BANGLADESH WATER DEVELOPMENT BOARD

# PROCEDURES FOR DEPRECIATION OF EQUIPMENT, MACHINERY, MATERIALS AND OTHER ASSETS

JANUARY, 1998

**BANGLADESH WATER DEVELOPMENT BOARD**
**SECRETARIAT**
**WAPDA BUILDING, MOTIJHEEL C/A**
**DHAKA**

No. 13-WDB/Sectt/O&M-2/Depri/98

Date: 21.01.1998(E)
08.10.1404(B)

## OFFICE MEMORANDUM

Bangladesh Water Development Board is pleased to introduce the "Procedures for Depreciation of Equipment, Machinery, Materials and Other Assets" with immediate effect in supersession of all previous procedures made or orders/circulars/memos/letters/instructions issued in this context by the Board. These procedures were approved by the Board in its meeting dated 7.1.98.

2. All offices of the Board shall be bound by these procedures.

3. All offices shall take immediate actions regarding disposal of used/unserviceable equipment, machinery, materials and other assets as per these procedures.

4. The Board reserves the right to replace or amend these procedures as and when necessary, and also to issue any clarifications on the same.

By Order of the Board

21/1/98

Secretary
Water Development Board
WAPDA Building
Motijheel C/A, Dhaka.

No.13-WDB/Sectt/O&M-2/Depri./98

Date: 21.01.1998(E)
08.10.1404(B)

Copy forwarded for favour of kind information to:

1. The Secretary, Ministry of Water Resources, Govt. of the People's Republic of Bangladesh, Bangladesh Secretariat, Dhaka-1000.

21/1/98

Secretary
Water Development Board
WAPDA Building
Motijheel C/A, Dhaka.

No13(300)-WDB/Sectt/O&M/Depri/98

Date: 21.01.1998(E)
08.10.1407(B)

Copy forwarded for information and necessary action to:

1. All Heads of Offices .....
2. CSO to Chairman, BWDB, Dhaka.
3. PS to All Members, .....

(Md. Abdul Jalil)
Dy. Secretary (O&M)
Water Development Board
WAPDA Building
Motijheel C/A, Dhaka.

# PREFACE

A definite guideline for assessing the depreciated value and useful life of different types of equipment, machinery, materials and other assets was a long felt necessity for BWDB. In absence of a definite guideline/procedure, uniformity in assessing the useful life and depreciated value (book value) of different types of assets could hardly be achieved. Meanwhile, with the passage of time complication have arisen regarding the disposal of large number of equipment, machinery and other assets owned by BWDB. Introduction of these procedures has therefore become urgently necessary. Endeavours have been made as far as practicable to take care of the recent problems faced by the management for disposal of unserviceable or used equipment, machinery, materials, various types of installations and spare parts.

These Procedures have been framed on the basis of a report prepared by a four Member Committee constituted by the Board in its Office Order No. 174-WDB/Sectt./O&M dated 16 May, 1996. The Committee made discussions with the Member (O&M) time to time in preparation of the report.

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## SUMMARY

Bangladesh Water Development Board (BWDB) in its sphere of development activities in the field of water management, irrigation, flood control, drainage and land reclamation has acquired different types of equipment, machinery, materials and constructed various types of installations. The use of some of these machinery, equipment and other assets has caused wear and tear and deteriorated those to the extent of scrap or a marginal salvage value. Disposal of these assets could not be taken up systematically due to absence of a definite guide line and procedures for assessing the useful life, depreciation rate and salvage value.

Manuals, publications and guidelines of different departments were consulted while considering the rates of depreciation to be applied to different assets. The useful life, rate of depreciation and salvage value for different type of assets have been ascertained in consideration of field of use and type of operation.

For the purpose of fixing depreciation the terms like asset cost, useful life, book value and salvage value were identified and taken care of in the light of BWDB's activities.

Out of eight principal methods for calculating depreciation of assets the Reducing Instalment Method or Diminishing Balance Method has been accepted for calculating depreciation of assets under BWDB. In this method a constant percentage of the balance of cost is written off each year. The charge for depreciation is gradually reduced each year. The salvage value in this method is the depreciated value of the asset at the end of its useful life.

