

## JAPAN'S GRANT AID

The Grant Aid scheme provides a recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. The Grant Aid is not supplied through the donation of materials as such.

### 1. GRANT AID PROCEDURES

Japan's Grant Aid Program is executed through the following procedures.

Application	(Request made by a recipient country)
Study	(Basic Design Study conducted by JICA)
Appraisal & Approval	(Appraisal by the Government of Japan and Approval by Cabinet)
Determination of Implementation	(The Notes exchanged between the Governments of Japan and the recipient country)

Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA (Japan International Cooperation Agency) to conduct a study on the request. If necessary, JICA send a Preparatory Study Team to the recipient country to confirm the contents of the request.

Secondly, JICA conducts the study (Basic Design Study), using Japanese consulting firms.

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Programme, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval.

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes (E/N) signed by the Governments of Japan and the recipient country.

Finally, for the smooth implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

## 2. BASIC DESIGN STUDY

### (1) Contents of the Study

The aim of the Basic Design Study (hereinafter referred to as “the Study”) conducted by JICA on a requested project (hereinafter referred to as “the Project”) is to provide a basic document necessary for the appraisal of the Project by the Government of Japan. The contents of the Study are as follows:

- a) Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project’s implementation;
- b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from the technical, social and economic points of view;
- c) Confirmation of items agreed on by both parties concerning the basic concept of the Project;
- d) Preparation of a basic design of the Project; and
- e) Estimation of costs of the Project.

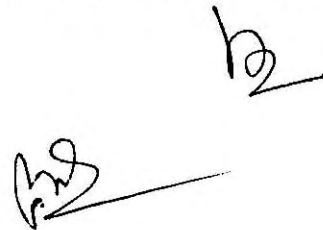
The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of Japan’s Grant Aid Scheme.

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

### (2) Selection of Consultants

For the smooth implementation of the Study, JICA uses a consulting firm selected through its own procedure (competitive proposal). The selected firm participates the Study and prepares a report based upon the terms of reference set by JICA.

At the beginning of implementation after the Exchange of Notes, for the services of the Detailed Design and Construction Supervision of the Project, JICA recommends the same consulting firm which participated in the Study to the recipient country, in order to maintain the technical consistency between the Basic Design and Detailed Design as well as to avoid any undue delay caused by the selection of a new consulting firm.



### 3. JAPAN'S GRANT AID SCHEME

#### (1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. Grant Aid is not supplied through the donation of materials as such.

#### (2) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

(3) "The period of the Grant" means the one fiscal year which the Cabinet approves the project for. Within the fiscal year, all procedure such as exchanging of the Notes, concluding contracts with consulting firms and contractors and final payment to them must be completed.

However, in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grand Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

(4) Under the Grant, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country.

However, the prime contractors, namely consulting, contracting and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality, or Japanese corporations controlled by persons of Japanese nationality.)

#### (5) Necessity of "Verification"

The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability of Japanese taxpayers.

#### (6) Undertakings required of the Government of the Recipient Country

- a) To secure a lot of land necessary for the construction of the Project and to clear the site;
- b) To provide facilities for distribution of electricity, water supply and drainage and other incidental facilities outside the sites;

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- c) To ensure prompt unloading and customs clearance at ports of disembarkation in the recipient country and internal transportation therein of the products purchased under the Grant Aid
- d) To exempt Japanese nationals from customs duties, internal taxes and fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts;
- e) To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the verified contracts such as facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work;
- f) To ensure that the facilities constructed and products purchased under the Grant Aid be maintained and used properly and effectively for the Project; and
- g) To bear all the expenses, other than those covered by the Grant Aid, necessary for the Project.

(6) "Proper Use"

The recipient country is required to maintain and use the facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign the necessary staff for operation and maintenance of them as well as to bear all the expenses other than those covered by the Grant Aid.

(7) "Re-export"

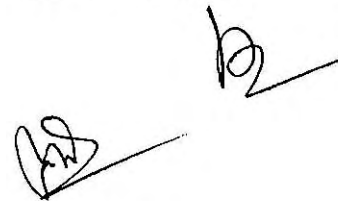
The products purchased under the Grant Aid shall not be re-exported from the recipient country.

(8) Banking Arrangement (B/A)

- a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the verified contracts.
- b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an Authorization to Pay (A/P) issued by the Government of the recipient country or its designated authority.

