



Technology Bank for the Least Developed Countries

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Revised and updated budget and programme of work for 2022

Technology Bank for the Least Developed Countries: revised budget and programme of work for 2022

I. Mandate

1. In accordance with the mandate of the General Assembly, as well as the Charter of the Technology Bank for the Least Developed Countries, which sets out the operational modalities of the Bank, the specific objectives of the 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 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 to bring about transformative change.

2. 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 Bank will serve as a focal point for least developed countries to strengthen their science, technology and innovation capacity



towards building sustainable productive capacities and promoting structural economic transformation.

II. Overall orientation

3. A two-track approach is envisaged for the implementation of the programme of work of the Technology Bank for the second half of 2022. The first track will be focused on the implementation of the organizational restructuring recommended in the functional review, including the recruitment of the next Managing Director, on the basis of a revised profile and job description. The second track will involve continuity of the programme of work carried over from 2021 and the implementation of new technology transfer and capacity-building projects that the Bank initiated in the first half of 2022. In line with the new strategic direction proposed in the functional review, the support that the Bank provides to the least developed countries will be focused on the following areas of work:

- (a) Research, analysis and technology needs assessment;
- (b) Identification of technologies and technical know-how that are relevant, appropriate and applicable to the least developed countries, as well as formulation of demand-driven and bankable transfer of technology projects and initiation of their implementation in collaboration with national and international partners;
- (c) Forging of partnerships and mobilization of resources for the effective, inclusive and sustainable implementation of technology transfer and capacity-building projects.

4. 2022 will be the first year of implementation of the new approach to project design and implementation recommended in the functional review. That approach contains three complementary strategic outcome areas, with linked outputs and activities:

- (a) Identifying technologies and determining their relevance, applicability, appropriateness and cost-effectiveness, as well as the scope for transfer to the least developed countries. Extensive consultations with stakeholders at the national and international levels will be critical, along with ensuring that the due diligence evaluation of risks and benefits is carried out in designing projects (outcome 1 of the strategic plan for 2022–2024 of the Technology Bank, enhanced knowledge generation and evidence-based dialogues on science, technology and innovation in the least developed countries);
- (b) Strengthening science, technology and innovation capacity in least developed countries, including the knowledge and capacity to absorb, integrate and scale up technologies (outcome 2, increased demand-driven transfer of identified appropriate technologies and know-how);
- (c) Strengthening resource mobilization and partnership for inclusive growth and maximum impact.

5. Within each outcome, a commitment to inclusivity and diversity at all levels is embedded, in particular the need to mainstream gender- and youth-related issues into the work of the Technology Bank.

6. The budget and programme of work for 2022 will be implemented under the revised three-year strategic plan for 2022–2024 and will be built on the lessons learned from the Technology Bank's experience of delivering support to the least developed countries since its operationalization.

7. In line with the revised strategic plan for 2022-2024, the implementation of the 2022 budget and programme of work will be guided by the following key principles:

- (a) Being driven by demand and responsive to the science, technology and innovation needs of the least developed countries;
- (b) Giving priority to resource mobilization;
- (c) Building and leveraging partnerships in support of capacity-building in science, technology and innovation;
- (d) Maintaining agility and responsiveness to new challenges and opportunities;
- (e) Focusing on comparative strengths;
- (f) Being committed to inclusive technological development, paying special attention to youth and gender equity in science, technology and innovation.

8. To enhance the results-based management practice of the Technology Bank, the revised strategic plan includes a strategic framework and a results matrix to enable monitoring, evaluation and learning.

9. The programme of work for the second half of 2022 will be a combination of new projects related to transfer of technology and ongoing programmes initiated in 2021 in the key areas of technology needs assessment, the establishment and strengthening of academies of science and the enhancement of capacities in science, technology and innovation.

10. The Technology Bank will gradually 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 science, technology and innovation in the least developed countries. In this way, the Bank will establish a reputation and develop expertise in specialized advisory services relating to capacity-building in science, technology and innovation.

