



Technology Bank for the Least Developed Countries

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Consideration of the report of the Council to the General Assembly on the work of the Technology Bank in 2023

Report on the work of the Technology Bank for the Least Developed Countries in 2023

I. Reinforced mandate under the Doha Programme of Action for the Least Developed Countries

1. The Technology Bank for the Least Developed Countries was established by the General Assembly in January 2017 and became operational in 2018. Its headquarters are in Gebze, Türkiye and its core mandates, as set out in the Charter of the Technology Bank, are:

(a) To strengthen the science, technology and innovation capacity of least developed countries, including the capacity to identify, absorb, develop, integrate and scale up the deployment of technologies and innovations, including indigenous ones, as well as the capacity to address and manage intellectual property rights issues;

(b) To promote the development and implementation of national and regional science, technology and innovation strategies;

(c) To strengthen partnerships among science, technology and innovation-related public entities and with the private sector;

(d) To promote cooperation among all stakeholders involved in science, technology and innovation, including researchers, research institutions and public and private sector entities, within and between least developed countries, as well as with their counterparts in other countries;

(e) To promote and facilitate the identification and utilization of and access to appropriate technologies by the least developed countries, as well as their transfer to the least developed countries, while respecting intellectual property rights and fostering the national and regional capacity of the least developed countries for the effective utilization of technology in order to bring about transformative change.

2. In addition, the Doha Programme of Action for the Least Developed Countries, which the General Assembly endorsed on 1 April 2022 and which covers the period



from 2021 to 2030, 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. This mandate places the Technology Bank at the centre of the least developed countries' efforts to advance their science, technology and innovation capacities through technology transfer and local technological capability building.

II. Reforms and recent efforts to strengthen the work and effectiveness of the Technology Bank for the Least Developed Countries

3. This section contains a summary of the measures taken since early 2022 to reform the Technology Bank, the rationale for those reforms and their implications for the current and future work of the organization. The primary objective of the reforms was to correct the unsustainable development trajectory that the Technology Bank had been following since its establishment and to lay down a new and solid foundation on which a more effective and impactful organization could be built. The reforms were significant and will shape the immediate and long-term growth and development trajectory of the organization.

4. In brief, the reforms and other activities undertaken by the Technology Bank during 2023 fall into the following four categories:

- (a) Implementation of the programme of work for 2023 as approved by the Governing Council of the Technology Bank;
- (b) Consolidation of the reforms that were begun in January 2022, including through the recruitment of staff to fill the new posts created by the Council;
- (c) Translation of project proposals into actionable activities in the field through the establishment of links with beneficiary countries and partner institutions;
- (d) Forging of partnerships with key national and international institutions and building of capacity and experience in the area of resource mobilization.

5. At its fifth session, held on 20 December 2021, the Council decided to initiate a series of reforms aimed at improving the operational modality of the Technology Bank, streamlining the structure of the organization and enhancing its impact at the country level. Although by then the Technology Bank had been operational for only two and a half years, Council members felt that the direction taken by the Technology Bank lacked coherence and clarity. They were concerned, particularly, with irregularities in management and operations and weak project design mechanisms, which led to poor administration of resources. Concerns were also expressed about the lack of regular consultations with the Council and the hiring of staff without the Council having given its approval or having been given prior notice. There were also concerns about an absence of due diligence in the recruitment of staff, including disregard for United Nations rules and procedures.

6. To address those challenges, the Council requested that a functional review of the Technology Bank be conducted by an external expert. The review was expected to focus on an assessment of the skill mix within the organization and the effectiveness of the programmes that had been initiated. Moreover, with the future in mind, the review was to serve to identify the organizational structure and strategic direction that the Technology Bank needed to pursue in order to deliver its mandates efficiently, while ensuring financial sustainability.

7. In addition, the Council requested the Office of Internal Oversight Services to conduct an independent evaluation of the Technology Bank, focusing mainly on management and operational performance. While the functional review was conducted, the evaluation by the Office of Internal Oversight Services did not take place, since the Office was already in the process of conducting an audit of the Technology Bank as part of its mandatory periodic auditing of United Nations organizations. The recommendations which emerged from the functional review and the audit, together with an internal assessment and recommendations made by the Acting Managing Director of the Technology Bank, formed the basis for the reforms and restructuring that the Technology Bank has implemented since July 2022.

