



Technology Bank for the Least Developed Countries

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Agenda item 4

Consideration and adoption of the report of the Council to the General Assembly on the work of the Technology Bank in 2022

Report on the work of the Technology Bank for the Least Developed Countries in 2022

1. The General Assembly established the Technology Bank for the Least Developed Countries and adopted the Charter of the Technology Bank (see [A/71/363](#)) on 23 December 2016, in its resolution [71/251](#). In that resolution, the Assembly reaffirmed the importance of improving the least developed countries' scientific research and innovation base, promoting networking among researchers and research institutions and helping the least developed countries to access and utilize critical and appropriate technologies.
2. The consensus reached among Member States in resolution [76/258](#) reinforced the mandate of the Technology Bank by reaffirming that it would serve as a focal point for the least developed countries to strengthen their science, technology and innovation capacity towards building sustainable productive capacities and promoting structural economic transformation.
3. The Technology Bank is financed by voluntary contributions from Member States and other stakeholders, including the private sector and foundations. In 2022, a new financial agreement between the Technology Bank and the Government of Türkiye was signed, with the Government committing to provide \$1,700,000 annually for five years to support the operational and programmatic activities of the Technology Bank. The Government also pledged to provide an additional financial contribution of up to \$200,000 to the Technology Bank in order to support joint projects that were relevant to the Sustainable Development Goals and would benefit from the technology ecosystem in Türkiye. In 2022, the \$200,000 contribution was allocated to support the launch of the Technology Makers Lab project in the Niger.
4. The year 2022 was one of transition for the Technology Bank. Following the departure of the former Managing Director at the end of 2021, the Governing Council of the Technology Bank initiated several measures aimed at re-evaluating the strategic direction that the organization had followed since it began operations in 2018 and the effectiveness of its business model and organizational structure. At its fifth session, the Council requested that an independent functional review of the Technology Bank



be conducted in the first quarter of 2022 to assess, among other things, the functions, skill sets, capacities and organizational structures needed to better fulfil its core mandate, while ensuring its financial sustainability and integrity as a United Nations system entity. The Council also approved the appointment of an Acting Managing Director to oversee the implementation of the Council's decisions and manage the transition period. It further authorized the initial release of funding to cover operational commitments for the first six months of 2022, determining that the remaining funds would be released after consideration of the outcome of the functional review and the approval of a revised and updated budget and programme of work for 2022 ([TBLDC/2022/2](#)).

5. The revised and updated budget and programme of work for 2022 was prepared by the Acting Managing Director, taking into consideration the findings and recommendations of the functional review, and approved by the Council at its sixth session held on 30 and 31 May 2022. During that session, the Council also noted the limited financial resources available to the Technology Bank and instructed the Acting Managing Director to adjust the post and non-post expenditures of the Technology Bank to the level of sustainable funding for 2023. Following the Council's decision, the Technology Bank underwent a process of downsizing and restructuring through the reduction and reprofiling of posts.

6. During its sixth session, the Council also approved the Technology Bank's new strategic plan for 2022–2024, which identifies three key programmatic areas:

(a) Strengthen the capacity of the Technology Bank to conduct research and analysis and provide advisory services on science, technology and innovation-related issues, with a focus on policies, incentives, regulation and governance;

(b) Identify technologies and technical know-how that are relevant, appropriate and applicable to the least developed countries, formulate demand-driven and bankable transfer of technology projects, and initiate their implementation in collaboration with both national and international partners;

(c) Forge partnerships with key stakeholders, at the national and international levels in both the public and private sectors, and mobilize additional resources to ensure the effective implementation of technology transfer projects and to promote technological learning and upgrading in the least developed countries.

Programmatic activities

7. In 2022, the Technology Bank focused on revising its strategic direction while ensuring business continuity and minimizing possible operational disruptions owing to the management change in December 2021 and the reforms initiated by the Governing Council, including the decision to downsize the Technology Bank. A major task during the transition period was the process of consolidating existing projects by distinguishing those that warranted continuation and strengthening because of their relevance and impact on the least developed countries from those that required modification or even termination. The decision to terminate projects was influenced by two factors: (a) failure to take financial sustainability into consideration when designing projects and (b) an inconsistent approach in identifying relevant technologies and capacity-building activities. Consequently, the Technology Bank renegotiated some partnership agreements in which it had overcommitted, both financially and in terms of the organization's capacity to deliver results with maximum impact.

8. In line with its budget and programme of work for 2022, while carrying out the recommended organizational restructuring, the Technology Bank continued the work

on programmes it had initiated in previous years, which included conducting technology needs assessments, strengthening national academies of science in the least developed countries, and enhancing capacities in science, technology and innovation. It also pursued new areas of work, such as research and analysis and technology transfer, and tested the new approach to project design and implementation recommended during the functional review.

