Mercy Tembon  
Country Director for Bangladesh and Bhutan  

April 30, 2020

Secretary Fatima Yasmin  
Economic Relations Division  
Ministry of Finance  
Block 8, Room 3  
Sher-e-Bangla Nagar  
Dhaka

Dear Secretary Yasmin:

Bangladesh Weather and Climate Services Regional Project  
(Credit No.5837-BD)  
Amendments to the Financing Agreement

We refer to the Financing Agreement between the People’s Republic of Bangladesh (“Recipient”) and the International Development Association (“Association”) dated April 05, 2017 (“Agreement”) for the above-mentioned Project (“Project”), as amended. We also refer to your letter dated April 05, 2020, requesting for partial cancellation of the credit proceeds and restructuring of the Project.

We are pleased to inform you that after due consideration, the Association has agreed to your request and hereby proposes to amend the Agreement as follows:

1. Schedule I to the Agreement is amended and attached as Annex-1 to this amendment letter.

2. The Association has in accordance with Section 8.01 of the IDA General Conditions for Credits and Grants (the "General Conditions") reviewed the status of the respective project for the Republic of Bangladesh financed through IDA credit. Accordingly, by this amendment, we would like to inform you that the Association has partially cancelled the available total unwithdrawn credit balance in the amount of seventeen million six hundred and seventy thousand six hundred and ninety Special Drawing Rights (SDR 17,670,690). Consequently, the withdrawal table set forth in Section IV.A.2 of Schedule 2 to the Agreement is amended and attached as Annex-2 to this amendment letter.

Except as specifically amended in this amendment letter, all other terms and conditions of the Agreement shall remain in full force and effect.

The Association will disclose this amendment letter and related information on this Financing Agreement in accordance with the Association’s Policy on Access to Information. By entering into this amendment letter, the Recipient consents to disclosure of this amendment letter and related information.
Please confirm your agreement to the foregoing on behalf of the Recipient by countersigning and dating the form of confirmation set forth below and returning one fully countersigned original of this amendment letter to us and retaining one original for your records. Upon receipt by the Association of the countersigned original of this amendment letter, this amendment letter shall become effective as of the date of the countersignature.

Sincerely,
INTERNATIONAL DEVELOPMENT ASSOCIATION

By ____________________________
Mercy Miyang Tembon
Country Director
Bangladesh & Bhutan

AGREED:
PEOPLE'S REPUBLIC OF BANGLADESH

By: ____________________________
Authorized Representative

Name: Md. Shahnazuddin Patwary
Title: Additional Secretary, Economic Relations Division
Date: 14 May 2020
SCHEDULE 1

Project Description

The objective of the Project is to strengthen the Recipient’s capacity to deliver reliable weather, water and climate information services and improve access to such services by priority sectors and communities.

The Project consists of the following parts:

Part A: Strengthening Meteorological Services

1. Modernization of Meteorological Observation Systems and Forecasting:
   (a) Modernization of BMD’s monitoring networks, and communication and information-technology systems through, *inter alia*: (i) provision of technical assistance on meteorological services and integrator functions – meteorological systems and services integrator; (ii) purchase and installation of automatic synoptic stations, automatic agro-meteorological stations and automatic rain gauges; (iii) acquisition and installation of automated weather observation instrumentation and systems for aeronautical meteorology; (iv) the purchase and installation of portable hydrogen generators; (v) upgrading of maintenance and calibration equipment; and (vi) the strengthening of BMD’s information-communication-technology systems and establishment of a data center.
   (b) Improvement of BMD’s forecasting systems through, *inter alia*: (i) the acquisition and installation of weather forecasting workstations including associated hardware and software; (ii) the acquisition of a high performance computing system to improve forecasting including associated installation configuration, and training activities; (iii) the designing and implementation of a forecast verification system; and (iv) the provision of training and access to global and regional forecasting models.