8. In short, the reforms revolved around the following four areas:

(a) Adopting a proof of concept phase in the development of the organization. It was felt that, as a new organization with resource limitations, the Technology Bank must first learn to walk before it could run. The importance of raising awareness of the Technology Bank and its activities, especially among Member States, and the need to build credibility by identifying targeted and bankable projects that could be used to demonstrate the relevance of the organization and its viability, were emphasized. Moreover, the project implementation process that the Technology Bank had been following, according to which projects were selected randomly and resources were allocated without considering sustainability, was considered not to be viable and to need adjustment. Therefore, the Council proposed a realistic approach to resource management and project implementation. It was proposed that the Technology Bank should be treated as a start-up and that the annual contribution of the host country should be used as seed funding to help it to demonstrate its viability, build its credibility and strengthen its capacity to mobilize the additional resources needed for it to scale up its work in line with its ambitious mandates. In effect, this meant going back to the drawing board and restarting the Technology Bank on a solid and sustainable footing;

(b) Introducing a prudent and strategic approach to resource utilization. A clear distinction was introduced between predictable sources of funding and extrabudgetary resources that the Technology Bank must mobilize in order to finance specific projects in the field. In February 2022, the Technology Bank signed a financial agreement with the Government of Türkiye, in which the latter, as the host country, pledged to provide \$1,700,000 annually for five years. This is an unearmarked and predictable source of funding to cover the cost of maintaining a core staff and the day-to-day running of the organization, including support for the management of programmes. In addition, the financial agreement includes a supplementary earmarked amount of \$200,000 annually, to be used for impact-oriented activities at the country level. The agreement specifies that the provision of the additional funds is conditional upon the submission of proposals for projects and field-level activities with the potential to make an impact;

(c) Introducing a new modality for project design and implementation. Greater emphasis is now placed on ensuring that support programmes and technical cooperation projects initiated by the Technology Bank are demand-driven, with strong ownership by the beneficiary countries. Moreover, there is an equally important focus on the technology needs assessments that the Technology Bank conducts prior to launching technology transfer projects in the least developed countries. The technology needs assessments are critical products for the Technology Bank and the least developed countries as they help to identify the specific priority areas or sectors where technological solutions are needed, and what ecosystem is necessary in order to develop science, technology and innovation capacity;

(d) In addition, the Technology Bank has been forging and strengthening partnerships with key stakeholders at the national and international levels and exploring different avenues for resource mobilization. During 2023, the Technology Bank actively campaigned in order to expand its network and gain access to resource-mobilization opportunities.

III. New direction and orientation for effective delivery of the mandate and programme of work

9. The 46 least developed countries suffer from structural impediments, low income, poor infrastructure, weak productive capacities and low levels of technological development. These countries require a wide variety of technological inputs and innovations to accelerate their growth and development and to achieve the Sustainable Development Goals. However, identifying technologies and innovative solutions that are sustainable, appropriate and relevant to the needs of the least developed countries is no easy or straightforward task, particularly in the light of the heterogeneity of these countries and their multidimensional vulnerabilities. Historically, the application of technology and innovative solutions has played a critical role in determining the speed and depth of a country's economic and social development. Technological capabilities are developed either through locally driven innovation processes or through the acquisition of technologies and skills developed elsewhere and the creation of the necessary policy environment for technological learning and upgrading. As latecomers to development, the least developed countries have the advantage of being able to choose and utilize, within the limits of their absorptive capacities, the technologies and technical know-how that they need to promote sustainable economic development.

10. Nevertheless, the identification and prioritization of technologies can be challenging. In this respect, the technology needs assessment conducted by the Technology Bank is a useful tool for pinpointing the specific areas and sectors that require technological solutions and for identifying appropriate technologies for the needs of the least developed countries.

11. Building on reforms that started in 2022, the Technology Bank reorganized its activities into three main pillars of work in 2023 (see figure below).

12. Efforts under the first pillar involve conducting demand-driven technology needs assessments in the least developed countries, while avoiding, where possible, any overlaps with or duplication of science, technology and innovation policy reviews conducted by other international organizations. The strengths of the technology needs assessment lie in its focus, which is to identify specific areas or sectors where countries could benefit from technological inputs; in its methodology, which emphasizes consultation of stakeholders, in particular private sector actors; and in its alignment with national development strategies and priorities.

