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Establishment of the High-Level Technology Fund

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ABBREVIATIONS

ADB	–	Asian Development Bank
DMC	–	developing member country
HLT	–	high-level technology
SPD	–	Strategy, Policy, and Review Department
STG	–	sector and thematic group
TA	–	technical assistance

NOTE

In this report, “\$” refers to US dollars.

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I. BACKGROUND

1. Asia and the Pacific has made significant progress in economic development and poverty reduction, and many countries have attained upper middle-income country status. As a result, the region's development needs have become more diverse and new development challenges have emerged. Many developing member countries (DMCs) expect infrastructure with high efficiency, functionality, and faster service delivery. Other countries face persisting development challenges that conventional technology does not adequately address. In particular, climate change is one area where advanced technologies and innovative solutions can provide a range of social and environmental benefits.

2. High-level technology (HLT), new and advanced technologies, or innovative solutions can reduce the life cycle cost of infrastructure, lower operation and maintenance cost, and increase durability. Modern and advanced equipment can improve efficiency and productivity, thereby saving precious resources. The adoption of innovative construction methods and technologies can minimize negative environmental and social impacts. Innovative approaches and a combination of different technologies can have a high impact on addressing development challenges.

3. However, many DMCs find it challenging to introduce HLT projects. HLT often originates in developed countries, and policy and decision makers in DMCs may not be familiar with the implementation of new and advanced technologies available in other countries. In addition, the skills and experience required to adopt, operate, and maintain HLT are limited in some DMCs. It can be challenging for DMCs to develop a national industry to support the introduction and scaling up of HLT when opportunities or effective mechanisms are lacking or limited for local industry to participate in the HLT supply chain. In many cases, the cost of adopting and scaling up HLT is high because the basic infrastructure and utility services necessary for HLT are not in place. Financing can also be a constraint if the initial investment cost of a project incorporating HLT is higher than adopting conventional technology (noting the total life cycle cost of the project may be smaller). In addition, capacity development is often necessary for executing agencies to evaluate technology options, to select technologies appropriate for local circumstances, and to procure, operate, and maintain HLT facilities efficiently.

4. Additional early-stage resources can be useful in encouraging the use of HLT and other innovative solutions in both sovereign and nonsovereign operations.¹ Support for technical assistance, preliminary feasibility studies, and advisory services during the early stages of a project often help integrate HLT into project design and implementation. External HLT expertise can also be valuable for project due diligence and procurement activities. Grant financing for certain capital expenditure costs (for example pilot studies) can be useful for demonstrating the impact and effectiveness of HLT to support its adoption and scale-up.

¹ For nonsovereign operations, project and technology-related risks often include high initial development costs; limited performance track record and market penetration of new project types; limited capacity and experience of project developers, contractors, and service providers; and uncertainty on downstream services such as grid availability. Grant financing can help catalyze new projects for the private sector by reducing uncertainty, offsetting some of the early mover risks and cost premiums, sharing costs with developers for pilot projects, initial capital outlays, project preparation, feasibility studies, legal assistance, market studies, advisory services, and various forms of capacity development.

5. Recognizing the evolving development challenges in Asia and the Pacific, the Asian Development Bank (ADB) considers it important to promote HLT projects.² ADB has strengthened the sector and thematic groups (STGs) and designated STG technical advisors as the main drivers to support HLT integration in operations. In 2017, ADB intends to promote the adoption of HLT where feasible, including initiating discussions on HLT early in the project cycle. A new procurement framework, approved by the Board of Directors, will adopt a flexible principles-based approach that will facilitate the procurement of HLT facilities.³ Although an increasing number of projects incorporate HLT, its integration remains constrained by (i) a shortage of grant funds to identify and develop HLT projects, (ii) inadequate expertise on HLT integration, and (iii) limited institutional experience and support to promote HLT integration in project design and implementation.

6. Considering the merits of HLT, ADB proposes to establish a multi-donor trust fund, the High-Level Technology Fund, to promote the integration of HLT and innovative solutions into project design and implementation.

II. OBJECTIVE AND SCOPE

A. Objective

7. The objective of establishing the proposed fund is to provide grant financing to promote the integration of HLT and innovative solutions into ADB-financed and administered sovereign and nonsovereign projects throughout the project cycle—from identification to implementation and operation. The use of the fund resources will encourage more widespread adoption of HLT to address development challenges in DMCs.