2. Technical and Institutional Capacity Strengthening, Regional Collaboration, Project Management, and Monitoring and Evaluation
   (a) Building of BMD’s technical and institutional capacity and regional collaboration through, *inter alia*: (i) the carrying out of training needs assessments; (ii) the provision of in-house training, study tours and targeted training in collaboration with other meteorological agencies; (iii) the provision of technical assistance to develop BMD’s strategy and policy development, and regulatory framework; (iv) the refurbishment of BMD’s central and divisional offices; and (v) participation and support for regional and sub-regional weather and forecasting collaboration and training programs.
   (b) Project Management, Monitoring and Evaluation. Provision of technical assistance to BMD to carry out Project management, monitoring and evaluation activities, including the carrying out of internal audits and the implementation of the GAAP.

3. Strengthening Weather, Early Warning and Climate Services Delivery
   (a) Strengthening of BMD’s delivery of weather disaster early warning services through, *inter alia*: (i) the carrying out of a baseline survey to assess user needs and priorities and an end line survey to measure user-satisfaction; (ii) the development of software and mechanisms to integrate and share weather and climate data, information and products within BMD and among BMD, BWDB, DAE, DDM and other stakeholders; (iii) the designing and implementation of a common alerting protocol system in collaboration with BWDB and/or
other end-users; (iv) the designing and implementation of software to provide automated products based on stakeholders' requirements; and (v) development of early warning products for drought and extreme meteorological events.

(b) Strengthening of BMD's delivery of climate services through, *inter alia*: (i) the provision of technical assistance to install and configure software related to climate and seasonal prediction models, including associated training; (ii) the upgrading of BMD's existing webpage into a climate services portal; and (iii) the carrying out of public education and outreach campaigns.

Part B: Strengthening Hydrological Services

1. **Strengthening Hydrological Observation Network and Forecasting**

   (a) Modernization of BWDB’s hydrological monitoring network and information-communication-technology systems through, *inter alia*: (i) the provision of technical assistance on water resources systems and integrator functions; (ii) supply and installation of upgraded water level stations, automatic rain gauges, automatic climate stations; (iii) the supply and installation of new groundwater stations, nests and carrying out of related works; (iv) acquisition of catamarans and survey boats for hydrographic survey and stream gauging; (v) the acquisition and installation of vertical acoustic doppler current profiling; (vi) the acquisition and installation of water quality sonders; (vii) the acquisition and installation of echo-sounders to support river gauging and river morphology measurements; (viii) the restoration and upgrading of existing hydrological measurement and calibration equipment; and (ix) the strengthening of BWDB’s information-communication-technology and data management systems.

   (b) Strengthening BWDB’s forecasting capacity through, *inter alia*: (i) the upgrading of existing flood forecast models; and (ii) the acquisition of hardware and designing of software for seasonal and flood forecasts.

2. **Technical and Institutional Capacity Strengthening, Regional Collaboration, Project Management, and Monitoring and Evaluation**

   (a) Building of BWDB’s technical and institutional capacity and regional collaboration through, *inter alia*: (i) the carrying out of training needs assessments; (ii) the provision of in-house training, study tours and targeted training in collaboration with other hydro meteorological agencies, including participation and support for regional training and collaboration; (iii) the provision of policy related technical assistance; and (iv) the refurbishment of BWDB’s central and divisional offices and the establishment of a hydrology lab/training center and benchmarking pillars.

   (b) Project Management, Monitoring and Evaluation. Provision of technical assistance to BWDB for: (i) the carrying out of Project management, monitoring and evaluation activities, including PCU’s coordination; and (ii) the carrying out of internal audits and the implementation of the GAAP.

3. **Strengthening Hydrological and Flood Early Warning Services**

   (a) Strengthening of BWDB’s delivery of hydrological and flood forecasting services through, *inter alia*: (i) the carrying out of a baseline survey to assess user needs and priorities and an end line survey to measure user satisfaction; (ii) the development of geographic information system center, including the provision of associated training; (iii) the development of software to integrate and share data in real-time with BMD, DAE, DDM and others; (iv) the improvement of BWDB’s website for sharing data and products with stakeholders; (v) the designing and implementation of software to provide automated product generation based on stakeholders’ requirements; (vi) the designing and implementation of a common alerting protocol system in collaboration
Part C: Strengthening Agrometeorological Services and Early Warning Delivery

1. Establishment of the Bangladesh Agrometeorological Information System (“BAMIS”)

DAE to provide agrometeorological data, information, advisories and services, including, *inter alia:* (i) the development of BAMIS associated infrastructure; (ii) the development of Upazila-level agrometeorological databases; (iii) the carrying out of agrometeorological data analyses and future case development scenarios; (iv) the development of agrometeorological advisory services and products for farming communities; (v) the carrying out of risk mapping of climate-vulnerable farming communities; and (vi) the development of agromet data center and automation of agromet advisories.