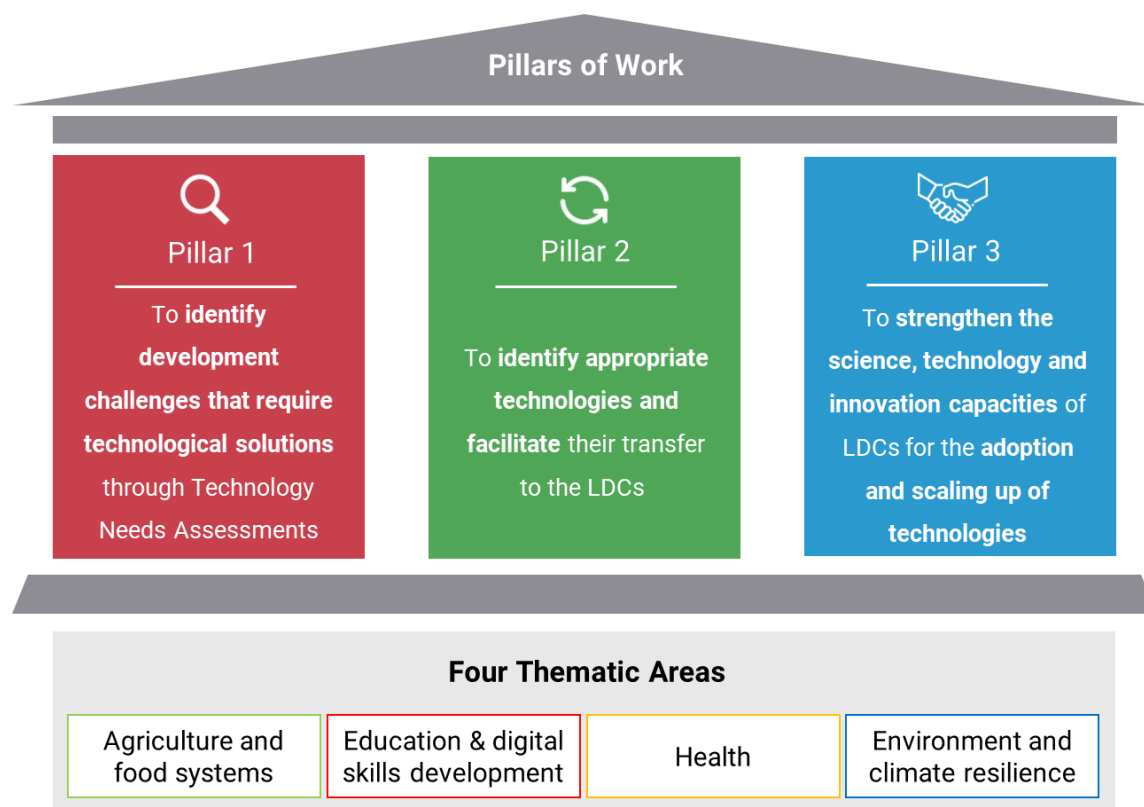
13. The second pillar comprises efforts to identify, on the basis of the findings and recommendations of the technology needs assessments, technology transfer projects and programmes and ensure that the support provided by the Technology Bank is tailored to specific areas or sectors where technological solutions will result in a meaningful impact.

14. The third pillar is focused on the development of science, technology and innovation capacities in the least developed countries and on the sustainability of the support provided by the Technology Bank. In the long term, the impact of technology transfer is determined by the ability of recipient countries or enterprises to learn, assimilate and upgrade the acquired technologies. For that reason, a capacity-building

component designed to ensure local technological learning is built into the support provided by the Technology Bank.

Figure

The three pillars of the Technology Bank's work



15. The support that the Technology Bank provides to the least developed countries is currently focused on four thematic areas gleaned from the 14 technology needs assessments that the Technology Bank has completed to date: (a) agriculture and food systems; (b) education and digital skills development; (c) health; and (d) environment and climate resilience.

16. As indicated above, technology needs assessments are an important area of work for the Technology Bank since they enables the Technology Bank to identify the specific sectors or economic activities that require technological solutions. While other international organizations conduct technology needs assessments (e.g. the United Nations Environmental Programme) or science, technology and innovation policy reviews (e.g. the United Nations Conference on Trade and Development), those activities are not exclusively focused on the least developed countries. The Technology Bank is the only United Nations entity that devotes resources to technology needs assessments of the least developed countries with the specific aim of formulating follow-up technical cooperation programmes in support of those countries. That approach makes the technology needs assessment unique and exclusive to the least developed countries.

