

BANGLADESH WATER DEVELOPMENT BOARD



PROJECT COMPLETION REPORT: IMED-04/2024

Name of the Project: Bangladesh Weather and Climate Services Regional Project. (Component B): Strengthening Hydrological Information Services and Early Warning Systems.

PROJECT PERIOD: JULY 2016 - JUNE 2024

July 2025

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Government of the People's Republic of Bangladesh
Ministry of planning
Implementation Monitoring and Evaluation Division

PROJECT COMPLETION REPORT (PCR): IMED 04/2024 (Revised)

A. PROJECT DESCRIPTION

01.	Name of the Project	:	Bangladesh Weather and Climate Services Regional Project. (Component B): Strengthening Hydrological Information Services and Early Warning Systems.
02.	Administrative Ministry/Division	:	Ministry of Water Resources
03.	Executing Agency	:	Bangladesh Water Development Board
04.	Planning Commission Sector/Division	:	Physical Infrastructure Division
05.	Type of Project (Investment/Technical/Feasibility Study): Investment		
06.	Location of the Project (As per Project Document):		
Sl. No	Division	District	City Corporation/ Municipality/Upazila
	The Project implemented allover Bangladesh		

07. Estimated Cost, Implementation Period and Approval: (In Lakh Taka)

Subject	Approved Estimated Cost				Implementation Period	Date of Approval	Approved by
	Total	GOB (Foreign Exchange)	PA (RPA)	Self-finance			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Original	34,064.83	2,203.95	31,860.88	-	July 2016-June 2021	14 February 2017	ECNEC
1 st Revised	34,064.83	2,203.95	31,860.88	-	July 2016-June 2021	18 October 2018	Ministry of Water Resources
2 nd Revised	34,569.96	4,827.23	29,742.73	-	July 2016-June 2023	25 August 2021	Planning Ministry
1 st No Cost Extension	34,569.96	4,827.23	29,742.73	-	July 2016-June 2024	18 July 2023	Ministry of Water Resources
Intercomponent Adjustment	34,569.96	4,827.23	29,742.73	-	July 2016-June 2024	09 October 2023	Ministry of Water Resources

08. Objective of the Project

Overall objective:

The objective of the project is *"to strengthen Bangladesh Water Development Board's capacity to deliver reliable weather, water and climate information services and improve access to such services by priority sectors and communities"*.

Specific Objectives (in bullets):

- To provide comprehensive support to the BWDB towards modernization of its hydrological monitoring network and operations.
- Procurement of hydrological equipment.
- Improvement in flood forecasting covering whole Bangladesh including flash flood and storm surge/cyclone induced flood.
- Development of other water related hazards forecasting/prediction services.
- Forecast products diversification and down- scaling.
- Knowledge creation on trans-boundary hydrological cross-cutting issues.

09. Background of the Project (In brief):

As a low-lying delta, Bangladesh has one of the most complex river systems in the world. The main commission of BWDB is the implementation of the National Water Policy. This requires, management and operation of the FFWC, production and supply of reliable data for not alone flood forecasting, but also for the national water resources management and for related decision-support. As such BWDB is responsible for the national hydrological services to supply relevant data information for water resources management.

The hydrological services are provided by BWDB through BWDB Hydrology. The core function of the hydrological services under BWDB Hydrology is to collect data from nation-wide monitoring stations. Most of its hydrology network was established back in 1960-1980, with support from development partners. Bangladesh Water Development Board is maintaining around 343 water level stations, 269 rainfall stations, 50 meteorological stations, 1800 ground water stations in the country through Hydrology, BWDB. There has been little upgrading since the installation. The overall data collection network remains manually operated with old and poorly maintained equipment. This limits BWDB to provide reliable information to various stakeholders effectively.

The internal institutional setting of BWDB is inadequate, in which Hydrological services are not given the proper attention, which is partly indicated by not being provided with an adequate operational budget, man power for running and to maintain the hydrological monitoring, and reporting system. BWDB is currently undergoing a major restructuring. Its staff strength is being significantly reduced, and some services are intended outsourced. In this restructuring process it is important that BWDB Hydrology obtains an institutional and financial position that secures an effective operation of the hydrological services including provision of flood forecasts, early warning, low flow and groundwater monitoring.

To evaluate the situation with concerned offices a World Bank Identification Mission visited Bangladesh during November 2-10, 2014 and subsequent preparation mission visited in February 15-26, 2015 and June 1-11, 2015 proposed interventions for modernization and integration of hydrological services in Bangladesh with the focusing of different stakeholders. A follow up World Bank mission visited Bangladesh from September 13-23, 2015, Appraisal Mission from December 6-December 15, 2015 and Technical Mission from February 22-25, 2016 to continue preparation and finalization of the Weather and Climate Services Regional Project (WCSR).

The main objectives of mission visit (Sept. 13-23, 2015) were to:

- finalize project implementation arrangements,
- review the status of preparation plans for the project relating to technical environmental, procurement and financial management,
- agree on the results framework, including indicators, baseline and targets,
- develop action plans to ready the project for appraisal and
- to evaluate readiness of the project.

The purpose of appraisal mission visit (Dec. 06-15, 2015) were to:

- agree on the final design of the proposed project with the Economic Relations (ERD) and the allied departments including the Ministry of Defense, Ministry of Resources and Ministry of Agriculture;
- finalize the project implementation timeline, progress of the DPP prep procurement plan and priority tender document finalization; and
- develop action plan for next steps to ready the project for implementation.

The main objectives of the technical mission (Feb. 22-25, 2016) were to discuss technical issues with the three focal agencies for the Weather and Climate Services Regional Project to expedite the negotiation.

The project has 3 components:

Component A: Strengthening Meteorological Information Services (IDA: US\$ 58.88 million: This Component strengthen BMD's meteorological monitoring network, capacity and delivery of weather and climate services. It has three sub-components.

Component B: Strengthening Hydrological Information Services and Early Warning Systems (IDA: US\$40.615 million): The main objective of this component is to improve hydrological observation, forecasting, and early warning systems. The component would be implemented by the BWDB.

Component C: Agro-meteorological Information Systems Development (IDA: US\$ 13.50): The objective of this component is to provide agro-meteorological services to farmers in order to increase agricultural productivity and assist them in coping with weather and climate extremes.

10. Major Activities:

The main objective of this component is. to improve the provision of hydrological services in Bangladesh by strengthening hydrological observation, forecasting, and early warning systems. The component would be implemented by the BWDB and includes the following:

Sub-component B1: Strengthening Hydrological Observation Network and Forecasting: This sub-component has supported modernization of BWDB's hydrological monitoring network, ICT Systems and forecasting.



This comprises of the following activities:

(a) Sub-Component B1.1: Strengthening Hydrological Monitoring and ICT systems:

This includes

- support for a Water Resources System Integrator (WRSI) consultancy to assess, design, prepare technical documentation and support BWDB in the implementation of key project activities;
- upgrading 308 manual water level stations to be equipped with automatic data collection and reporting in real-time;
- upgrade 257 rain gauges to automatic and real time;
- upgrade 10 existing climate stations operated by BWDB;
- upgrade or establish 1100 groundwater stations and nests of various configurations to automatically report measurements;
- purchase of 4 catamarans and 4 survey boats for coastal hydrographic survey and stream gauging;
- purchase 04 vertical profiling ADCPs;
- purchase 01 Side Scan Sonar;
- purchase of 20 water quality sondes for measuring salinity and total dissolved solids (TDS);
- purchase 8 echo sounders to support river gauging and river morphology measurements; and purchase of 2 survey grade echo sounders;
- establish 40 land based coastal storm surge inundation stations;
- procure 15 handheld TDS meters;
- acquisition of 8 total stations (used for aiding river morphology surveys), 13 RTK-GPS, 6 DGPS beacon receiver, 4 first order digital leveling machine and 2 Sub bottom profiler 5-10m penetration capacity;
- upgrade of the existing hydrological measurement equipment maintenance, repair and calibration facility at BWDB; and
- upgrading BWDB ICT systems and communication systems including links with local offices.

(b) Subcomponent B.1.2: Hydrological met Flood Forecasting: This includes

- purchase of 4 Nowcasting workstations for short lead time events and development of flash flood forecasts for flash flood prone areas;
- upgrade existing flood forecast models to cover coastal areas;
- hardware and software for development of medium range (weeks up to a month) and long range (seasonal) forecasts and capacity for 24/7 flood forecasts during pre-monsoon, monsoon and post monsoon seasons as needed;
- Forecast and model of Groundwater table trends emphasizing dry irrigation period.

Sub-component B2: Institutional Capacity Strengthening, Regional Collaboration, Project Management, Monitoring and Evaluation: The main objective of this sub-component is to strengthen BWDB's Hydrology Division's technical capacity, regional collaboration, project management, monitoring and evaluation. This includes the following-

(c) Sub-Component B2.1: Technical and institutional Capacity Strengthening and Regional Collaboration which includes:

- consultancy on training needs assessment;
- training for BWDB officials through a combination of in-house training, study tours, targeted training courses in collaboration with other Hydro-met agencies, twinning arrangements;

- development of data sharing policy for BWDB;
- consultancy to support refurbishment of BWDB and Divisional offices;
- refurbishment of BWDB and divisional offices;
- regional technical studies and consultations, and
- support to scaling up ongoing regional initiatives and programs.

(d) Sub-Component B2.2: Project Management, Monitoring and Evaluation which has supported project management by supporting PIU and PCU functions-through hiring of technical experts and consultants, technical studies and-monitoring and evaluation.

Sub-Component B2.2 has supported project management activities, technical studies and monitoring and evaluation. Funding has been used to hire a project technical advisor, procurement consultant, financial management consultant, environment consultant, monitoring and evaluation and social and communication consultant. This Sub-Component has also provided support for project coordination activities undertaken by the PCU located at the BWDB.

Sub-component B3: Strengthening Hydrological Services and Flood Early Warning Systems: This sub-Component aims to strengthen BWDB service delivery for hydrological and flood forecasting services. It comprises of the following activities:

(e) Sub-Component B 3.1: Hydrological and Flood Early warning Services; which includes:

- Baseline survey to assess user needs;
- GIS center design, software & training;
- software to share data within BWDB and with BWDB stakeholders, along with exchanging observation data in real-time with BMP (such as BWDB automatically sending BMD rainfall data, and BMD automatically sending BWDB rainfall data, QPE/QPF's, as an automated subscribed service etc.
- product development;
- installation of web-portal for sharing data and products with stakeholders;
- implement software/to provide automated product generation based on requirements from stakeholders; and
- consultancy to design and implement the Common Alerting Protocol (CAP) system (involving computers, software and end user facilities), in collaboration with the Department of Disaster Management, the BWDB and other end-users;

(f) Sub-Component B 3.2: Community Based Early Warning Services: which includes support to Community based early warning systems for flash flooding in two districts in the northeast of Bangladesh.

11. Reasons for Revision (if applicable):

• First (1st) Revision:

A few discrepancies/inconsistencies including incorrect economic code of DPP have detected which causes impediment of project implementation and IDA (The World Bank) has given some observations and suggestions on the ToR of Consultancy Services attached in the approved DPP. Under these circumstances, it is required, to revise the DPP for smooth implementation of the project.



The main features of proposed revision and item-wise reasons/ justifications for variations in cost (if any) are described below:

a) Correction of the Economic Codes:

i) Economic Code 4827: Printing, Publication and Binding

The items and fund allocated for Economic Code: 4827 (Printing, Publication and Binding) is proposed to split as Economic Code: 4827 (Printing & Binding) amounting BDT 19.50 lac and Economic Code: 4835 (Publications) amounting BDT 30.00 lac.

ii) Economic Code 4848: PCU and PIU operational cost

The item description of Economic Code: 4848 mentioned in DPP is "PCU and PIU operational cost" which is incorrect. Correct item description (code 4848) is "Management Charges (PCU and PIU Operational Cost)". In proposed RDPP Economic Code: 4848 has been split into 09 codes (4815: Postage, 4817: Telex/Fax/Internet, 4833: Advertising and publicity, 4888: Computers & consumables, 4889: Audit fee, 4893: Hiring Charges, 4899: Others, 4921: Office Buildings & 4991: Others repair and maintenance).

iii) Economic Code 4883/4806/4816/4819/4821/4822/4805/4899: Salary and other allowances of counterpart BWDB staff, Direct Recruit, Outsourced Employees and Costing of Project Management Support:

In the DPP, a number of Economic Code numbers are given for the item "Salary and other allowances of counterpart BWDB staff, Direct Recruit, Outsourced Employees and Costing of Project Management Support" which is erased and each and every item with economic codes inserted in Item-8 (of revised DPP format).

iv) Economic Code 4883: Honorarium for meeting, seminar and workshops:

In the DPP, salary of the employees is mistakenly shown against Economic Code: 4883. It is corrected to Economic Code: 4501 (Pay of officers).

v) Economic Code 6807: Hiring of Vehicle

Hiring charges (Vehicle: Double Cabin Pickup) is mistakenly mentioned in code: 6807 which is corrected by Economic Code: 4893.

vi) Economic Code 6851: Supply of Calibration goods, GIS/Satellite Images, DEM etc. & Data sharing, collaboration on identifying & mitigating transboundary risks and others.

Economic. Code: 6851 is incorrect and mistakenly duplicated. Correct codes are 4829 & 6817 in which Data Sharing, Collaboration on identifying & mitigating transboundary risk, Community based EWS in 2 flood prone districts and Supply of Calibration goods, GIS/Satellite Images, DEM etc are accommodated respectively.

vii) Economic Code 6820: Advertising and Publicity, Sampling, Testing, and Analysis GW, Survey, Study & Investigation



The item set forth against Economic Code: 6820 is "Advertising and Publicity, Sampling, Testing, and Analysis GW, Survey, Study & Investigation" which is proposed to replace by Testing fee (4885), Advertising and Publicity (4833) and Survey (4886).

viii) Economic Code 7000: operation & maintenance cost and refurbishing of hydrology office buildings and establishment of hydro-lab etc.

Economic Code: 7000 is incorrect and mistakenly duplicated. Correct codes are 7016 & 4932 in which other building & structures and engineering equipment has been procured respectively.

b) Procurement of Goods (Economic Codes 6814):

In the approved DPP, BDT 13983.24 lac was allocated to procure Engineering Equipment by 06 (six) packages (G1- G6). In the procurement plan, mistakenly no budget was allocated for package G-3 (to procure four Catamarans and four Survey Boats). Summing six packages (G1-G6) total costs stands BDT 13610.78 lac which means allocation for package G-3 is $(13983.24 - 13610.78) = \text{BDT } 372.46 \text{ lac}$. With this allocation for package G3, purchase of 1 (one) Catamaran and 1 (one) Survey Boat is not even possible instead of 4 (four) nos. of each respectively. Hence allocation increased to BDT 513.19 lac (with the adjustment within Economic Code 6814) and accordingly, Specification has been incorporated in the revised DPP.

In package no. BWDB-G4 in DPP, the technical specification of the side scan Sonar was missing. So, in the revised DPP, the specification of the side scan sonar has been incorporated accordingly (Appendix-H).

c) Survey, Study and Investigation (Economic Codes 4886):

All the BWDB's hydrological monitoring stations are referenced with Public Works Datum (PWD) which was established 60-70 years back. Survey of Bangladesh (SoB) has mandated to fix datum value and they established around 3000 bench mark (BM) pillars all over the country. In recent years, through field survey, many of the BWDB used datum value (referenced with PWD) found different with SoB's datum value. For any hydrological/survey data, datum value is most important and BWDB authority has decided to use SoB's datum value instead of PWD datum value. So, all the BWDB's hydrological monitoring stations datum value needs to check and reestablish.

In the approved DPP, BDT 157.1 lac has been allocated for one package, no BWDB NS-6 (Survey, Study and Investigation). This amount is not enough to complete these important activities (Check/connect/establish/re-establish BM pillars for 308 nos. water level, 1250 nos. ground water wells, 257 nos rainfall and 3 nos. weather stations). Hence, in the Project Steering Committee (PSC) meeting it was decided to allocate more 600.00 lac taka from block allocation (total $157.1 + 600 = 757.1 \text{ lac Taka}$) (decision no. VI).

Accordingly, the total Survey, Study and Investigation tasks can be divided into 04 nos. packages (03 packages under revenue component and 01 package under capital. component).

i) Detailed site survey for selection of hydro-met stations (308 nos. water level, 257 nos. rainfall, 3 nos. weather and 69 nos. new nested groundwater well stations). Considering the specialization of survey components, this work can be awarded to Institute of Water Modeling (IWM) in DPM/Single Source tendering method. The approximate estimated cost for this package is BDT 60 Lac which is known as

ii) Flying of level (SoB Value) to the BWDB BM pillars of 308 nos. surface water level stations. This work can be awarded to Survey of Bangladesh (SoB) in DPM/Single Source tendering method. The approximate estimated cost for this package is BDT 240 Lac which is known as package no BWDB-NS5.

iii) Establish BM pillars for 308 nos. surface water level stations by OTM method. The approximate estimated cost for this package is BDT 257.1 Lac which is known as package no BWDB-W-5.

iv) Flying of level (SoB Value) to the BWDB groundwater level stations (top of well) by OTM method. The approximate estimated cost for this package is BDT 200.00 Lac which is known as package no BWDB-NS8.

d) Inappropriate/omitted/misplaced items with Economic Codes:

Some important/essential items are appropriate/missing/misplaced in the DPP as well as some unnecessary items and codes are incorporated. For smooth functioning of the project the following new items with economic code/rightly placed items has been incorporated in the proposed RDPP shown table below:

Budget; Head	Item code	Item Description	Inappropriate/Omitted/misplaced	Amount in BDT (Lac)	Reasons
Revenue	4501	Pay of Officers	Inappropriate	50.20	Wrongly placed in code 4883
	4801	Travel Expenses	Misplaced	49.24	Wrongly placed in code 4883
	4829	Research/Innovative Expenditure	Misplaced	2200.00	Misplaced code: 6851
	4835	Publication	Inappropriate	30.00	Wrong economic code 4827
	4885	Testing Fee	Misplaced	393.50	Wrong economic code 6820
	4848	Management charges	Omitted	393.10	Placed in correct Code (4815,4817,4883,4888, 4889,4893,4899,4833,4921, & 4991)
	4932	Engineering Equipment	Misplaced	100.00	Wrong economic code 7000
	4795	Others allowances @30% project allowance (on basic pay) for BWDB deputed employees. (Appendix-I)	New	50.00	Wrongly addressed as "Salary and other allowances of counterpart BWDB staff"
	4886	Survey	New	552.90	Insufficient allocation and wrong economic code 6820
Capital	7016	Others Buildings and structures	Misplaced	2366.00	Wrong economic code 7000
	6815	ICT system including VC's in 13 location	Omitted	945.10	Placed in correct code 6823 & 6816

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e) TORs of the Consultancy Services (Firm) (Economic Codes 4874):

As requested by World Bank (for effective functioning of consultants), the following changes, inclusion and/or exclusion are made in the ToR for the appointment of the WRSI Consulting Firm:

Under the Task 1.5: Institutional and human capacity development plan that meets the requirements of a modernized Hydrology wing of BWDB, inclusion of 'The Consultant has presented the draft report to the BWDB senior management (DG, ADG, Chief Planning etc.) before finalization' is proposed.

Under the Task 2.2: Coastal flood inundation stations, inclusion of 'The type of water level measurement sensors should be reviewed from the accuracy, reliability, affordability, and O&M standpoints. For the inundation stations benchmarking, BWDB is planning to use the national datum* has been proposed.

The title of the Task 2.3: Video Conference Technology has been excluded, but this Task has been included under the Task 2.3 ICT improvements.

Under the Task 3.7: Consultancy to develop the capacity to forecast inundation due to storm surge, inclusion of 'The Consultancy has reviewed existing, publicly available (e.g. DEM in place in Google Earth) or newly obtained DEM data and update them for the inundation forecast' has been proposed.

Under the general requirements of the consultant, inclusion of 'It is expected that the team has had a minimum of 4 key experts with international breadth of experience that can span the required expertise. The 4 key experts has been accompanied by well-qualified national team members of the bidders choosing that has generally worked subordinatedly and under the direction of the key experts. All key experts has been required to have experience in managing teams as it is expected that the key experts has managed national team members, provide guidance, and provide detailed review of all analyses/deliverables has been proposed.

More Scope of Services has been proposed for the Team Leader (International Experience) by including 'and has had leadership and responsibility for delivery of all consultancy outputs and results. In addition to being involved closely in the assessment phase and managing experts in the team, the TL has also been responsible for delivery of outputs related to 1-2 key competencies listed below (such as Hydro met monitoring and observation systems, hydrological forecast systems, Early warning, Institutions and policy, or Training etc.) and for providing expert guidance to national members of the team'. Annual distribution of man months has been rearranged by keeping the total man month for this position unchanged.

It is recommended to include BSc degree in ICT as educational qualification under the position of Information and Communications Technology Systems Expert.

Besides, minor rephrasing the sentences and rearranging the serials have been made in some cases.

• Second (2nd) Revision

At the very beginning, a few discrepancies/inconsistencies including incorrect economic code of DPP caused hindrance in payment thus retarded the project progress. In the meantime, the World Bank had given some observations and suggestions on the TOR of Consultancy Services attached in the approved DPP. Under those circumstances, it was necessary to review the DPP for smooth implementation of the project. The first revised DPP was submitted and was approved by the Ministry of Water Resources in July 2018. The Financing Agreement of the project was signed on 05 April 2017 between GoB and World Bank (IDA), according to the agreement date of closing of financing is December 31, 2022. Administrative approval from the Ministry of water resources was issued on 19 June 2017 and the Project Director was appointed on 11 July 2017. So, the project was started late and missed the first two financial years in its implementation.

Again, the Financing Agreement was amended on 14 May 2020 and RPA 4.7905 million USD has been withdrawn reducing total RPA contribution to 35.8295 million USD. As, i) RPA USD 4.7905 Million has already been Withdrawn by the World Bank ii) The implementation of the project commenced with almost 02 (two) years delay, iii) Due to delay of selecting a consulting firm to undertake the assignment of Water Resources Systems Integrator (WRSI) consultancy, the most critical technical consultancy for implementation of the project, iv) The contract period of the most important packages (G2 & G6) has ended on March 2022 and further one (1) year needed for Data accruing and Operation & Maintenance by the original vendor which is mandatory according to WB and while WRSI consultant's advice, (which was not considered initially) v) Some packages are reorganized and some new packages are also included in the project for achieving the objectives of the project, vi) the date of closing of financing agreement (FA) of this project is December 31, 2022, also World Bank Task Team Leader (TTL) suggested to keep the project's closing date six months beyond the closing date of financial agreement. So, it does not require extension of FA, therefore project implementation period proposed to extend up to June 2023. For these reasons 2nd revision of the project is necessary. Also, in amended FA both GoB and WB (IDA) has agreed to revise the existing DPP to accommodate the changes.

The main features of the proposed revision and the item wise reasons/justifications for variations in budget are described below:

A) Proposed Allocations under Revenue Codes:

- i) Pay of Officers (Economic Code 4501; New Economic Code 3111101/3111304/3111306/3111310/3111311/3111199/3111325/3111335):

BWDB's officers engaged in the project office are not being paid from the project allocation. They are paid from BWDB establishment budget against their permanent posts. So, the allocation of BDT 50.20 Lac has remained as savings.