2. Technical and Institutional Capacity Strengthening, Operational Research, Project Management, and Monitoring and Evaluation

(a) Provision of Technical Training to Staff. Strengthening of DAE’s agrometeorological technical capacity through, *inter alia:* (i) the provision of training to DAE, BARI, BJRI, BRRI, and BSRI staff on agrometeorological data analysis and product development; (ii) the provision of technical assistance to carry out technical studies on agrometeorological matters; (iii) the carrying out of workshops for training farmers in the use of BAMIS portal tools; (iv) the provision of technical assistance for the functioning of the Joint Technical Working Group; (v) establishing communication and video conferencing systems in DAE headquarter, regional and district offices, research organizations and agricultural universities; (vi) developing agrometeorological education and research programs with the agricultural universities; and (vii) the development of agromet operational research activities including product development such as crop weather calendar and pest and disease weather calendar and seasonal and sub-seasonal forecast for agriculture, and programs for scale up of soil moisture network for agricultural drought monitoring and irrigation management, and lightning and severe weather solutions among others.

(b) Provision of support to DAE to carry out Project management, monitoring and evaluation activities including the carrying out of internal audits and the implementation of the GAAP.

3. Agricultural Disaster Risk Management through Agrometeorological Information Dissemination

Dissemination of agrometeorological advisories and products to farming communities to help them better utilize weather and climate risk in their planning and cope with agricultural disaster risk through *inter alia:* (i) the carrying out of an assessment of farmers needs and priorities for weather and climate services; (ii) the acquisition and installation of automatic rain gauges and agro-meteorological display boards in locations selected as per the Project Operations Manual; (iii) the establishment of agrometeorological kiosks in locations selected as per the Project Operations Manual; (iv) refurbishment of selected DAE’s service delivery locations and central and local offices; (v) the development of web-based applications for disseminating agrometeorological advisories; (vi) the carrying out of workshops for farmers to raise awareness of agroclimatic risks; (vii) the carrying out of studies to obtain feedback from farmers on the use of agrometeorological advisories and products; (viii) establishment of community radio mechanism for wider dissemination of agromet advisories and information; and (ix) upgrading and/or establishing of media rooms and introduction of digital display boards at the headquarters and in districts.
Part D: Contingent Emergency Response Component (CERC)

Provision of immediate response to an Eligible Crisis or Emergency, as needed and as detailed in the CERC operations manual for the project.
<table>
<thead>
<tr>
<th>Category</th>
<th>Amount of the Financing Allocated (expressed in SDR)</th>
<th>Percentage of Expenditures to be Financed (inclusive of Taxes except for customs duties and value-added taxes on imports)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Goods, Works, non-consulting services, consultants’ services,</td>
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<td></td>
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<tr>
<td>Training and Incremental Operating Costs for</td>
<td></td>
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<tr>
<td>(a) BMD for Part A of the Project</td>
<td>20,846,990</td>
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<td>(b) BWDB for Part B of the Project</td>
<td>24,710,000</td>
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<td>(c) DAE for Part C of the Project</td>
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<td>(2) Emergency Expenditures under Part D of the Project</td>
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<td>(3) Refund of Preparation Advance</td>
<td>42,320</td>
<td>Amount payable pursuant to Section 2.07 of the General Conditions</td>
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<td>Amount cancelled as of April 05, 2020</td>
<td>17,670,690</td>
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<tr>
<td><strong>TOTAL AMOUNT</strong></td>
<td><strong>79,800,000</strong></td>
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