17. In the Doha Programme of Action for the Least Developed Countries, “leveraging the power of science, technology and innovation to fight multidimensional vulnerabilities” was identified as one of the six priority areas for the decade 2021–2030 and the Technology Bank was identified as a focal point for

least developed countries on issues related to science, technology and innovation. In the light of its strengthened mandate and responsibility, the Technology Bank should continue to improve and reinforce its capacity to conduct technology needs assessments. Efforts to that end will guarantee that the programmes launched by the Technology Bank in the least developed countries are evidence-based, demand-driven and rooted in consultations with key stakeholders at the national level. High-quality technology needs assessments will enable the least developed countries to identify appropriate technologies and tailor them to sectors and economic activities that are aligned with national development objectives, including the Sustainable Development Goals.

18. Implementation of the programme of work for 2024 will be guided by the reforms and key principles emerging from the reform process, especially: placing emphasis on demand-driven support and country ownership of the support provided by the Technology Bank; improving the quality of technology needs assessments; building and leveraging partnerships in support of capacity-building for science, technology and innovation in the least developed countries; remaining agile and responsive to new challenges and opportunities; giving priority to resource mobilization; focusing on comparative strengths; and maintaining a commitment to inclusive technological development, paying special attention to young people and gender equity in science, technology and innovation.

19. With a view to sustaining the result-based management practice of the Technology Bank, the new approach to programme implementation will continue to include a strategic framework to enable monitoring, evaluation and learning.

20. Under the programme of work for 2024, the Technology Bank will continue to implement projects that started in or before 2023 while initiating new projects as technology needs assessments are completed and additional resources are mobilized. It is important that the Technology Bank continue to implement the pilot projects launched in 2023 and ensure that they generate impact, since the outcomes of those projects are necessary for building credibility and will also assist with the mobilization of resources.

21. In 2024, the Technology Bank will also continue to strengthen partnerships with key stakeholders, including United Nations entities and the private sector. In view of its mandate as a focal point for least developed countries on matters related to science, technology and innovation, it is imperative that the Technology Bank play an active role in the activities of the Technology Facilitation Mechanism. In 2023, the Technology Bank reengaged in the Technology Facilitation Mechanism process by revamping its participation in the United Nations inter-agency task team on science, technology and innovation for the Sustainable Development Goals and contributing more actively to the multi-stakeholder forum on science, technology and innovation for the Sustainable Development Goals. It is critical that the Technology Bank continue to perform its key role in the Technology Facilitation Mechanism process during 2024.

22. In addition, the Technology Bank will foster new partnerships and collaborate with a diverse range of national, regional and international organizations, including private sector foundations and non-governmental organizations.

23. In 2024, the Technology Bank will continue to prioritize resource mobilization by building on the experience in resource mobilization gained from efforts made in 2023.

IV. Review of activities in 2023 and main areas of focus in the programme of work for 2024

24. The discussion in this section is divided into four parts focused on the major pillars of work, namely (a) research, analysis, technology needs assessment and advisory services; (b) technology identification, project design and technology transfer; (c) capacity-building, sustainability and scaling up; and (d) partnership building and resource mobilization. Each subsection contains a discussion of the activities of the Technology Bank under the corresponding pillar and its plans for 2024.

A. Research, analysis, technology needs assessment and advisory services

25. Science, technology and innovation are key instruments for the socioeconomic transformation of the least developed countries and their sustainable development. Those countries suffer from deficits in science, technology and innovation capacities and in absorptive and adaptive capacities and lag substantially behind both emerging and advanced economies.

26. By developing its research and analysis capacity, the Technology Bank will enhance its intelligence and thought leadership on prominent issues in science, technology and innovation in the least developed countries. Moreover, such efforts will result in a systemic process for identifying the development challenges facing the least developed countries and for identifying and recommending the technologies that may be best suited to conditions in those countries.

27. As mentioned above, country-based technology needs assessments will continue to form the basis for the design of technology transfer and capacity-building programmes to be implemented by the Technology Bank in support of the least developed countries.

28. On the basis of lessons learned and recommendations gleaned from technology needs assessments initiated and completed as of that time, in 2023, the Technology Bank launched the implementation of a revised framework and methodology for the assessments with a view to ensuring that they would emerge as a flagship product of the Technology Bank and provide substantive insights and recommendations to the least developed countries and their development partners. In contrast to past practices, the Technology Bank is also increasing reliance on local consultants to ensure that extensive stakeholder consultations are conducted to inform the technology needs assessments. At the same time, the use of international consultancies will be limited and focused on the development of sound conceptual frameworks, the analysis of findings and the strengthening of recommendations.