- ii) Overtime (Economic Code 4795; New Economic Code 3111327):

No BWDB's staff is engaged in this project office, therefore the allocation of BDT 3.50 Lac is being considered as savings.

- iii) Postage/Registration fees (Economic Code 4815/4818; New Economic Code 3211119/3221104/):

Postage (code 3211119) and Registration Fee (code 3221104) are dropped as no expenditure incurred so far and has not incurred further.

- iv) Fuel and gas (Economic Code 4822; New Economic Code 3243102):

Based on the expenditure incurred up-to 30 June 2020, it is considered that further Tk.1.51 Lac would be needed during the proposed extended project period, hence remaining BDT. 28.49 Lac has remained as savings.

- v) Petrol, Oil & Lubricants (Economic Code 4823; New Economic Code 3243101):

As expenditure incurred up-to 30 June 2020 is BDT 4.35 Lac it is considered that BDT 100.0 Lac has been quite sufficient to meetup the total expenditure till the end of proposed revision. Therefore remaining BDT 50.00 Lac has remained as savings.

Insurance & Bank charges (Economic Code 4824; New Economic Code 3221108/3821116):

As expenditure up-to 30 June 2020 incurred BDT. 42.31 Lac it is assumed that an additional amount of BDT 106.00 Lac has been required to meet up the L.C. commissions for the package of BWDB G-2 and BWDB G-6 till the end of the proposed extension.

vi) Training Expenses (Economic Code 4840; New Economic Code 3231101/3231201/ 3231102):

Based on the expenditure incurred up-to 30 June 2020, it is considered that further Tk.441.20 Lac would be needed during the proposed extended project period, hence the remaining BDT 400.00 Lac has remained as savings.

viii) Research/ Innovative Expenditure (Economic Code 4829; New Economic Code 3257103/ 3257105):

This code comprises three (3) packages, out of which a) Regional Data Sharing (Package NS2, RDPP cost BDT 904.13L) has been dropped because of it would need to involve the governments authorities of the two countries (Bangladesh and India), which is beyond the scope/jurisdiction of this project, b) Design of Hydro-Lab (Package NS11, RDPP cost BDT 37.95L) has been completed by BDT. 35.42 Lac and c) RDPP cost for Community based Early Warning System (EWS, Package NS3) in the 2-flash flood prone Upazillas under Netrokona & Sunamgonj districts has been reduced to BDT.251.58 Lac. So, from the proposed total expenditures of BDT 287.00 Lac the remaining BDT 1913.00 Lac has remained as savings.

ix) Consultancy (Economic Code 4874; New Economic Code 3257101):

In the 2nd RDPP extension of project has been proposed up-to 30 June 2023. In order to achieve the goal of this project, the consultancy services need to be extended, modified & three new packages are included in this code. So, an additional amount of BDT 1200.00 Lac has been required in this head.

x) Testing Fee (GW Quality Testing) (Economic Code 4885; New Economic Code 3221105):

Ground Water testing contract awarded with a contract value of BDT 299.92 Lac, consequently remaining BDT. 93.58 Lac (out of BDT. 393.50 Lac) has remained as savings from this package.

xi) Survey (Economic Code 4886; New Economic Code 3257104):

This code comprises three (3) packages a) Survey of Benchmark (NS6) has been completed with BDT.59.26 Lac. b) Survey, Study & Investigation (NS8) has been completed with BDT. 101.36 Lac and c) Survey of BM for SW Station (NS5) is ongoing where contract price is BDT 190.00 Lac. The remaining BDT 202.28 Lac from the said 3-Packages has remained as savings.

xii) Hiring Charges (Economic Code 4893; New Economic Code 3211107):

The 2nd RDPP for extension of the project proposed up-to 31 December 2022 had in order to enhance the capacity of the offices of the Executive Engineers at field level and to facilitate the movement of the project personnel eight (08) Double Cabin Pickup/Jeeps and two (02) Micro-buses proposed to hire on rental basis up-to June, 202;1. As the closing date of the project is extended up-to December 31, 2022. Two new packages for hiring (BDT 250.0 Lac for BWDB-NS7A & BDT 70.0 Lac for BWDB- NS9A) of vehicles are included in the revised DPP with an estimated budget of BDT 320.00 Lac.

Considering all the requirements, expenditure in this head has been increased to an additional amount of BDT. 172.34 Lac.

xiii) Vehicle (Economic Code 4901; New Economic Code 3258101):

Based on the expenditure incurred up to 30 June 2020 and probable onward expenditures for maintenance of three (3) vehicles of the project office a total amount of BDT 22.00 Lac has been proposed till end of 2nd RDPP and the remaining BDT.

xiv) Others (Economic Code 4899; New Economic Code 3256101):

xv) Based on the expenditure incurred up to 30th June 2020, BDT 66.43 Lac from RPA fund is additionally required to meet up the cost of different import related charges and airport charges (Govt., fees and Charges).

The PEC meeting on DPP 2nd revision happened on 3rd June 2021 and the compliance of PEC meeting is inserted as Appendix-A on page 35. So, according to all the PEC meeting discussion and considering all the savings and additional requirements as narrated above (i to xiv) savings of BDT. 228.41 Lac GoB and 1013.87 Lac (RPA), so net savings have stand at BDT. 1242.28 Lac under Revenue Codes.

B) Proposed Allocations under Capital Codes:

i) Acquisition of land (Economic Code 6901; New Economic Code 4141101):

According to the DPEC meeting on DPP 2nd Revision, an Inspection Bungalow/ Site office need to be established in the St. Martin's Island for which 33 decimal land need to be acquired. An estimated budget of BDT 80.00 Lac to be financed from GoB fund for this new component.

ii) Procurement of Vehicle (Economic Code 6807; New Economic Code 4112101):

Purchase of 3-package, 1) 2-Cross country vehicle, 2) 1-Double cabin pickup, 3) 40- Motorcycle has cost BDT. 284.06 Lac though total allocation was an amount of BDT 330.24 Lac. This means an amount of BDT. 46.17 Lac (RPA) has remained as savings in this head.

iii) Procurement of Engineering Equipment (Economic Code 6814; New Economic Code 4112304):

a) In package BWDB-G1, the work for up-gradation (automation) of Ground Water

Stations is going on with a contract value of BDT 3900.00 Lac against RDPP allocation of BDT 4045.61 Lac. Plence, an amount of BDT 145.61 Lac remains as savings.

b) In package BWDB-G2, 308 water level stations were identified for automation.

During the locations study by WRSI consultants and also as per recommendations of WB experts, 31 stations were not scientifically feasible, 29 water level stations found automated earlier under WMIP project and another 07 water level stations had been automated under HYCOS project though those water level stations required to be incorporated into BWDB-G2 package because at present those water level stations are quite dysfunctional, which was accordingly recommended in the 2nd steering committee meeting. While two new stations, one at Dimla point on Teesta River and another one at Janepur of Kushtia District on Garai River, have been added as per recommendations of BWDB, and the Senior Secretary of MoWR. Now the total Water level stations has been automated under BWDB-G2 package is 315. On the other hand, 257 rainfall stations have been identified for automation. Similarly, eight (08) rainfall stations automated

earlier under WMIP project, and seven (7) rainfall stations automated under HYCOS project also required to be incorporated in BWDB-G2 package for the same reasons as stated above. Hence the total number of rainfall stations that has been automated under BWDB-G2 package is 272 stations. However, the Package value has been BDT 6618.36 Lac.

- c) In package BWDB-G3, one (1) Survey Boat and one (1) Survey Catamaran have been procured with a bill amounting BDT 512.00 Lac against the allocation of BDT 513. Lac and hence BDT 1.19 Lac has remained as saving from this package (BWDB-G3).
- d) In package BWDB-G4, procurement of Hydrology Equipment has been completed with a bill amounting BDT 625.66 Lac against an allocation of BDT 625.67 Lac, hence there remains no savings from this package (BWDB-G4).
- e) In package BWDB-G5, procurement of Morphology Equipment has been completed with a bill amounting to BDT 960.00 Lac against an allocation of BDT 1147.16 Lac, hence BDT 187.16 Lac is saving.

Some new packages are needed for achieving the objectives of the project as below

- f) Purchase of 04 nos. Multi-Beam Echo Sounder with Survey grade Laptop (BWDB-G22): One (01) unit Single-Beam Echo Sounder has already been procured and handed over to C&I Division, BWDB. Hydrology, BWDB does not have Multi- Beam Echo Sounder which is requisite for precision survey purpose. To enrich the Hydro-Morphological survey work four (4) Multi-Beam Echo Sounders with Survey grade Laptop to be procured with an estimated budget of BDT 1600.00 Lac; this package is recommended by WB during Mid-Term Review Mission and has been financed from IDA fund.
- g) Purchase of 06 Nos. Drilling Rig (including Machine) for Ground Water well construction (BWDB-G23):- The existing Rigs of BWDB are semi-mechanical type and inappropriate for higher depth and larger diameter well construction. In BWDB there are not only a few Rigs to meet its requirements but also, they are so old that they need frequent maintenance. The Ground Water Division of BWDB has a huge number of ground water wells all over the country. To keep those wells functional, in- house drilling machine is essential. Based on the field requirement six (6) Drilling Rigs with Machine for Ground Water well construction have been incorporated in the revised DPP with an estimated budget of BDT 150.00 Lac. The WB during Mid-Term Review Mission recommended this package and ensured finance from IDA fund.
- h) Purchase of Survey Boat and Survey Catamaran (BWDB-G25):- In the approved DPP, procurement of four (4) Catamarans and four (4) Survey Boats was included under package: BWDB-G3. In the first revision BDT 513.19 Lac was allocated under package: BWDB-G3 for purchasing of one (1) Catamaran and one (1) Survey Boat owing to budget constraints. During Mid-Term Review Mission WB recommended procuring the remaining three (3) Survey Boats and three (3) Survey Catamarans. Hence a new package (BWDB-G25) is included with an estimated budget of BDT 1833.42 Lac with finance from IDA fund.

Considering all the savings and additional requirements as narrated above (a to h) net additional requirements stands at BDT 4459.37 Lac (GoB 1593.17 Lac and RPA 2866.20 Lac) under Engineering Codes. BDT 938.23 Lac and additional BDT 654.94 Lac is included in this code for CD/VAT.

iv) Procurement of Computer Software (Economic Code 6817; New Economic code 4113301): This code comprises the following packages, a) Purchase of DEM (BWDB-G15), b) Procurement of GIS/Satellite Image (BWDB-G15A), c) Procurement of GIS software (BWDB-G14), d) Procurement of Calibration goods (BWDB-G8).

a) Procurement of GIS/Satellite Image (BWDB-G15A): Procurement of GIS/Satellite Image has been completed with BDT. 329.50 Lac out of an allocation of BDT. 338.78 Lac, hence BDT. 9.28 Lac remains as savings from this package.

b) Procurement of GIS software (BWDB-G14): Procurement of GIS software has been completed with BDT 97.50 Lac out of an allocation of BDT 100.17 Lac and hence BDT 2.67 Lac remains as savings.

Considering all the savings and requirements as described above (a to b) net savings have remained at BDT 11.95 Lac (RPA) under Computer Software Codes.

v) Procurement of Office Equipment and Nowcasting Workstation (Economic Code 6819; New Economic Code 4112310):

This code comprises the following packages, a) Purchase of Computer Accessories (BWDB-G10B), b) Purchase of Office Equipment (BWDB-G18), c) Purchase of Office Equipment (BWDB-G18A), d) Purchase of ICT Equipment for Data Centre (new package BWDB-G28), e) Nowcasting Workstation (BWDB-G9)

a) Procurement of Computer Accessories (BWDB-G10B) completed with a bill amounting BDT 282.53 Lac against an allocation of BDT 285.10 Lac, hence BDT 2.56 Lac has remained as savings.

b) Procurement of Office Equipment (BWDB-G18) completed with a bill amounting BDT 34.99 Lac against an allocation of BDT 35.00 Lac, hence BDT 0.01 Lac has remained as savings.

c) Purchase of Office Equipment (BWDB-G18A) completed with a bill amounting BDT 16.40 Lac against an allocation of BDT 17.45 Lac, hence BDT 1.05 Lac has remained as savings.

d) Purchase of ICT Equipment for Data Centre (new package BWDB-G28):-

Equipment for automation of Ground Water, Surface Water and Coastal flood monitoring stations are under procurement. Data from all stations to be acquired and preserved at hydrology data center. Dissemination of data among stakeholders also to be done by the data center. To enhance the capacity of the data center and the security and authenticity of data, more ICT equipment is needed as per recommendations of WRSI consultants and advice of IT experts of BWDB. So, an estimated allocation of BDT 500.00 Lac for procurement of ICT equipment has been included in the RDPP with a provision of finance from IDA fund.

e) (Nowcasting Workstation (package BWDB-G9):-This package is dropped; hence **BDT 394.28 Lac** has remained as savings). ring all the savings and additional requirements as stated above (a to e) a

- net additional requirement of BDT 112.09 Lac RPA under Office Equipment and Nowcasting Workstation Codes.
- vi) Procurement of Laboratory Equipment (Economic Code 6822; New Economic Code 4112306): One (1) ion-Chromatograph has been purchased under this code with a bill amounting BDT 194.56 Lac out of an allocation of BDT 594.64 Lac. The rest BDT 400.08 has remained as savings.
 - vii) Procurement of Telecommunication Equipment (Economic Code 6823; New Economic Code 4112205): This code comprise the following packages, a) Purchase of VC-system (BWDB-G10A) for 13 locations has been completed with a bill amounting BDT 148.99 Lac where the allocation was BDT 260.00 Lac, b) Purchase of Mobile Phone (BWDB-G24) completed with a bill amounting BDT 4.00 Lac against an allocation of BDT 4.00 Lac, c) Purchase of VC-system (BWDB-G21) for 25 locations is newly allocated with a proposed price of BDT 350.00 Lac (RPA fund). This package is recommended by WB during Mid-Term review mission and has been financed from IDA fund. Total expenditure required is BDT. 502.99 Lac (RPA), hence proposed BDT. 232.99 Lac (RPA) is additionally required.
 - viii) Procurement of Electrical Equipment & IPS (Economic Code 6827; New Economic Code 4112303): This code allocation BDT. 20.00 Lac (GoB 10.0 Lac & RPA 10.0 Lac) out of which BDT. 15.95 Lac proposed in RDPP for future procurement and rest BDT. 4.05 Lac (RPA) has remained as savings.
 - ix) Procurement of Building and Structure (Economic Code 7016; New Economic Code 4111201/4111308 /4111317):
 - a) Refurbishing HQ (BWDB-W1): Refurbishing HQ of Hydrology Offices (package BWDB-W1) having initial allocation BDT. 563.45 Lac. This allocation is not sufficient to meet up the actual need of the HQ offices, rather more allocation BDT 46.55 Lac is necessary according to the field necessity. A budget of BDT. 610.00 Lac proposed for this head and to be financed from IDA fund.
 - b) Supply and Installation of new GW Nests (BWDB-W2): Supply and Installation of new GW Nests has been completed with a bill amounting BDT 586.14 Lac against allocation BDT. 652.55 Lac, hence BDT. 66.41 Lac has remained as savings.
 - c) Establishment of Hydrology-Lab (BWDB-W3): Construction work of Hydrology- Lab is ongoing. The allocation BDT 300.00 Lac is not sufficient for the work. An additional amount of BDT. 5.00 Lac is required, hence BDT. 305.00 Lac has been proposed in the proposed RDPP.
 - d) Refurbishing Division Level Hydrology Offices (BWDB-W4) & Refurbishing hydrology offices (New Package BWDB-W7): Refurbishing Division Level Hydrology Offices (package BWDB-W4) had DPP allocation of BDT 850.00 Lac. The work already taken up has cost an amount of BDT. 795.00 Lac. This allocation is not sufficient to meet up the actual need of the Division Level Hydrology offices located over whole country. Many field offices require refurbishing but kept out of estimation for refurbishing owing to the budgetary constraints. To include the remaining offices in refurbishing work some additional allocation of BDT 662.50 Lac is required with a new package named (BWDB-W7) to be financed from GoB fund.

- e) Establishment of BM Pillars (BWDB-W5): Under package BWDB-W5, 308 BM Pillars have already been established. The allocation was BDT. 257.10 Lac but the bill amounting BDT 216.71 Lac has been paid, and the rest BDT 40.39 has remained as savings.
- f) Establishment of BM Pillar in 730 Location (New Package BWDB-W6) & Establishment of BM Values (SoB) on BM Pillar in 730 Location (New Package BWDB-W6A): The most of the activities of BWDB's Hydrology wing involves BM level value. Based on field requirement and agreed by World Bank & WRSI consultant a new package (BWDB-W6) is included for establishment of BM Pillar in 730 location with an estimated budget of BDT 556.63 Lac which has been financed from GoB fund. On the other hand, BM Survey for SoB value and identification marble for 730 BM Pillar is a new package (BWDB-W6A) is also included in the DPP 2nd revision with an estimated budget of BDT 383.25 Lac which has been financed from RPA fund.
- g) Security Fencing of Automated Hydrological Stations (New Package BWDB- W8): Under this project 905 nos. G.W. stations. 315 S.W. stations & 272 Rainfall stations has been automated. For the security purpose of these automated stations, security fencing must be required. So, according to the decision of 4th Steering Committee & DPEC meeting on DPP 2nd Revision, the security fencing on the automated hydrological stations to be provided with an estimated budget of BDT 637.50 Lac to be financed from GoB fund.
- h) Establishment of Inspection Bungalow/ Site office at St. Martin's Island (New Package BWDB-W10): According to the decision of DPEC meeting on DPP 2nd Revision an Inspection Bungalow/ Site office need to be established in the St. Martin's Island. An estimated budget of BDT 260.12 Lac to be financed from GoB fund for this new component has been proposed in the RDPP.

Considering all the savings and additional requirements as stated above (a to h) a net additional requirement of BDT 2389.75 Lac. (GoB 2116.75 Lac and RPA 273.00 Lac under Other Building and Structure Code.)

- i) CD & VAT (Economic Code 7901; New Economic Code 3821101/3821104):

According to the circular of the Ministry of Finance, CD/VAT has been booked in estimate of procuring items/goods and has been paid accordingly from Engineering Equipment (Economic Code 4112304). The expenditure BDT 10.52 Lac already incurred and the rest BDT 938.23 Lac has remained as savings.

The PEC meeting on DPP 2nd revision occurred on 3rd June 2021 and the compliance of PEC meeting is inserted as Appendix-A on page 35. So, According to all the PEC meeting discussion and considering all the savings and additional requirements as narrated above (i to x) requirement of BDT. 2851.69 Lac (GoB) and 3022.03 Lac (RPA), so a net requirement has stood at BDT. 5873.72 Lac under Capital Code.

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11.1 Reasons for No-Cost Time Extension (if applicable):

- 1st time No-Cost Time Extension

Since the work orders were issued to the contractors within the project budget, there is no possibility of an increase in project costs. Therefore, the proposal has been made to extend the project duration without increasing costs.

Although the original approved DPP specified the project implementation period starting from July 2016, activities could not commence due to errors in the economic codes of the project components. After correcting these codes, the first RDPP was approved by the Ministry of Water Resources on October 18, 2018, enabling the project to begin. This initial delay caused the project to fall two years behind schedule.

The appointment of the project's main consultant (Water Resources System Integrator Consultancy) required an additional two years for preparing and approving various Terms of Reference (ToR), Bid Documents, and Technical Specifications for the core activities. This additional time was accommodated in the second revision of the DPP, extending the project duration until June 2023.

However, the COVID-19 pandemic and disruptions in the global supply chain further hindered project progress, delaying the delivery of internationally procured equipment. Despite this, the installation and commissioning of the equipment has been completed. While the commissioning activities for BWDB-G1, BWDB-G2, and BWDB-G6 packages have been concluded, an additional one-year Annual Maintenance Contract (AMC) is included in the main contract. Consequently, the World Bank has extended the financing agreement duration by one year until November 30, 2024.

To complete the Feasibility Study for the second phase of the project (Package BWDB-C24), time is required until December 2024. Additionally, a new upgraded model provided under the project is being used to expand flood forecasting and early warning services from 31 districts to all 64 districts nationwide. The integration of inundation maps into forecasts is ongoing. Although trial forecasts have already been issued, validation of the new model's effectiveness, based on recommendations from international consultants and the World Bank, requires the upcoming monsoon season (June–October) for testing.

Considering the above factors, it is evident that to successfully complete the project, an extension of at least six more months (until December 2024) is necessary.

12. Financing Arrangement (Source-wise):

12.1 Status of Loan/Grant

a) Foreign Financing:

Source (s)	Currency as per Agreement	Amount in US\$ (million)	Nature (Loan/Grant/supplier's credit)	Date of Agreement	Date of Effectiveness	Date of Closing	
						Original	Revised
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
IDA	XDR	45.30	5837-BD	05.04.2017	05.04.2017	31.12.2022	30.11.2024
IDA	XDR	39.83	5837-BD	30.04.2020*	05.04.2017	31.12.2022	30.11.2024*
IDA	XDR	28.55	5837-BD	18.12.2023*	05.04.2017	31.12.2022	30.11.2024*

* Amendment

b) GOB:

Total amount: BDT in Lac	Loan	Grant	Cash Foreign Exchange
(1)	(2)	(3)	(4)
4827.23	-	4827.23	-

c) Self-finance/Equity:

Total amount	Self-finance	Equity	Cash Foreign Exchange
(1)	(2)	(3)	(4)
None			

12.2 Utilization of Project Aid (Source wise):

Source (s)	Total Amount		Actual Expenditure		Unutilized Amount	
	In Us\$ in million	In Local Currency (BDT in Lac)	In Us\$ in million	In Local Currency (BDT in Lac)	In Us\$ in million	In Local Currency (BDT in Lac)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
IDA	28.55	28,980.89	28.06	28,383.73	0.49	597.16

12.3 Reimbursable project Aid (RPA):

Source (s)	RPA Amount		Amount	Amount	Amount	Remarks
	As per Project Document	As per Agreement	Spent	Claimed	Re-imbursed	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
IDA	29,742.73	29,742.73	28,383.73	26,980.89	26,980.89	BDT 1,402.84 lac spent from prior advance BDT 2,000.00 lac

B. IMPLEMENTATION POSITION

13. Implementation Period:

Implementation Period as per Project Document		Actual implementation	Time Over-run (% of original implementation period)	Remarks
Original	Latest Revised			
(1)	(2)	(3)	(4)	(5)
July 2016-June 2021	July 2016-June 2024	July 2016-June 2024	160%	The project started late and almost no progress during the first two financial years.