The useful life and depreciation rate of different assets are fixed considering type of operation, field of use, operating condition, etc. Salvage value of the assets as calculated under Reducing Instalment Method/ Diminishing Balance Method is included in the Table of Useful Life and Depreciated Rate of Assets of BWDB (Annexure-A).

The implementation and monitoring of the procedures for depreciation is to make entry in a register or a card mentioning type code with serial number, asset cost, date of purchase / date of completion and estimated useful life. At the end of each year of acquisition of the asset the book value of the asset shall be calculated and recorded in the register or card.

All Chief Engineers will monitor the implementation of these procedures and all Superintending Engineers/ Directors will prepare an annual report and forward the same to the Director of Accounts along with annual report on tools and plants. The Director, Accounts will verify the correctness of same as per Codal Rules.

# PROCEDURES FOR DEPRECIATION OF EQUIPMENT, MACHINERY, MATERIALS AND OTHER ASSETS OF BANGLADESH WATER DEVELOPMENT BOARD.

## 1.0 Introduction

Bangladesh Water Development Board (BWDB) from the time of erstwhile Irrigation Department and EPWAPDA has acquired different types of equipment, machinery, materials and constructed various types of installations all over the country for the purpose of flood control, drainage and irrigation. The prolonged use of some of these machinery, equipment and other assets has caused wear and tear and deteriorated to the extent of a marginal salvage value. The assessment of economic life, salvage value and depreciation of all the above mentioned assets has not been possible due to the absence of a definite rules and procedures for the same. In order to update the record and assess the present value of all the assets the Board has framed these procedures for calculating depreciation for all equipment, machinery, materials and other assets belonging to Bangladesh Water Development Board.

## 2.0 Definitions

### 2.1 Depreciation

**Depreciation** is the loss in value not restored by current maintenance, which is due to all factors causing the ultimate retirement of the assets.

**Depreciation** can also be defined as the permanent and continuing diminution in the quality or value of an asset resulting from wear and tear, obsolescence and effluxion of time. Depreciation denotes a permanent decrease in value, not a fluctuation in value.

### 2.2 Asset Cost/Acquisition Cost

It is the owning cost i.e. it includes procurement cost, carrying cost, taxes and duties, interests etc.

### 2.3 Useful Life

It is the time duration after which the asset ceases its functioning and needs retirement. Depending upon the nature of use, field of use, functional purpose, type of production (in case of manufacturing equipment) etc. different assets have different useful life unless it faces an accident.

### 2.4 Book Value

**Book value** of an asset is the asset cost/acquisition cost less depreciation. Asset cost/ acquisition cost is the starting book value of an asset i.e. book value at zero hour of use.

So book value of an asset after one year = Asset cost - depreciation for the year

= Book value for the next year at starting.

### 2.5 Salvage Value

No asset has a zero value after its useful life i.e. it retires from its functional services with a residual value. This value is the **"salvage value"** or **residual value**. The salvage value can be assessed as follows:

[i] In normal case : Salvage value = Book value at the retirement time of the asset.

[ii] For accidental case : When an asset ceases to serve due to any unavoidable circumstances e.g. accident, obsolescence due to non-availability of spares for a machine or change of technology or natural calamities, salvage value shall be the scrap value of the asset.

## 3.0 Purpose of Determining Depreciation

The purpose of determining depreciated value of the assets are as follows:

[i] For calculation of profit and loss per year in the case of commercial enterprise.

[ii] For replacement of assets by keeping depreciation reserve after loss of useful life of the asset.

[iii] For calculation of salvage value when the asset is written off after its useful life for the acquisition of new assets or renewal of life through fresh loans.

[iv] For showing the value of an asset at a given date after charging depreciation in the balance sheet.

The purpose [iii] and [iv] stated above are considered to be most important applications for the assets of BWDB.

## 4.0 Main Agents or Causes of Depreciation

The main agents or causes of depreciation are as follows:

(a) Wear and tear due to actual use;
(b) Physical factors like evaporation of liquids, loss of potency of acids, erosion, salinity; dampness and other weather effects etc;
(c) Obsolescence due to a new invention or change in demand may render an asset useless;
(d) Permanent fall in market prices including foreign exchange rates;
(e) Effluxion of time-mere passage of time may cause a fall in the value of asset even if it is not used. Since new machines come to use continually with technological developments and old machines have to give way to new ones;
(f) Improper maintenance.