11. The Technology Bank will work to strengthen partnerships with key stakeholders, including United Nations system entities and the private sector. It will participate and actively engage with Member States, including development partners, in the preparatory work for the second part of the Fifth United Nations Conference on the Least Developed Countries, which is expected to be held in Doha in March 2023. A side event will be organized to showcase the activities of the Bank and its impact on the development of science, technology and innovation in the least developed countries.

12. In 2022, the Technology Bank will maintain close coordination with the executive preparatory committees of the Türkiye-Africa Partnership Summit, co-hosted by the African Union and Türkiye, and the Antalya Diplomacy Forum. The Bank participated to the third Türkiye-Africa Partnership Summit, held in Türkiye in December 2021. The Summit provided an important venue at which to raise awareness among key stakeholders, including ministers of the African States and heads of organizations. In the declaration adopted at the Summit, which was approved by the Ministers for Foreign Affairs meeting on 17 December and endorsed by Heads of State, the important role of the Bank in supporting technology development in the least developed countries was welcomed. Furthermore, the Bank ensured institutional participation with a stand area at the second Antalya Diplomacy Forum, which included the participation of nine Heads of State, 65 Foreign Ministers, heads of international organizations, policymakers, diplomats, business leaders, academics, members of think tanks and representatives of youth and the media.

13. The Technology Bank will foster new partnerships and collaborate with other regional and continental economic bodies, such as the African Union, the Southern African Development Community, the Common Market for Eastern and Southern Africa, the Intergovernmental Authority on Development and the Economic Community of West African States, and international bodies, including the International Atomic Energy Agency and the Inter-Parliamentary Union, to ensure coordinated approaches to the development of science, technology and innovation, as well as enhanced synergies for interventions in least developed countries.

14. In 2022, the Bank has begun to restructure and consolidate its business model and organizational design and structure on the basis of the conclusions and recommendations made through an independent functional review and an audit of the Bank's operations conducted by the Office of Internal Oversight Services covering the period from January 2019 to September 2021.

15. Also in 2022, the Technology Bank will continue to prioritize resource mobilization by developing a new strategy and operational plan thereon that are consistent with the funding requirements of the Bank's programme of work. In line with a recommendation in the functional review, the Bank will create a special section dedicated to the mobilization of resources to enhance funding in order to support technology transfer and deployment and capacity-building activities in the least developed countries.

III. Overview of budget estimates and available resources

16. Given the vast needs of the least developed countries in terms of science, technology and innovation, and on the basis of the Technology Bank's three-year indicative budget, which was prepared in December 2016 by the Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States, it is estimated that the Bank would require an annual budget of \$35 million to \$40 million to effectively undertake activities in all of the least developed countries, address the full range of objectives set out in its Charter and make the expected transformational impact in all the least developed countries.

17. It will be noted that the budget approved for 2022 was \$4,037,236, including \$464,461 for programme support, of which \$3,611,362, or 89 per cent, is expected to be spent in 2022. Those resources are expected to allow for the implementation of the workplan for 2022, despite the challenges created by the coronavirus disease (COVID-19) pandemic, as described in the report of the Secretary-General on the review of the first three years of the Technology Bank ([A/76/272](#) and [A/76/272/Corr.1](#)). The momentum to carry out the Bank's programme of work in order to achieve the objectives articulated in that report and in the strategic plan for 2022–2024 is compromised by a lack of reliable funding.

18. The status of contributions, financial resources by component, post resources and resource requirements by object of expenditure is provided in tables 1 to 4 of the present report.

19. To fund its programme of work for 2022, the Technology Bank is relying on a contribution of \$1.7 million that the host country provided in accordance with the financial agreement signed between the Bank and the Government of Türkiye on 3 February 2022. In addition, the host country has agreed to provide an additional \$200,000, earmarked for Sustainable Development Goal-related activities and to be disbursed upon submission of viable projects showing tangible impact in least developed countries. The unspent balance from 2021 is \$2,691,598 (see table 1), of

which \$1,933,932 is being utilized for the Bank's total budget for 2022, along with the \$1.7 million contribution from the host country.