Research, analysis and technology needs assessment

9. In 2022, the Technology Bank continued to develop and strengthen its capacity to conduct policy-oriented research and analysis, which are critical for enhancing its thought leadership, and to raise global awareness of the challenges and opportunities associated with developing capacities in science, technology and innovation in the least developed countries. In 2021, the Technology Bank prepared a substantive report on the state of science, technology and innovation in the least developed countries to coincide with the Fifth United Nations Conference on the Least Developed Countries, which was postponed owing to the spread of the Omicron variant of the coronavirus disease (COVID-19). In September 2022, having finalized the editorial and design processes, the Technology Bank launched the report at a virtual event. It also launched the “LDC Insight” blog as a platform for sharing ideas and reflections on relevant policy issues and the latest developments in science, technology and innovation in the 46 least developed countries.

10. The aim of the technology needs assessment programme is to undertake diagnostic work to identify the technology needs of the least developed countries. Since 2019, the Technology Bank has initiated 22 such assessments. Of the 14 completed to date, six were finalized in 2022: Bangladesh, Benin, Djibouti, Kiribati, Mozambique and Sierra Leone. The validation of three of those assessments was organized virtually in partnership with the respective Governments (Kiribati, Mozambique and Sierra Leone). The other three were to be validated in 2023 (Bangladesh, Benin and Djibouti). At the end of 2022, three assessments were suspended owing to political instability (Afghanistan, Burkina Faso and Sudan), and five remain to be completed (Democratic Republic of the Congo, Liberia, Malawi, Nepal and Zambia).

11. A series of review workshops was held in 2022 with a view to improving the quality and relevance of the technology needs assessments. The first workshop was held on 27 January 2022 to review the methodology and process applied in conducting assessments. The second review session was organized on 26 April 2022 and was attended by representatives of the least developed countries and other partners. The main objective was to explore the ways in which the assessments could be improved by learning from the experiences of other countries and institutions that have carried out such assessments. The third session was held on 20 May 2022 in collaboration with a research team from the Turkish Management Sciences Institute of the Scientific and Technological Research Council of Türkiye to exchange ideas and learn from their experience regarding the ways in which the assessments’ findings can be of relevance to science, technology and innovation stakeholders and used as a policy tool. Accordingly, the Technology Bank incorporated many of the recommendations from the review sessions into subsequent technology needs assessments.

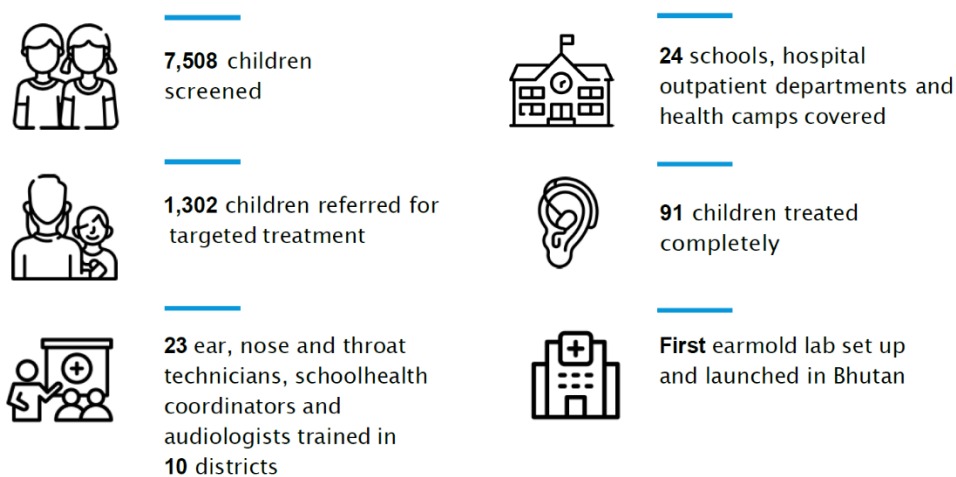
12. The Technology Bank also provided technical support to countries that wished to prepare a road map for addressing the priority areas identified in their technology needs assessments. For example, the Technology Bank assisted Lesotho in organizing an assessment implementation workshop, held in Maseru, bringing together various national and regional stakeholders, including the Commonwealth, the Southern African Development Community, the United Nations country team, the private sector,

potential donors, academia, civil society organizations and the media, to discuss practical ways to implement some of the recommendations from the assessment.