B. Scope and Activities

8. To integrate and scale up HLT and innovative solutions in project design and implementation, the fund's resources may be used in the form of grants to finance:

- (i) technical assistance (TA) projects;
- (ii) investment projects;
- (iii) direct charges; and
- (iv) other ADB business products and instruments.

9. **Technical assistance.** The fund will support TA projects for project identification and development, project preparation, project implementation and operation, pilot activities, capacity development, and research and policy advice for integration and scaling up of HLT and innovative solutions in project design and implementation.⁴

² ADB (Office of the President). 2016. Use of High-Level Technology in Projects. Memorandum. 21 April (internal); and ADB (Office of the President). 2017. Planning Directions for 2017 and Preparation of Work Program and Budget Framework, 2018–2020. Memorandum. 27 February (internal).

³ The Board of Directors approved on 12 April 2017 the R-Paper on Improving ADB Project Performance through Procurement Reforms, which proposes a new procurement framework. Upon Board approval of the new procurement policy, ADB Management is expected to approve a new set of detailed Procurement Regulations for ADB Borrowers concurrently. The new framework will apply to all projects for which concept notes are approved on or after 1 July 2017, and may also be applied selectively to other projects under preparation and ongoing projects.

⁴ To assist project identification and development, it is envisaged that each sector group may use a cluster TA and/or transactional TA facility, and seek proposals and / or solutions from firms applying HLT in DMCs.

10. **Investment project.**⁵ The fund will provide grants to projects to cover expenses such as goods, works, equipment, plants, pilot and demonstration components, consulting services, and other expenses for the integration and scaling up of HLT and innovative solutions in project design and implementation.

11. **Direct charges.** The fund will also be used for direct charges to finance a pool of experts and activities, such as workshops, advisory services, knowledge transfer activities, pilot activities, fund management, and market surveys, which are not covered under other TA projects or investment projects. The fund contributors and ADB may agree to fund other activities through direct charges.

12. The fund will also support other ADB activities that promote the processing and implementation of HLT-related projects. Further details on the use of the fund, and its implementation arrangements, will be set out in its implementation guidelines, which will be developed after the establishment of the fund. The implementation guidelines will be consistent with the provisions of this paper.

III. ELIGIBILITY CRITERIA

13. Projects from all of ADB's DMCs will be eligible for financing from the fund.

14. Fund resources will be used for a broad range of innovative technologies and solutions that enable technological development and/or the scaling up of the technology deployment in the recipient country. They also have to be technologies that ADB has not sufficiently supported. The HLT and innovative solutions to be supported by the fund will have at least one of the following characteristics:

- (i) improves efficiency, productivity, quality, functionality, and/or access to service delivery;
- (ii) addresses climate change mitigation, and adaptation, including resilience to disaster risks;
- (iii) introduces innovation in processes, methods, techniques, and the use of new improved equipment and materials in construction, operations, and maintenance;
- (iv) reduces environmental and social costs;
- (v) reduces life cycle cost, increases durability, and improves long-term performance;
- (vi) enhances the scaling up of HLT and market opportunities for scale-up; and
- (vii) promotes synergies and increases scale and impact through cross-sector collaboration.

15. To ensure strategic resource allocation, eligibility for the fund will be based on a technology list determined by the relevant STGs (updated annually).⁶ While all sectors are eligible, initially envisaged sectors include, but are not limited to, energy, transport, urban, and water sectors.

⁵ For nonsovereign operations, grants provided to clients will be either in the form of traditional one-way grants with no obligation for repayment, or contingent grants that would be repayable if a project was considered to be "successful" (as determined by metrics negotiated with recipients prior to the disbursement of a grant).

⁶ The project classification system for HLT is under development and will capture TA projects and investment projects that support HLT, regardless of whether such TA projects or investment projects use the fund.