29. In 2024, the Technology Bank will initiate four new technology needs assessments subject to requests by countries. It will also finalize three assessments started in 2021 or 2022 that were not completed for various reasons, including an inability to conduct adequate consultative and participatory research.

30. The Technology Bank will continue its efforts to seek partnerships with other international organizations and development partners to solicit interest in funding technology needs assessments. Partners could include the United Nations Office for South-South Cooperation, the Islamic Development Bank, the Arab Bank for Economic Development in Africa and regional bodies such as the Southern African Development Community. In addition, the Technology Bank will strengthen existing partnerships with the Commonwealth and the International Seabed Authority, which

are co-sponsors of technology needs assessments in some of the least developed countries.

31. With a view to strengthening its advocacy mandate, the Technology Bank launched the “LDC Insight” blog in 2022 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. In 2024, the Technology Bank will continue to develop blog articles and solicit external contributions from relevant experts and stakeholders.

32. As part of its reform programme, the Technology Bank has sought to establish a mechanism for monitoring and evaluating the progress made in its activities, including the implementation of the annual programme of action, and lessons learned. The plan is to create a comprehensive, transparent, evidence-based system with a strong focus on the assessment of outputs, outcomes and impacts. To date, establishing such a mechanism has not been possible partly due to the need to complete certain essential reforms, such as organizational restructuring and the recruitment of additional staff. However, the progress made in staff recruitment in 2023 will make it possible to move forward in the implementation of this goal in 2024. The ultimate aim is to create a dedicated monitoring, evaluation and learning unit and develop a comprehensive monitoring, evaluation and learning strategy.

B. Technology identification, project design and technology transfer

33. Science, technology and innovation form the building blocks of sustainable development. Unfortunately, the least developed countries lack science, technology and innovation capabilities, and there is a wide technology gap between them and the rest of the world. Technology is inaccessible to the least developed countries for many reasons. Some of the most important ones are limited absorptive capacities resulting from domestic resource constraints, inadequate backbone infrastructure, limited investment in human capital, insufficient incentive structures and institutional and policy weaknesses. In General Assembly resolution [71/251](#) and in the Charter of the Technology Bank, the importance of supporting the least developed countries in identifying, accessing and utilizing appropriate technologies is reaffirmed.

34. Guided by insights from research, analysis and demand-driven technology needs assessment outputs, the Technology Bank will continue to identify technologies that the least developed countries need, design bankable projects and identify technology providers, funders and other stakeholders with which it can collaborate to forge partnerships, mobilize resources and implement projects.

C. Capacity-building, sustainability and scaling up

35. As a result of inadequate incentive structures and institutional and policy weaknesses, technology is often inaccessible to the least developed countries. Bridging technology and knowledge gaps is a necessary condition to accelerate a convergence of growth, income and productivity levels and thus foster development.

36. Technology transfer is not, in itself, sufficient for inducing technological development. The effective utilization and deployment of acquired technologies and their absorption and scaling up will depend on the level of development of domestic science, technology and innovation capacity and on the policy and regulatory environment that supports the science, technology and innovation ecosystem. Therefore, it is important that the Technology Bank not limit its support exclusively to the identification and deployment of technologies; rather, it should also provide, in partnership with key national and international partners, support for the creation of

the enabling environment necessary to sustain local technological capability building through learning, absorption, scaling up and building capacities for innovation, including the effective utilization of Indigenous technologies.

37. One of the core mandates of the Technology Bank is to assist the least developed countries in closing technology and knowledge gaps by facilitating their access to appropriate technologies and strengthening their science, technology and innovation capacity, including capacity to identify, absorb, develop, integrate and scale up the deployment of technology and innovations.

38. In 2022, the Technology Bank began to pilot a new model for designing technology transfer projects, as recommended in the functional review. Under the new model, insights on technological needs identified in technology needs assessments and development challenges articulated in national development strategies are leveraged. In 2023, the Technology Bank launched several country-specific pilot projects under the four thematic areas of focus: health, education and skills development, agriculture and food systems, and environment and climate resilience. In 2024, the Technology Bank will focus on advancing the implementation of those pilot projects and will consider replicating those models in other least developed countries once proof of concept has been demonstrated, conditional upon availability of extrabudgetary funding. The pilot projects include a Technology Makers Lab project implemented in the Niger, a post-harvest management project implemented in the Gambia and a project on rammed earth dwellings implemented in Mozambique. In 2024 the Technology Bank will also continue implementing “Hear, Listen and Speak: a Programme for All Bhutanese Children” in Bhutan and may extend the project to Malawi.

