culture.<sup>43</sup>

As mentioned above, the LGED organizational culture is a product of successful practices in the business environment as described by Deal and Kennedy (1982). There are no general criteria for judging whether the contents of a certain culture will positively affect an organization's performance. No assessment of organizational culture was conducted for the present paper; rather, components of LGED organizational culture were extracted by the author from ISO et al. (1998a) and MOFA (2006).

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<sup>42</sup> This paragraph is based on Sakakibara (2002, 91) and Ishii et al. (1996, 153-155).

<sup>43</sup> This paragraph is based on Robbins (2008, 378-381).

ISO et al. (1998a) regards the strength of LGED to be team work, strong work ethic, informal decision-making, emphasis on competence development, dynamic organization, and flexibility, most of which are lacking in other public organizations in Bangladesh. These are consistent with LGED's current vision statement: "LGED [will] continue to remain [a] professionally competent, efficient and effective public sector agency for performing ...interrelated and complementary functions..." (the LGED website as of 20 December 2010). Furthermore, its cultural constituents reinforce the vision statement as declared, thereby synergistically increasing organizational effectiveness. LGED's culture appears also to have been maintained through the internal promotion of officials, staff training and recruitment, as culture theory suggests. Most LGED officers have a civil engineering background while higher level officials are usually promoted internally, a practice that shields this organization from the generally inefficient GOB bureaucracy.

#### **4.3.6 Summary**

LGED's main strength has been in organizational behavior. In spite of the rigid GOB's rules, LGED exercises discretion in providing both direct and indirect staff incentives: early promotion, private use of official vehicles, training opportunities, official recognition, welfare services by the staff association, and good working environment, among others. LGED's group cohesiveness, collective decision-making practices, internal communications, leadership, and organizational culture have impacted positively its effectiveness, thus complementing the division-of-labor system and coordination mechanisms. The leadership of the founding Chief Engineer and his successors has been crucial because they designed and established the strategy, organizational structure, and various aspects of organizational behavior. An intriguing question is: how has LGED been able to resist the negative tendencies of the Bangladesh bureaucracy? The answer may be that it has done so through persistent management and limited exchange of personnel with other GOB organizations.

## **5. Conclusions and policy implications**

### **5.1 Conclusions**

LGED is considered to be an exception among the public sector organizations in Bangladesh because it is outstandingly effective. The major elements of its strategy, organizational structure and behavior function well together, resulting in good performance despite some weaknesses.

The conclusions here are presented as answers to the two questions posed in the Introduction.

*Why is LGED more effective than other GOB organizations?*

As is stated in the standard management and organizational theory, all elements of strategy, organizational structure and behavior are important if an organization is to perform well. Section 4 gave evidence of LGED strengths in these areas. Within its business domain (numerous small rural interventions with short implementation periods), LGED's main strengths have been in the organizational behavior elements (staff incentives, group cohesiveness, collective decision-making and internal communication, leadership and culture) which were products of the leadership and practices of the founding Chief Engineer and his associates. LGED also has created an efficient division-of-labor system and a mechanism for coordination (decentralized management, complementary horizontal coordination mechanism, standardization of inputs through training, etc.). However, weakness does remain in the areas of procedures/rules of financial management, audit, and quality assurance, among others, which are part of the coordination mechanism. These weaknesses have been compensated for by strong organizational behavior elements and organizational structure, and they have been overcome gradually over time.

*How complementary have been donor assistance and LGED's own strengths?*

In response to a request by LGED and in consideration of the development needs of Bangladesh, SIDA agreed to provide CD assistance to build the foundation of the new organization. Subsequently, ADB assisted in the preparation of a long-term plan for sustainable organizational development, on the basis of which the World Bank assisted with strategic and institutional elements and JICA with technical elements. There has been good complementarity between donor support and LGED's own strength. Donor assistance has been geared toward systemic or hardware matters in which outside assistance is relatively easy. In addition, donor recommendations have helped LGED secure support from relevant ministries. At the same time, LGED's strength resides mainly in the organizational behavior elements, which are areas where outside intervention has less effect because these are deeply affected by psychological and cultural factors.