16. The guiding principle for use of the fund is to support some of the incremental cost of adopting or scaling up HLT and innovative solutions in DMCs. When it is difficult to estimate the incremental HLT cost, the fund may be used to finance up to 30% of the total cost of a TA project or investment project, subject to the availability of resources and consideration of each financing request on a case-by-case basis. When the TA project or investment project comprises HLT in its entirety, the fund may be used to finance the entire ADB financing portion.⁷

IV. CONTRIBUTIONS TO THE FUND

17. ADB may accept untied grant contributions from various sources, including bilateral and multilateral development assistance agencies, other public entities and financial institutions, public and private foundations, private companies, and nongovernment organizations. Integrity due diligence will be conducted for cofinanciers other than bilateral and multilateral agencies, in accordance with the applicable ADB guidelines on conducting integrity due diligence.⁸

18. Contributions to the fund will be subject to a minimum required commitment amount of \$5 million (with the possibility of such amount being deposited in multiple tranches over a reasonable period), and will be made in the form of cash in a freely convertible currency. Contributions will be deposited into a US dollar account to be specified by ADB for the fund. For contributions received in currencies other than US dollars, ADB will, upon receipt of the funds, convert the contributions into US dollars and transfer such funds to the account.

19. Contributions to the fund will be made through instruments of contribution to be executed by the contributors substantially in the form contained in the Appendix.⁹ By depositing an instrument of contribution or signing an agreement substantially in accordance with the terms and conditions set forth in this paper, the contributors will be deemed to have accepted the objectives of the fund as outlined in this paper, and the terms and conditions set forth in this paper.

20. Contributions will be held and administered separately from ADB's other resources and invested at the discretion of ADB. Pending disbursements, ADB may invest and reinvest contributions. Any income earned from such investment and reinvestment (the available funds net of expenses) will be credited to the fund account and used for the fund's purposes, including related administrative expenses.

21. The Government of Japan has expressed preliminary interest in becoming an initial contributor to the fund. Discussions are ongoing with other potential contributors.

V. IMPLEMENTATION ARRANGEMENTS

A. Fund Management Structure

22. A steering committee—comprising the Office of Cofinancing Operations, the Sustainable Development and Climate Change Department, and the Strategy, Policy and Review Department (SPD)—will (i) allocate funds to relevant STGs, (ii) approve the implementation guidelines and its subsequent revisions from time to time prior to submission to the donors committee for endorsement, (iii) give strategic guidance to the fund, (iv) endorse the annual program and report,

⁷ Cost sharing will be pursued, especially for nonsovereign operations, so project developers will need to contribute some of their own capital to access the fund. Details will be provided in the implementation guidelines.

⁸ ADB. 2014. Financing Partnerships. *Operations Manual*. OM E1/BP. Manila.

⁹ Contributions may also be made by signing a separate contribution agreement to accommodate special circumstances.

and (v) approve activities to be financed through the fund. SPD will assign its staff as the fund manager to (i) oversee the fund, (ii) review and make recommendations to the steering committee for approval of proposals for the fund, (iii) support the STGs, and (iv) report on the fund. The fund manager will prepare the implementation guidelines, and the annual program and report, in consultation with STGs, operations departments, and supporting units (including the Controller's Department and the Operations Services and Financial Management Department). The donors committee, comprising fund contributors, will (i) endorse the implementation guidelines and its subsequent revisions from time to time, (ii) approve the annual program and report, and (iii) give strategic guidance to the fund.

23. The relevant STGs will manage the allocated funds, review and make recommendations for approval of proposals for the fund, and monitor the activities supported by the fund. A multisector review mechanism may be established for cross-sector activities, as required.

24. The operations departments will be the primary user units of the fund. Operations departments, SPD and the Sustainable Development and Climate Change Department may use the fund. for fund management, knowledge services, TA projects, and investment projects.

25. The fund's resources will be utilized in accordance with applicable ADB policies, procedures, and guidelines, including consulting services and procurement, disbursements, gender equality, social and environmental safeguards, public disclosure, anticorruption and governance, financial management, and reporting.

26. SPD will be the official channel of communication for financial issues with fund contributors. The Office of Cofinancing Operations will carry out fund-raising in consultation with SPD.

27. The implementation guidelines and its subsequent revisions, and annual program, will be subject to endorsement by the donors committee.

B. Procedure

28. The operations departments will be responsible for project identification, due diligence, administration, and evaluation of TA projects and investment projects; and will be guided by ADB's operational policies, business process, and guidelines (footnote 3). In agreement with the operations departments, STG technical advisors and STG staff may co-lead and/or co-develop innovative projects.