14. Cost of the Project:

Description	Estimated Cost		Actual expenditure	Cost over-run (% of original cost)	Remarks
	Original	Latest revised			
(1)	(2)	(3)	(4)	(5)	(6)
GOB	2,203.95	4,827.23	3,937.63	79%	GoB fund increased as some packages added in GoB part while RPA decreased due to efficient procurement management.
PA (RPA)	31,860.88	29,742.73	28,383.73	(-) 21%	
Total	34,064.85	34,569.96	32,321.36		

15. Information regarding Project Director (s):

Name, Main Designation & Grade. Mobile Number (From Beginning)	Full time (Yes/No)	Part time (Yes/No)	Responsible for more than one project	Period		Remarks
				Joining	Transfer	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Mr. A,K, Manjur Hassan Add. Chief Engineer BWCSRP Component-B SHEWS, BWDB, Dhaka Mobile-	yes	No	-	11.07.2017	04.06.2018	-
Mr. Md. Saiful Hossain Superintending Engineer BWCSRP Component-B SHEWS, BWDB, Dhaka Mobile- 0	yes	No	-	04.06.2018	18.02.2020	-
Mr. Mashiur Rahman Superintending Engineer BWCSRP Component-B SHEWS, BWDB, Dhaka Mobile- 01711107605	yes	No	-	18.02.2020	30.06.2024	-

16. Personnel:**13.1 Personnel of Project implementation Unit (PIU):**

Sl. No.	Name of Post (Grade)	Approved Strength	Employed during Implementation
(1)	(2)	(3)	(4)
1.	Project Director & Superintending Engineer (Grade 4)	1	1
2.	Executive Engineer (Grade 5)	1	1
3.	Sub-Divisional Engineer (Grade 6)	1	1
4.	Assistant Engineer (Grade 9)	4	3
5.	Geologist (Grade 9)	1	0
6.	Assistant Programmer (Grade 9)	1	1
7.	Estimator (Grade 10)	1	1
8.	Administrative Officer (Grade 10)	1	0
9.	Accountant (Grade 12)	1	1
10.	Surveyor (Grade 16)	1	0
11.	Office Assistant cum Computer Operator (Grade 16)	2	0
12.	Driver (Grade 16)	3	3
13.	Office Assistant (Grade 20)	2	2
14.	Night Guard (Grade 20)	1	1
15.	Cleaner (Grade 20)	1	1
Total=		22	16

16.2 Personnel Required after the Project Completion:

Sl. No.	As P reposed in Project Document (PD)		Recruited (Yes/No)	If not recruited explain reason and latest status
	Name of Post	Number		
(1)	(2)	(3)	(4)	(5)
	After completion operation and maintenance has been carried out by BWDB Hydrology	-	No	Existing Manpower of the BWDB Hydrology has been carrying out the O&M activities.
Total=				

17. Training (Foreign/Local):

Category	Sl. No.	Training Description	No. of Days/Weeks/Months (D/W/M), Batch & Participants					
			As in Project Document			Achievement		
			Days	Batch(s)	Participants(s)	Days	Batch (s)	Participants(s)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Local Training	1	Hands on Training on Installation and Operation of Hydrological Equipment (Batch-1)	08	1	12	8	1	12
	2	Hands on Training on Installation and Operational Training on Hydrological Equipment (Batch-2)	08	1	12	8	1	12
	3	Training on Lab and Field Equipment	02	1	15	2	1	15
	4	GIS and Image Processing Software (Arc GIS 10.6.1 and Envi.) (Basic)	15	1	12	15	1	12
	5	GIS and Image Processing Software (Arc GIS 10.6.1 and Envi.) (Advanced)	10	1	8	10	1	8
	6	Google Earth	01	1	37	1	1	37
	7	Technology Transfer (Item No.- 02)	01	1	11	1	1	11
	8	GIS/Satellite Image Processing (Item No.- 03)	14	1	14	14	1	14
	9	Technology Transfer (Item No.- 04)	63	1	14	63	1	14
	10	Hands on Training on O&M of Hydrology Equipment.	06	1	12	06	1	12

Category	Sl. No.	Training Description	No. of Days/Weeks/Months (D/W/M), Batch & Participants					
			As in Project Document			Achievement		
			Days	Batch(s)	Participants(s)	Days	Batch (s)	Participants(s)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	11	Firewall	02	1	23	02	1	23
	12	Operation and Maintenance of						
		Ground Water Sensor, Data Logger, Software Configuration etc.	03	1	31	03	1	31
	13	Training on Rainfall Run off Model, Hydrodynamic Model (1D) and Flood Forecasting Model with Data Assimilation.	05	1	15	05	1	15
	14	Training on Rainfall Run off Model, Hydrodynamic Model (1D) and Flood Forecasting Model with Data Assimilation	05	1	15	05	1	15
	15	Training on 1D-2D coupled hydraulic model and flood inundation model using software MIKE+2D Overland Flow	05	1	16	05	1	16
	16	Automation Instrument Demonstration Program (Theoretical and Practical) Regarding the Installation and Supervision of Various Equipment of G2 and G6 Packages.	02	1	12	02	1	12

Category	Sl. No.	Training Description	No. of Days/Weeks/Months (D/W/M), Batch & Participants					
			As in Project Document			Achievement		
			Days	Batch(s)	Participants(s)	Days	Batch (s)	Participants(s)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	17	Local Training on Multi Beam Echo Sounder	05	1	31	05	1	31
	18	Training for Capacity Building on Monitoring, Evaluation of a Project, Research Data Collection and Storing (Module of Master Trainers)	05	1	20	05	1	20
	19	Training on Development / Customization of MIKE Operation for FFWC and Operation of Flood Forecasting System	05	1	15	05	1	15
	20	On the Job Training. (Video Conference Platform)	05	1	16	05	1	16
	21	IT (Software & Hardware)	09	1	13	09	1	13
	22	AWLG, ARG, AWS stations installation related training.	09	1	65	09	1	65
	23	Hands on Training on Coastal Flood Monitoring Stations, Software and Hardware system	06	1	32	06	1	32
	24	Training to Divisional Officers in Support of New Divisional Water Resources Information Outreach.	01	1	31	01	1	31
	25	Training to the Technical Officers of the District	01	1	80	01	1	80

Category	Sl. No.	Training Description	No. of Days/Weeks/Months (D/W/M), Batch & Participants					
			As in Project Document			Achievement		
			Days	Batch(s)	Participants(s)	Days	Batch (s)	Participants(s)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Offices.						
	26	Salinity Intrusion Forecast.	05	1	13	05	1	13
	27	Ground Water Assessment Model	05	1	15	05	1	15
	28	Sediment Transport & Morphology Model	05	1	15	05	1	15
	29	Hydrological Drought Prediction Model.	04	1	11	04	1	11
	30	Senior Officers Training.	01	1	20	01	1	20
	31	On The Job Training. (Hydrology Model)	03	1	14	03	1	14
	32	On The Job Training. (Hydrology Model)	06	1	14	06	1	14
	33	Hands on Training of Drilling Machine (Rig Machine).	10	1	47	10	1	47
	34	Training to the Linux administration Part I, II, III and PL SQL, Administrative Workshop Oracle Database 19C Backup and Recovery.	05	1	10	05	1	10
	35	Training to the Linux administration Part I, II, III and PL SQL, Administrative	05	1	05	05	1	05
	36	Training to the Technical Officers	01	1	28	01	1	28

Category	Sl. No.	Training Description	No. of Days/Weeks/Months (D/W/M), Batch & Participants					
			As in Project Document			Achievement		
			Days	Batch(s)	Participants(s)	Days	Batch (s)	Participants(s)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		of the District Offices.						
	37	TSS Software Training	05	1	26	05	1	26
	38	i)Hands on training on installations&(ii) Hands on Operational training on Hydrological Equipment Gi aaxb Training on SoP & Maintenance of Automatic Ground Water Monitoring System.	04	1	21	04	1	21
	39	Operation and Maintenance of Ground Water Sensor, Data Logger, Software Configuration etc	03	1	13	03	1	13
	40	User Training on Hydrological Information Management System	01	1	25	01	1	25
	41	User Training on Hydrological Information Management System	01	1	24	01	1	24
	42	User Training on Hydrological Information Management System	01	1	23	01	1	23
	43	User Training on Hydrological Information Management System	01	1	25	01	1	25

Category	Sl. No.	Training Description	No. of Days/Weeks/Months (D/W/M), Batch & Participants					
			As in Project Document			Achievement		
			Days	Batch(s)	Participants(s)	Days	Batch (s)	Participants(s)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	44	Cyber Security Awareness Training for BWDB Personal with IT Design, Operation & Data Systems	04	1	20	04	1	20
	45	Training on SoP & Maintenance of Sub-Bottom Profiler, Echo-Sounder, Side Scan Sonar	04	1	20	04	1	20
	46	Training on SoP & Maintenance of Automatic Water Level Station, Automatic Rain Gauge Station & Automatic Weather Station	04	1	20	04	1	20
	47	i)O&M of Hydrological Equipment's ii) Project Management Study Tour/exposure visit.	04	1	12	4	1	20
	48	i) Hands on Training on Installation O&M of Hydrological Equipment's ii) Hands on Operational training on Hydrological Equipment	04	1	12	4	1	20
	49	i)O&M of completed Hydrological Project. ii) Project Management Study Tour/exposure visit.	04	1	12	4	1	20

Category	Sl. No.	Training Description	No. of Days/Weeks/Months (D/W/M), Batch & Participants					
			As in Project Document			Achievement		
			Days	Batch(s)	Participants(s)	Days	Batch (s)	Participants(s)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		iii) Data Communication and networking iv) O&M of completed Hydrological Project. v) Project Management Study Tour/exposure visit. vi) Database Management vii) Dissemination and awareness						
		Sub Total (Local)-	286	49	983	286	49	1007
Foreign Training								
Foreign Training	1	General Hydrology, River Morphology and ground water Hydrology	16	1	6	16	1	6
	2	Study Tour/Exposure Visit for Senior level officials	9	1	9	9	1	9
	3	Training on Drought Modeling and Forecasting System	8	1	10	8	1	4
	4	Training on under Systems for Morphological Survey Equipment	5	1	6	5	1	6
	5	Training on under Systems for Morphological Survey Equipment	6	1	7	6	1	7
	6	Hands on Training on Operation and Maintenance of	5	1	8	5	1	8

Category	Sl. No.	Training Description	No. of Days/Weeks/Months (D/W/M), Batch & Participants					
			As in Project Document			Achievement		
			Days	Batch(s)	Participants(s)	Days	Batch (s)	Participants(s)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Automated Ground water sensor, Data logger, Software configuration etc						
	7	Training on Hydromet Early warning Joint Learning Exercise: Hydrological and Hydrological meteorological products; monitoring and operating of the observation networks, development-II.	0	0	0	10	1	4
	8	Training on Standard Operation and Maintenance Foreign Training.	17	1	8	17	1	8
	9	Training on MIKE Operation at DHI	7	1	4	7	1	4
	10	Training on Hydromet Joint Learning Exercise: Hydrological and Hydrological meteorological products; monitoring and operating of the observation networks, development-I.				7	1	4
	11	Training on Hydromet Early warning Joint Learning Exercise: Hydrological and				10	1	4

Category	Sl. No.	Training Description	No. of Days/Weeks/Months (D/W/M), Batch & Participants					
			As in Project Document			Achievement		
			Days	Batch(s)	Participants(s)	Days	Batch (s)	Participants(s)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Hydrological meteorological products; monitoring and						
		operating of the observation networks, development-II.						
	12	Water related disaster management	14	1	6	Dropped due to Government restriction of foreign tour due to Covid-19 and foreign currency issues.		
	13	Training on hydrology equipment	14	1	6			
	14	Study tour/exposure visit for mid level officials	7	1	8			
	15	Attend meeting workshop, seminar etc	7	1	4			
	16	Training on hydrology equipment O&M	14	1	6			
	17	Mathematically modelling on flood, drought & river morphology	14	1	4			
Sub Total (Foreign)-			150	15	99	97	11	67
Total (Local + Foreign)=			436	64	1082	383	60	1074

(PD= Project Document)

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18. Component-wise Progress (As per latest approved Project Document):

Name of Component	Unit	Quantity	Estimated Cost (Taka in Lac)					Actual Progress (Taka in Lac)				
			Total	GOB	PA	Self-Finance	Others	Total	GOB	PA	Self-Finance	Others
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(a) Revenue:												
Other Allowances	LS		71.50	71.50	-	-	-	67.45	67.45	-	-	-
Allowances	LS		0.76	0.76	-	-	-	0.76	0.76	-	-	-
Travel Expenses	LS		47.74	47.74	-	-	-	35.59	35.59	-	-	-
Office Rent, Renovation, Air Cooler and annual maintenance	LS		150.00	150.00	-	-	-	147.88	147.88	-	-	-
Telephone/ Mobile	LS		0.28	0.28	-	-	-	0.28	0.28	-	-	-
Telex/Fax/Internet	LS		10.29	-	10.29	-	-	10.29	-	10.29	-	-
Water Bill	LS		1.71	1.71	-	-	-	1.71	1.71	-	-	-
Electricity	LS		4.57	4.57	-	-	-	4.57	4.57	-	-	-
Fuel and gas	LS		1.51	1.51	-	-	-	1.51	1.51	-	-	-
Petrol, Oil & Lubricants	LS		75.00	75.00	-	-	-	36.84	36.84	-	-	-
Insurance/ Bank charges	LS		151.00	5.00	146.00	-	-	129.08	5.00	124.08	-	-
Printing, Binding & Publication	LS		30.00	19.50	10.50	-	-	23.59	13.92	9.67	-	-
Stationery, Seal & Stamp	LS		62.00	42.00	20.00	-	-	59.94	39.95	19.99	-	-
Research,/ Innovative Expenditure	LS		317.00	141.36	175.64	-	-	141.55	-	141.55	-	-
Advertising and Publicity	LS		150.00	-	150.00	-	-	149.29	-	149.29	-	-
Publications	LS		50.00	50.00	-	-	-	38.96	38.96	-	-	-
Training Expenses (Local)	LS		98.28	98.28	-	-	-	83.49	83.49	-	-	-
Training Expenses (Foreign)	LS		138.53	-	138.53	-	-	138.53	-	138.53	-	-
Consultancy	LS		4,575.85	65.00	4,510.85	-	-	4,524.86	14.37	4,510.49	-	-
Honorarium/Fee/Remuneration	LS		58.00	58.00	-	-	-	46.82	46.82	-	-	-

Name of Component	Unit	Quantity	Estimated Cost (Taka in Lac)					Actual Progress (Taka in Lac)				
			Total	GOB	PA	Self-Finance	Others	Total	GOB	PA	Self-Finance	Others
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Testing Fees (GW quality Testing)	LS		299.92	-	299.92	-	-	299.92	-	299.92	-	-
Survey	LS		485.62	135.00	350.62	-	-	466.99	121.00	345.99	-	-
Computer Cosumable	LS		30.00	-	30.00	-	-	24.34	-	24.34	-	-
Audit Fees	LS		0.50	-	0.50	-	-	-	-	-	-	-
Hiring Charges	Nos.	12	1,171.72	125.00	1,046.72	-	-	1,137.22	90.74	1,046.48	-	-
Others	LS		200.00	20.00	180.00	-	-	193.01	14.89	178.12	-	-
Vehicle	Nos.	43	22.00	22.00	-	-	-	21.80	21.80	-	-	-
Computer & Office Equipment (Repair)	LS		25.00	-	25.00	-	-	20.88	-	20.88	-	-
Engineering Equipment	LS		200.00	200.00	-	-	-	87.89	87.89	-	-	-
Office Building	LS		15.00	-	15.00	-	-	9.95	-	9.95	-	-
Others Repairs and Maintenance	LS		30.00	30.00	-	-	-	12.15	12.15	-	-	-
Sub-Total (Revenue)	LS		8,473.78	1,364.21	7,109.57	-	-	7,917.14	887.57	7,029.57	-	-
Capital:												
Vehicle (Cross country vehicle (02 Nos 4WD), Double cabin pickup (01 Nos.), Motorcyles (40 Nos.)	Nos.	43	283.67	-	283.67	-	-	283.66	-	283.66	-	-
Acquisition of land (33 decimal at St. Martin's Island)	LS		80.00	80.00	-	-	-	-	-	-	-	-

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Name of Component	Unit	Quantity	Estimated Cost (Taka in Lac)				Actual Progress (Taka in Lac)					
			Total	GOB	PA	Self-Finance	Others	Total	GOB	PA	Self-Finance	Others
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Engineering Equipment : (Upgrade Existing Ground Water Stations; Automatic Water Level Stations; Purchase of 04 no.Catamarans & 04 no Survey boat; Purchase of Systems for hydrological survey; Purchase of systems for Morphological survey & Purchase of Coastal Flood Monitoring Stations, Purchase of multibeam echo sounder, purchase of drilling machine for GW well construction, VAT & CD (GoB includes VAT & CD))	Set		19,650.53	1,600.00	18,050.53	-	-	18,502.93	1,572.81	16,930.12	-	-
Computer Software-GIS, Data Sharing Software (Supply of calibration goods, GIS/satellite Image,DEM etc.)	LS		924.17	-	924.17	-	-	851.99	-	851.99	-	-
Nowcasting Workstation, Office Equipment	Nos.		843.92		843.92	-	-	761.62	-	761.62	-	-
Furniture & Fixture	Nos.		36.75	-	36.75	-	-	36.75	-	36.75	-	-
Laboratory Equipments	Nos.		194.56	-	194.56	-	-	194.56	-	194.56	-	-
Telecommunication Equipment	Nos.		153.80		153.80	-	-	153.80	-	153.80	-	-
Electric Equipment & IPS	LS		5.95		5.95	-	-	5.95	-	5.95	-	-
Refurshing hydrology offices building	LS		3,912.31	1,772.50	2,139.81	-	-	3,602.44	1,466.73	2,135.71	-	-
CD VAT	LS		10.52	10.52		-	-	10.52	10.52	-	-	-
Sub-Total (Capital)	LS		26,096.18	3,463.02	22,633.16	-	-	24,404.22	3,050.06	21,354.16	-	-
Total a+b (Revenue+Capital)	LS		34,569.96	4,827.23	29,742.73	-	-	32,321.36	3,937.63	28,383.73	-	-

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19. Procurement of Transport (in Nos.) :

Type of transport	Number as per Project Document	Number Procured with date	Transferred to Transport Pool with date	Transferred to O & M with date	Condemned/ damaged with date	Returned or transferred to following project	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Car	-	-	-	-	-	-	-
Jeep	2 nos.	2 nos. 11-06-2019	1 no. To Director Estate, BWDB. 14/10/2019	-	-	-	One Jeep is using at the Project Office and another one is handed over to the BWDB Management.
Microbus	-	-	-	-	-	-	-
Minibus	-	-	-	-	-	-	-
Bus	-	-	-	-	-	-	-
Pick-up	1 no.	1 no. 28-07-2018		1 no. To Kustia Morphology Division, Hydrology, BWDB 02/06/2025	-	-	-
Truck	-	-	-	-	-	-	-
Motor - Cycle	40 nos.	30-05-2018		-	-	-	Handover to different officers in field level under BWDB (Attached file)

Type of transport	Number as per Project Document	Number Procured with date	Transferred to Transport Pool with date	Transferred to O & M with date	Condemned/damaged with date	Returned or transferred to following project	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Speed Boat (Survey Boat and Catamaran)	(1 no. survey boat & 1 nos. catamaran procured under BWDB-G3) & (3 nos. GRP Mono Hull Survey Boat, 03 Nos. GRP double hull survey Catamaran and 3 Speed Boat procured under BWDB-25 Package)	27-06-19 & 07-11-2023		To C&I Division, Hydrology, BWDB 17-02-2022) & 03/10/2024 20/10/2024	-	-	BWDB Hydrology-C&I Division (17-02-2022) & 03/10/2024, 20/10/2024
Launch	-	-	-	-	-	-	-
Others with name	-	-	-	-	-	-	-



20. Project Consultant (s) (Local/Foreign):

Name of the Field	Approved man month		Actual man month utilized	Number of Deliverables		Remarks
	As per Project Document	As per contract		As per Project Document	Actual	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
a) Local:						
Water Resources System Integrator (WRSI) Consultancy (C1)	172.75	172.75	172.75	27	27	
Consultancy Services for Expansion flood forecasting model (whole country), Improve inundation model in coastal and other hotspot areas (depth and area of inundation)-C2	55	55	55	8	8	
Technical Consultancy on Monitoring and Evaluation-C13	27	27	27	7	7	
Development of hydrological services products: Sediment prediction & river bank erosion; Hydrological drought prediction; Salinity intrusion forecast; Ground water outlook and forecast; Surface water supply outlook etc. Upgrade of existing website to display real time data, products & warnings (C15)	130.1	130.1	130.1	14	14	
Performance Audit of 3 PIUs by PCU	13.5	13.5	13.5	5	5	
Development of mobile apps, upgrading web portal, Data and information sharing software to share info between BWDB and	106	106	106	20	20	

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Name of the Field	Approved man month		Actual man month utilized	Number of Deliverables		Remarks
	As per Project Document	As per contract		As per Project Document	Actual	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
stakeholders-supply and installation (C22)						
Feasibility and Details technical design for second phase of BWCSR (C24)	48	48	48	7	7	
Community based Early Warning System in 2 flood prone districts (Netrokona and Sunamganj) in collaboration with DDM (C27)	12.2	12.2	12.2	6	6	
b) Foreign:						
Water Resources System Integrator (WRSI) Consultancy (C1)	41.75	41.75	41.75	27	27	
Development of hydrological services products: Sediment prediction & river bank erosion; Hydrological drought prediction; Salinity intrusion forecast; Ground water outlook and forecast; Surface water supply outlook etc. Upgrade of existing website to display real time data, products & warnings (C15)	12.9	12.9	12.9	14	14	

21. Infrastructure/Erection/Installation Tools & Equipment:

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Upgrade existing and new ground water stations and nests from manual to Automatic; Package-BWDB-G1	AGWLs- 905	AGWLs- 905nos IT/ICT: Data Acquisition/Data Management/web Server 03nos KVM Switch- 01Nos Computer Rack 01nos Computer Switch 01Nos Software: Field Maintenance Tracking Software01Nos Data management Software 01Nos web Visualization Software01Nos Date:November 2020	1. Directorate of Ground Water Hydrology. 2. Ground Water Division I 3. Ground Water Division II Date: September 2024 Data center, 2 nd flood, Pani Bhaban, BWDB, Dhaka. Date: October 2024		0.00	
Automatic Water Level Stations, Upgrade Existing climate Stations and Rain Gauges to Automatic and Real time; Package-BWDB-G2	AWLs-315 ARGs-272 AWS-03	AWLs-315 ARGs-272 Air Temperature and Humidity Sensor -03 Wind Speed and Direction Sensor-03 Atmospheric	1. Superintending Engineer, Surface Water Hydrology. BWDB, Dhaka. 2. Executive Engineer, North Eastern Measurement Division, BWDB, Dhaka. 3. Executive Engineer, Northern Measurement Division, BWDB, Pabna. 4. Executive Engineer, South Western Measurement Division, Cumilla. 5. Executive Engineer, South Eastern		0.00	

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Pressure Sensor 03 Solar Radiation Sensor-03 Evaporation Sensor-03 IT/ICT : Data Acquisition/ Data Management/ web Server/Backup with redundant mode 07 Next Generation Firewall 02 Nos Midrange Firewall 02 Nos Core switches 02 Nos. KVM Switch with Console Monitor 01Nos. Computer Switch 02 Nos. Computer Rack 01Nos. Load Balancer with Anti D-Dos/WAF 02 Nos. Upgradation of existing SAN Switch (Connectrix DS-6505B) from 12 active ports to 24 active ports with	Measurement Division, Faridpur. Date: September 2024 Data center, 2nd flood, Pani Bhaban, BWDB, Dhaka Date: June 2023			