39. Implementation of the “Hear, Listen and Speak Programme for all Bhutanese Children” initiative began in 2021. The initiative is aimed at strengthening the ear care continuum, from screening to rehabilitation, and at addressing hearing loss and ear disorders in children in Bhutan. The initiative was undertaken by the Technology Bank in collaboration with two private sector entities, Medtronic Labs and MED-EL, the latter under a public-private partnership with the Austrian Development Agency. The programme is currently in Phase III of its implementation, and over 53,000 children have been screened and over 1,000 children treated in nine districts. Technology transfer and capacity-building are key components of the programme; to date, 250 school health coordinators have been trained to conduct hearing screenings in schools, and 20 audiologists and ear, nose and throat technicians have been trained in the use of audiology equipment and screening devices incorporating the latest technologies, provided to Bhutan under the project. The programme has received a donation of 400 hearing aids from the Hear the World Foundation, which will also provide capacity-building for local audiologists and technicians for hearing aid fittings. MED-EL, a global medical technology company, will provide rehabilitation training to families and audiology and diagnostic equipment to two regional hospitals under the programme. In addition, MED-EL will strengthen local surgical capacities, as mentor surgeons will conduct practical workshops and help to familiarize local participants with a broad range of surgical techniques for basic and advanced ear surgeries. In 2024, the Technology Bank and other programme partners will contribute resources to strengthen the programme and expand it, aiming to bring it to national scale and screen the entire child population (between the ages of 0 and 14) of Bhutan. In addition, the Technology Bank will provide support to the earmould lab, established in August 2022, with a view to ensuring its smooth operation. In 2024, programme partners will also prepare for phase IV by focusing on advocacy and programme sustainability through inclusion of screening and treatment in the national planning process of the Royal Government of Bhutan.

40. Three important lessons have emerged from the implementation of “Hear, Listen and Speak: a Programme for All Bhutanese Children”. First, it has been demonstrated that, when aiming to generate positive impact at the country level, what matters most is not necessarily the size of the project, but rather a strategic, targeted approach to project design and implementation. The Bhutan pilot programme was carefully selected as an initiative that could lead the way in establishing a health-care service that Bhutan lacked but needed greatly, as indicated by the high rate of referrals after screening. A strategic and selective approach to technology identification and project design is therefore critical. Secondly, the importance of linking technology transfer with capacity-building at the country level was reaffirmed. The training of ear, nose and throat technicians and school health coordinators and the establishment of labs for earmoulds will enable the localization of screening capacities, make those capacities sustainable and strengthen the ear care continuum in the country. Thirdly, the experience under the Bhutan programme has demonstrated that forging partnerships with key stakeholders, including the private sector, that have the expertise and resources that the least developed countries need can be a game changer. In this case, the Technology Bank has played the role of facilitating and mobilizing the right partnerships to provide the support, including in-kind support, that can make a significant difference for the least developed countries.

41. The Technology Makers Lab project was developed in partnership with the Turkish Cooperation and Coordination Agency, the Scientific and Technological Research Council of Türkiye and the Ministry of Industry and Technology of Türkiye. It was piloted in the Niger with the National Agency for the Information Society of the Office of the President of the Niger. The project is aimed at enhancing digital and entrepreneurial skills among young people and preparing them for the diffusion and uptake of frontier technologies. The project will be targeted towards young people, who will be provided exposure to digital and emerging technologies through workshops and trainings on robotics and coding, design and production, materials science, nanotechnology, advanced robotics, software technologies and cybersecurity. The pilot project was successfully launched in May 2023 with a training of trainers in Türkiye. In July 2023, with the support of the Government of the Niger, the project was approved to receive \$5,190,000 in funding by the African Development Bank. Unfortunately, as a result of the coup d'état in the Niger, the disbursement of funds has been put on hold until the political situation stabilizes. The Technology Bank will resume the implementation of the project as soon as possible. In response to a request received in 2023 from the Government of Togo, the Technology Bank is actively working with the Government and key partners to mobilize resources and prepare for implementation of the Technology Makers Lab in Togo in 2024. The Technology Bank is also planning to replicate the Technology Makers Lab in other least developed countries that have expressed interest, namely Cambodia and Senegal, subject to the successful mobilization of resources. The expectation is that the projects will be launched in 2024. The Technology Bank proposes that the \$200,000 annual contribution by the Government of Türkiye for 2024 be allocated as seed funding for launching the Technology Makers Lab in two additional countries, one in Africa and one in Asia.