Technology identification and transfer

13. In 2021, the Technology Bank collaborated with Medtronic Labs and the Global Foundation for Children with Hearing Loss to form a consortium to provide support to Bhutan as part of the “Hear, Listen and Speak Programme for all Bhutanese children” initiative, which supports the provision of health-care services related to hearing, including the screening and treatment of hearing loss among children, by developing local professional capacity and services in hearing technology. The programme facilitated the procurement of audiology and diagnostic equipment, as well as the equipment needed to establish the first earmold laboratory in the country, which was set up at the Jigme Dorji Wangchuck National Referral Hospital in Thimphu in August 2022, with contributions from the Technology Bank, Medtronic Labs and hearing aid donor ReSound. The laboratory provides earmold impressions and hearing aid services for children, and enhances the capacity of health workers in preparation for the future expansion of these services into other specialized hospitals in Bhutan. As of 2022, the programme has received in-kind contributions worth \$120,000 from Medtronic Labs and additional equipment worth \$87,000 from ReSound. The programme has also been selected to receive a donation from the Hear the World Foundation, which includes specialized hearing aids and diagnostic equipment to be used in the second and third phases of the programme to support the hearing aid fitting requirements for children. Rehabilitation training and outreach, conducted and funded by the company MED-EL and the Austrian Development Agency, will also be provided throughout the duration of the programme, valued at \$500,000. As of October 2022, the programme has screened 7,508 children between the ages of 0 and 14 years from 24 schools, hospital outpatient departments and health camps within Bhutan (see figure I). Over the course of 2022, 1,302 children were referred for additional targeted treatment, which 91 children have completed. The programme also provided the Ministry of Health of Bhutan with support for patient registration, which is regarded as a challenge in the health-care system. Training for ear, nose and throat technicians, school health coordinators and audiologists was also conducted in 10 districts across Bhutan, providing training to 23 health-care workers.

Figure I
Results of the “Hear, Listen and Speak” programme in Bhutan, to date



14. In 2022, the Technology Bank introduced a new business model for designing technology transfer projects, as recommended during the functional review. In future, projects will be targeted and realistic and will leverage insights on the technological needs identified in relevant assessments and on the development challenges articulated in national development strategies. Based on the revised model, seven country-specific projects have been developed for implementation in 2023. They cover four areas: health care, sustainable housing, food systems and digitalization, the details of which are provided below.

15. A pilot Technology Makers Lab project will be implemented in the Niger in collaboration with the National Agency for the Information Society of the Office of the President of the Niger, the Turkish Cooperation and Coordination Agency, the Scientific and Technological Research Council of Türkiye and the Ministry of Industry and Technology of Türkiye. The project will enhance digital and entrepreneurial skills among youth and prepare young people for the diffusion and uptake of frontier technologies. In 2022, the Technology Bank strengthened project partnerships with key stakeholders and began the initial implementation phase, which included advancing resource mobilization efforts.

16. A post-harvest management project to be implemented in the Gambia has been developed in collaboration with the Scientific and Technological Research Council of Türkiye, the Food Institute, the Central Research Institute of Food and Feed Control and the Ministry of Agriculture and Forestry of Türkiye. The project focuses on the transfer of technologies and know-how needed in the Gambia for the post-harvest treatment of agricultural produce to ensure the protection, conservation, processing, packaging, distribution, marketing and use of essential products. The project will target small and medium-sized farmers, as well as government institutions that regulate food standards. The main objective is to prevent extensive post-harvest losses and assist farmers in improving the quality of their produce destined for formal markets (including export) and in increasing their livelihood opportunities. The outcome of the project will be replicated and/or adapted in other least developed countries. The project is aligned with the outcomes of the technology needs assessments and will support national development priorities.

17. A project aimed at transferring the technology for building sustainable and resilient rammed earth dwellings with local materials was developed by Sakarya University and Düzce University in Türkiye, with a view to building low-cost, affordable, resilient, eco-friendly and sustainable housing. The project consortium includes the Technology Bank; the Ministry of Public Works, Housing and Water Resources of Mozambique; the Engineering Laboratory of Mozambique; the Scientific and Technological Research Council of Türkiye; and the two universities.

18. Lastly, learning from the successful experience in Bhutan, the Technology Bank has designed another “Hear, Listen and Speak” programme, to be implemented in Malawi. It is driven by the findings of the technology needs assessment conducted in Malawi, which highlighted technologies for health care as one of the priorities, specifically the “Hear, Listen, Speak” programme. The Technology Bank has also received expressions of initial interest from other countries to replicate the “Hear, Listen and Speak” programme and will mobilize resources for their implementation in 2023.