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		required license and 16 Gbps Short Wave SFP transceivers 02 Nos. Storage area network (SAN) Switch for connecting servers and shared pools of storage devices and is dedicated to moving storage traffic 02 Nos. SAN Storage Enclosure 02 Nos. Software for Data collection/ acquisition software 02 Nos Data Management and Time Series Data processing Software 02 Nos 2 nodes of Oracle 19c Database with Oracle RAC in database management and processing servers 01 Nos. NMS/Server				

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Monitoring (For the purpose of monitoring all the server related device and network 01 Nos Security Information and Event Management (SIEM) Software 01 Nos Field Maintenance Tracking Software 01 Nos Backup Software 02 Nos Date: January 2022				
Coastal Flood Monitoring Stations, Software and Hardware (Coastal Inundation & Storm monitoring system; Package-BWDB-G6	AWLs-40	AWLs-40 Date: May 2022	1. Superintending Engineer, Surface Water Hydrology, BWDB, Dhaka. 2. Executive Engineer, South Western Measurement Division, Cumilla. 3. Executive Engineer, South Eastern Measurement Division, Faridpur. Date: September 2024		0.00	
Purchase of Catamarans and Survey Boats ; Package-BWDB-G3	Boat -01 Catamaran -01	Boat -01 Catamaran -01 Date: February 2022	1. Executive Engineer, North Eastern Measurement Division, BWDB. 2. Executive Engineer, Northern Measurement Division, BWDB, Pabna. Date: February 2022		0.00	
Purchase of Systems for hydrological survey; Package-BWDB-G4	ADCP with Laptop 10 nos.	ADCP with Laptop-10 nos.	Executive Engineer, North Eastern Measurement Division- 02 Nos. Executive Engineer, South Western		0.00	

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Eco Sounder (Single Beam) 08 nos.	Eco Sounder (Single Beam) 08 nos.	Measurement Division-04 Nos. Executive Engineer, South Eastern Measurement Division-01 Nos. Executive Engineer, Northern Measurement Division -03 Nos.)			
	Eco Sounder (Double Beam Survey Grade) 02 nos. Side Scan Sonar 01 nos. Sonde (Water Quality) 20 nos.		Executive Engineer, North Eastern Measurement Division- 01 Nos. Executive Engineer, South Western Measurement Division-02 Nos. Executive Engineer, South Eastern Measurement Division-01 Nos. Executive Engineer, Survey Division-01 Nos. Executive Engineer, Kushtia Morphology Division-01 Nos Executive Engineer, Sariatpur O&M-01 nos Executive Engineer, Construction & Instrumentation (C&I) Division - 01 Nos. Executive Engineer, South Western Measurement Division -01 Nos. Executive Engineer, Survey Division-01 Nos.			
		Eco Sounder (Double Beam Survey Grade) 02 nos. Side Scan Sonar 01 nos.	Executive Engineer, Construction & Instrumentation Division - 01 Nos. Executive Engineer, South Western Measurement Division -06 Nos. Executive Engineer, North Eastern Measurement Division- 03 Nos. Director, Ground Water Hydrology-II			

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Sonde (Water Quality) 20 nos. Date: September 2018	Nos. Date: December 2018			
Purchase of Systems for Morphological survey; Package-BWDB-G5	Handheld TDS 15 nos. RTK GPS 12 nos. DGPS 06 nos. Total Stations 08 nos. First order digital leveling machine 04nos. Sub-Bottom Profiler 02 nos.	Handheld TDS 15 nos. RTK GPS 12 nos. DGPS 06 nos. Total Stations 08 nos. First order digital leveling machine 04nos. Sub-Bottom Profiler 02 nos. Date: December 2019	Executive Engineer, North Eastern Measurement Division- 06 nos, Executive Engineer, Northern Measurement Division, Pabna-03 nos. Director, Ground Water Hydrology-04 nos Executive Engineer, Construction & Instrumentation Division (C&I) -02 nos. Executive Engineer, North Eastern Measurement Division- 02 Nos. Executive Engineer, Dhaka Morphology Division-02 Nos. Executive Engineer, South Eastern Measurement Division-02 Nos. Executive Engineer, Northern Measurement Division, Pabna-01 nos. Executive Engineer, Kushtia Morphology Division-02 nos Executive Engineer, Mymensing Morphology Division-02 nos Director, Ground Water Hydrology-01 Nos. Date: February 2020		0.00	

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Purchase of Lab and field equipment and accessories,Package-BWDB-G7	pH Meter -06 nos. EC Meter-06 nos. Multi-Parameter 06 nos. Spectrophotometer -1 Digital Titrator-05 nos., Ion Chromatograph 01 GPS 06 nos.	pH Meter -06 nos. EC Meter-06 nos. Multi-Parameter 06 nos. Spectrophotometer -1 Digital Titrator-05 nos., Ion Chromatograph 01 GPS 06 nos. Date: January 2019	Directorate of Ground Water Hydrology		0.00	
Purchase of ICT system including VC systems in 13 locations,Package-BWDB-G10A	VC System-13	VC System-13 Date: June 2029	Executive Engineer, South Western Measurement Division-03 Nos. Executive Engineer, Kushitia Morphology Division-01 Nos. Executive Engineer, North Eastern Measurement Division- 02 Nos. Date: March 2020 Ministry of Water Resources -01 Nos. Secretary, MoWR, BWDB. Directorate of ICT, BWDB-01 Nos. Chief Engineer, North-Eastern Zone, BWDB-01 Nos. Chief Engineer, South-Eastern Zone, BWDB-01 Nos. Chief Engineer, Eastern Zone, BWDB-01 Nos. Chief Engineer, Northern Zone, BWDB-01 Nos. Chief Engineer, North-West Zone, BWDB-01 Nos. Chief Engineer, South-West Zone, BWDB-01 Nos. Chief Engineer, Western Zone, BWDB-01 Nos. Chief Engineer,Southern Zone, BWDB-		0.00	

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Purchase of Computers, Accessories, Package-BWDB-G10B	LS	Plotter 01 Color Printer-02 Super Computer-01 Server Computer 02 Server Rack 01 KVM console 02 KVM Switch 02 Sonic wall NGF-02nos Manageable Switche 01nos UPS 1000 VA 05 nos Laser Printer 25 set Computer All In one 25 set	01 Nos. Office of the Superintending Engineer, Bhola, BWDB-01 Nos. Executive Engineer, Sirajgonj, BWDB-01 Nos. Date: July 2019 CENTRAL GIS DIRECTORATE, BWDB Project Director, BWCSR Project Component-B-01 & Superintending Engineer, PFFC, BWDB-01. Data center, Pani Bhaban, BWDB. Data center, Pani Bhaban, BWDB for GIS-01 & PFFC-01, BWDB, Dhaka EE Cumilla – 01 Nos. EE SWM Division – 01 Nos. SDE Pabna – 01 Nos. SDE Morphology, Kushtia – 01 Nos. AD, RMR Circle – 01 Nos.		0.00	

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Fax Machine- 12	AD SW Circle- 01 Nos. SAE Morphology, Mymensing- 01 Nos. SDE FFWC - 2 nos. AE Chief Engineer Hydrology- 01 Nos. Project office-01 RMRC, BWDB-01			
		Photo Copier-20	SAE Dhaka NEMD- 01 Nos. SO Cumilla- 01 Nos. System Analyst- 01 Nos. Project office- 02 Nos. EE C&I- 01 Nos. EE SWMD- 01 Nos. SDE Pabna- 01 Nos. SDE Morphology Kustia- 01 Nos. AD RMRC- 01 Nos. Geologist GWH- 01 Nos. AD SW circle- 01 Nos. SAE Morphology Mymensing- 01 Nos. SDE FFWC- 01 Nos. AE Chief Engineer Hydrology Office- 01 Nos. CSO to DG- 01 Nos. ADG Planning- 01 Nos. Ground Water Processing- 01 Nos. SAE RM processing Circle- 01 Nos. RM processing Branch- 01 Nos.			
			System Analyst- 01 Nos. Programmer Chief Planning- 01 Nos. SDE BWCSR- 01 Nos. PD BWCSR- 01 Nos. FFWC- 01 Nos.			

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			ADG Planning- 01 Nos. DG Office- 01 Nos. SDE FFWC- 01 Nos. SDE Pabna- 01 Nos. AD SW Circle- 01 Nos. AP PFF Circle-01 AD River Morphology-01 DD GWH Division-I - 01 Nos. DD GWH Division II - 01 Nos. System Analyst- 01 Nos. EE C&I- 01 Nos. SO Cumilla- 01 Nos. AE NEMD- 01 Nos. SDE Survey and Study Division- 01 Nos.			
		High Speed Computer-05				
		TAB-25				
			EE NEMD- 01 Nos. EE Mapping Cell - 01 Nos. System Analyst- 01 Nos. SE SW Circle- 01 Nos. SE River Morphology- 01 Nos. EE Kushtia- 01 Nos. EE Mymensing- 01 Nos. Director GWH- 01 Nos. DG BWDB- 01 Nos. EE Faridpur- 01 Nos. EE FFWC- 01 Nos. ADG Planning - 01 Nos. Chief Planning- 01 Nos. EE Cumilla- 01 Nos. PA to Minister- 01 Nos. AD PFFC- 01 Nos. PD BWCSR- 02 Nos. EE BWCSR- 01 Nos.			
		Laptop-25				

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			SDE BWCSR- 01 Nos. Chief Engineer Hydrology- 01 Nos. AE BWCSR- 01 Nos. AE BWCSR- 01 Nos. EE C&I- 01 Nos. Accounts Section BWCSR- 01 Nos. EE C&I- 01 Nos. EE SWMD- 01 Nos. SDE Pabna- 01 Nos. AD SWH Circle- 01 Nos. Geologist GWH- 01 Nos. SDE FFWC- 01 Nos. AE Chief Hydrology- 01 Nos. ADG Office- 01 Nos. DG Office- 01 Nos. System Analyst, PFCC, BWDB-02 Project office -01 Date: July 2019			
Purchase of Cross country vehicle, Package-BWDB-G11	2nos	2nos Date: July 2019	BWCSR Component-B, BWDB.			
Purchase of Double cabin pickup, Package-BWDB-G12	1 nos	1 nos Date: June 2019	BWCSR Component-B, BWDB.		0.00	
Purchase of Motorcycles, Package-BWDB-G13	40 nos	40 nos Date: May 2018	Md. Abbas Ali Mondol Sub-Assistant Eng. Hydrology Section, BWDB, Thakurgaon.-1 Md. Sohel Rana Sub-Assistant Eng Hydrology Section, BWDB, Maymansing-1 Md. Rezaul Islam Sub-Assistant Eng. Hydrology Section, BWDB, Jessore.-		0.00	

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			1 Md.Hasan Habib Sub-Assistant Eng.HydrologySection,BWDB, Dewangonj.-1 Abu Sayad Md. AminurRashidSub- Assistant Eng. Hydrology Section,BWDB,Dalia-Rangpur.-1 BodrulAlam Sub-Assistant Eng.HydrologySection,BWDB, Manikgonj-1 Md. Rafiqul Islam Sub-Assistant Eng. Hydrology Section,BWDB, Sunamgonj.-1 Md. YousufAhammad Surveyour Hydrology, Sub-Division,BWDB, Chittagong.-1 Md. Amir Hossain Khan Sub-Assistant Eng. Hydrology Section,BWDB, Sylhet.-1 Md. Abdul Alim Khan Sub-Assistant Eng. Hydrology Section,BWDB, Khulna.-1 Md. Mainuddin Sub-Assistant Eng.HydrologySection,BWDB, Madaripur.-1 Md. Masum Sub-Assistant Eng.HydrologySection,BWDB, Barisal.- 1 Md. AbdurRaquib Sub-Assistant Eng. South-West Mapping Cell, BWDB, Faridpur.-1			

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Md. Akhlakul Jamil Sub-Divisional-Eng. SHEWS-BWDB, Dhaka-1			
			Munshi Asadullah Assistant Engineer South-West Mapping Cell, BWDB, Pirozpur-1			
			Md. Tashrif Ahmed Assistant Engineer Chief Engineer, Hydrology, BWDB, Dhaka-1			
			Md. Ikbal Akther Assistant Engineer Hydrology Section, BWDB, Goalanda.-1			
			Md. Wahidujjaman Sub-Assistant Eng. Hydrology Section, BWDB, Dinajpur.-1			
			Md. Asadujjaman Sub-Assistant Eng. Hydrology Section, BWDB, Jessore.-1			
			Md. Abdul Hannan Sub-Assistant Eng. Hydrology Section, BWDB, Kurigram.-1			
			Md. Musfiquir Rahman Sub-Assistant Eng. Hydrology Section, BWDB, Faridpur.-1			
			Sayed Md. Nazmul Haque Sub-Assistant Eng. Hydrology Section, BWDB, Dewanganj.-1			
			Md. Ohiduzzaman Nikson Sub-			

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Divisional-Eng C&I Division,BWDB, Green Road-Dhaka.-1 Md.AbuyousufBhauyan Sub-Assistant Eng. Hydrology Section, BWDB, Comilla.-1 Chayan Choudhury Sub-Assistant Eng. Hydrology Section,BWDB, Dewangonj.-1 Md. Jalal Uddin Sub-Assistant Eng.HydrologySection,BWDB, Pabna-1 Md. Rakibuddin Ahmed Sub-Assistant Eng. C&I Division,BWDB, Green Road, Dhaka.-1 Md. AlamgirHossaion Assistant Programar Processing & Flood Forecasting, Green Road, Dhaka.-1 Md. Jasim Uddin SurveyourHydrology Section,BWDB,Feni.-1 RishikeshVoumik SurveyourHydrology Section,BWDB, Comilla.-1 Md. Rana AhmedSub-Assistant Eng.HydrologySection,BWDB, Nawgaon-1 JeniaAkteer Sub-Assistant Eng.HydrologySection,BWDB, Bogra-1. Samima Yesmin GeologistSurfaceWarer Hydrology, BWDB, Green Road, Dhaka.-1 Shapon Kumar Ghosh Sub-Assistant Eng. Morphology, Sub-Division,			

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			BWDB, Kushtia.-1 Salma Begum Sub-Assistant Eng.Surface Water Hydrology, BWDB, Dinajpur.-1 Md. MosfiqurRahamn Sub-Assistant Eng. Morphology, Sub-Division, BWDB,Kushtia.-1 Md. AminurRasid Sub-Assistant Eng. Hydrology Section,BWDB, Munshiganj.-1. SHEWS-PTU, SDE, BWCSR, BWDB- 1 Md. Mahbubur Rahman Sub-Assistant Eng. Operation &MaintenanceDivision,BWDB, Dhaka.- 1 Md. Saiful Islam Sub-Assistant Eng.HydrologySection,BWDB, Green Road-Dhaka.-1			
Purchase of GIS and Image processing software with extensions, Package-BWDB-G14	1 nos	1 nos Date: March 2019	Date: June 2018 SE, GIS Directorate, BWDB.		0.00	
Purchase of DEM Data from SOB-Package-BWDB-G15	LS	DEM (81 Sheet:14256 SQM: NE part) in 2021 and DEM data for whole country Date: January 2023	Executive Engineer, Flood Forecasting and Warning Center. Date: June 2024		0.00	
Purchase of GIS/Satellite images-Package-BWDB-G15A	LS	Captured image 12000 sq.Km Date: November	Executive Engineer, Flood Forecasting and Warning Center. Date: June 2024		0.00	

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Development of DEM (DTM) using SOB available data (aerial photographic) resources, Package-BWDB-G15B	LS	2023 Development of DEM (DTM) using SOB available data resources. Date: September 2023	Executive Engineer, Flood Forecasting and Warning Center. Date: June 2024		0.00	
Purchase of Office Equipment , Package-BWDB-G18	LS	All in all Desktop 15 Nos.	SE Processing & Flood Forecasting Circle, BWDB, Dhaka-1. SE Surface Water Hydrology Circle, BWDB, Dhaka-1 SE River Morphology & Research Circle, BWDB, Dhaka-1nos Assistant Engineer BWCSR Component-B-1 Deputy Director (Accounts) BWCSR Component-B-1nos Sr.Finance Management Specialist BWCSR Component-B-1nos Sub-Divisional Eng BWCSR Component-B-1 nos Sr.Procurement Specialist BWCSR Component-B-1nos Executive Engineer BWCSR Component-B-1 nos Project Director BWCSR Component-B-1nos General Section BWCSR Component-B-1nos General Section BWCSR Component-B-1nos Executive EngineerConstruction & Instrument, BWDB, Dhaka.-1 nos Executive Engineer Office of the		0.00	

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Chief Planning, BWDB, Dhaka-1			
		Laptop Computer Dell Latitude 5590 CTO 6 Nos.	Executive Engineer Construction & Instrumentation, BWDB, Dhaka-1 nos Sr. Finance Management Specialist BWCSR Component-B-1 Ground water specialist BWCSR Component-B-1 nos Sub-Divisional Eng. BWCSR Component-B-1 SDE BWCSR Component-B-1 nos Assistant Engineer BWCSR Component-B-1 nos			
		Notebook Computer Dell Latitude 5290 4 Nos.	Date: July 2018 Chief Staff Office to DG, BWDB, Dhaka-1 nos Project Director BWCSR Component-B-1 nos Executive Engineer BWCSR Component-B-1 nos Chief Engineer, BWDB, Dhaka-1 nos BWCSR Component-B,,BWDB-1			

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Digital Photocopier Machine with Voltage Stabilizer 1 No.	Project Director BWCSR Component-B-1 Executive Engineer Chief Staff office to DG, BWDB, Dhaka-1 Superintending Engineer, PFFC, BWDB, Bhaka-1 Consultant Room, BWCSR Component-B, BWDB, Dhaka-1			
		Color Laser Printer 4 Nos.	Consultant Room BWCSR Component-B, BWDB, Dhaka-1 Sr. Finance Management Specialist BWCSR Component-B, BWDB, Dhaka-1 Executive Engineer BWCSR Component-B, BWDB, Dhaka-1 N/A Surface Water Hydrology Circle, BWDB, Dhaka-1 N/A River Morphology & Research Circle, BWDB, Dhaka-1 Deputy Director (Accounts) BWCSR Component-B, BWDB, Dhaka-1			
		Black & White Duplex, WiFi Laser Printer Brother, HL-L5200DW 10 Nos.	Assistant Engineer BWCSR Component-B, BWDB, Dhaka-1 Processing Flood Forecasting Circle, BWDB, Dhaka-1 Sub-Divisional Eng BWCSR Component-B, BWDB, Dhaka-1 Sr. Procurement Specialist BWCSR			

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Component-B, BWDB, Dhaka-1			
			Assistant Engineer BWCSR Component-B, BWDB, Dhaka-1 Deputy Director (Accounts)BWCSR Component-B, BWDB, Dhaka-1 Project Director BWCSR Component-B, BWDB, Dhaka-1 Sr. Procurement Specialist BWCSR Component-B, BWDB, Dhaka-1 Assistant Engineer (ME) BWCSR Component-B, BWDB, Dhaka-1 Executive Engineer BWCSR Component-B, BWDB, Dhaka-1 General Section BWCSR Component-B, BWDB, Dhaka-1 Programmer BWCSR Component-B, BWDB, Dhaka-1 Superintending Engineer, PFFC, BWDB, Dhaka-1 Sub. Asst. Eng. BWCSR Component-B, BWDB, Dhaka-1 SDE BWCSR Component-B, BWDB, Dhaka-1 Account Section BWCSR Component-B, BWDB, Dhaka-1 Admin BWCSR Component-B, BWDB, Dhaka-1			
		Scanner Flatbed A4 Size 15 Nos.				
		Scanner Flatbed A3 Size 4 Nos.				

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Multi Media Projector-1 Nos. 1 Wireless professional Presenter-3 Nos. Voice Recorder External HDD 1TB 3 Nos. External HDD 2TB 2 Nos. Wireless Mouse 10 Panda Anti-Virus 7 Pen Drive -32GB 18 Nos. External Optical DVD Drive 5 Nos. UPS 15 Nos. Computer Table 10 Nos. Computer Chair 10 Nos. Wireless Router 3 Nos.	Superintending Engineer, Surface Water Hydrology Circle, BWDB, Dhaka Consultant Room BWCSR Project Component-B, BWDB, Dhaka Executive Engg. BWCSR Project Component-B, BWDB, Dhaka Sub-Divisional Engg BWCSR Project Component-B, BWDB, Dhaka Project Director, Executive Engineer, SDE, Assistant Engg. SO, Programmer and consultant of BWCSR Project Component-B, BWDB, Dhaka use for project purpose. Date: July 2018			

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Purchase of Office Equipment, Package-BWDB-18A	LS	Date: June 2018 Desktop 10 nos. UPS 10 Nos. Scanner 05 nos. External HDD	Superintending Engineer, Surface Water Hydrology, BWDB-1 Quality Control and Assurance Cell (West), BWDB-1 River Morphology and Research Circle, BWDB-1 Chief Engineer Planning, BWDB-1 Chief Engineer, Hydrology, BWDB-1 Directorate of Discipline, BWDB-1 Executive Engg., BWCSR Project Office.-1 Administrative Branch-2, Secretariat-1 Ground Water Hydrology -Div-I-1 Ground Water Hydrology -Div-II-1 Project Director., BWCSR Project Office.-1 Executive Engg., BWCSR Project Office.-1 SDE., BWCSR Project Office.-1 Project Director, Executive Engineer, SDE, Programmer, Assistant Engg., SO and consultant of BWCSR Component-B, BWDB, Dhaka use for project purpose1		0.00	
		2TB 05 Nos Tool Kit with box 01 Nos.				

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		SSD Card 120GB for Desktop Computer 03 Nos. Ram 8 GB for Desktop PC 03 Nos. Computer hardware and Network maintenance Network Switch 01 Nos. Antivirus 01 Year original license software 02 Nos. Cat 6 cable 70 Meter, Connector 10 Nos., Blower Machine 01 Nos. USB Bangla Multimedia Keyboard 03 Nos. USB Mouse 03 Date: May 2021	Date: June 2021			
Purchase of Office Furniture and Fixtures, Package-BWDB-G19	LS	Almirah (Wooden) Size: 900×600 ×2100 mm, PFIL-	Project Director BWCSR, BWDB, Dhaka Assistant Engineer BWCSR,		0.00	

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		2031-18, Model-SPI 7 Nos.	BWDB,Dhaka Executive Engineer BWCSR, BWDB,Dhaka Store BWCSR, BWDB,Dhaka Sub-Divisional Eng BWCSR, BWDB,Dhaka General Section BWCSR, BWDB,Dhaka Account Section BWCSR, BWDB,Dhaka			
		Executive Revolving Chair, PR-0073, PFIL-073 10 Nos.	Account Section BWCSR, BWDB,Dhaka Account Section BWCSR, BWDB,Dhaka Account Section BWCSR, BWDB,Dhaka General Section BWCSR, BWDB,Dhaka N/A Processing Flood Forecasting Circle, BWDB, Dhaka. Assistant Engineer BWCSR, BWDB,Dhaka Store BWCSR, BWDB, Dhaka Account Section BWCSR, BWDB, Dhaka Logistic Associate BWCSR, BWDB, Dhaka Sub-Assistant Engineer BWCSR, BWDB, Dhaka			
		Special Revolving Chair, Model-SE.0012.Black	Assistant Engineer BWCSR, BWDB, Dhaka Project Director BWCSR, BWDB,			

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Rexine, PFIL-2031-18 10 Nos.	Dhaka Executive Engineer BWCSR, Dhaka Senior Procurement Specialist BWCSR, BWDB, Dhaka Sub-Divisional Engineer BWCSR, BWDB, Dhaka NSurface Water Hydrology Circle, BWDB, Dhaka. N Processing Flood Forecasting Circle, BWDB, Dhaka. Ground Water Hydrology Circle, BWDB, Dhaka. Chief Engineering Office, Hydrology, BWDB, Dhaka. Mapping Cell, BWDB, Dhaka.			
		Armed Chair, Model: VI-0014, Black Rexine, PFIL2031-18 20 Nos.	Project Director BWCSR, BWDB, Dhaka Executive Engineer BWCSR, BWDB, Dhaka Senior Procurement Specialist BWCSR, BWDB, Dhaka Sub-Divisional Engineer BWCSR, BWDB, Dhaka N/A Surface Water Hydrology Circle, BWDB, Dhaka. N/A Processing Flood Forecasting Circle, BWDB, Dhaka. N/A Ground Water Hydrology Circle, BWDB, Dhaka. N/A Chief Engineering Office, Hydrology, BWDB, Dhaka. N/A Mapping Cell, BWDB, Dhaka.			