42. The Technology Bank has also launched a pilot project in the Gambia, one of the countries where the Technology Bank has conducted a technology needs assessment. The post-harvest loss management project will be implemented in collaboration with the Ministry of Higher Education, Research, Science and Technology of the Gambia. The main objective of the project is to transfer technologies and technical know-how that will enable the reduction or prevention of post-harvest losses of cashew nuts, which is an important export product in the Gambia. The findings of the technical needs assessment indicate that, on average, 30 per cent – 40 per cent of the cashew nut harvest in the country is lost every year.

The root cause of the post-harvest loss is a lack of appropriate technologies and technical know-how for the drying, conserving and processing of cashew nuts. The scale of the loss is significant for a small country that relies on cashew nuts for income and foreign exchange earnings. The technologies and technical know-how transferred under the project are expected to help to reduce post-harvest losses and to enable local enterprises to process the cashew nuts and add value before exporting them. The project, currently in its initial stages, is being implemented in collaboration with the Marmara Research Centre of the Scientific and Technological Research Council of Türkiye, which will provide in-kind technical support while the Technology Bank mobilizes resources and coordinates project implementation. To kick-start the project, the Technology Bank has allocated \$100,000 to the project as seed funding, out of the \$200,000 contribution by the Government of Türkiye for 2023. In 2024, the Technology Bank will continue to implement the project by intensifying resource mobilization and working closely with the Marmara Research Centre and specialized institutions in other countries that can provide the Gambia with the relevant and appropriate technologies.

43. A pilot project for rammed earth dwellings was developed in partnership with Sakarya University and Düzce University in Türkiye and with financial support and technical assistance from the Scientific and Technological Research Council of Türkiye and the Turkish Cooperation and Coordination Agency. The main objective of the project is to leverage technology transfer to improve access to sustainable, affordable and resilient housing in Mozambique. In 2024, a sustainable, affordable and resilient prototype dwelling will be developed using locally available and stabilized earthen construction materials in the area of Mozambique selected for the pilot. The Technology Bank is grateful to the two universities for their willingness to share the technologies that they have developed for constructing low-cost and resilient housing in Türkiye. In recent years, Mozambique has been hit by hurricanes and floods; as a result, finding solutions for constructing strong and resilient dwellings has become a priority on the national agenda. To kick-start the project, the Technology Bank has allocated \$100,000 in seed funding, from the \$200,000 contribution by the Government of Türkiye for 2023. In the first stage, construction engineers from Mozambique will be trained at the universities while research is conducted on the quality of soil and other materials available in Mozambique. Once the rainy season in Mozambique has ended, engineers from the two universities will conduct further training in Mozambique while working with the trained Mozambican engineers to build prototype houses. In this manner, knowledge and techniques will be transferred, thereby developing local capacity for building resilient, low-cost dwellings. The main beneficiaries of the project include the public sector, in particular the Ministry of Housing; the private sector, in particular construction businesses; researchers; and the local community as a whole. In 2024, the Technology Bank will intensify its efforts to mobilize the resources needed to fully implement the project and advance the construction of rammed earth dwellings in Mozambique.

44. In 2023, the Technology Bank and the International Centre for Genetic Engineering and Biotechnology developed a project to support scientists in four least developed countries, equipping them with the knowledge to locally isolate, characterize and apply plant growth-promoting bacteria for sorghum. The aim is to support local farmers in the effective application of probiotics to enhance productivity in sorghum production. The project will provide support for the development of linkages with the industrial sector and local production of low-cost biofertilizers, transfer of relevant technology and the provision of scientific support with a view to scaling up production. In 2024, the Technology Bank and the Centre will jointly identify opportunities for resource mobilization for project implementation.

45. Academies of sciences, as independent institutions and with their specific competencies, are uniquely poised to provide Governments with evidence-based advice for the formulation of national policies in response to national, regional and global scientific challenges. To date, the Technology Bank has facilitated the establishment of academies of science in four countries and has provided support to eight countries in their efforts to establish and legally register their academies. In 2024, the Technology Bank will continue to support newly established academies of science by organizing quarterly online meetings, thereby providing a network for engagement among academies and helping to strengthen the work they do in their respective countries.