## 5.0 Basic Factors for Calculating Depreciation:

The following basic factors should be considered in calculating depreciation:

(a) Asset cost/Acquisition cost of the asset.
(b) Estimated useful life of the asset.
(c) Cost of repairs and maintenance or renewals.
(d) Residual value or scrap value at the end of its useful life.
(e) The change of the asset becoming obsolete on account of new invention.

(f) Replacement cost of the asset considering particularly factors like changing price-levels and inflationary trend in economy.

## 6.0 Method of Fixing Depreciation:

The principal methods of fixing depreciation are as follows:

[1] Fixed Instalment Method or Straight Line Method or Original Cost Method
[2] Reducing Instalment Method or Diminishing Balance Method
[3] Annuity Method
[4] Depreciation Fund Method
[5] Insurance Policy Method
[6] Revaluation Method
[7] Depletion Method and
[8] Machine Hour Rate

## 7. 0 Method & Procedure to be Applied:

Out of as many as eight principal methods for calculating depreciation **Reducing Instalment Method or Diminishing Balance Method** shall be used for calculating depreciation of assets under BWDB.

In this method a constant percentage of the balance of cost is written off each year. The charge for depreciation is gradually reduced each year. The salvage value in this method is the depreciated value of the asset at the end of its useful life.

Example describing the process of calculation of depreciation by Reducing Instalment Method/ Diminishing Balance Method is presented below as a guideline.

After expiry of useful life if an asset is able to render its services and is used beyond its useful life, then considering its book value (salvage value) as acquisition cost of the asset, **the use of the asset may be extended** with the recommended depreciation rate.

For calculating depreciation of unused equipment, machinery, spare parts, tools, tackles, stores and materials for light and heavy transport & equipment **Revaluation Method** of depreciation shall be used under special terms and conditions.

The two methods considered to be used in BWDB are briefly described in the following sub-article.

### 7.1 Reducing Instalment Method or Diminishing Balance Method.

This method provides decreasing charges by applying a constant percentage rate to a declining asset book value. The rate to be applied to the declining book value in producing the estimated salvage value at the end of useful life of the asset shall be calculated by the formula given below.

(*i*) $r = 1 - \sqrt[n]{s \div c}$

(ii) $s = c \times \{(100-r)/100\}^n$

Where,

c = asset cost,
s = salvage value,
n =. asset life,
r = depreciation rate

For solution of the formula a judicious assumption is required for two parameters i.e asset life and depreciation rate.

**Example:**

A certain percentage of balance of cost is written off every year as depreciation. Considering an asset cost of Tk.1000.00, useful life of 10 years and depreciation rate of 10% per year, the **depreciation charge of the asset** at different years are :

For the first year = 10% x Tk.1000.00 = Tk.100.00
For the second year = 10% ( Tk.1000.00 -Tk.100.00) = Tk. 90.00
For the third year = 10% ( Tk.1000.00 -Tk.190.00) = Tk. 81.00
For the fourth year = 10% (Tk. 1000.00 - Tk.271.00) = Tk. 72.90
For the fifth year = 10%(Tk. 1000.00 - Tk. 343.90) = Tk. 65.60
And so on

The method of calculation as shown above shall be followed for calculation of depreciation for all types of assets under BWDB except unused spare parts, tools, tackles etc. for light and heavy transport equipment.

On the basis of the depreciation worked out as above the **book value** of the asset will stand as below:

At the end of 1st year = Tk. 1000.00 - Tk. 100.00 = Tk. 900.00
At the end of 2nd year = Tk. 900.00 - Tk. 90.00 = Tk. 810.00
At the end of 3rd year = Tk. 810.00 - Tk. 81.00 = Tk. 729.00
At the end of 4th year = Tk. 729.00 - Tk.72.90 = Tk. 656.10
At the end of 5th year = Tk. 656.10 - Tk. 65.60 = Tk. 590.50

### 7.2 Revaluation Method

This method shall be used only in case of small items like cattle (livestock) or loose tools where it may be too much to maintain account of each single item. The amount of depreciation to be written off shall be determined by comparing the value at the end of the year (valuation being done by some one having knowledge of the asset) with the value in the beginning.

### 7.3 Useful Life and Depreciation Rate

In consideration of type of use and causes of depreciation, the useful life, rate of depreciation per year and salvage value of different equipment, machinery, materials and other assets under BWDB are provided in Annexure-A for use in all offices under BWDB.