*Implications for the theories of public sector performance*

The present study has the following implications for the theories of public sector performance. First, the LGED case demonstrates that an organization can be effective if it adopts managerial methods consistent with NPM, even without fully adopting the major organizational and managerial reforms recommended by NPM.

Second, the discussion in this paper generally supports Leonard's (2010) two hypotheses related to managerial factors and part of the contextual political-economy hypotheses, although this paper did not attempt to test them. Regarding the political-economy hypotheses, people's needs and pro-poor growth policy in Bangladesh are politically conducive to LGED activities and resource mobilization. In addition, the effects of institutions, especially GOB rules and regulations, can be considered as mixed: while they are flexible enough to give discretionary space for LGED's internal management, the rigid rules/regulations of personnel management and salary are obviously serious constraints.

Third, with regard to the arguments by Ashworth et al. (eds.) concerning the validity of managerial factors, this paper considers that various managerial factors, including donor support, have worked collectively and have complemented each other in ways that improve the performance of LGED.

Fourth, this paper looked only into the organizational performance model in Talbot's framework. Even in weak governance countries, however, where the institutional context is not conducive to effectiveness, it may be possible to have an effective public organization while waiting for the general institutional context to improve.

#### *Present limitations and future research*

There are two points to be made with regard to present limitations and future research. Firstly, this paper relies largely on donor post-evaluation and T/A reports supplemented and validated by the author's own field experiences 2007-2009 and his interviews with LGED managers in August 2009. Although the reports provide ample information to describe the overall picture of LGED's effectiveness, detailed analysis of individual elements will require the collection and analysis of primary data, such as questionnaire surveys of stakeholders. Secondly, this study is based on analysis of a single organization without in-depth comparison with other GOB organizations or with rural development organizations in other countries. LGED was selected by the author based on its reputation among the donors, not on comparative analysis of performance indicators. Such comparative analysis will be necessary for drawing more definitive conclusions and policy implications

## **5.2 Policy implications**

Caution is necessary when drawing policy implications from the analysis of a single case study. Nevertheless, it is worthwhile to suggest some lessons from this analysis for the future course of GOB organizations in general and LGED in particular, with due

acknowledgement of the risks of over-generalizing.

*Policy implications for GOB organizations*

A central question is: How can the LGED model be replicated to other GOB organizations? Major elements of LGED's corporate management were designed by the founding Chief Engineer and his successors, but consolidation took many years. It is for this reason that many people consider LGED to be an exception and difficult to replicate. However, even if it takes time and is difficult, something should be done to improve the performance of GOB organizations, perhaps deconstructing LGED's practices in terms of management and organization theory would be helpful. The following suggestions are offered for further policy discussion.

The type of business domain should be the first factor for consideration. Although we should not over-generalize the Deal and Kennedy classification model, it explains some aspects of the LGED culture. If the nature of business domain of an organization is similar to that of LGED (i.e., a number of small interventions which pose slight risk to the organization as a whole), there is a greater possibility that LGED's type of decentralized organizational structure and management system can be realized.<sup>44</sup> Examples in Bangladesh would be rural electrification, and water and sanitation. If the nature of business domain is different (e.g., power generation, large bridge construction, etc), then the LGED style will be difficult to replicate.

Secondly, if an organization reform will soon be necessary, the only available option is to change resource strategy, organizational structure (system of division of labor and coordination mechanism) and/or incentive systems. This is because most elements of organizational behavior are difficult to change in the short run. Foreign donors can help reform

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<sup>44</sup> According to JICA's record of past loan projects executed by the Rural Electrification Board (REB) of Bangladesh, REB is also efficient in project implementation. REB provides bonuses to staff according to their performance.

the systemic aspects, while GOB changes or strengthens the organizational behavior elements.

The third factor is that the greatest chance for creating an effective organization comes when it is newly established, because it is easier for a new organization to establish its own strategy, structure, and incentive systems unhampered by pre-existing procedures. This kind of opportunity has, in fact, emerged at the Bangladesh Power Development Board as it is being divided into smaller corporations (generation companies and geographically divided distribution companies).