Capacity-building in science, technology and innovation

19. In 2021, the Technology Bank, in partnership with the International Centre for Genetic Engineering and Biotechnology and the World Academy of Sciences for the advancement of science in developing countries, launched a new programme that offered fellowships of up to six months to early-stage researchers from the least developed countries to visit research centres in Trieste, Italy; Cape Town, South

Africa; and New Delhi (see figure II). Eight men and five women from 10 countries (Afghanistan, Bhutan, Burkina Faso, Burundi, Cambodia, Ethiopia, Mozambique, Nepal, Sudan and Togo) were selected to participate in the fellowship programme in 2022, working in the fields of biomedicine, biotechnology and agriculture. The programme also included training in biotechnology policy and regulatory science provided by experts from the International Centre for Genetic Engineering and Biotechnology. Unfortunately, owing to the limited resources of the Technology Bank as the funding partner, the inter-agency agreement governing the programme had to be terminated in 2022. The three partners have agreed that, during 2023, a joint effort will be undertaken to mobilize resources to support the next cohort of fellowships.

20. Since 2020, the Technology Bank has collaborated with the World Eco-Design Conference and the International School of Design at Zhejiang University in Ningbo, China, to support students from the least developed countries to enhance their industrial design capacities. In 2022, 36 students, 7 of them women, were awarded full scholarships and joined the International Design Education programme to undertake a master's level degree at Zhejiang University (see figure II). The total value of the scholarships was approximately \$250,000.

Figure II

Support for capacity-building in 2022

International Design Education Programme



36 design
scholarships awarded



19 least developed
countries represented

Programme of collaborations for biotechnology



13 research
fellowships awarded



6 collaborative
research programme
grants awarded

21. Academies of sciences serve the important purpose of providing authoritative and organized guidance to Governments on issues related to science and technology, thus benefiting both the economy and society. In 2020 and 2021, four new academies of science were launched in Angola, the Democratic Republic of the Congo, Lesotho and Malawi. In the first quarter of 2022, the four recently launched academies each received up to \$5,000 of funding from the Inter-Academy Partnership to assist them during the transition to becoming members of the Network of African Science Academies. In 2022, the Technology Bank supported Cambodia, Chad, Liberia, the Niger and Sierra Leone in their efforts to establish and legally register their academies. Quarterly meetings for the newly established and prospective academies were held to provide them with a network for engagement.

22. In addition, during 2022, the Technology Bank, in collaboration with the United Nations Development Programme and the Government of Türkiye, continued to implement the Sustainable Development Goal impact accelerator project funded by the Government of Türkiye. Two start-ups in Bangladesh and three in Uganda

received a total of \$420,000 to fund the implementation and commercialization of their innovative ideas.

Event participation, awareness-raising and advocacy

23. The Technology Bank collaborated with the executive preparatory committees in the lead-up to the second Antalya Diplomacy Forum, held from 11 to 13 March 2022, in which it also participated. The Forum provided an opportunity for the Technology Bank to broaden its network, establish new partnerships and engage with high-level officials from the least developed countries, particularly those in which the Technology Bank had conducted technology needs assessments.

24. The Technology Bank collaborated with the International Telecommunication Union on the special track on information and communications technologies for developing and least developed countries, organized during the World Summit on the Information Society Forum 2022. The aim of the track was to highlight good practices in the implementation of such technologies and identify solutions to support universal digital inclusion, in line with the Sustainable Development Goals. Two sessions were co-organized in April 2022, including a high-level dialogue on information and communications technologies for developing and least developed countries.

25. Throughout 2022, the Technology Bank continued to strengthen its working relationships with other United Nations system entities and resident coordinators in the least developed countries to share updates, raise awareness of and interest in its activities, and solicit complementary funding for in-country projects. The Technology Bank also worked closely with the Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States in the preparation of side events at the Fifth United Nations Conference on the Least Developed Countries, held in Doha in March 2023.

26. Despite the generous financial support provided by the Government of Türkiye, it is evident that the resources currently available to the Technology Bank are limited, when compared with its ambitious mandate to serve as a focal point within the United Nations system for strengthening the technological capabilities of the least developed countries. Resource mobilization remained a key priority for the Technology Bank in 2022, and activities to mobilize and identify resource mobilization opportunities to support project implementation continued throughout the year. The Technology Bank continued to engage with the Council subcommittee responsible for resource mobilization. A meeting was held on 25 April 2022 to brief the subcommittee on ongoing efforts and to discuss the approach moving forward. Efforts were successful in leveraging contributions for the implementation of the “Hear, Listen and Speak” programme and the Technology Makers Lab project, but will need to be further strengthened in 2023.