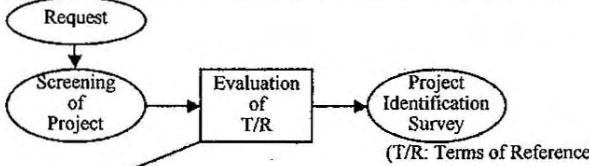
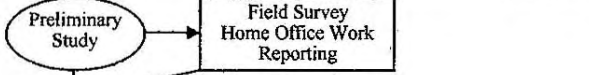
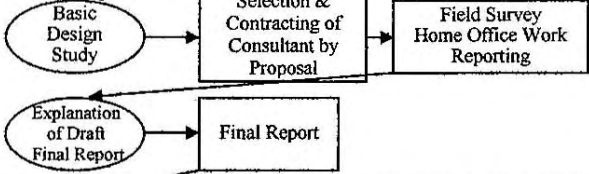
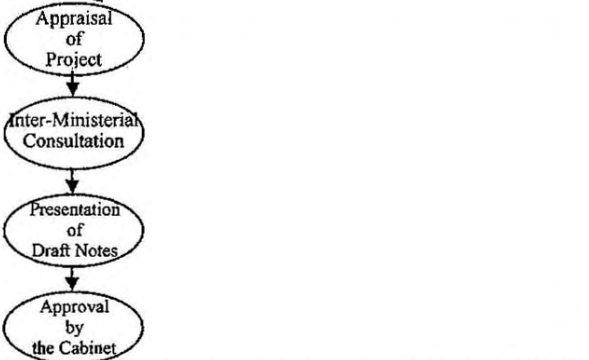
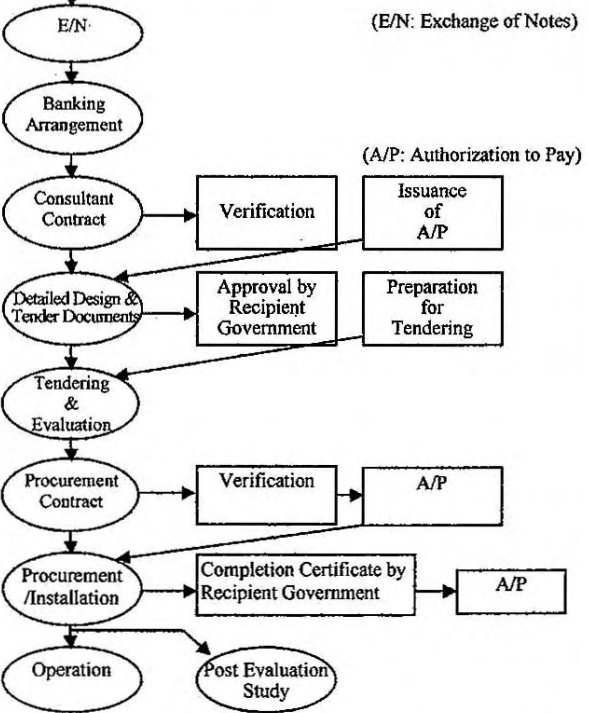
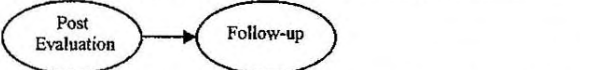
(9) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions to the Bank.



Flow Chart of Japan's Grant Aid Procedures

Annex-8

Stage	Flow & Works	Recipient Government	Japanese Government	JICA	Consultant	Contractor	Others
Application							
Study (Project Formulation & Preparation)							
							
Appraisal & Approval							
Implementation							
Evaluation & Follow up							

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## Major Undertakings to be taken by Each Government

No.	Items	To be covered by	
		Grant Aid	Recipient Side
1	To secure land		●
2	To clear, level and reclaim the site when needed		●
3	To construct gates and fences in and around the site		●
4	To construct the parking lot when needed	●	
5	To construct roads within the site	●	
	outside the site		●
6	To construct the building	●	
7	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity		
	a) The distributing line to the site		●
	b) The drop wiring and internal wiring within the site	●	
	c) The circuit breaker and transformer	●	
	2) Water Supply		
	a) The city water distribution main to the site		●
	b) The supply system within the site (receiving and elevated tanks)	●	
	3) Drainage		
	a) The city drainage main (for storm sewer and others to the site)		●
	b) The drainage system (for toilet sewer, ordinary waste, storm drainage and others)	●	
	4) Gas Supply		
	a) The city gas main to the site		●
	b) The gas supply system within the site	●	
	5) Telephone System		
	a) The telephone trunk line to the main distribution frame/panel (MDF) of the building		●
	b) The MDF and the extension after the frame/panel	●	
	6) Furniture and Equipment		
	a) General furniture		●
	b) Project equipment	●	
8	To bear the following commissions to the Japanese foreign exchange banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
9	To ensure unloading and customs clearance at port of disembarkation in recipient country		
	1) Marine (Air) transportation of the products from Japan to the recipient country	●	
	2) Tax exemption and customs clearance of the products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the project site	●	
10	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		●
11	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contract		●
12	To maintain and use properly and effectively the equipment provided under the Grant		●
13	To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for installation of the equipment excluding the Pumping Station		●
14	To bear the expenses for trainees and operation costs of equipment during implementation of "Soft Component" when needed		●