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Visitor Chair, Model-VI-0064, Black Rexine, PFIL-2031-18 20 Nos	Project Director BWCSR, BWDB, Dhaka Executive Engineer BWCSR, BWDB, Dhaka Executive Engineer BWCSR, BWDB, Dhaka Sub-Divisional Eng BWCSR, BWDB, Dhaka General Section BWCSR, BWDB, Dhaka Senior Procurement Specialist BWCSR, BWDB, Dhaka Senior Procurement Specialist BWCSR, BWDB, Dhaka RAC BWDB Office, Green Road, BWDB, Dhaka. Programmer, BECSR, BWDB AE, Mech. BECSR, BWDBRAC BWDB Office, Green Road, BWDB, Dhaka. Store BWCSR, BWDB, Dhaka General Section BWCSR, BWDB, Dhaka General Section BWCSR, BWDB, Dhaka Sub-Divisional Eng BWCSR, BWDB, Dhaka Store BWCSR, BWDB, Dhaka General Section BWCSR, BWDB, Dhaka General Section BWCSR, BWDB, Dhaka			
		Full Secretarial				

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Table, Size: 1800×2175×750 mm, PFIL-2031-18 10 Nos.	Project Director BWCSR, BWDB, Dhaka Executive Engineer BWCSR, BWDB, Dhaka Senior Procurement Specialist BWCSR, BWDB, Dhaka Sub-Divisional Eng BWCSR, BWDB, Dhaka Assistant Engineer BWCSR, BWDB, Dhaka N/A Chief Engineering Office, Hydrology, BWDB, Dhaka. N/A Surface Water Hydrology Circle, BWDB, Dhaka. N/A Processing Flood Forecasting Circle, BWDB, Dhaka. N/A Ground Water Hydrology Circle, BWDB, Dhaka. N/A Mapping Cell, BWDB, Dhaka.			
		Half Secretarial Table, Size: 1400×750×750 mm, PFIL-2031-18 15 Nos.	Conference Room 1 No.			
		File Cabinet, Size: 1050×550×1470 mm, PFIL-2031-18 10 Nos	Conference Room, BWCSR, BWDB,			
		Sofa Set With Center Table, Size: 54 Rexine, PFIL-2031-18, Model-sss-41 sat 3 Nos.	Executive Engineer BWCSR, BWDB, Dhaka Conference Room BWCSR, BWDB, Dhaka Sub-Divisional Eng Room BWCSR, BWDB, Dhaka Sub-Divisional Eng Room BWCSR, BWDB, Dhaka			
		Multi-Purpose Shelves, Size 12×400×1800 mm,				

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Purchase of Office Furniture and Fixtures, Package-BWDB-G19A	LS	PFIL-2031-18, model SPL 10 Nos. Date: April 2018 Date: April 2018	Kitchen Room BWCSR, BWDB, Dhaka Consultant Room BWCSR, BWDB, Dhaka Consultant Room BWCSR, BWDB, Dhaka General Section BWCSR, BWDB, Dhaka General Section BWCSR, BWDB, Dhaka Project Director Room BWCSR, BWDB, Dhaka Date: April 2018 BWCSR Comp-B and Hydrology offices Date: November 2021			
		Medium Quality Table 02, Super Quality Table 03, Normal Quality Table 06, Executive Chair 10, Superior Quality chair 03, Super Quality chair 07, Medium Quality Chair 10, Normal Quality				

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Purchase of Electrical Materials & IPS, Package-BWDB-G20	IPS (1500 VA)-06 nos. IPS (800 VA)-10 nos.	guest chair 23 Medium quality single seater sofa 02, Medium quality double seater sofa 04, Superior quality single seater sofa 01, Superior quality double seater sofa 02, Date: November 2021 IPS (1500 VA)-06 nos. IPS (800 VA)-10 nos. Date: February 2020	Director, GWH, BWDB, Dhaka-01 no. DD, GWH, D-1, BWDB, Dhaka-01 no. DD, GWH, D-2, BWDB, Dhaka-01 no. Executive Engineer, NEMD, BWDB, Dhaka-01 no. Executive Engineer, Mymensingh, Sub Div., BWDB, Mymensingh-01 no. Executive Engineer, SWMD, BWDB, Faridpur.-01 no. Executive Engineer, Morphology, Mymensingh.-02 nos. Rajshahi WD, BWDB, Rajshahi-01 no. Jessore WD, BWDB, Jessore.-01 no. Executive Engineer, SEMD, BWDB,			

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Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Purchase of 04 Nos. Multi Beam Echo sounder with Survey grade Laptop (Software & Accessories), Package-BWDB-G22	04	04 Date: January 2023	Cumilla.-01 no. Hydrology Sub-Div, BWDB, Chittagong.-01 no. River Morphology & Research Circle, BWDB, Dhaka.-01 no. Date: February 2020 Executive Engineer, Dhaka Morphology Division-01 Nos. Executive Engineer, Mymensing Morphology Division-01 nos Executive Engineer, Kushtia Morphology Division-01 Nos. Executive Engineer, Construction & Instrumentation Division (C&I) -01 nos. Date: January 2023		0.00	
Purchase of 06 Nos. Drilling Machine (Rig Machine) for GW well construction, Package-BWDB-G23	06	06 Date: September 2023	Deputy Director, Ground Water Divn.-I -3Nos. Deputy Director, Ground Water Divn.-II -3Nos. Date: October 2023			
Purchase of Survey Boat and Survey Catamarans (03 Nos. Survey Boat and 03 Nos. Survey Catamarans), Package-BWDB-25	Survey Boat -03 Survey Catamarans-03	Survey Boat -03 Survey Catamarans-03 Date : November 2024	1. Morphology Division, Bharamara, Kustia-01 2. Morphology Division, Mymensingh Jamalpur-01. 3. Morphology Division, Dhaka 1. Morphology Division, Bharamara, Kustia-01 2. Morphology Division, Mymensingh Jamalpur-01. 3. Workshop, Shimrail Narayanganj, BWDB BWDB-01			

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Purchase of ICT Equipment for Data Centre & hydrological network upgradation, Package-BWDB-28	LS	Gold Processor Server 04Nos Load Balancer, SD-WAN & Next Generation Enterprise firewall 01Nos 48-Port 10G SFP Switch 02Nos Precision 7920 Tower Workstation 6Nos All In One (Core-i7) Desktop PC 20Nos	Date : November 2024 Data center, 2nd floor, Central ICT Directorate, Pani Bhaban, BWDB, Dhaka. Central GIS Directorate-02, Flood Forecasting and Warning Centre-01, Processing & Flood Forecasting Circle-01, Central ICT Directorate, BWDB-01, River Morphology & Research Circle - 01 Processing & Flood Forecasting Circle, BWDB, Dhaka. Surface Water Hydrology Circle, BWDB, Dhaka. River Morphology & Research Circle, BWDB, Dhaka. "Ali Ahsan Nishat Executive Engineer Office of Chief Engineer Planning, BWDB, Dhaka." Superintending Engineer, Central GIS Directorate, BWDB, Dhaka. Chief Engineer Hydrology, BWDB,			

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Dhaka. Director Ground Hydrology, BWDB, Dhaka. Executive Engineer, Flood Forecasting & Warning Center, BWDB, Dhaka Superintending Engineer, River Morphology & Research Circle, BWDB, Dhaka. Director Ground Hydrology, BWDB, Dhaka. Processing & Flood Forecasting Circle, BWDB, Dhaka. Surface Water Hydrology Circle, BWDB, Dhaka. River Morphology & Research Circle, BWDB, Dhaka. Chief Engineer Hydrology, BWDB, Dhaka.			
		Laptop Computer 26Nos	Director Ground Hydrology, BWDB, Dhaka-7nos Surface Water Hydrology Circle, BWDB, Dhaka-8 nos Processing & Flood Forecasting Circle, BWDB, Dhaka-1 Surface Water Hydrology Circle, BWDB, Dhaka-1 River Morphology & Research Circle, BWDB, Dhaka-1 Chief Engineer Hydrology, BWDB, Dhaka.-1 Director (Finance), Chief Engineer Planning, BWDB, Dhaka. -1 Assistant Director RAC (Mohosin Patoary), BWDB, Dhaka. -1			

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Core -i7 Desktop Computer 40Nos Printer (Laser) 40Nos 1200 VA UPS 60 Nos Scanner A4 Size 15Nos	River Morphology & Research Circle, BWDB, Dhaka-1. Anwer Hossain, Assistant Engineer, BWCSR-1 ADG, West region, BWDB, Dhaka. Chief Engineer Hydrology, BWDB, Dhaka-1 Hydroinformatic and Flood forecasting circle-01. Programmer, BWCSR, BWDB-01 Office of the ADG (Planning), Office of the ADG (West Region) , Office of the Chief Engineer, Hydrology, Office of the Chief Planning, Superintending Engineer, Processing & Flood Forecasting Circle, Superintending Engineer, Surface Water Circle; Superintending Engineer, River Morphology & Research Circle), Directorate of Ground Water Hydrology Circle & Central GIS Directorate, Executive Engineer, Flood Forecasting and Warning Centre Executive Engineer, North Eastern Measurement Division Executive Engineer, South Eastern Measurement Division Executive Engineer, Northern Measurement Division Executive Engineer, South Western Measurement Division Executive Engineer, Construction &			

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		86inch All-in-One 4K Smart Training Management Panel 2Nos 20KVA True Online UPS Split Type AC 2 Ton 2Nos Multifunctional Printer 6Nos Date: June 2023	Instrumentation Division Executive Engineer, Dhaka Morphology Division. Executive Engineer, Kustia Morphology Division. Executive Engineer, Mymensing Morphology Division. Deputy Director, Ground Water Hydrology Div-I. Deputy Director, Ground Water Hydrology Div-II Office of the Regional Accounts & BWCSR Project Office (Distribution list Attached). Hydroinformatic and Flood forecasting circle-01. Date: June 2023			
Purchase of Instruments for hydrological survey and GPS equipment, Package-BWDB-30	Supply of Auto Leveling machine including all necessary accessories - 32 nos. Hand Held GPS with all necessary accessories (i.e. data cable & Software - 42 nos. Supply of DGPS including all standard accessories Brand: Trimble	Auto Leveling machine including all necessary accessories - 32 nos. Hand Held GPS with all necessary accessories (i.e. data cable & Software - 42 nos. Supply of DGPS including all standard accessories Brand: Trimble	Executive Engineer, Construction & Instrumentation Division, BWDB, Dhaka. Date: June 2024			

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	standard accessories Brand: Trimble Navigation (I) Pvt. Ltd.- 12 nos.	Navigation (I) Pvt. Ltd.- 12 nos. Supply of RTK GPS ((Base & Robber)) along with downloading cable, data collection and post-processing software and all required necessary accessories – 03 nos. Supply of Portable Handy Depth Sonar (HONDEX PS-7 or equivalent) with all accessories Date: June 2024				
	Supply of RTK GPS ((Base & Robber)) along with downloading cable, data collection and post-processing software and all required necessary accessories – 03 nos. Supply of Portable Handy Depth Sonar (HONDEX PS-7 or equivalent) with all accessories Supply of Portable Handy Depth Sonar (HONDEX PS-7 or equivalent) with all accessories Supply of Portable Handy Depth Sonar (HONDEX PS-7 or equivalent) with all accessories					

Description	Quantity (as per project document)	Quantity Procured with date	Transferred to Hydrology for O & M with date	Disposed-off as per rule with date	Balance	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	7 or equivalent with all accessories- 26 nos.					
Purchase of Echo Sounder (single and dual frequency), Package-BWDB-34	Supply of Single Frequency Echo-sounder- 07 nos. Supply of dual Frequency Survey Grade Echo sounder for Bathymetric Survey- 04 nos. Supply of Hypack Software- 03 nos.	Single Frequency Echo-sounder- 07 nos. Supply of dual Frequency Survey Grade Echo sounder for Bathymetric Survey- 04 nos. Supply of Hypack Software- 03 nos. Date: June 2024	Executive Engineer, Construction & Instrumentation Division, BWDB, Dhaka. Date: June 2024			

22. Procurement of Goods, Works and Services:

22.1 Information on packages:

- a) Total number of packages as per Project Document: 57 (Goods- 40, Works-09, Services-08)
- b) Total number of packages procured: 50 (Goods- 33, Works-09, Services- 06)
- c) Reason for not procuring (if any):
 - Office Equipment (Package-G18B)- Not implemented as not required.
 - Package-G29, G32, G33, G35 could not be implemented due to delayed decision (clearance) from the World Bank (did not cover required procurement time) while G31, vendor did not able to complete within stipulated time.
 - Data Sharing Policy (Package-C18)- Data sharing achieved through MoU among BWDB, BMD and DAE. Consultancy package dropped.
- d) Number of packages for which the estimated cost is more than 1% of the estimated cost of the project: 22 (Goods- 12, Works- 07, Services- 03)

22.2 Detailed Package-wise information of Goods, Works and Services (For each case the highest 50 (fifty) packages) (Please use the format as in Annexure-I (a), I(b) and I(c))



C. FINANCIAL AND PHYSICAL TARGET AND PROGRESS

23. Original and Revised Financial Provision and physical Target (as per Project Document): Amount in lac taka

Financial Year	Financial provision & physical target as per original Project Document						Financial provision & physical target as per latest revised Project Document					
	Total	GOB	P.A.	Self- finance	Others	Physical %	Total	GOB	P.A.	Self- finance	Others	Physical %
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2016-17	10,370.43	450.22	9,920.21	-	-	28.99		0		-	-	
2017-18	13,624.95	473.87	13,151.08	-	-	40.36	213.83	67.05	146.78	-	-	0.62
2018-19	4,733.38	375.41	4,357.97	-	-	14.1	3,290.34	78.50	3,211.84	-	-	0.1
2019-20	2,916.80	426.33	2,490.47	-	-	8.93	2,149.15	92.74	2,056.41	-	-	6.22
2020-21	2,419.29	478.12	1,941.17	-	-	7.62	4,344.83	660.77	3,684.06	-	-	12.57
2021-22	-	-	-	-	-	-	5,284.38	1,353.32	3,931.06	-	-	15.29
2022-23	-	-	-	-	-	-	5,500.00	500.00	5,000.00	-	-	15.91
2023-24	-	-	-	-	-	-	13,787.43	2,074.85	11,712.58			39.88
Total	34,064.85	2,203.95	31,860.90	-	-	100.00	34,569.96	4,827.23	18,030.15	-	-	90.59

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24. Revised ADP allocation and progress:

Amount in lac taka

Financial Year	Revised Allocation & target						GOB Release	Expenditure & physical progress						Unspent* GoB Released
	Total	GOB	P.A.	Self- Finance	Others	Physical %		Total	GOB	P.A.	Self- Finance	Others	Physical	
													%	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)= 8-10
2017-18	774.00	101.00	673.00	-	-	3%	84.00	213.83	67.05	146.78	-	-	4%	16.95
2018-19	3,900.00	150.00	3,750.00	-	-	9%	112.50	3,290.34	78.50	3,211.84	-	-	17%	34.00
2019-20	6,000.00	400.00	5,600.00	-	-	14%	148.00	2,149.15	92.74	2,056.41	-	-	9%	55.26
2020-21	6,658.00	1,658.00	5,000.00	-	-	15%	774.50	4,344.83	660.77	3,684.06	-	-	22%	113.73
2021-22	12,150.00	2,150.00	10,000.00	-	-	26%	1,425.00	5,284.38	1,353.32	3,931.06	-	-	18%	71.68
2022-23	5,500.00	500.00	5,000.00	-	-	13%	398.14	5,392.44	395.39	4,997.05	-	-	10%	2.75
2023-24	12,500.00	1,500.00	11,000.00	-	-	20%	1,415.50	11,646.39	1,289.86	10,356.53	-	-	15%	125.64
Total	47,482.00	6,459.00	41,023.00	-	-	100%	4,357.64	32,321.36	3,937.63	28,383.73			95%	420.01

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D. ACHIEVEMENT OF OBJECTIVES OF THE PROJECT

25. Project objective, Actual achievement and Reason for shortfall (if any):

Objectives as per Project Document	Actual achievement	Reasons for shortfall (if any)
a) To provide comprehensive support to the BWDB towards modernization of its hydrological monitoring network and operations.	G1: Groundwater (905 Ground Water stations) G2: Surface Water, Rain, Climatology (15 AWLG; 272 ARG; 3 AWS) G6: Coastal Monitoring (40 Coastal Flood Monitoring Stations). Significant improvement of capacity for hydrological and topographical measurements and surveys: Project enhanced BWDB capacity in hydrological and topographical measurements, monitoring and surveys enabling BWDB capable to render better services towards the land and water development of Bangladesh. Through hardware software and training support BWDB GIS unit has been activated to perform its function at a desired level, earlier it was not active. Project also developed a very high resolution (2m X 2m) Digital Elevation Model (DEM). In achieving the above significant achievements and project objectives numerous activities were accomplished, few are as follows: A. Installed modernized hydrological monitoring network for accurate and real time data: - Automated Groundwater Ground Water stations throughout the country in 905 locations - Automated Surface Water, Rain, Climatology stations over the country at 315 (AWLG), 272 (ARG) and 3 (AWS) locations respectively including integration through comprehensive ICT system. - Automated Coastal Flood Monitoring Stations over the	-



Objectives as per Project Document	Actual achievement	Reasons for shortfall (if any)
	coastal zone in 40 locations. B. Hydrological equipment: Procured and made functional: • Systems for hydrological survey: ADCP-10 nos, Sondes (water quality) -20 nos, Echosonder-8 nos, Side Scan Sonar-1no, Survey Grade Echosonder-2-nos.	
	• Systems for Morphological survey (1) 15 handheld TDS 2) 12 RTK GPS 3) 6 DGPS beacon receiver 4) 8, Total Stations 5) 4 First order digital leveling machine 6) 2 sub-bottom profilers • Lab and field equipment and accessories: 1) 1 Ion Chromatograph, 2) 30 field test kits. • GIS and Image processing software with extensions. • Digital Elevation Model (DEM) developed using SOB data aerial images. The project developed new DEM is finest and precise having 2m X 2m horizontal resolution with 0.50 m vertical accuracy (earlier DEM was o 300 m X 300 m horizontal resolution). • GIS/Satellite images (Both Captured and Historical), G-15B: Preparation of DEM for whole country. • Multi Beam Echo Sounder: 4 nos. • Purchase of modern survey vessels (04 Survey Boat, 03 Speed Boats and 04 Survey Catamarans). • Purchase of Instruments for hydrological survey and GPS equipment with all necessary accessories and soft-wares. • Establishment of a Hydrology Lab in Pani Bhaban Premises and provided Instruments for water quality and other lab Equipment with all necessary accessories and soft-wares.	

Objectives as per Project Document	Actual achievement	Reasons for shortfall (if any)
	C. GIS, ICT & Other Equipments and Services: Procured and made functional: • A huge band of IT equipment and soft-wares including Servers-14 nos, • Next Generation Firewall-02 nos, Midrange Firewall-02 nos, Core switch-02 nos, KVM Switch with Console Monitor, • Load Balancer with Anti D-Dos/WAF-02 nos, • Upgradation of existing SAN Switch (Connectix DS-6505B) from 12 active ports to 24 active ports with required license and 16 Gbps Short Wave SFP transceivers- 02 nos. • Storage area network (SAN) Switch for connecting servers and shared pools of storage devices and is dedicated to moving storage traffic-02 nos, SAN Storage Enclosure-02 nos. • Software for Data collection/ acquisition software-02 nos, • Data Management and Time Series Data processing Software-02 nos, • Oracle 19c Database with Oracle RAC in database management and processing servers. • NMS/Server Monitoring (For the purpose of monitoring all the server related device and network. • Security Information and Event Management (SIEM) Software, • Field Maintenance Tracking Software, Backup Software, Development of Data and Information sharing platform among BWDB and Stakeholders. • Web GIS, Mobile App and updating Web Portal Services. • Gold Processor Server Load Balancer,SD-WAN & Next Generation Enterprise firewall Technology Device.	