46. 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 help students from the least developed countries to access opportunities to enhance their industrial design capacities. In 2023, 33 students from nine least developed countries were awarded full scholarships and joined the international design education programme to pursue a master's level degree at Zhejiang University. The total value of the scholarships amounts to approximately \$250,000 per year. In 2024, the Technology Bank will continue to collaborate with the World Eco-Design Conference to provide students from the least developed countries with opportunities for capacity-building. The Technology Bank will also continue to advocate for enhanced support to strengthen capacities in science, technology and innovation in the least developed countries by identifying additional institutions and international organizations willing to fund learning opportunities targeting students from the least developed countries through programmes such as fellowships and scholarships.

47. In 2023, the Technology Bank and the United Nations Development Programme Istanbul International Centre for Private Sector in Development launched the Frontier Tech Leaders Programme with the objective of bridging the digital divide and contributing to the 2030 Agenda for Sustainable Development by strengthening local technology and entrepreneurial capacities in the least developed countries. The programme will initially tap into the community of young people from the least developed countries studying in Türkiye to help them to develop skills in the use of the latest technology. The programme will then be expanded to provide access to young people in the least developed countries, helping them to become technology leaders and leverage technology awareness in their communities. In 2024, the Technology Bank and the Istanbul International Centre will expand the programme by establishing new partnerships with the private sector, international organizations, foundations and academia.

D. Partnership building and resource mobilization

48. As mentioned above, the consensus reached among Member States as part of the Doha Programme of Action for the Least Developed Countries has reinforced the mandate of the Technology Bank by reaffirming that the Technology Bank will 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”. Delivering on this ambitious mandate will require adequate resources and sustained cooperation with a broad range of partners. Partnership building and resource mobilization thus are key enablers for the sustainability of Technology Bank operations and programmes.

49. In 2023, the Technology Bank intensified its efforts to strengthen partnerships with key stakeholders, including United Nations entities and the private sector. The Technology Bank participated in relevant intergovernmental forums, including the high-level political forum and the multi-stakeholder forum on science, technology

and innovation for the Sustainable Development Goals, and actively engaged with Member States, including development partners, at those events.

50. The Technology Bank will continue to coordinate its work on science, technology and innovation with other United Nations entities through the Technology Facilitation Mechanism, in particular the United Nations inter-agency task team on science, technology and innovation for the Sustainable Development Goals and the science, technology and innovation forum. The science, technology and innovation forum provides a venue for facilitating interaction and networking between relevant stakeholders and multi-stakeholder partnerships with a view to identifying and examining technology needs and gaps and helping to facilitate development, transfer and dissemination of relevant technologies for the Sustainable Development Goals. Through the summary of the science, technology and innovation forum, the Technology Facilitation Mechanism provides mandated formal input in support of the high-level political forum's review of the Goals and its mandated science-policy function. The Technology Bank will continue to use these platforms to advocate for and raise awareness on the specific needs and challenges of the least developed countries in science, technology and innovation and build relevant synergies and partnerships. Through workstream 6 of the inter-agency task team, the Technology Bank will promote additional capacity-building opportunities in the areas of science, technology and innovation for policymakers in the least developed countries.

51. Building on recent experience, in 2024, the Technology Bank will work closely with the executive preparatory committees of the Türkiye-Africa Partnership Summit, co-hosted by the African Union and Türkiye. The Technology Bank will also participate in the Antalya Diplomacy Forum and will organize a side event focused on the least developed countries. In addition, the Technology Bank will participate and actively engage in Teknofest 2024 in Türkiye, with a view to identifying relevant innovations for the least developed countries and seek meaningful opportunities for young people in these countries.

52. As stipulated in its Charter, the budget of the Technology Bank relies solely on voluntary contributions. The Doha Programme contains a clear expression of support for the Technology Bank and indicates that its resources are expected to be replenished, as Member States, international organizations, foundations and the private sector are invited "to provide voluntary financial and in-kind resources to the Technology Bank in order to enhance its capacity and effectiveness".

53. In 2023, the Technology Bank intensified its resource mobilization efforts, including by investing limited resources specifically dedicated to complementing in-house capacity with external expertise required to mobilize funds for programme implementation. The Technology Bank will continue those initial efforts in 2024 with the aim of mobilizing funds for the full implementation of extrabudgetary projects and for the replication of successful pilot initiatives in other least developed countries.

54. Advocacy and strategic communication will play an instrumental role in resource mobilization. Following the downsizing of its staff as requested by the Council, the Technology Bank no longer has dedicated internal capacity for public information. However, the Technology Bank is leveraging existing internal capacity to increase the visibility of its ongoing initiatives through its website and social media channels. Efforts to that end include the creation of a communications plans for events in which the Technology Bank participates, the drafting of press releases for project activities and regular website and social media updates.