(B/A: Banking Arrangement, A/P: Authorization to Pay)

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## 5. 事業事前計画表（基本設計時）

<b>1. 案件名</b>
バングラデシュ国第二次ダッカ市雨水排水施設改良計画
<b>2. 要請の背景（協力の必要性・位置付け）</b>
<ul style="list-style-type: none"> <li>● 熱帯モンスーン帯に属するバングラデシュ国の首都ダッカ市(2001年人口:991万人)は、3大国際河川(ガンジス川、ブラマプトラ川およびメグナ川)の低平な河口デルタに発達し、四方をそれらの支脈川に取り囲まれている。このような自然特性(気象と地形)から市域は周辺河川からの洪水(外水)被害と市域内に降る高強度の降雨による浸水(内水)被害を受けてきた。最近では、1988,1989,1998年および2004年に大洪水が発生し、ダッカ市は多大な洪水被害を受けた。</li> <li>● ダッカ市の自立した経済開発を遂げることを目的に、「ダッカ首都圏開発計画(1995-2015)」が作成された。その中で社会基盤整備が最重要課題とされ、ダッカ市上下水道公社は自身の「戦略開発計画(2004-2010)」において、「効率的な雨水排水」を目的として掲げ、ダッカ市内の雨水排水対策は公社が実施する公共サービスの重要な一翼と位置付けている。</li> <li>● カラヤンプルポンプ場は1988、1989年洪水を契機に我が国の無償資金協力(事業費:20.5億円)で1991～1993年に第一期事業として建設され、カラヤンプル幹線水路改修事業とともにダッカ市の洪水被害軽減の重要な雨水排水施設としての役割を演じてきた。しかしながら、近年の計画を上回る急激な人口増加と都市化による雨水流出量の増大、既設排水ポンプ場の排水能力不足、調整池の面積縮小および開水路・雨水管の現況流下能力不足が原因して、浸水範囲のみならず浸水時間が増大し多大な浸水被害をもたらし、衛生環境の悪化並びに社会・経済発展の障害となっている。</li> <li>● このような背景にもとに、ダッカ市内の優先地区の一つであり近年急激に都市化と資産集中が進行しているH排水区に対しカラヤンプルポンプ場の増設工事と調達される汚泥浚渫用機材を用いた水路・雨水管の浚渫事業を通して、浸水被害を軽減し衛生環境の改善と経済活動の発展、並びに民生の安定に寄与することを目標とする。</li> </ul>
<b>3. プロジェクト全体計画概要</b>
(1) プロジェクト全体計画の目標(裨益対象の範囲及び規模) 《プロジェクト終了時に期待される直接的な便益》 <u>カラヤンプルポンプ場の増設</u> <ul style="list-style-type: none"> <li>・ ポンプ容量と調整池の容量を計画どおり(20m<sup>3</sup>/s と 2,000,000m<sup>3</sup>)に設定維持できるため、5年以下の確率降雨に対して、調整池容量、ポンプ容量の不足に起因する洪水被害を起こさない</li> <li>・ 5年確率以上の雨が降った場合でも、調整池の水位・排水施設(開水路・雨水管)水位を無被害水位に下げると、現況の約半分の日数で済むようになる (2004年洪水時に最大水位EL+5.8mから無被害水位EL+5.0mに要した時間6日が増設ポンプ場完成後、3日間に減少する)</li> </ul> <u>開水路・雨水管内の汚泥浚渫(H排水区)</u> <ul style="list-style-type: none"> <li>・ 排水施設の流下能力が全体で約30%増加することにより、域内で毎年発生する浸水時間が減少する(現在:平均1週間7日間→4～5日間)</li> <li>・ 排水施設の流下能力が全体で約30%増加することにより、調整池への雨水排水が促進され、ポンプ排水の効果が発揮される</li> </ul> 《裨益対象の範囲及び規模》 ダッカ市の北西部に位置する急激に都市化が進行しているH排水区(17.6km <sup>2</sup> )の住民87万人(2001年センサス)が裨益対象である。