20. The host country will continue to provide in-kind support, that is, office space and all facility services (security, cleaning, maintenance and utilities) at no cost to the Technology Bank. Moreover, the Bank is expecting in-kind contributions in 2022 from the Turkish Cooperation and Coordination Agency and the Commonwealth.

21. The overall budget requirements for 2022 amount to \$3,633,932, which covers the costs of Council support, executive direction and management and operational support, the programme of work and 13 per cent programme support costs (see table 2). Their respective share is as follows: Council support (1.54 per cent), executive direction and management and operational support (22.45 per cent) and programme of work (76.01 per cent). The Technology Bank endeavours to meet the Council's recommendation to maintain a budget allocation of 20 per cent for operational costs while building and strengthening its in-house capacity.

22. The Junior Professional Officers Programme has been extended by the Government of Italy to October 2022. In accordance with the agreement, the extension to a third year (2023) will require the Technology Bank to cover 50 per cent of Junior Professional Officer costs. The Bank has already earmarked funds to cover 50 per cent of those costs for the third year and will request the Government of Italy agreement for extension. In addition, the Bank is exploring the possibility of securing in-kind contributions from the Government of China to finance a Programme Officer at the P-3 or P-4 level.

23. The changes in resource requirements by object of expenditure from 2021 to 2022 are shown in table 4. The 35.3 per cent decrease of \$1,982,034 in total resource requirements, from \$5,615,966 in 2021 to \$3,633,932 in 2022, is the result of a decrease in requirements relating to staff and non-staff costs (travel, consultants, general operating expenses and contractual services).

Table 1
Status of contributions

(United States dollars)

| | <i>Amount</i> |
|---|--------------------|
| Fund balance, 1 January 2020 | 4 310 699 |
| Voluntary contributions received in 2020 | 3 092 733 |
| Interest income in 2020 | 73 984 |
| Subtotal | 7 477 416 |
| Expenditure in 2020 | (2 950 367) |
| Subtotal | (2 950 367) |
| Opening fund balance, 1 January 2021 | 4 527 050 |
| Voluntary contributions received in 2021 | 2 000 000 |
| Interest income, January–December 2021 | 10 418 |
| Subtotal | 6 537 468 |
| Expenditure, January–December 2021 | (3 845 870) |
| Projected fund balance, 31 December 2021 | 2 691 598 |

Table 2
Financial resources by component
 (United States dollars)

| <i>Component</i> | <i>2021 appropriation</i> | <i>Variance</i> | <i>2022 estimate</i> |
|--|---------------------------|--------------------|----------------------|
| Council support | 49 495 | – | 49 495 |
| Executive direction and management and operational support | 1 142 075 | (419 961) | 722 114 |
| Programme of work | 3 778 311 | (1 334 051) | 2 444 460 |
| Subtotal | 4 969 881 | (1 754 012) | 3 215 869 |
| Programme support costs ^a | 646 085 | (228 022) | 418 063 |
| Total | 5 615 966 | (1 982 034) | 3 633 932 |

^a Programme support costs for the trust fund in 2022 are assumed at 13 per cent, pending the Controller's approval of a reduced rate of 11 per cent.

Table 3
Post resources

| <i>Component</i> | <i>2021 appropriation</i> | <i>Variance</i> | <i>2022 estimate</i> |
|--|---------------------------|-----------------|----------------------|
| Professional and higher categories | 8 | 2 | 10 |
| General Service and related categories | 10 | 2 | 8 |
| Total | 18 | – | 18 |

Note: The organizational structure and post distribution for 2022 is shown in annex I.