Objectives as per Project Document	Actual achievement	Reasons for shortfall (if any)
	• Super Computer-03 nos • Improvement in flood forecasting covering whole Bangladesh including flash flood and storm surge/cyclone induced flood: • Existing Model of BWDB Flood Forecasting and Warning Center (FFWC) has been	
	• Upgraded and the forecasting services have been expanded to the whole country. • Community based Early Warning System in 2 flood prone districts (Netrokona and Sunamganj) in collaboration with DDM has been introduced. • New version of DHI Software for flood forecasting model and DSS have been procured, delivered to FFWC, and installed at FFWC system which is operational with updated flood forecasting models and DSS. Also huge ICT Equipment procured for FFWC and upgraded the existing capacity. • Software & Hardware provided at BWDB Data Centre. • ICT Equipment provided at 13 locations over the country • A complete integration developed through development of Mobile Apps, Upgrading Web-portal Data and Information sharing software to share information between BWDB and Stakeholders • Provided support through Media and Communication outreach	
b) Procurement of hydrological equipment.	Package-G3: Purchase of Catamaran and Survey Boats (01 no. Catamaran, 01 no Survey Boats) Package-G4: Purchase of Systems for hydrological survey: ADCP-10 nos, Sondes (water quality) -20 nos, Echosonder-8 nos, Side Scan Sonar-1no, Survey Grade Echosonder-2-nos. Package-G5: Purchase of Systems for	-

Objectives as per Project Document	Actual achievement	Reasons for shortfall (if any)
	Morphological survey (1) 15 handheld TDS 2) 12 RTK GPS 3) 6 DGPS beacon receiver 4) 8 Total Stations 5) 4 First order digital leveling machine 6) 2 sub-bottom profilers Package-G7: Purchase of Lab and field equipment and accessories: 1) 1 Ion Chromatograph, 2) 30 field test kits	
	Package-G14: Purchase of GIS and Image processing software with extensions Package-G15 Digital Elevation Model (DEM) from SoB: Package-G15A: Purchase of GIS/Satellite images. Package-15B: Preparation of DEM from SoB Data Package-G22: Multi Beam Eco Sounder: 4 nos Package-G25: Purchase of Survey Boat and Survey Catamarans Package-G-29: Purchase of Instruments for water quality and lab Equipment with all necessary accessories and software Package-G30: Purchase of Instruments for hydrological survey and GPS equipment with all necessary accessories and software Package-G-31: Purchase of ADCP (for discharge measurement), ADCP float with all necessary accessories and software Package-G-33: Purchase of Equipment for Discharge measurement and Others with all necessary accessories and software; Package-G-34: Purchase of Instruments for water quality and lab Equipment with all necessary accessories and software.	
c) Improvement in flood forecasting covering whole Bangladesh including flash flood and storm surge/cyclone induced flood.	Package-C2: Upgradation of existing Flood Forecasting model and expansion to the whole country. Package-C27: Community based flash flood early warning system. Significant improvement of capacity for forecasting: Flood forecasting capacity of BWDB Flood Forecasting and Warning Centre has been upgraded to a great extent in terms of accuracy and spatial coverage with	

Objectives as per Project Document	Actual achievement	Reasons for shortfall (if any)
	Inundation mapping as a newly added output. Now it covers whole country to 64 districts, earlier was 31 districts. The previous model was covering only 82000 Sq km of Bangladesh. Now model capacity increased to the whole area of the country 147570 Sq km. New model covers all 9 hydrological zones of Bangladesh while earlier it covered 4 hydrological zones. Previous model was 1-D model, in this project 2-D model introduced, additionally added 1D-2D coupled flood inundation forecasting model for coastal area of Bangladesh. Model additionally produces Dynamic Flood Inundation Map for coastal area. Thus, the new model generates 2D (dynamic) inundation map for the whole area of Bangladesh. Earlier data input was from rivers 306, now 474 rivers, earlier number of Boundary Water Level stations was 13 now 28. Number of River Cross-sections was 3900 and now 8600. Significant improvement of capacity for hydrological and topographical measurements and surveys: Besides, project enhanced BWDB capacity in hydrological and topographical measurements and surveys enabling BWDB capable to render better services towards the land and water development of Bangladesh. Through hardware software and training support BWDB GIS unit has been activated to perform its function at a desired level, earlier it was not active. Project also developed a very high resolution (2m X 2m) Digital Elevation Model (DEM).	
d) Development of other water related hazards forecasting/	C15: Development of new hydrological services and products. Following new forecast/prediction Models produced and linked to the BWDB	-

Objectives as per Project Document	Actual achievement	Reasons for shortfall (if any)
prediction services.	Hydrology web Development of hydrological services and products Dissemination of Products and Services • Development of Sediment prediction Model	
	• Development of Riverbank erosion prediction Model, Morphology Model and surface water outlook • Development of Hydrological drought prediction Model • Development of Salinity intrusion forecast Model • Development of Ground water assessment Model, Ground water outlook and forecast.	
e) Forecast products diversification and down- scaling.	ICT Equipment Upgrade Package-G2: Software & Hardware at BWDB Data Centre Package-G10A: ICT Equipment (13 locations) Package-G21: ICT Equipment (25 locations Districts) Package-G28: ICT Equipment for BWDB Hydrology and Data Center. Package-C15: Development of hydrological services and products: sediment prediction model, River bank erosion prediction Model, Hydrological drought prediction Model, Salinity intrusion Model, Ground water assessment Model. Dissemination of Products and Services Package-C22: Development of Mobile Apps, Upgrading Web-portal Data and Information sharing software to share information between BWDB and Stakeholders Package-NS1: Media and Communication outreach.	

Objectives as per Project Document	Actual achievement	Reasons for shortfall (if any)
f) Knowledge creation on trans-boundary hydrological cross-cutting issues.	Package-C-14: Technical studies on mitigating transboundary disaster risks and regional collaboration. Risk assessment and development of feasibility studies for mitigation measures of flood and disaster-prone NE districts (in collaboration with DDM). It has not been implemented in this phase. TOR was prepared in this phase. Expected to be implemented in Phase 2.	-

E. BENEFIT ANALYSIS

26. Annual Out-put:

Items of out-put	Unit	Estimated quantity expected at full capacity	Actual quantity of out-put during the 1 st year of operation at full capacity (or during, real production for newly completed project)
a) Automated Surface Water observation network	One system	One System in operation	Systems are in operation
b) Automated Ground Water observation network	do	do	
c) Automated Rainfall observation network	do	do	
d) Coastal Monitoring System	do	do	
e) New Hydrological forecast products	do	do	
f) Upgrade FFWC	do	do	

27. Cost/Benefit:

Item	Estimated	Actual
(1) Benefit cost ratio of the project:	As calculated on the year 2017-18:	As calculated on project last year 2023-24:
(i) Financial	(i) 2.04:1.00	(i) 2.59:1.00
(ii) Economic	(ii) 2.21:1.00	(ii) 2.83:1.00
(2) Internal Rate of Return:		
(i) Financial	(i) 25.36 %	(i) 36.90 %
(ii) Economic	(ii) 27.44 %	(ii) 40.70 %

28. Please give reasons for the shortfall, if any, between the estimated and actual benefit:

Not Applicable.

F. MONITORING AND AUDITING

29. Monitoring:

Name & Designation of the inspecting official	Date	Identified Problems	Recommendations
1	2	3	4
a) IMED:			
b) Ministry/Agency:			
Mr. Jatan Marma, Deputy Secretary, Ministry of Water Resources	11 June 2024	-	Under the project, arrangements must be made to transfer all purchased equipment, including the stations, to the Hydrology Division of BWDB. Additionally, the stations must be regularly maintained to ensure accurate hydrological information services.
c) Others: (Please specify)			



30. Auditing during and after Implementation:**30.1 Internal Audit: Foreign-Aided Projects Audit Directorate (FAPAD) Audit**

Period of Audit	Date of submission of Audit Report	Sl. No.	Major findings/objections and Money involved	Whether objections resolved or not (if not, mention status)
1	2	3	4	5
2017-18	20.12.2018		None	None
2018-19	31.12.2019		None	None
2019-20	31.12.2020		None	None
2020-21	30.12.2021		None	None
2021-22	29.12.2022	1	Loss of Project money amounting to Tk. 5,95,800.00(Five Lakh Ninety Five thousand Eight Hundred) due to pay bill to vendor without supplying required items.	The goods have been supplied as per the specifications mentioned in the tender, and evidence-supported responses have been submitted confirming that the goods have been received by the designated committee. The matter is under the process of resolution at FAPAD.
		2	Loss of project money amounting to TK. 90,44,429.00 (Ninety Lakh Forty Four thousand Four Hundred Twenty Nine) due to not imposed L.D to the contractor.	Evidence-supported responses have been submitted confirming that the necessary approval from the appropriate authority for time extension was obtained in due time. The matter is under the process of resolution at FAPAD.
		3	Loss of project money amounting to Tk. 79,85,000.00 (Seventy Nine Lakh Eighty Five	The vehicle purchased was being used by the Bangladesh Water Development Board for

Period of Audit	Date of submission of Audit Report	Sl. No.	Major findings/objections and Money involved	Whether objections resolved or not (if not, mention status)
			Thousand) due to procure unnecessary Vehicles which is not using for the project related purpose.	project inspection purposes. In light of the audit objection, a letter has been sent to the concerned office for the return of the vehicle, and evidence-supported responses have been submitted in this regard. The matter is under the process of resolution at FAPAD.
2022-23	27.12.2023	1	Project sustained a loss amounting to TK. 7,96,516.00 due to selection of trainees for overseas training outside the BWDB personnel.	Under the Central Store of BWDB, goods have been procured according to the approved indent and demand. The goods were issued and distributed based on approved demand from the authorities concerned. Later, it was confirmed that the goods were used in the implementation of development projects by BWDB, and the Central Store also issued them accordingly. As the goods were procured under indent and demand and issued accordingly, it was necessary to distribute them to the appropriate authorities. However, it was later found that no actual demand from such authorities existed. Evidence-supported responses have been submitted in this regard.

Period of Audit	Date of submission of Audit Report	Sl. No.	Major findings/objections and Money involved	Whether objections resolved or not (if not, mention status)
				The matter is under the process of resolution at FAPAD.
		2	Payment was made to the contractor showing 250-meter length surface drain work resulting loss of project money amounting to Tk. 5,04,088.00	Regarding BBQ-related construction of 250-meter-long surface drain work, refurbishing of the Hydrology Office, GI sheet installation, and earth filling, the response has been submitted along with necessary documentation. The matter is under the process of resolution at FAPAD.
2023-24	30.12.2024	1	Unspent money of RPA amounting to Tk. 5,97,15,639.00 not yet refunded to IDA although the project period has been ended.	It is under process to refund as Govt. procedure.
		2	Embezzlement of Tk.7,81,50,000.00 for paying the bill showing fictitious delivery challan of Survey Catamarans and Survey boat.	It is not true. Survey Catamarans and Survey boat were supplied in time. Reply will be sent to FAPAD very soon along with supporting/relevant documents.
		3	Irregular procurement of Survey Catamaran and Survey Boats valued amounting to Tk.14,44,50,000.00 due to non-compliance of Technical Specification.	It is not true. Survey Catamarans and Survey Boat Technical specification within contract/tender document. Reply will be sent to FAPAD soon along with supporting/relevant documents.

Period of Audit	Date of submission of Audit Report	Sl. No.	Major findings/objections and Money involved	Whether objections resolved or not (if not, mention status)
		4	Liquated Damage amounting to Tk. 1,44,50,000.00 not imposed upon the defaulting supplier in spite of not supplying boats violating PPR-2008.	Goods delivered stipulated time. No need to impose Liquated Damage. Reply will be sent to FAPAD soon along with supporting/relevant documents.
		5	Loss of project money paying bill amounting to Tk. 4,09,40,688.001 without doing refurbishment works.	Bill was paid after completion of Refurbishment works. Reply will be sent to FAPAD soon along with supporting/relevant documents.
		6	Duel Frequency Survey Grade Echo Sounder and Hypack Software amounting to Tk.1,68,19,600.00 was not found during physical verification.	Duel Frequency Survey grade echo Sounder and Hypack Software are available in the Constriction & Instrument division ware house. Reply will be sent to FAPAD soon along with supporting/relevant documents.
		7	Irregular payment was made amounting to Tk.28,95,435.00 for performance audit without need assessment and not complying the opinion for the convener of review committee.	Reply will be sent to FAPAD soon along with supporting/relevant documents.
Total findings/objections and Money involved=		12	32,09,56,507.00	

30.2 External Audit:

Period of Audit	Date of submission of Audit Report	Sl. No.	Major findings/objections and Money involved	Whether objections resolved or not (if not, mention status)
1	2	3	4	5
July 2017 to June 2019	28.10.2020		None	Not Applicable
July 2019 to June 2021	20.06.2024		None	Not Applicable
Total findings/objections and Money involved=			Not Applicable	Not Applicable

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G. POST-PROJECT REMARKS

31. General Observations/Remarks on the Project

31.1 Background

As a low-lying delta, Bangladesh has one of the most complex river systems in the world. The main commission of BWDB is implementation of the National Water Policy. This requires, management and operation of the FFWC, production and supply of reliable data for not alone flood forecasting, but also for the national water resources management and for related decision-support. As such BWDB is responsible for the national hydrological services to supply relevant data information for water resources management.

The hydrological services are provided by BWDB through BWDB Hydrology. The core function of the hydrological services under BWDB Hydrology is to collect data from nation-wide monitoring stations. Most of its hydrology network was established back in 1960-1980, with support from development partners. Bangladesh Water Development Board is maintaining around 343 water level stations, 269 rainfall stations, 50 meteorological stations, 1800 ground water stations in the country through Hydrology, BWDB. There has been little upgrading since the installation. The overall data collection network remains manually operated with old and poorly maintained equipment. This limits BWDB to provide reliable information to various stakeholders effectively.

31.2 Justification/Adequacy

The internal institutional setting of BWDB is inadequate, in which Hydrological services are not given the proper attention, which is partly indicated by not being provided with an adequate operational budget, man power for running and to maintain the hydrological monitoring, and reporting system. BWDB is currently undergoing a major restructuring. Its staff strength is being significantly reduced, and some services are intended outsourced. In this restructuring process it is important that BWDB Hydrology obtains an institutional and financial position that secures an effective operation of the hydrological services including provision of flood forecasts, early warning, low flow and groundwater monitoring.

To evaluate the situation with concerned offices a World Bank Identification Mission visited Bangladesh during November 2-10, 2014 and subsequent preparation mission visited in February 15-26, 2015 and June 1-11, 2015 proposed interventions for modernization and integration of hydrological services in Bangladesh with the focusing of different stakeholders. A follow up World Bank mission visited Bangladesh from September 13-23, 2015, Appraisal Mission from December 6-December 15, 2015 and Technical Mission from February 22-25, 2016 to continue preparation and finalization of the Weather and Climate Services Regional Project (WCSRP).

31.3 Objectives and

The project development objectives (PDOs) as approved and agreed upon by the GOB and the World Bank are to:

- To provide comprehensive support to the BWDB towards modernization of its hydrological monitoring network and operations.
- Procurement of hydrological equipment.
- Improvement in flood forecasting covering whole Bangladesh including flash flood and storm surge/cyclone induced flood.

- Development of other water related hazards forecasting/prediction services.
- Forecast products diversification and down- scaling.
- Knowledge creation on trans-boundary hydrological cross-cutting issues.

31.4 Project revision with reasons

Reasons for 1st Revision:

A few discrepancies/inconsistencies including incorrect economic code of DPP have detected which causes impediment of project implementation and IDA (The World Bank) has given some observations and suggestions on the ToR of Consultancy Services attached in the approved DPP. Under these circumstances, it is required, to revise the DPP for smooth implementation of the project.

The main features of proposed revision and item-wise reasons/ justifications for variations in cost (if any) are described below:

- a) Correction of the Economic Codes;
- b) In the procurement plan, mistakenly no budget was allocated for package G-3 (to procure four Catamarans and four Survey Boats)
- c) Total Survey, Study and Investigation tasks can be divided into 04 nos. packages (03 packages under revenue component and 01 package under capital. component)
- d) Some important/essential items are appropriate/missing/misplaced in the DPP as well as some unnecessary items and codes are incorporated. For smooth functioning of the project the new items with economic code/rightly placed items have been incorporated in the proposed RDPP.
- e) As requested by the World Bank (for the effective functioning of consultants), the changes, inclusion and/or exclusion are made in the ToR for the appointment of the Water Resources Systems Integrator (WRSI) Consulting Firm.

Reasons for 2nd Revision:

At the very beginning, a few discrepancies/inconsistencies including incorrect economic code of DPP caused hindrance in payment thus retarded the project progress. In the meantime, the World Bank had given some observations and suggestions on the TOR of Consultancy Services attached in the approved DPP. Under those circumstances, it was necessary to review the DPP for smooth implementation of the project. The first revised DPP was submitted and was approved by the Ministry of Water Resources in July 2018. The Financing Agreement of the project was signed on 05 April 2017 between GoB and World Bank (IDA), according to the agreement date of closing of financing is December 31, 2022. Administrative approval from the Ministry of water resources was issued on 19 June 2017 and the Project Director was appointed on 11 July 2017. So, the project was started late and missed the first two financial years in its implementation.

Again, the Financing Agreement was amended on 14 May 2020 and RPA 4.7905 million USD has been withdrawn reducing total RPA contribution to 35.8295 million USD. As, i) RPA USD 4.7905 Million has already been Withdrawn by the World Bank ii) The implementation of the project commenced with almost 02 (two) years delay, iii) Due to delay of selecting a consulting firm to undertake the assignment of Water Resources Systems Integrator (WRSI) consultancy, the most critical technical consultancy for implementation of the project, iv) The contract period of the most important packages (G2 & G6) has end on March 2022 and further one (1) year needed for Data accruing and Operation & Maintenance by the original vendor which is mandatory according to WB and while WRSI consultant's advice, (which was not considered initially) v) Some packages are reorganized and some new packages are also included in the project for achieving the objectives of the project, vi) the date of closing of financing agreement (FA) of this project is December 31, 2022, also World Bank Task Team Leader (TTL) suggested to keep the project's closing date six months beyond the closing date of financial agreement. So, it does not require extension of FA, therefore the project implementation period proposed to extend up to June 2023. For these reasons 2nd revision of the project is necessary. Also, in amended FA both GoB and WB (IDA) have agreed to revise the existing DPP to accommodate the changes.



32. Rationale of the project (Consider the following issues):

32.1 Concept

In Bangladesh, the Bangladesh Meteorology Department (BMD), under the Ministry of Defense (MOD) is the main provider of meteorological services while the Bangladesh Water Development Board (BWDB) under the Ministry of Water Resources (MOWR), is the main provider of water resources information and flood forecasting services. These two agencies provide weather, water and climate services to a range of user sectors. BMD is mandated to provide weather and climate related services. Services provided by it such as routine weather forecasts are directly provided to the general public. Other data and information in the form for instance, of rainfall data used for flood forecasting by BWDB, or severe weather warnings for thunderstorms or cyclones disseminated by the Department of Disaster Management (DDM) or high tide warnings for fishermen, the Department of Fisheries (DOF) and Port Authority are provided by BMD to users that can then use this information to inform affected communities or generate more tailored information and secondary information products for meeting the needs of their own sectors. BWDB's Hydrology Division and Flood Forecasting and Warning Center (FFWC) provides flood forecasts and warnings to the DDM which then disseminates it to District level Disaster Management Committees, media and local communities. Sectors such as aviation, agriculture, disaster risk management, urban water and sanitation authorities, are amongst the range of users that rely on weather and water services provided by these two main agencies—BMD and BWDB.

32.2 Design

Strengthening the capacity for hydro-meteorological services in Bangladesh has important national and regional benefits. National benefits include strengthened BMD, BWDB and DAE capacity to meet the country's own national service delivery mandates and improve services in the important agricultural sector. It has important synergies with ongoing investments in disaster risk management, water, climate and priority projects such as the National Agricultural Technology Program II. Improved monitoring, collection and digitization of weather and climate data shared through existing mechanisms such as the WMO Global Telecommunications System (GTS) has also enable improved forecasting and prediction of regional and trans-boundary phenomenon (such as cyclones, drought, thunderstorms, floods, etc.) which at present is not fully possible. For instance, in the pre-monsoon season between March-May, severe thunderstorms develop that affect Bangladesh but also neighboring northeast India, Bhutan, and Nepal. Though not as visible as tropical cyclones, they result in damages to livelihoods and property worth millions of dollars in Bangladesh and across the sub-region. Improved monitoring of upper air parameters over Bangladesh and sharing this information with regional entities has enable improved forecasting of such severe weather phenomenon. Similarly, improved efforts to monitor sea level rise across the coast of Bangladesh can contribute to improved understanding of changes in sea level rise in the Bay of Bengal. Improved understanding of disaster related risks (e.g. through flash floods and thunderstorms) in northeastern districts can also contribute to improved cooperation and risk management at the cross-border level.

32.3 Location and

BWDB's network capacity is mainly along the major rivers and relatively insufficient on smaller rivers, urban catchments, remote areas and trans-boundary rivers. Models used by BWDB for flood forecasting cover only three fourths of the country and do not cover the coastal areas. In northeastern districts of Bangladesh, there is also a need to further strengthen ongoing regional collaboration, strengthen the information base for communities at risk and improve community based early warning services in those areas.

32.4 Timing.

The hydrological network, managed by the Hydrology Division of the BWDB, remains primarily manual with manual data collection, transmission and storage with only limited real time hydrological and flood forecasting. This affects the quality, accuracy and frequency with which data is collected and transmitted, and constrains BWDB's capacity for providing a range of hydrological services and real time flood forecasting and early warnings to user agencies and communities.

33. Brief description on planning and financing of the project and its applicability (Consider the following issues):

33.1 Project Identification

Before project initiation, BWDB does not have the data or modeling tools to undertake inundation forecasting in its highly vulnerable coastline. Management of groundwater and improved information of aquifer structure in hotspot areas such as the coast and major urban areas is critical for Bangladesh. Yet the country's groundwater network is mainly manual and should be modernized to enable improved management of this important resource and help address a whole host of critical issues such as salinity intrusion in coastal areas and develop targeted services based on this information. Though BWDB has led the way in implementing many water resource projects in Bangladesh, its important Hydrology Division has received relatively less attention by way of investments either from the GOB or development partners. Currently the Hydrology Division has 131 technical staff that is supported by 309 contractual staff (gauge readers, surveyors, office cleaners etc.). Approved technical staff is 261 and there is room to strengthen the technical capacity of this division under BWDB. For the Hydrology Division to move from mainly data collection and provision of flood forecasting services to developing a range of user driven hydrological services, a significant shift in orientation in terms of systematically understanding user needs, network modernization and technical capacity strengthening is needed.

33.2 Project Preparation

The World Bank is scaling up investments in hydromet related operations in all regions. These have been structured in different ways, as stand-alone projects or as part of broader disaster risk management projects and programs. While first generation hydromet projects supported by the Bank tended to focus primarily on improving the monitoring network and forecasting related to weather and water, more recent projects (e.g. in Uruguay, Nepal) are putting a greater emphasis on service delivery with focus on sectors such as agriculture and disaster mitigation. This is being done by more direct and targeted support to user sectors to develop decision support systems and weather/water/climate based services that can cascade down all the way to the community level. Lessons from implementing such projects have informed project design.

33.3 Appraisal

An important lesson regarding use of Systems Integrator (SI) firms-- a model that has had mixed success in World Bank funded projects, is that while there are challenges with the performance of such firms, they continue to play an important role in supporting project implementation. This is especially the case in Bangladesh where technical capacity of implementing agencies is limited, and there are no university level programs on Meteorology and Weather Services. The performance of such firms can however be improved in a number of ways such as preparation of clear firm terms of references, strong contract management by PIUs, and requirements for in-country presence by team leaders for such firms. Further, experience suggests that it is easier to find firms that specialize in meteorology or hydrology but it is harder to find firms that have expertise in both. Building on these lessons, the PIUs have prepared clear terms of references for SI consultancies. They received training in contract management at the early stages of project implementation.

33.4 Credit Negotiation

The current /Restructured Counterpart Financing is SDR 59.79 million (US\$78.6 million equivalent). The project consists of four components, three of which are implemented by the Bangladesh Meteorological Department (BMD) under the Ministry of Defence (MoD), Bangladesh Water Development Board (BWDB) under Ministry of Water Resources (MoWR), and the Department of Agricultural Extension (DAE) under Ministry of Agriculture (MoA), with the fourth being a contingent emergency response component.

33.5 Credit Agreement

The closing date of all the indicators was revised from December 2023 to November 30, 2024, aligning with the Financing Agreement.

33.6 Credit Effectiveness

The Bangladesh Weather and Climate Service Project (BWCSR) was originally financed with an IDA credit of SDR 79.8 million (US\$113 million equivalent¹) and Government of Bangladesh (GoB) of US\$14.8 million, was approved on June 3, 2016, and become effective on May 4, 2017.

33.7 Loan Disbursement

(i) Disbursement Methods: The following Disbursement Methods may be used under the Financing:

- Advance
- Reimbursement
- Direct Payment
- Special Commitment

(ii) Disbursement Deadline Date: The Disbursement Deadline Date is 4 months after the Closing Date specified in the Financing Agreement. Any changes to this date will be notified by the Association.