### 7.4 Depreciation Reserved Fund

At the end of the life of an equipment and machinery procurement/ replacement of the same sort of equipment and machinery is inevitably required. For such procurement /replacement fund requirement is obvious. To arrange such fund or part of it a depreciation reserve fund shall require to be maintained in ME and Dredger Organization. Under this an amount equal to depreciation charged to machinery/ equipment shall be set aside from the revenue earnings each year and maintained in a separate bank account under the head "Depreciation Reserve Fund" and allow it for investment in fixed deposit or Defence Bond. At the end of the life of equipment/machinery the reserve so maintained shall be utilised for procurement of machinery/equipment of similar nature.

Such reserve fund will be distinctly shown in the Books of Accounts and will appear in the Balance Sheet as liability.

### 8.0 Implementation and Monitoring

The following steps shall be followed or taken up for the implementation of the Procedures for Depreciation:

[1] Immediately after procurement (in the case of plant and machinery) or installation (in the case of buildings, structures, roads, barrages etc.) of an asset a card shall be opened or entry in a register shall be made mentioning (Annexure-B):

(i) type code with serial number,
(ii) asset cost/ acquisition cost
(iii) date of purchase / completion date of construction
(iv) estimated useful life.

At the end of every 12 months of acquisition of the asset the book value of the asset shall be calculated and recorded in the register or card as per format of sample card.

[2] All Chief Engineers will monitor the implementation of these procedures and all superintending Engineers/ Directors will prepare an annual report and forward the same to the Director of Accounts along with annual report on tools and plants. The Director, Accounts will verify the correctness of same as per Codal Rules.

ANNEXURE-A

## USEFUL LIFE AND RECOMMENDED DEPRECIATION RATE OF THE ASSETS OF BWDB

| Sl.No | Equipment | Useful life (years) | Rate of depreciation per year in percentage (%) | Salvage value after useful life (%) | Remarks |
|---|---|---|---|---|---|
| **1.0** | **WORK SHOP EQUIPMENTS AND MACHINE TOOLS** | | | | |
| | **A. HEAVY** | | | | |
| 1. | Lathe Machine | 15 | 12 | 14.70 | |
| 2. | Radial Drill Machine | | | | |
| 3. | Heavy Duty Column Drill | | | | |
| 4. | Milling Machine | | | | |
| 5. | Shaper Machine | | | | |
| 6. | Planer Machine | | | | |
| 7. | Shearing Machine | | | | |
| 8. | Bending Machine | | | | |
| 9. | Forged hammer Machine | | | | |
| 10. | Crank shaft grinding Machine | | | | |
| 11. | Surface grinding Machine | | | | |
| 12. | Fuel pump testing and calibration Machine | | | | |
| 13. | Valve grinding Machine | | | | |
| 14. | Vertical lathe Machine | | | | |
| 15. | Pipe bending Machine | | | | |
| 16. | Wood saw machine/Bend saw Machine | | | | |
| 17. | Wood planer | | | | |
| 18. | Power saw | | | | |
| 19. | Hydraulic press (more than 20 ton) | | | | |
| 20. | Shaft grinder/Universal grinder | | | | |
| 21 | Similar other Machine tools | | | | |
| | **B. LIGHT** | | | | |
| 1. | Electric arc welding machine | 5 | 35 | 11.60 | |
| 2. | Air compressor | | | | |
| 3. | Water pump | | | | |
| 4. | Diesel Generator upto 30 KW | | | | |
| 5. | Lubrication unit | | | | |
| 6. | Power Saw | | | | |
| 7. | Bench drill machine | | | | |
| 8. | Blower | | | | |
| 9. | Tools grinder | | | | |
| 10. | Fuel injector tester | | | | |
| 11. | Hydraulic press (upto 20 ton) | | | | |
| 12. | Reveting machine | | | | |
| 13. | Spot welding machine | | | | |
| 14. | Boring machine | | | | |
| 15. | Honning machine | | | | |
| 16. | Hand machine and tools | | | | |
| 17. | Similar other equipment | | | | |