- (2) プロジェクト全体計画の成果(※下線は無償資金協力が直接関与する事項を示す)
- ① H排水区のカラヤンプルポンプ場が増設され、汚泥浚渫機材が調達される
  - ② プロジェクトの運営体制が整備される
  - ③ 調達された機材により開水路・雨水管内の汚泥浚渫が実施される
- (3) プロジェクト全体計画の主要活動(※下線は無償資金協力が直接関与する事項を示す)
- ① カラヤンプルポンプ場の増設工事と初期運転・維持管理指導を実施する
  - ② 汚泥浚渫用機材(4機種・6台)の調達と初期運転・維持管理指導を実施する
  - ③ 必要な予算と要員を確保し、H排水区の開水路と雨水管内の汚泥を浚渫する
  - ④ 必要な予算と要員を確保し、ポンプ場運営・維持管理と機材維持管理を行う
- (4) 投入(インプット)
- 日本側： 無償資金協力:9.53億円  
 相手国側：  
     プロジェクト事業費：295.3百万タカ(約5.20億円)  
     (ポンプ場建設に必要な準備工事・諸経費と汚泥浚渫工事)  
     運営・維持管理費：年平均3.2百万タカ(約5.6百万円)  
     (施設・機材の運営・維持管理に係る経費の実施機関負担増額分)
- (5) 実施体制
- 実施機関： ダッカ市上下水道公社(Dhaka Water Supply and Sewerage Authority)  
 主管官庁： 地方自治・農村開発・協力省(Ministry of Local Government, Rural Development and Co-operatives)

#### 4. 無償資金協力案件の内容

- (1) サイト  
 バングラデシュ国ダッカ市H排水区
- (2) 概要
- ① カラヤンプルポンプ場の増設工事(排水量:10m<sup>3</sup>/s)
  - ② H排水区の開水路(1.7km)と雨水管(60km)の堆積汚泥浚渫用機材調達(4機種・6台)
- (3) 相手国負担事項
- ① 建設用地の取得及び現場事務所・仮設ヤード等の土地の確保
  - ② 建設用地内の支障物件の撤去・移設
  - ③ 工事用進入路(バングラデシュ水資源開発公社管轄のダッカ西側堤防道路)の一部区間の補修工事
  - ④ 工事侵入路沿いに敷設されたダッカ市電力供給公社管轄の一部電柱の補修
  - ⑤ 調達される汚泥浚渫用機材の車庫または屋根付駐車場の確保
  - ⑥ 調達機材を用いたH排水区の開水路と雨水管に堆積した汚泥の浚渫工事
  - ⑦ 輸入税・付加価値税の負担
  - ⑧ 銀行協定および支払い買取授權書発行手数料の負担
- (4) 概算事業費  
 概算総事業費 14.73億円(日本側 9.53億円、バングラデシュ側 5.20億円)
- (5) 工期  
 A型国債案件とし、  
 実施設計4ヶ月、  
 入札期間を含め約23ヶ月の本体工期(予定)
- (6) 貧困、ジェンダー、環境及び社会面の配慮
- ① 増設ポンプ場の位置を実施機関が所有する既設ポンプ場敷地内に建設し用地取得を



最小限に抑える。また、仮設ヤード設置に際し、空き地を利用する等住民移転を回避する。

② 先方実施機関による初期環境調査(IEE)の結果及び環境適合証明(ECC)取得結果に従い、工事による騒音・振動、ほこり等の影響を最小限に抑え、工事中の沿道住民環境社会及び安全への配慮を行う。

③ 汚泥浚渫作業時の汚泥散乱等に対する沿道住民環境への配慮を出来るような機材調達計画とする。(現在の汚泥浚渫作業では数日間汚泥が路上に放置されている)