29. To obtain funding, the user department will submit a proposal to the STG. In line with the eligibility criteria and implementation guidelines, the STG will review and make recommendations on the proposal. The fund manager will review and recommend to the steering committee for approval of activities to be financed by the fund. The implementation guidelines will describe specific circumstances where fund contributors may be consulted.¹⁰

30. Grants for investment projects under sovereign operations will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2015, as amended from time to time) as well as detailed arrangements agreed upon between the recipient and ADB. TA projects will be disbursed in accordance with the *Technical Assistance Disbursement Handbook* (2010, as amended from

¹⁰ For example, consultation with fund contributors may be necessary when the required funding amount for an activity is larger than the ceiling specified in the implementation guidelines.

time to time) and/or other applicable disbursement procedures. The direct charges will be disbursed in accordance with the procedure designated in the fund's implementation guidelines.

VI. ADMINISTRATIVE ARRANGEMENTS

31. With respect to funds provided by contributors, ADB will exercise the same care in the discharge of its functions as it exercises with other third party funds of a similar nature, and shall have no further liability in respect of such funds. The privileges and immunities accorded to ADB under the Agreement Establishing the Asian Development Bank shall apply to all assets, property, income, operations, and activities of the fund.¹¹

32. As a multi-donor fund, all available funds in the account will be commingled. ADB will make withdrawals from the fund account as necessary to support projects. ADB will maintain records and accounts, in accordance with its standard procedures, that identify the contributions made; the commitments to be financed out of the fund, including eligible activities; and administrative expenses. ADB, through the fund manager, will provide contributors with periodic reports on the utilization of the fund, as well as financial statements on fund records and accounts, audited annually by auditors, with external audits to be charged to the fund.

33. ADB will charge a service fee at (i) 5% of amounts disbursed for TA projects financed under the fund; and (ii) 5% of amounts disbursed for investment projects up to \$5 million, or 2% of amounts disbursed for investment projects above \$5 million with a minimum of \$250,000, whichever is greater, in accordance with its fee policy, as revised from time to time.¹² The service fee will be paid from the fund at the time of disbursement.

34. SPD will provide the contributors with an annual report that analyzes the progress of activities financed by the fund against the expected results, and the work program for the coming year. The reports will be consolidated and prepared in accordance with ADB's normal reporting standards and annual work programs. SPD will also provide relevant partners with reports and information as appropriate, regarding the progress of activities under the fund.

35. Fund contributors and ADB will hold annual consultations to discuss progress, administrative matters, and the fund's work program and strategic directions.

36. ADB will promptly inform the contributors of any condition that interferes, or threatens to interfere, with ADB's administration of the fund. ADB may adopt additional rules for administering the fund that are substantially based on the terms and conditions in this paper, and will inform all contributors accordingly.

37. The fund will terminate at a date agreed by the contributors and ADB. Unless otherwise agreed with the contributors, upon termination of the fund and subsequent liquidation of the fund's account, any available funds (including the investment income of such funds) will be returned to the individual contributors in proportion to their respective contributions.

¹¹ ADB. 1966. *Agreement Establishing the Asian Development Bank*. Manila.

¹² ADB. 2009. *Review of the Asian Development Bank's Service Charges for the Administration of Grant Cofinancing from External Sources*. Manila.

VII. THE PRESIDENT'S DECISION

38. The President, acting under the authority delegated by the Board of Directors, has approved:

- (i) the establishment of the proposed High-Level Technology Fund as a trust fund of ADB in accordance with the provisions set forth in this paper; and
- (ii) the acceptance and administration by ADB of contributions to the High-Level Technology Fund in accordance with the provisions set forth in this paper.

and hereby reports these actions to the Board of Directors.

INSTRUMENT OF CONTRIBUTION

[date]

Asian Development Bank
6 ADB Avenue,
Mandaluyong City,
Metro Manila 1550
Philippines

[Name and identity of contributor] (hereinafter referred to as the “Contributor”) hereby undertakes to contribute to the High-Level Technology Fund in an amount of [\$ _____] in accordance with the provisions of the Management Approval Paper entitled “Establishment of High-Level Technology Fund” (the Paper) and subject to the terms and conditions set forth in the Paper.

The contribution will be paid to the Asian Development Bank in the form of immediately available funds on or prior to [specify date]/in accordance with the following schedule [insert disbursement schedule]:

The contribution shall be paid into [ADB to specify account details].

Dated this ____ day of _____, 20__.

For and on behalf of

Authorized Representative