| Sl.No | Name of equipment | Useful life (years) | Rate of depreciation per year in percentage (%) | Salvage value after useful life (%) | Remarks |
|---|---|---|---|---|---|
| **2.0** | **LAND BASED EARTH MOVING AND CONSTRUCTION EQUIPMENT** | | | | |
| | **A. HEAVY** | | | | |
| 1. | Crawler Dragline/Crane | 12 | 15 | 14.22 | |
| 2. | Wheel mounted crane | | | | |
| 3. | Tractor/Bull dozer | | | | |
| 4. | Motor Grader | | | | |
| 5. | Pay Loader | | | | |
| 6. | Scraper | | | | |
| 7. | Road Roller | | | | |
| 8. | Sheep foot roller | | | | |
| 9. | Drilling Rig | | | | |
| 10. | Diesel Generator (above 30 KW) | | | | |
| 11. | Dump Truck (Bottom/Rear) | | | | |
| 12. | Back Hoe/Excavator | | | | |
| 13. | Tower crane | | | | |
| 14. | Truck crane | | | | |
| 15. | Batching plant | | | | |
| 16. | Pile driving Hammer (drop hammer) | | | | |
| 17. | Vibro Hammer | | | | |
| 18. | Diesel Hammer | | | | |
| 19. | Similar other equipment | | | | |
| | **B. LIGHT** | | | | |
| 1. | Auger | 5 | 30 | 16.18 | |
| 2. | Logger | | | | |
| 3. | Mixture Machine | | | | |
| 4. | Similar other machines | | | | |
| | **C. EXTRA LIGHT** | | | | |
| 1. | Concrete Vibrator Machine | 5 | 35 | 11.60 | |
| 2. | Similar other machines & equipment | | | | |
| **3.0** | **LAND BASED TRANSPORT EQUIPMENT AND VEHICLES** | | | | |
| | **A. HEAVY** | | | | |
| 1. | Fuel /Water Tanker | 10 | 15 | 19.69 | |
| 2. | Flat bed Truck | | | | |
| 3. | Winch Track | | | | |
| 4. | Truck/ cargo Truck | | | | |
| 5. | Lowbouy Trailor | | | | |
| 6. | Similar other vehicles | | | | |
| | **B. LIGHT** | | | | |
| 1. | Bus | 10 | 20 | 10.74 | |
| 2. | Minibus | | | | |
| 3. | Microbus | | | | |
| 4. | Jeep/Pickup | | | | |
| 5. | Car | | | | |
| 6. | Motor cycle | | | | |
| 7. | Similar other vehicles | | | | |

| Sl. No. | Name of equipment | Useful life (year) | Rate of depreciation per year in percentage (%) | Salvage value after useful life (%) | Remarks. |
|---|---|---|---|---|---|
| **4.0 RIVER CRAFT/ MARINE EQUIPMENT & VESSELS** | | | | | |
| | **A. HEAVY** | | | | |
| 1. | Dredger | 15 | 15 | 8.74 | |
| 2. | Tug | | | | |
| 3. | Barge | | | | |
| 4. | Self propelled barge/Work boat | | | | |
| 5. | Launch | | | | |
| 6. | Pontoon | | | | |
| 7. | Similar other marine equipment | | | | |
| | **B. LIGHT** | | | | |
| 1. | Catamarang | 10 | 20 | 10.74 | |
| 2. | Speed Boat Body | | | | |
| 3 | Floater for dredger | | | | |
| 4.. | Similar other marine equipment | | | | |
| | **C. EXTRA LIGHT** | | | | |
| 1. | Outboard engine | 4 | 30 | 24.01 | |
| 2. | Engine boat | | | | |
| 3. | Similar other marine equipment | | | | |
| **5.0 OFFICE EQUIPMENT AND APPLIANCES** | | | | | |
| | **A. ELECTRONICS** | | | | |
| 1. | Computer | 3 | 50 | 12.50 | |
| 2. | Dot Printer (Computer) | | | | |
| 3. | Laser Printer (Computer) | | | | |
| 4. | UPS (Computer) | | | | |
| 5. | Intercom | | | | |
| 6. | Fax machine | | | | |
| 7. | Similar other appliances | | | | |
| | **B. ELECTRICAL-1** | | | | |
| 1. | Voltage Stabilizer | 5 | 25 | 23.73 | |
| 2. | Air cooler | | | | |
| 3. | Photo copier | | | | |
| 4. | Duplicating Machine | | | | |
| 5. | Electric Type writer | | | | |
| 6. | Telephone set | | | | |
| 7. | Oven | | | | |
| 8. | Similar other equipment | | | | |
| | **B. ELECTRICAL-2** | | | | |
| 1. | Ammonia Printer | 8 | 25 | 10.01 | |
| 2. | Refrigerator | | | | |
| 3. | Similar other equipment | | | | |
| | **B. ELECTRICAL-3** | | | | |
| 1. | Ceiling Fan | 10 | 25 | 5.63 | |
| 2. | Pedestal Fan | | | | |
| 3. | Similar other equipment | | | | |
| | **C. MECHANICAL** | | | | |
| 1. | Type writer | 5 | 25 | 23.73 | |
| 2. | Duplicating machine | | | | |
| 3. | By-cycle | | | | |
| 4. | Similar other appliances | | | | |