## 5. 外部要因リスク

(1) 想定を超える降雨や地震などの天災が発生しない。

(2) プロジェクトが実施できなくなるような「バ」国内の政情・治安悪化が発生しない。

## 6. 過去の類似案件からの教訓の活用

(1) 事業費削減を目標に輸入資機材は最小限にし、出来るだけ現地で入手可能な資機材を用いた建設計画とする。

(2) 汚泥浚渫工事は出来るだけ労働集約型の工法を選び、機材の調達・維持管理費を抑え、貧困層の雇用機会の増大を図る。

## 7. プロジェクト全体計画の事後評価に係る提案

(1) プロジェクト全体計画の目標達成を示す成果指標

プロジェクト実施により期待される直接効果を計る成果指標は、以下の表となる。

成果項目	指標	プロジェクト前	プロジェクト後	備考
5年確率以下の降雨時の浸水	調整池水位	5m以上になる	5m以下で調整	
2004年規模洪水時の浸水(5年確率以上の降雨時の浸水)	調整池水位日	5m以上の日数が6日	5m以上の日数が3日 (プロジェクト前の50%)	※評価には、5年確率以上の降雨実績を要する
毎年起こる低地での浸水被害	日	域内平均で約7日間	域内平均で約4~5日間	
開水路・雨水管の流下能力	汚泥堆積量	雨水管:7,000m <sup>3</sup> 開水路:16,000m <sup>3</sup>	雨水管:汚泥堆積無し 開水路:汚泥堆積無し (23,000m <sup>3</sup> の汚泥除去)	

(2) その他の成果指標

- ① 冠水による交通障害の軽減
- ② 雨季の水因性疾患患者数の蔓延の防止
- ③ 洪水被害による経済的な被害の軽減
- ④ 浚渫作業時の事故の防止

(3) 評価のタイミング

2009年(ポンプ場完成時)から2年後(2011年)

6. 収集資料リスト

主管部長	文書管理課長	主管課長

情報管理課長	図書資料室受付印

収集資料リスト

平成18年3月14日作成

地域	南西アジア	調査団	第2次ダッカ市雨水排水施設改良計画	調査の種類		作成部課							
				現地調査期間	基本設計調査								
国名	バングラデシュ人民共和国	等名称	第2次ダッカ市雨水排水施設改良計画	調査の種類	現地調査期間	平成18年2月10日～平成18年3月14日	担当者氏名						
番号	資料の名称	形態	版型	ページ数	オリジナル・コピーの別	部数	収集先名称又は機関	寄贈・購入(価格)の別	取扱区分	利用表示	利用者所属氏名	納入予定日	納入確認欄
1	Project Proforma for Preservation of Regulation Pond Adjucent to the Kallyanpur Storm Water Pumping Station	製本	A4	11	Copy	1	DWASA	寄贈					
2	Project Proforma for Removal of Water Logging in Dhaka City (Revised)	製本	A4	20	Copy	1	DWASA	寄贈					
3	Terms of Reference Dhaka Water Supply and Sewerage Project	製本	A4		Copy	1	DWASA	寄贈					
4	Technical Assistance Project Proposal (TAPP) for Project Preparation Facilities (PPF) of Dhaka WASA	製本	A4	9	Copy	1	DWASA	寄贈					
5	Project Proforma for Dhaka Integrated Flood Control Embankment cum Eastern Bypass Road Multipurpose Project	製本	A4	17	Copy	1	DWASA	寄贈					
6	Updating/Upgrading the Feasibility Study of Dhaka Integrated Flood Control Embankment cum Eastern Bypass Road Multipurpose Project	製本	A4	39	Copy	1	BWDB, Halcrow	寄贈					
7	Support For Urban Management and Municipal Services, Final Engineering Design of the Dholai Khal Rehabilitation Dhaka (BGD/86/043-21.03), Design Report Volume II :	製本	A4	68	Copy	1	DWASA	複写					
8	Bangladesh National Building Code 1993	製本	A4	900	Original	1	Housing and Building Research Institute	購入\$25					
9	Analysis of Schedule of Rates for Civil Works Tenth Edition (2002)	製本	A4	800	Original	1	Public Works Department	購入 Tk1,500					
10	Schedule of Rates for Civil Works Tenth Edition (revised) (2004)	製本	A4	195	Copy	1	Public Works Department	複写					
11	Schedule of Rates (July 2003)	製本	A4	135	Copy	1	Local Government Engineering Department	複写					
12	Analysis of Rates SSWRD Sector Project-2 SP- Sahasradhara WC Subproject	製本	A4	70	Copy	1	DWASA	複写					
13	Schedule of Rates (Electrical & Mechanical Works) 2002	製本	A4	120	Copy	1	DWASA	複写					