(iii) Disbursement Conditions: Please refer to the Disbursement Conditions in the Financing Agreement.

¹ As of November 2024

33.8 Loan Conditions

All the conditions in utilizing the proceeds of the Credit are set out in the Financing Agreement. However, some of the financial aspects are reproduced below:

- (i) All payments for expenditures claimed under this Financing must be made using the banking system, except expenditures paid using the petty cash system following the Recipient's existing policy. The petty cash limit as per the Recipient's existing policy is BDT 100,000.
- (ii) Supporting documentation requirements for reporting on use of financing proceeds under category 2 of the withdrawal schedule of the Financing Agreement -Emergency Expenditures under Part D of the project would be provided in a revised Disbursement letter, if funds are allocated to category 2.
- (iii) The minimum value for Reimbursement, Direct Payment and Special Commitment applications is US\$1,000,000.

33.9 Project Approval and

Not Applicable.

33.10 Others(specify)

Not Applicable.

34. Analysis of the post- implementation situation and result of the project (Consider following issues):

34.1 Whether the beneficiaries of the project have clear knowledge about the Target/Objectives of the project.

The principal beneficiaries of the project are farmers, the general public, and critical economic sectors that rely on enhanced meteorological and hydrological services. A wide range of institutional users—including the Department of Disaster Management (DDM), civil aviation authorities, water resource management agencies, municipal service providers, and the fisheries sector—will benefit from improved weather forecasting and information dissemination. Additionally, agricultural extension officers, market actors, and consumers of agricultural produce are among those who will gain from the project's outcomes.

To foster stakeholder awareness and engagement, the project team conducted meetings, workshops, seminars, and training programs aimed at introducing beneficiaries to the project's objectives, outcomes, and intended impacts. These efforts ensured that all participants developed a clear understanding of the project's goals, activities, and implementation strategies.

34.2 Programme for the use of created facilities of the project

All activities were completed, and this component closed on June 30, 2024 as per DPP. All instruments, ICT systems, and predictive models developed under this component have been functioning cohesively and have been handed over to the appropriate service-providing units within BWDB. The nationwide network of

instruments and the new flood forecasting models have been tested through a complete monsoon cycle and flood incidents. BWDB successfully enhanced its flood forecasting by expanding coverage from the initial 31 districts to all 64 districts nationwide. All systems have been handed over to Ground Water Hydrology Circle, Surface Water Hydrology Circle, River Morphology & Research Circle, and Processing and Flood Forecasting Circle which are the primary service providing units under BWDB.

Standard operation Procedures (SoP) for all the system newly introduced in the project have been developed and handed over to the all respective operational units of BWDB Hydrology (Surface water hydrology, Ground water hydrology, Flood forecasting & warning Centre, etc.) with required academic and hands on trainings at the field. Provided operational tools and kits, provided high end Survey boats and survey catamarans customized and equipped with the facilities enabling carry-out surveys in all major rivers and also at the sea confluences.

34.3 O & M Program of the project.

There are three key actions implementing agencies need to take as the project is closing:

- a. allocate adequate budget to operate and maintain the systems,
- b. sign the annual maintenance contracts before warranties of observation network packages expire, to ensure uninterrupted data acquisition and transmission, given that the implementing agencies' capacities are not yet sufficient. Urgent action is required by BWDB as warranties end on November 30, 2024, and any gap would release the vendor from the pre-negotiated rate, potentially leading to much higher costs, lengthy tender processes and a gap in O&M with limited O&M capacity by BWDB to deal with issues, and
- c. ensure seamless operation of systems by facilitating knowledge transfer from the trained staff to new personnel before reassigning trained staff to new positions.

As per plan of the project, contracts for post project operation and maintenance in the form of Annual Maintenance Contract (AMC) for next 3 years have been signed between BWDB Hydrology and the original vendors and the services are continued under revenue budget. These AMCs to be continued under revenue budget.

34.4 Impact of the project (Direct & Indirect)

This project had a highly comprehensive and innovative design, not only modernizing hydro-met services but also including a user sector (agriculture) to translate the forecasts into actionable information and communication with the users. Furthermore, the project involved academia, establishing long-needed departments and courses for meteorology and agrometeorology, and included research institutes to bring research into application.

As a result of these innovations and the successful achievement of the PDO, this project contains a large number of lessons learnt relevant for the region as well as globally which will be captured and disseminated. The project is already featured in the World Bank flagship report "Rising to the Challenge - Success stories and strategies for achieving climate adaptation and resilience". Findings from this report were presented at the COP29 including representation from the Bangladesh Government showcasing the efforts and achievements.

BWDB has significantly improved its flood forecasting capability by expanding the spatial coverage from 31 district to 64 districts i.e, whole country. Automated and modernized its observation network and by establishing a comprehensive ICT Integration. The previous model was covering only 82000 Sq km of Bangladesh. Now model capacity increased to the whole area of the country 147570 Sq km. Previous model

was 1-D model, in this project 2-D model introduced, additionally added 1D-2D coupled flood inundation forecasting model for coastal area of Bangladesh. Project also developed a very high resolution (2m X 2m) Digital Elevation Model (DEM). The achievements of the project is very much relevant to the BWDB overall activities as it is mandated for flood forecast of the country, overall water management, flood control irrigation and drainage system development and management. Real time and accurate data along with a precise forecast warnings are extremely required for all kind of development activities and livelihood. Not only BWDB, all kind of development and non-development operators in the country need flood information, water data (both ground water and surface water), river data, flood data, rainfall data, early warning. Also NGOs, Universities and research bodies need all these services. So development and improvement that happened through this project were obvious and have a major positive impact on the future hydrological and forecasting improvement in Bangladesh as well as skill enhance and capacity development of the BWDB professionals involved.

34.5 Transfer of Technology and Institutional Building through the project.

Component B of the Bangladesh Weather and Climate Services Regional Project (BWCSR), titled *Strengthening Hydrological Information Services and Early Warning Systems (SHEWS)*, has been instrumental in integrating meteorological data, climate forecasting, and agricultural practices to enhance crop productivity, mitigate risks, and support optimized decision-making in farming.

The project has achieved substantial outcomes, successfully meeting the majority of its log frame objectives. It has facilitated increased crop yields and significantly reduced crop losses in targeted regions, thereby contributing to a measurable decline in poverty. The component's design reflects a nuanced understanding of the region's exposure to hydrological hazards and draws on critical lessons from previous water sector initiatives.

Through its climate resilience measures—particularly in addressing flooding and flash flooding—SHEWS has made a notable contribution to environmentally sustainable agricultural development. Moreover, the project yielded strong gender-equitable impacts, advancing poverty alleviation, enhancing women's economic participation, and promoting inclusive leadership and decision-making processes. It is noteworthy that the project reported no adverse environmental or social effects.

A key pillar of the initiative has been the structured capacity-building programs, which have strengthened the technical competencies and confidence of BWDB personnel. A significant number of trained officers have since applied their enhanced expertise to improve the accuracy and reach of flood forecasting and early warning dissemination systems.

Presently, millions of citizens benefit from real-time access to weather and hydrological information. As the full suite of SHEWS software and modeling tools becomes operational, the project's contributions to Bangladesh's socio-economic resilience, agricultural productivity, and environmental sustainability are expected to deepen further.

34.6 Employment generation through the project.

Employment generated for different professionals like engineers, technicians, IT professionals and skilled & unskilled labors.

34.7 Possibility of Self-employment.

Different professionals worked received a good experience and trainings may enable them to take initiatives for their self-employment in future. As the project dealt with high end technologies, there are high chances of self-employment.

34.8 Possibility of Women-employment opportunity.

Women Professionals also worked in this project. They have similar opportunities of self-employment.

34.9 Women's participation in development.

In Bangladesh women participation in the development is gradually increasing in the category of professionals (Engineers, IT, Technicians, etc.) as well as skilled and unskilled labor category. In this project women professionals and labors also worked and contributed to the project achievements.

34.10 Probable Impact on Socio-Economic activity.

Presently, millions of citizens benefit from real-time access to weather and hydrological information. As the full suite of SHEWS software and modeling tools becomes operational, the project's contributions to Bangladesh's socio-economic resilience, agricultural productivity, and environmental sustainability are expected to deepen further.

34.11 Impact on environment.

The Environmental and Social (ES) Safeguard team had virtual meetings with the PIU and discussed the environmental and social status of the project that were presented by the PIU. The ES team has reviewed and followed up the issues and the pending action items. The PIU has completed the agreed action items including completion of all the screening and consultations of all sites, developing e-waste management plan, preparing Occupational Health and Safety (OHS) plan including the code of conduct for the renovation works of DAE. All relevant documents have been disclosed by the agency on the website. No grievances have been recorded in the last six months from any of the three agencies.

34.12 Sustainability of the project.

Numerous steps have been undertaken throughout project implementation to contribute to sustainability after project closing, including the integration of warranty and annual maintenance contracts into the goods packages to ensure continuity through revenue set up of BWDB Hydrology while Standard operating procedures (SoPs) have been developed for key processes and systems, and key staff of BWDB Hydrology have been involved in the implementation processes, series of hands on trainings also provided to the end users which supported a smooth transition which is now under operation. Consultants report and recommendations on sustainability has been handed over to the BWDB Hydrology.

As per plan of the project, contracts for post project operation and maintenance in the form of Annual Maintenance Contract (AMC) for next 3 years have been signed between BWDB Hydrology and the original vendors and the services are continued under revenue budget. These AMCs to be continued under revenue budget.

34.13 Contribution to poverty alleviation/reduction.

Through its climate resilience measures—particularly in addressing flooding and flash flooding—SHEWS has made a notable contribution to environmentally sustainable agricultural development which has a long term positive impact on saving agriculture crops including lives and wealth of the society as a whole thus playing a role to poverty alleviation of the country. Moreover, the project yielded strong gender-equitable impacts, advancing poverty alleviation, enhancing women's economic participation, and promoting inclusive leadership and decision-making processes. It is noteworthy that the project reported no adverse environmental or social effects.

34.14 Opinion of the public representatives, local elite, local administration, teachers, religious leaders, women's representatives etc.

Opinion of the public representatives, local elite, local administration, teachers, religious leaders, women's representatives have a positive and favorable opinion.

34.15 Contribution of Micro-credit programs and Comments on overlapping with any NGO activities.

The project, funded by the World Bank, did not incorporate additional microcredit initiatives nor did it intersect with the operations of non-governmental organizations (NGOs).

35. Problems encountered during Implementation (with duration & steps taken to resolve those) (Consider following issues):

35.1 Project management:

At the very beginning, a few discrepancies/inconsistencies including incorrect economic code of DPP caused hindrance in payment thus retarded the project progress. In the meantime, the World Bank had given some observations and suggestions on the TOR of Consultancy Services attached in the approved DPP. Under those circumstances, it was necessary to review the DPP for smooth implementation of the project. The first revised DPP was submitted and was approved by the Ministry of Water Resources in July 2018. The Financing Agreement of the project was signed on 05 April 2017 between GoB and World Bank (IDA), according to the agreement date of closing of financing is December 31, 2022. Administrative approval from the Ministry of water resources was issued on 19 June 2017 and the Project Director was appointed on 11 July 2017. So, the project was started late and missed the first two financial years in its implementation. To accommodate those changes 1st and 2nd revision of the project was happened and the project was extended till June 2023. Later, the project was further extended until June 2024 due to disruptions in the global supply chain caused by the COVID-19 pandemic and other issues.

35.2 Project Director:

Three Project Directors were appointed to lead the project throughout its duration, which also contributed to a time overrun.

35.3 Land Acquisition:

Not Required

35.4 Procurement:

The COVID-19 pandemic and disruptions in the global supply chain further hindered project progress, delaying the delivery of internationally procured equipment. Despite this, the installation and commissioning of the equipment has been completed. While the commissioning activities for BWDB-G1, BWDB-G2, and BWDB-G6 packages have been concluded, an additional one-year Annual Maintenance Contract (AMC) is included in the main contract. Consequently, the World Bank has extended the financing agreement duration by one year until November 30, 2024.

35.5 Consultancy:

The appointment of the project's main consultant (Water Resources System Integrator Consultancy) required an additional two years for preparing and approving various Terms of Reference (ToR), Bid Documents, and Technical Specifications for the core activities. This additional time was accommodated in the second revision of the DPP, extending the project duration until June 2023.

35.6 Contractor:

No problem noticed

35.7 Manpower:

No problem noticed

35.8 Law & Order:

Some theft cases occurred those were noticed to the local police stations.

35.9 Natural calamity:

As the project activity were country wide and a good part of the activity were in and around the naturally vulnerable areas and in coastal areas, project had to face some natural calamity like Cyclone, Tidal Bore, Flash Flood, Flood, etc.

35.10 Project financing:

No problem noticed

35.11 Allocation and release:

Project Allocation was smooth, however in one year allocation for CD/VAT was insufficient for which, the project had to struggle a lot.

35.12 Design formulation/approval:

No problem noticed

35.13 Project aid disbursement and re-imbursement:

No problem noticed

35.14 Mission of the development partners:

The World Bank Missions were regular and helpful.

35.15 Time & Cost Over-run:

The project was started late and missed the first two financial years in its implementation. To accommodate those changes 1st and 2nd revision of the project was happened and the project was extended till June 2023. Later, the project was further extended until June 2024 due to disruptions in the global supply chain caused by the COVID-19 pandemic and other issues. Consequently, the Project was time over-run (% of original implementation period: July 2016-June 2021) by 160%. While the project had no cost over-run as the project finally used PA amount USD 28.06 million against initial estimate of USD 45.30 million thus saving USD 17.24 million.

35.16 Project Monitoring:

Well monitored from the part of World Bank, Ministry of Defence, ERD, Ministry of Water Resources and Bangladesh Water Development Board.

35.17 Delay in Decision:

Some decision delay noticed in World Bank part.

35.18 Transport, Training:

No problem noticed

35.19 Approval and Others:

Timely approval were received.

36. Remarks & Recommendations of the Project Director:

BWDB has significantly improved its flood forecasting capability by expanding the spatial coverage from 31 district to 64 districts i.e, whole country. Automated and modernized its observation network and by establishing a comprehensive ICT Integration. The previous model was covering only 82000 Sq km of Bangladesh. Now model capacity increased to the whole area of the country 147570 Sq km. Previous model was 1-D model, in this project 2-D model introduced, additionally added 1D-2D coupled flood inundation forecasting model for coastal area of Bangladesh. Project also developed a very high resolution (2m X 2m) Digital Elevation Model (DEM). The achievements of the project are very much relevant to the BWDB overall activities as it is mandated for flood forecast of the country, overall water management, flood control irrigation and drainage system development and management. Real time and accurate data along with a precise forecast warnings are extremely required for all kind of development activities and livelihood. Not only BWDB, all kind of development and non-development operators in the country need flood information, water data (both ground water and surface water), river data, flood data, rainfall data, early warning. Also, NGOs, Universities and research bodies need all these services. So, development and improvement that happened through this project were obvious and 100% relevant.

Sustainability for this kind of infrastructures is big concern, and is fully dependent on the continuous operation, troubleshooting and maintenance. As it is a very high end technology, it is recommended to engage always a maintenance vendor and preferably the original vendor.

Numerous steps have been undertaken throughout project implementation to contribute to sustainability after project closing, including the integration of warranty and annual maintenance contracts into the goods packages to ensure continuity through revenue set up of BWDB Hydrology while Standard operating procedures (SoPs) have been developed for key processes and systems, and key staff of BWDB Hydrology have been involved in the implementation processes, series of hands on trainings also provided to the end users which supported a smooth transition which is now under operation. Consultants report and recommendations on sustainability has been handed over to the BWDB Hydrology.

After successful implementation of this phase of the project, 2nd phase become obvious for the sustainability of this phase Infrastructures and also to cope up with the new technology and technical and technological advancement in the world. The issue of Climate change is now very serious. As Bangladesh is a Riverine country with a huge coastal area and located at a lower riparian of the GBM (Ganges-Brahmaputra- Meghna) basin where climatic features are very active throughout the year, continuation of this project benefits and further development is always essential.

There are three key actions implementing agencies need to take as the project is closing:

- a. allocate adequate budget to operate and maintain the systems,
- b. sign the annual maintenance contracts before warranties of observation network packages expire, to ensure uninterrupted data acquisition and transmission, given that the implementing agencies' capacities are not yet sufficient. Urgent action is required by BWDB as warranties end on November 30, 2024, and any gap would release the vendor from the pre-negotiated rate, potentially leading to much higher costs, lengthy tender processes and a gap in O&M with limited O&M capacity by BWDB to deal with issues, and
- c. ensure seamless operation of systems by facilitating knowledge transfer from the trained staff to new personnel before reassigning trained staff to new positions.

I am happy to note that as per plan of the project, contracts for post project operation and maintenance in the form of Annual Maintenance Contract (AMC) for next 3 years have been signed between BWDB Hydrology and the original vendors and the services are continued under revenue budget. These AMCs to be continued under revenue budget.

Date.....19.08.2025.....

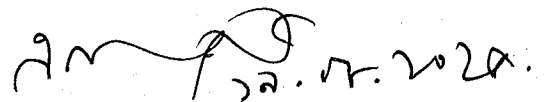


Signature and seal of the Project Director

37. Remarks/Comment of the Agency Head:

The Flood Forecasting and Warning capacity of BWDB has been significantly upgraded in terms of both accuracy and spatial coverage with inundation mapping. In addition, the project has strengthened BWDB's institutional capacity in hydrological and topographical surveying, enabling it to provide better services in line with project's intended objectives.

Date.....

 7.2.2020.

Signature and seal of Agency Head
(Md. Enayet Ullah)
ID No. 670705001
Director General
BWDB, Dhaka.

38. Remarks/Comments of the Secretary/Senior Secretary of the Ministry/Division:

The project has been completed successfully. Regular maintenance and monitoring should be ensured by Bangladesh Water Development Board for the sustainability of the project.

Date

Signature and Seal of Secretary

Information Related to Procurement of Goods

Annexure-1(a)

As per Project Document		Estimated Cost. (Taka in Lac)	Procurement Method	Approving Authority	Date of Tender Invitation	Name of Newspaper	Date of Opening	Date of Approval	Date of NOA	Contract Price & Date	Actual Payment	Date of Completion	
Package No	Description of Package											As per Contract	Actual
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
G1	Automation of Ground Water Information Stations: 905 nos.	Plan	ICB	MOWR	26/06/2019	The Daily Samakal and The Financial Express	03/04/18	03/03/18	16/07/18				
		Actual	OTM (ICB)	MOWR	9/08/2019		04/09/19	26/12/2019	30/01/2020	USD. 3998250.00; BDT. 49409250.00	15.11.2020	30.06.2024	
		Deviation			44		519	602	563	USD. 3968870.57; BDT. 49409250.00			
G2	Automation of Surface Water Information Stations: 315 nos., Climate stations: 3 nos. and Rain Gauge: 272 nos.	Plan	ICB	MOWR	24-Sep-20	The Daily Samakal and The Financial Express	03/04/18	03/05/18	16/07/18				
		Actual	OTM (ICB)	MOWR	9/12/2020		30/12/2020	29/04/2021	22/06/2021	USD 4634015.00; BDT.13,13,82,912.00; Date: 19.07.2021	20.07.2022	30.06.2024	
		Deviation			76		1002	1092	1072				
G3	Purchase of Catamaran and Survey Boats (01 no. Catamaran, 01 no Survey Boats)	Plan	NCB (OTM)	PD	22-Oct-18	The Daily Samakal and The Financial Express	31/10/17	15/11/17	06/12/17				
		Actual	NCB (OTM)	PD	25/10/2018		28/10/2018	12/10/2018	13/12/2018	51200000.002; Date: 01.01.2019	01.10.2019	17.02.2022	
		Deviation			3		362	331	372				
G4	Purchase of Systems for hydrological survey: ADCP-10 nos., Sondes (water quality) -20 nos., Echosounder 8 nos., Side Scan Sonar-1no, Survey Grade Echosounder-2-nos.	Plan	NCB (OTM)	PD	20-Feb-18	The Daily Samakal and The Financial Express	31/10/17	14/11/17	28/11/17				
		Actual	NCB (OTM)	PD	5/03/2018		6/07/2018	6/12/2018	6/12/2018	6,25,66,686; Date: 24.06.2018	13.07.2018	13.07.2018	
		Deviation			13		248	387	373				
G5	Purchase of Systems for Morphological survey (1) 15 handheld TDS 2) 12 RTK GPS 3) 6 DGPS beacon receiver 4) 8 Total Stations 5) 4 First order digital leveling machine 6) 2 sub-bottom profilers	Plan	ICB	HOPE	22-Aug-18	The Daily Samakal and The Financial Express	23/01/20	22/02/2020	03/07/20				
		Actual	ICB	HOPE	8/01/2019		14/01/2019	12/03/2019	12/03/2019	USD. 1130556.00; Date: 19.03.2019	24.12.2019	24.12.2019	
		Deviation			139		-374	-347	-479				

As per Project Document		Estimated Cost. (Taka in Lac)	Procurement Method	Approving Authority	Date of Tender Invitation	Name of Newspaper	Date of Opening	Date of Approval	Date of NOA	Contract Price & Date	Actual Payment	Date of Completion	
Package No	Description of Package											As per Contract	Actual
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
		Plan 194.56	NCB (OTM)□	PD	22-Oct-18		03/11/18	17/11/18	01/12/18				
G7	Purchase of Lab and field equipment and accessories: 1) 1 Ion Chromatograph, 2) 30 field test kits	Actual 176.19	NCB (OTM)□	PD	8/05/2018	The Daily Samakal and The Financial Express	26/08/2018	25/09/2018	30/09/2018	19455612.03, Date: 21.10.2018	19,455,612.00	22.01.2019	22.01.2019
		Deviation			-167		-69	-53	-62				
G6	Coastal Flood Monitoring Stations, Software and Hardware (Coastal Inundation & monitoring system and Comprehensive Annual maintenance).	Plan 650.00	ICB	MOWR	24-Sep-20		20.01.2021	08/08/21	07/08/21	Euro.410424.14; BDT.10465160; Date: 12.07.2021			30/11/2023
		Actual USD. 649677 (BDT. 552.48)	OTM (ICB)	MOWR	9/12/2020	The Daily Samakal and The Financial Express	20.01.2021	13/06/2021	12/07/2021				
		Deviation			76			-56	-26				
G-10A	Purchase of ICT system including VC systems in 13 locations	Plan 148.99	NCB (OTM)□	HOPE	23-Oct-18	The Daily Samakal and The Financial Express	20/11/2018	12/06/2018	12/06/2018	14899466.055, Date: 01.01.2019	14899466.06	01.05.2019	01.05.2019
		Actual 259.62	NCB (OTM)□	HOPE	23/10/2018								
		Deviation			0								
G-10B	Purchase of Computer Accessories	Plan 282.53	NCB (OTM)□	PD	4-Nov-18	The Daily Samakal and The Financial Express	04/03/19	03/04/19	17/04/19				
		Actual 285.1	NCB (OTM)□	PD	2/04/2019		26/12/2019	3/09/2019	3/09/2019	2825537.155, Date: 25.03.2019	28,253,537.00	27.06.2019	27.06.2019
		Deviation			149		297	153	139				
G11	Purchase of Cross-country vehicle	Plan 159.70	NCB (OTM)□	PD	7-Feb-19	The Daily Samakal and The Financial Express	31/10/17	11/11/17	25/11/17				
		Actual 182	NCB (OTM)□	PD	7/02/2019		28/02/2019	4/09/2019	4/09/2019	15970000.002, Date: 25.03.2019	15,970,000.00	27.06.2019	27.06.2019
		Deviation			0		485	662	648				
G12	Purchase of Double cabin pick-up	Plan 47.00	NCB (OTM)□	PD	8-Feb-18	The Daily Samakal and The Financial Express	14/10/17	11/11/17	18/11/17				
		Actual 49	NCB (OTM)□	PD	5/06/2018		20/05/2018	23/05/2018	23/05/2018	4740000.123, Date: 04.06.2018	4,740,000.00	24.06.2018	24.06.2018
		Deviation			117		218	193	186				
G13	Purchase of Motorcycles	Plan 76.97	NCB (OTM)□	PD	8-Feb-18	The Daily Samakal and The Financial Express	31/10/17	14/11/17	05/12/17				
		Actual 67.19	NCB (OTM)□	PD	24/12/2018		13/05/2018	21/05/2018	21/05/2018	7696400.04, Date: 29.05.2018	7,696,400.00	27.06.2018	27.06.2018
		Deviation			319		194	188	167				
G14	Purchase of GIS and Image processing software with extensions	Plan 97.50	NCB (OTM)□	PD	24-Dec-18	The Daily Samakal and The Financial Express							
		Actual 100	NCB (OTM)□	PD	17/04/2018		13/1/2019	20/1/2018	20/1/2018	9750000.004, Date: 07.02.2019	9,750,000.00	31.03.2019	31.03.2019
		Deviation			-251								