#### *Policy implications for LGED*

Policy implications for LGED are related to how it can continue to perform well. Firstly, in the short run, the action plans agreed in ORA should to be implemented to strengthen systemic elements (financial management, audit, quality assurance, etc) for better balanced organization management. Secondly, it is recommended that LGED maintain its strong elements, particularly those in the organizational behavior area, through appropriate adjustments to future changes in internal and external situations. Note that once the organizational culture is lost, it is difficult to recover. Thirdly, it would be useful for LGED to undergo periodic external review<sup>45</sup> which would be expected to make recommendations to sustain the organization over long-term changes in its internal and external environments.

Donor support should be demand-driven and well-coordinated, as it was after SIDA's phase-out. Due to GOB's financial constraints, it may be unavoidable for LGED to depend on external resources in the short run. But donor support should be aligned with LGED's strategic plans, and LGED should take the initiatives in resources mobilization and allocation. One sensitive issue is the staff incentive system. As it is impractical and difficult for the donors to push for direct monetary incentives (e.g., salary increases), an alternative approach might be

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<sup>45</sup> World Bank (2009, 5) states, "This reputation stems in part from LGED's willingness to undergo periodic organizational reviews... ,and to implement the recommendations of each review."

to provide assistance that functions as de facto incentives. Examples are staff training and introduction of advanced technologies which can upgrade staff's skills.

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**Annex 1: Examples of main components of rural infrastructure projects**

	
<p>1. Rural road (under construction)</p>	<p>2. Growth center market</p>
	
<p>3. Bridge</p>	<p>4. Ghat (boat landing facility)</p>
	
<p>5. Union Parishad complex</p>	<p>6. Women engaged in nursing road side plantation</p>

**Source:** LGED (with the permission of LGED)

## **Annex 2: LGED mission, vision and strategic plan proposed by ISAP**

### <Mission statement>

Development and management of local infrastructure for increasing farm/non-farm production, generating employment, improving socio-economic condition, promoting local governance, reducing poverty and acting as agent of change at the local level

### <Vision statement>

LGED would continue to remain professionally competent, efficient and effective public sector agency for performing the inter-related and complementary functions of:

- Developing, maintaining and managing transport, trading and small scale water resources infrastructure at the local level by ensuring LGI and community participation and taking care of environmental and social issues
- Providing technical and institutional support to strengthen the local government institutions and serving local communities and other stakeholders

### <Strategic plan>

Plans under core functions of LGED:

- Plan for Rural Infrastructure Development and Management
- Plan for Small Scale Water Resource Development and Management
- Plan for Urban Infrastructure Development
- Plan for Generating Employment at the local level
- Plan for Strengthening Local Government Institutions and Promoting Local Governance

Plans under supporting functions of LGED:

- Plan for Development of ICT Framework for LGED Functions
- Plan for Improvement of Financial Management, Accounts and Audit
- Plan for Human Resource Development of LGED, LGIs and other Stakeholders
- Plan for Community Participation and Empowerment
- Plan for Facilitating Gender Equity
- Plan for Environmental and Social Issues
- Plan for Effective Monitoring and Evaluation System

Source: Made by author from Wilbur Smith et al. (2008:12-13)

## Abstract (in Japanese)

### 要約

バングラデシュの地方行政技術局（LGED）は、ガバナンスの脆弱な同国の公的機関の中で特に効率的と言われている。その特徴は、ニュー・パブリック・マネジメント流の急進的組織改革なしに、効率性を実現した点にある。本稿は、経営及び組織理論に基づき、なぜ LGED が効率的か、その独自能力とドナーの支援がどう補完的に作用したかを分析する。LGED の主業務領域である農村インフラは、貧困削減重視の潮流の中で経営資源獲得に有利である上、効率性を可能にする組織構造や文化の形成に寄与した。また、政府の硬直的規則や慣習にも拘らず、LGED は組織運営に独自の工夫を凝らし、他機関にない分権的組織、調整メカニズム、職員へのインセンティブ、迅速な意思決定システム、組織文化等を形成した。ドナーは、長期ビジョン策定、各種マニュアル整備、技術力強化等により LGED の弱みの克服を支援してきた。最後に、同国の公的機関及び LGED への提言を行う。