| Sl. No. | Name of equipment | Useful life (year) | Rate of depreciation per year in percentage (%) | Salvage value after useful life (%) | Remarks |
|---|---|---|---|---|---|
| | **D. FURNITURE-1** | | | | |
| 1 | Wooden | 12 | 15 | 14.22 | |
| 2 | Fibre/PVC | | | | |
| 3 | Similar other furniture | | | | |
| | **E. FURNITURE-2** | | | | |
| 1. | Steel | 12 | 12 | 21.57 | |
| 2. | Similar other furniture | | | | |
| **6.0 LABORATORY AND TESTING EQUIPMENT** | | | | | |
| 1. | Universal Testing Machine | 15 | 20 | 3.52 | |
| 2. | Hardness Tester | | | | |
| 3. | Exhaust Analyser | | | | |
| 4. | Weighing balance | | | | |
| 5. | Concrete Tester | | | | |
| 6. | Similar other equipment | | | | |
| **7.0 SURVEY EQUIPMENT** | | | | | |
| 1. | Theodolite | 5 | 30 | 16.81 | |
| 2. | Levelling Instrument | | | | |
| 3. | Geodetic Receiver | | | | |
| 4. | Current meter (water flow meter) | | | | |
| 5. | Echo sounder | | | | |
| 6. | Similar other tools and instruments | | | | |
| **8.0 PRINTING MACHINARY** | | | | | |
| 1. | Offset printing machine | 10 | 15 | 19.69 | |
| 2. | Reproduction machine | | | | |
| 3. | Reproduction Camera | | | | |
| 4. | Similar other machines | | | | |
| **9.0 MEDIA COMMUNICATIONS** | | | | | |
| 1. | Telemetering equipment | 8 | 25 | 10.01 | |
| 2. | Radio receiver | | | | |
| 3. | Television | | | | |
| 4. | VCR/ VCP | | | | |
| 5. | Wireless set | | | | |
| 6. | Similar other equipment | | | | |
| **10.0 PHOTOGRAPHIC INSTRUMENT** | | | | | |
| 1. | Video camera | 5 | 30 | 16.81 | |
| 2. | Camera | | | | |
| 3. | Binocular | | | | |
| 4. | Similar other equipment | | | | |
| **11.0 MEASURING INSTRUMENTS** | | | | | |
| 1. | Ameter | 5 | 30 | 16.81 | |
| 2. | Volt meter | | | | |
| 3. | Multimeter | | | | |
| 4. | Measuring Scale | | | | |
| 5. | Weighing balance | | | | |
| | (a) Portable type | | | | |
| | (b) Fixed type | | | | |
| 6. | Similar other equipment | | | | |