As per Project Document		Estimated Cost. (Taka in Lac)	Procurement Method	Approving Authority	Date of Tender Invitation	Name of Newspaper	Date of Opening	Date of Approval	Date of NOA	Contract Price & Date	Actual Payment	Date of Completion	
Package No	Description of Package											As per Contract	Actual
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
G15	Digital Elevation Model (DEM) (+ DEM data from SoB).	450 Actual	DPM	DG	Officially purchased	-	-	-	-	-	DEM (part): 47.26, DEM Data: 42.64 = 89.90	-	2021 and 2023
G15A	Purchase of GIS/Satellite images	329.90 Plan 327 Actual Deviation	NCB (OTM)□	PD	11-Sep-19	The Daily Samakal and The Financial Express	30/09/19	30/10/19	13/11/19	32990004.004; Date: 23.01.2020	32,990,004.00	30.11.2020	31.12.2023
G15B (G15)	Developments of DEM	450.00 Plan 285.1 Actual Deviation	NCB (OTM)□	PD	4-May-23	The Daily Samakal and The Financial Express	17/01/23	16/02/23	02/03/23	36499927.00; Date: 17.04.2023	36,499,927.00	16.07.2023	16.07.2023
G18	Purchase of Office Equipment	34.99 Plan 35 Actual Deviation	NCB (OTM)□	PD	30-Jan-18	The Daily Samakal and The Financial Express	11/01/18	18/01/18	25/01/18	3499997.150, Date: 10.05.2018	3,499,997.00	08.06.2018	08.06.2018
G18A	Purchase of Office Equipment	16.40 Plan 17.41 Actual Deviation	NCB (OTM)□	PD	14-Sep-20	The Daily Samakal and The Financial Express	26/07/21	02/08/21	09/08/21	1639233.076, Date: 29/11/2020	1,639,233.00	31.05.2021	31.05.2021
G18B	Purchase of Office Equipment	Not Implemented			0		-299	-246	-253				
G19	Purchase of Office Furniture and Fixtures	20.00 Plan 36.75 Actual Deviation	NCB (OTM)□	PD	30-Jan-18	The Daily Samakal and The Financial Express	11/01/18	18/01/18	25/01/18	2086753.12, Date: 25.03.2018	2,086,753.00	23.04.2018	23.04.2018
G19A	Purchase of Office Furniture and Fixtures	16.75 Plan 16.73 Actual Deviation	NCB (OTM)□	PD	19-Jul-21	The Daily Samakal and The Financial Express	19/11/21	19/12/21	01/02/22	1668710.073, Date: 02.11.2021	1,668,710.00	01.12.2021	01.12.2021
G20	Purchase of Electrical Materials & IPS	5.95 Plan 9.67 Actual Deviation	NCB (OTM)□	PD	3-Nov-19	The Daily Samakal and The Financial Express	10/10/17	17/10/17	31/10/17	595400.016, Date: 10.12.2019	595,400.00	11.02.2020	11.02.2020
G22	Multi Beam Eco Sounder : 4 nos.	1533.00 Plan 1600 Actual Deviation	NCB (OTM)□	HOPE	1-Aug-21	The Daily Samakal and The Financial Express	19/02/21	21/03/21	04/04/21	153300000.004, Date: 30.12.2021	153,300,000.00	30.06.2022	30.12.2022

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As per Project Document		Estimated Cost. (Taka in Lac)	Procurement Method	Approving Authority	Date of Tender Invitation	Name of Newspaper	Date of Opening	Date of Approval	Date of NOA	Contract Price & Date	Actual Payment	Date of Completion	
Package No	Description of Package											As per Contract	Actual
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
		Plan 285.00	NCB (OTM)□	PD	8-Aug-21	The Daily Samakal and The Financial Express	19/02/21	21/03/21	04/04/21				
G23	Purchase of 06 Nos. Drilling Machine (Rig Machine) for GW well construction.	Actual 306	NCB (OTM)□	PD	22/02/2022		24/03/2022	5/11/2021	13/05/2022	28500000.00; Date: 09.06.2022	28,500,000.00	04.02.2023	30.10.2023
		Deviation			198		398	229	404				
		Plan 1,440.00	NCB (OTM)□	HOPE	1-Sep-21	The Daily Samakal and The Financial Express	14/05/21	14/05/21	27/06/21				
G25	Purchase of Survey Boat and Survey Catamarans	Actual 1660.74	NCB (OTM)□	HOPE	16/12/2021		10/01/2022	30/03/2022	28/04/2022	14450000.00; Date: 20.05.2022	144,450,000.00	09.04.2023	10.11.2023
		Deviation			106		241	320	305				
		Plan 500.00	NCB (OTM)□	ADG	7-Jul-21	The Daily Samakal and The Financial Express	09/10/22	10/10/22	24/10/22				
G28	Purchase of ICT Equipment for Data Centre & hydrological network upgradation	Actual 484.44	NCB (OTM)□	ADG	21/06/2022		28/07/2022	14/11/2022	28/11/2022	49712740.241; Date: 26.12.2022	49,712,740.00	25.06.2023	25.06.2023
		Deviation			349		-73	35	35				
G29	Purchase of Instruments for water quality and lab equipments (08 OBS turbidity sensor, 10 Binkley Suspended Sediment Sampler, 10 Digital Balance, 04 Sextant, 15 Winch Machine, 15 Amegraph Cable, 14 Salinometer, 05 Survey Laptop with all accessories)	Not Implemented											
		Plan 580.00	NCB (OTM)□	PD	31-Mar-23	The Daily Samakal and The Financial Express	28/03/24	04/04/24	11/04/24				
G30	Purchase of Instruments for hydrological survey and GPS equipment (32 Auto Leveling Instrument, 42 Hand Held GPS, 12 DGPS, 03 RTK, 10 Portable Handy Flow tracker, 26 Portable Handy Depth Sonar)	Actual 384.64	NCB (OTM)□	PD	3/05/2024		4/03/2024	16/05/2024	23/05/2024	35480000.115; Date: 28.05.2024	35,480,000.12	30.06.2024	30.06.2024
		Deviation			399		-24	42	42				
G31	Purchase of ADCP with all necessary accessories and Software (08 ADCP)	Not Implemented											
G32	Purchase of ADCP Float and Discharge & Suspended Solid measurement Software.	Not Implemented											

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As per Project Document		Estimated Cost. (Taka in Lac)	Procurement Method	Approving Authority	Date of Tender Invitation	Name of Newspaper	Date of Opening	Date of Approval	Date of NOA	Contract Price & Date	Actual Payment	Date of Completion	
Package No	Description of Package											As per Contract	Actual
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
G33	Purchase of Equipments for Discharge measurement and Others (14 Universal Current Meter, 14 Small Current Meter, 40 Digital Counter box)	Not Implemented											
		Plan	NCB (OTM)□	PD	30-Apr-23	The Daily Samakal and The Financial Express	31/03/24	07/04/24	14/04/24				
		Actual	NCB (OTM)□	PD	3/05/2024		4/01/2024	16/05/2024	23/05/2024	25923100.014; Date: 20.05.2024	25,923,100.01	30.06.2024	30.06.2024
G35	Purchase of equipment for morphological survey.	Not Implemented			369		-87	39	39				
NS1	Media and Communication outreach (media access purchase)	Plan	NCB (OTM)□	PD	10-Feb-23	The Daily Samakal and The Financial Express	27/01/24	03/02/24	10/02/24				
		Actual	NCB (OTM)□	PD	1/04/2024		25/01/2024	30/01/2024	19/03/2024	5870104, Date: 31.03.2024	5,870,104.00	30.06.2024	30.06.2024
		Deviation			416		-2	-4	38				
NS4	Sampling and Analysis of Groundwater Samples for Water Quality (20 physico-chemical parameters) (901 Wells*2 seasons/year for 1 years from all over the country)	Plan	NCB (OTM)□	PD	7-Nov-19		04/05/20	03/06/20	17/06/20				
		Actual	NCB (OTM)□	PD	12/12/2019	The Daily Samakal and The Financial Express	1/06/2020	19/01/2020	21/01/2020	29992400.00; Date: 23.01.2020	10,497,340.00	26.01.2021	31.12.2022
		Deviation			35		28	-136	-148				
NS5	Survey, Study & Investigation (Survey of BM for SW level station)	Plan	DPM/ MOU	PD	23/03/2020	The Daily Samakal and The Financial Express	20/02/2018	22/03/18	05/04/18	18536850; Date: 09.06.2020	18,536,850.00	31.12.2020	31.12.2021
		Actual	DPM/ MOU	PD	23/03/2020		5/04/2020	31/05/2020	06/01/2020				
		Deviation			0		775	801	641				
NS6	Survey, Study & Investigation (Survey of Benchmark)	Plan	NCB (OTM)□	PD	11-Aug-18	The Daily Samakal and The Financial Express	15/10/17	29/10/17	12/11/17				
		Actual	NCB (OTM)□	PD	6/04/2018		19/06/2018	17/07/2018	8/09/2018	5926287, Date: 27.08.2018	5,926,287.00	27.11.2018	18.12.2018
		Deviation			-127		247	261	300				
NS8	Survey, Study & Investigation	Plan	NCB (OTM)□	PD	2-Jul-19	The Daily Samakal and The Financial Express	24/04/18	01/05/18	08/05/18				
		Actual	NCB (OTM)□	PD	2/07/2019		22/07/2019	8/06/2019	26/08/2019	10136150, Date: 28.08.2019	10,136,150.00	30.04.2020	30.04.2020
		Deviation			0		454	403	475				

Package No	As per Project Document		Estimated Cost. (Taka in Lac)	Procurement Method	Approving Authority	Date of Tender Invitation	Name of Newspaper	Date of Opening	Date of Approval	Date of NOA	Contract Price & Date	Actual Payment	Date of Completion	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	As per Contract	Actual
NS8A		Survey, Study & Investigation	Plan	NCB (OTM)□	PD	31/03/2023	The Daily Samakal and The Financial Express	3/12/2024	25/03/2024	27/03/2024	12077997.119; Date: 04.04.2024	12,077,997.00	20.06.2024	20.06.2024
			Actual	NCB (OTM)□	PD	25/02/2024								
			Deviation			331								
NS15		Development of hydrological services products such as sediment prediction & river bank erosion, hydrological drought prediction, salinity	Plan	NCB (OTM)□	PD	12/07/2021	The Daily Samakal and The Financial Express	28/10/2022	28/10/2022	28/10/2022	26082367; Date: 27.09.2021	24,910,773.00	31.01.2023	30.04.2023
			Actual	NCB (OTM)□	PD	27/07/2022								
			Deviation			380								
NS15		Development of hydrological services products such as sediment prediction & river bank erosion, hydrological drought prediction, salinity intrusion forecast, ground water outlook and forecast, surface water supply outlook etc. and upgrade of existing website to display real time data, products & warnings.	Plan	NCB (OTM)□	PD	12/07/2021	The Daily Samakal and The Financial Express	28/10/2022	28/10/2022	28/10/2022	26082367; Date: 27.09.2021	24,910,773.00	31.01.2023	30.04.2023
			Actual	NCB (OTM)□	PD	27/07/2022								
			Deviation			380								
			-86.26					11	11	11	-1171594			

* Please mention Dates for plan and actual

* Deviation in days (difference between plan and actual)

* Plan as per procurement plan described in project document

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Information Related to Procurement of Works

Annexure-I(b)

As per Project Document		Estimated Cost. (Taka in Lac)	Procurement Method	Approving Authority	Date of Tender Invitation	Name of Newspaper	Date of Opening	Date of Approval	Date of NOA	Contract Price & Date	Actual Payment	Date of Completion	
Package No	Description of Package											As per Contract	Actual
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
		Plan	NCB (OTM)	PD	20/06/2019		18/07/2018	1/08/2018	15/08/2018				
W1	Refurbishment (Renovation) of Hydrology Head offices- (2 nos 5 story at Dhaka, 2 nos. singletory at Manikgonj and Munshigonj)	Actual	NCB (OTM)	PD	25/03/2020	The Daily Samakal and The Financial Express	27/04/2020	6/11/2020	13/06/2020	55997232.255; Date: 16.06.2020	40447875	31.12.2020	30.09.2021
		Deviation			279		649	828	668				
		Plan	NCB (OTM)	PD	22/09/2018		27/03/2018	26/04/2018	10/05/2018				
W2	Supply and installation of New Ground water nests in coastal region and hotspot areas including Dhaka (digging of new ground water breaches).	Actual	NCB (OTM)	PD	10/01/2019	The Daily Samakal and The Financial Express	10/02/2019	7/03/2019	7/03/2019	58614300.00, Date: 12.03.2019	54098045.77	27.07.2019	21.07.2019
		Deviation			110		320	315	301				
		Plan	NCB (OTM)	PD	22/07/2019	The Daily Samakal and The Financial Express	18/08/2018	17/09/2018	1/10/2018				
W3	Construction of Hydrology Lab Building	Actual	NCB (OTM)	PD	15/12/2019	The Daily Samakal and The Financial Express	14/01/2020	2/02/2020	2/02/2020	28190759.499, Date: 05.02.2020	25465058	04.10.2020	30.07.2021
		Deviation			146		514	503	489				
		Plan	NCB (OTM)	PD	22/07/2019	The Daily Samakal and The Financial Express	19/08/2018	2/09/2018	16/09/2018				
W4	Refurbishment (Renovation) of Hydrology field offices- 35 locations	Actual	NCB (OTM)	PD	23/10/2019	The Daily Samakal and The Financial Express	28/11/2019	15/12/2019	15/12/2019	70941600, Date: 01.01.2020	71887881	04.08.2020	04.03.2021
		Deviation			93		466	469	455				
		Plan	NCB (OTM)	PD	30/10/2018	The Daily Samakal and The Financial Express	9/02/2019	23/02/2019	9/03/2019				
W5	Establishment of BM Pillar for SW: 308 nos	Actual	NCB (OTM)	PD	3/07/2019	The Daily Samakal and The Financial Express	4/04/2019	18/04/2019	18/04/2019	21671478.555, Date: 28.04.2019	21671218	28.08.2019	25.12.2019
		Deviation			246		54	54	40				
		Plan	NCB (OTM)	PD	13/10/2021	The Daily Samakal and The Financial Express							
W6	Establishment of BM Pillar in 730 Location	Actual	NCB (OTM)	PD	13/10/2021	The Daily Samakal and The Financial Express	11/11/2021	12/01/2022	12/01/2022	48663667.259, Date: 25.01.2022	32664651	25.01.2023	31.12.2023
		Deviation											

Package No	As per Project Document		Estimated Cost. (Taka in Lac)	Procurement Method	Approving Authority	Date of Tender Invitation	Name of Newspaper	Date of Opening	Date of Approval	Date of NOA	Contract Price & Date	Actual Payment	Date of Completion	
	(1)	(2)											As per Contract	Actual
			(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
			Plan	NCB (OTM)	PD	31/03/2023	The Daily Samakal and The Financial Express	12.06.2024	20.06.2024	20.06.2024	16322735.272, Date: 20.06.2024	16322735	20.06.2024	30.06.2024
W6A		Establishment of BM Values (SoB) on BM Pillar in 730 Location	Actual	NCB (OTM)	PD	29.05.2024								
		Deviation												
		Refurbishing hydrology offices and campus.	Plan	NCB (OTM)	PD	12/12/2021								
W7			Actual	NCB (OTM)	PD	W7-A: 12.12.2021 W7-B: 13.12.2021 W7-C: 13.12.2021 W7-D: 13.12.2021 W7-E: 12.12.2021	The Daily Samakal and The Financial Express	W7-A: 28.12.2021 W7-B: 29.12.2021 W7-C: 30.12.2021 W7-D: 30.12.2021 W7-E: 28.12.2021	W7-A: 20.02.2022 W7-B: 23.02.2021 W7-C: 23.02.2021 W7-D: 20.02.2021 W7-E: 15.02.2021	W7-A: 20.02.2022 W7-B: 23.02.2021 W7-C: 23.02.2021 W7-D: 20.02.2021 W7-E: 15.02.2021	W7-A: 7204957.427, Date: 02.03.2022; W7-B: 10219797.326, Date: 09.03.2022; W7-C: 15645084.815, Date: 28.02.2022; W7-D: 17370022.497, Date: 08.03.2022; W7-E: 9224498.277, Date: 22.02.2022 Total= 59664360.342	W7-A: 7578959 (With Variation), W7-B: 8433047, W7-C: 16921887, W7-D: 19859003 (With Variation), W7-E: 8124087 Total=60916983	W7-A: 29.12.2022; W7-B: 08.03.2023; W7-C: 29.12.2022; W7-D: 03.05.2023, W7-E: 30.06.2023	W7-A: 30.06.2023, W7-B: 08.03.2023, W7-C: 03.05.2023, W7-D: 30.06.2023, W7-E: 30.06.2023
		Deviation												
			Plan	NCB (OTM)	PD	5/05/2022	The Daily Samakal and The Financial Express	6/06/2022	20/6/2022	20/6/2022	39943696.656, Date: 29.06.2022	34791227	01.03.2023	30.06.2024
W8		Security Fencing of Automated Hydrological Stations.	Actual	NCB (OTM)	PD	5/05/2022								
		Deviation				0								

* Please mention Dates for plan and actual

* Deviation in days (difference between plan and actual)

* Plan as per procurement plan described in project document

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Information Related to Procurement of Services

Annexure-1(c)

As per Project Document		Estimated Cost. (Taka in Lac)		Procurement Method	Approving Authority	Date of Tender Invitation	Name of Newspaper	Date of Opening	Date of Approval	Date of NOA	Contract Price & Date	Actual Payment	Date of Completion	
Package No	Description of Package												As per Contract	Actual
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
		Plan	1,400.00	MOWR	21/09/2018		23/12/2017	26/02/2018	12/03/2018					
C1	Water Resources System Integrator (WRSI) Consultancy	Actual	1291.64	MOWR	29/03/2018	The Daily Samakal and The Financial Express	6/05/2018	8/01/2019	1/04/2019	USD. 94013138.00; BDT. 51574751.00; Date: 10.05.2022	USD. 72694825.00; BDT. 51574551.00	31.05.2022	30.06.2024	
		Deviation			-176		134	316	385					
		Plan	469.00	HOPE	1-Jul-21		Single Source	11/07/2021	25/07/2021					
C2	Consultancy Services for Expansion flood forecasting model (whole country), Improve inundation model in coastal and other hotspot areas (depth and area of inundation)	Actual	468.35	HOPE	Single Source	The Daily Samakal and The Financial Express	Single Source	30/11/2021	7/11/2021	46797716, Date: 30.11.2021	46797716	05.05.2023	30.06.2024	
		Deviation			-		-	142	105					
		Plan	450.00	HOPE	12/07/2021		11/07/2021	14/09/2021	28/09/2021					
C15	Development of hydrological services products: Sediment prediction & river bank erosion; Hydrological drought prediction; Salinity intrusion forecast; Ground water outlook and forecast; Surface water supply outlook etc. Upgrade of existing website to display real time data, products & warnings.	Actual	449.44	HOPE	13/07/2021	The Daily Samakal and The Financial Express	11/08/2021	15/03/2022	21/04/2022	44636295, Date: 17.05.2021	44636295	17.05.2023	30.06.2024	
		Deviation			1		31	182	205					
C18	Consultancy on Data Sharing Policy	Plan	100.00	HOPE										
		Actual												
		Plan	90.00	HOPE	19-May-19		5/03/2019	9/05/2019	23/05/2019					
C21	Performance Audit of 3 PTUs by PCU	Actual	54.16	HOPE	28/05/2019	The Daily Samakal and The Financial Express	17/06/2019	20/11/2019	24/12/2019	5405438, Date: 24.12.2019	5405438	30.06.2021	30.06.2024	
		Deviation			9		104	195	215					

As per Project Document		Estimated Cost. (Taka in Lac)	Procurement Method	Approving Authority	Date of Tender Invitation	Name of Newspaper	Date of Opening	Date of Approval	Date of NOA	Contract Price & Date	Actual Payment	Date of Completion	
Package No	Description of Package											As per Contract	Actual
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
		Plan	CQS (NCB)	HOPE	1/09/2022		17/12/2019	20/02/2020	5/03/2020				
C22	Development of mobile apps, upgrading web portal, Data and information sharing software to share info between BWDB and stakeholders-supply and installation	Actual	CQS (NCB)	HOPE	17/06/2022	The Daily Samakal and The Financial Express	4/07/2022	5/01/2023	13/03/2023	16323483, Date: 22.03.2023	16323483	25.11.2023	25.05.2024
		Deviation			-76		930	1050	1103				
		Plan	CQS (NCB)	HOPE	31/03/2023	The Daily Samakal and The Financial Express	19/07/2021	22/09/2021	6/10/2021				
C24	Feasibility and Details technical design for second phase of BWCSR	Actual	CQS (NCB)	HOPE	16/06/2023	The Daily Samakal and The Financial Express	13/06/2023	5/02/2024	1/04/2024	29778612, Date: 01.04.2024	29778612	30.06.2024	30.06.2024
		Deviation			77		694	866	908				
		Plan	Single Source	HOPE	31/03/2023		Single Source	24/05/2023	31/05/2023				
C27	Community based Early Warning System in 2 flood prone districts (Netrokona and Sunamganj) in collaboration with DDM.	Actual	Single Source	HOPE	12/12/2022	The Daily Samakal and The Financial Express	22.02.2023	28.12.2023	04.01.2024	25042835, Date: 04.01.2024	25042835	30.06.2024	30.06.2024
		Deviation			-109			218	228				
											0.00		

* Please mention Dates for plan and actual
 * Deviation in days (difference between plan and actual)
 * Plan as per procurement plan described in project document