| Sl. No. | Name of equipment | Useful life (year) | Rate of depreciation per year in percentage (%) | Salvage value after useful life (%) | Remarks |
|---|---|---|---|---|---|
| **12.0 CAMPS & BUILDINGS** | | | | | |
| | **BUILDINGS:** | | | | |
| 1. | Brick wall and C.I. sheet roof | 20 | 15 | 3.88 | |
| 2. | Brick wall and RCC floors | 40 | 7 | 5.49 | |
| 3. | Frame structures | 50 | 6 | 4.26 | |
| 4. | Workshop buildings (steel truss on RCC frame) | 30 | 10 | 4.24 | |
| **13.0 HYDRAULIC STRUCTURES** | | | | | |
| | **A. BOX REGULATORS/ SLUICE:** | | | | |
| 1. | Brick work on RCC apron and top slab | 25 | 10 | 7.18 | |
| 2. | RCC box and apron | 50 | 6 | 4.53 | |
| 3. | RCC Syphone | 30 | 10 | 4.24 | |
| 4. | Aqueduct | 30 | 10 | 4.24 | |
| 5. | Escapes | 30 | 10 | 4.24 | |
| | **B. RCC PIPE REGULATORS/ SLUICES:** | | | | |
| 1. | Pipe regulators | 20 | 15 | 3.88 | |
| 2. | Inlet structures | | | | |
| 3. | Outlet structures | | | | |
| | **C. NAVIGATION LOCK** | 40 | 7 | 5.49 | |
| | **D. FISH PASS** | 40 | 7 | 5.49 | |
| | **E. PUMP HOUSE** | 50 | 5 | 7.69 | |
| | **F. EMBANKMENT** | | | | |
| 1. | Sea dyke | 50 | 2 | 36.42 | |
| 2. | Dyke along major river | | | | |
| 3. | Marginal dyke | | | | |
| 4. | Interior dyke | | | | |
| | **G. DAM** | | | | |
| 1. | Earthen dam | 40 | 2.5 | 36.32 | |
| 2. | Closure dam | | | | |
| | **H. CANAL** | | | | |
| 1. | Main canal | 30 | 3 | 40.10 | |
| 2. | Secondary canal | | | | |
| 3. | Tertiary canal | | | | |
| | **I. BARRAGE** | 100 | 3 | 4.75 | |
| | **J. BRIDGES:** | | | | |
| 1. | RCC slab bridge | 50 | 6 | 4.53 | |
| 2. | Deck Girder bridge (Steel Girder) | | | | |
| 3. | Deck Girder bridge (RCC) | | | | |
| 4. | Pre-stressed girder bridge | | | | |
| | **K. CULVERT** | | | | |
| 1. | Brick Culvert | 25 | 10 | 7.80 | |
| 2. | Brick Abutment and RCC slab | | | | |
| | **L. PROTECTIVE WORK** | | | | |
| 1. | Groyne | | | | |
| 2. | Spur | 20 | 10 | 12.16 | |
| 3. | Revetment Works | | | | |
| | [a] with geotextile | | | | |
| | [b] without geotextile | | | | |

| Sl. No. | Name of equipment | Useful life (year) | Rate of depreciation per year in percentage (%) | Salvage value after useful life (%) | Remarks |
|---|---|---|---|---|---|
| 14.0 | **ROAD** | | | | |
| 1. | HBB road | 8 | 15 | 27.27 | |
| 2. | Concrete road | 15 | 10 | 20.59 | |
| 3. | Flexible top | 20 | 7 | 23.42 | |
| 15.0 | Deep Tube Well | 10 | 15 | 19.69 | |
| 16.0 | Electric sub-station | 10 | 20 | 10.74 | |
| 17.0 | **Electric pole** | | | | |
| 1. | Wooden | 10 | 25 | 5.63 | |
| 2. | Steel frame | 30 | 10 | 4.24 | |
| 3. | RCC pole | 20 | 25 | 0.32 | |

Note: After expiration of useful life if an asset is able to render its service and is used actually beyond its useful life, then considering the book value (salvage value) as acquisition cost of the asset, the use of the asset may be extended with the recommended depreciation rate.

## BANGLADESH WATER DEVELOPMENT BOARD
## ASSET RECORD CARD

NAME OF THE OFFICE:_____

ZONE :_____

Nomenclature : _____ Capacity :_____

Useful Life : _____ Asset Cost : _____BWDB No: _____

Depreciation Rate :_____ Date of Purchase/Completion : _____Reg. No.____

Builder/ manufacturer: _____ Local Agent: _____

| Description of Asset | End of Year | Depreciated Value | Accumulated Depreciation | Asset Book Value | Remarks |
|---|---|---|---|---|---|
| | 0 | | | | |
| | 1 | | | | |
| | 2 | | | | |
| | 3 | | | | |
| | 4 | | | | |
| | 5 | | | | |
| | 6 | | | | |
| | 7 | | | | |
| | 8 | | | | |
| | 9 | | | | |
| | 10 | | | | |
| | 11 | | | | |
| | 12 | | | | |
| | 13 | | | | |
| | 14 | | | | |
| | 15 | | | | |
| | 16 | | | | |