Table 4
Resource requirements by object of expenditure
 (United States dollars)

| <i>Object of expenditure</i> | <i>2021 appropriation</i> | <i>Variance</i> | <i>2022 estimate</i> |
|---|---------------------------|--------------------|----------------------|
| Staff and other personnel costs | | | |
| 1. International staff | 1 258 400 | 252 096 | 1 510 496 |
| 2. Local staff | 237 500 | (97 625) | 139 875 |
| 3. General temporary assistance | – | 316 866 | 316 866 |
| 4. Consultants and experts | 1 130 680 | (1 098 680) | 32 000 |
| Subtotal, staff and other personnel costs | 2 626 580 | (627 343) | 1 999 237 |
| Hospitality | 4 200 | – | 4 200 |
| Travel | | | |
| 1. Travel of Council members | 44 095 | – | 44 095 |
| 2. Travel of staff | 790 368 | (684 582) | 105 786 |
| 3. Travel of participants to meetings and workshops | – | – | – |
| 4. Travel of consultants, resource persons and panellists | 375 308 | (368 944) | 6 364 |
| Subtotal, travel | 1 209 771 | (1 053 526) | 156 245 |

| <i>Object of expenditure</i> | <i>2021 appropriation</i> | <i>Variance</i> | <i>2022 estimate</i> |
|-----------------------------------|---------------------------|--------------------|----------------------|
| Grants and fellowships | 290 280 | 590 207 | 880 487 |
| Contractual services | 511 650 | (385 950) | 125 700 |
| Equipment and vehicles | 9 800 | (8 300) | 1 500 |
| Supplies | 10 000 | (5 000) | 5 000 |
| General operating expenses | 307 600 | (264 100) | 43 500 |
| Total | 4 969 881 | (1 754 012) | 3 215 869 |
| Programme support costs | 646 085 | (228 022) | 418 063 |
| Grand total | 5 615 966 | (1 982 034) | 3 633 932 |

A. Council support

24. The resource requirements for Council support are outlined in table 5.

Table 5

Resource requirements for Council support

(United States dollars)

| <i>Object of expenditure</i> | <i>2021 appropriation</i> | <i>Variance</i> | <i>2022 estimate</i> |
|------------------------------|---------------------------|-----------------|----------------------|
| Travel | 44 095 | – | 44 095 |
| Hospitality | 4 200 | – | 4 200 |
| Contractual services | 1 200 | – | 1 200 |
| Total | 49 495 | – | 49 495 |

25. The amount of \$49,495, at maintenance level, will provide for the travel of Council members (\$44,095), accommodations for up to eight observers (\$1,200) for one two-day Council session, expected to be held in May 2022, and hospitality services for the Council session (\$4,200). The Council's subcommittee on resource mobilization plans to hold two virtual meetings in 2022.

B. Executive direction and management and operational support

26. Under the guidance of the Council, the Managing Director of the Technology Bank will provide overall executive direction on substantive and managerial matters and will ensure the effective delivery of the annual programme of work and strategic plan approved by the Governing Council.

27. The core responsibilities of executive direction and management and operational support will be, among others, the following:

- (a) Setting a vision and a strategic direction;
- (b) Providing sound management and operational guidance;
- (c) Organizational coordination to ensure coherence, consistency and the efficient utilization of resources;
- (d) Managing external relations and representation vis-à-vis Member States, including host Governments and the media;
- (e) Directing resource mobilization efforts and relations with the Council.

28. At the end of 2020, following consultations with the Department of Management Strategy, Policy and Compliance and the Department of Operational Support, the Technology Bank identified the United Nations Office at Geneva as a service provider. A standard memorandum of understanding was signed between the Bank and the Office in early 2021. The memorandum contains a list of services available to all clients of the Office and the standard price list. The costs are charged to the Bank on a quarterly basis. The calculation of costs is based on the number of transactions processed for the Bank, multiplied by the standard prices. The cost of services provided by the Office amounted to \$29,108 for the first quarter of 2022. The Office has been providing recruitment, payroll, accounting, budget and travel services to the Bank. The costs depend on the volume of transactions, reflecting the Bank's needs. Should the Bank implement the recommendations in the functional review regarding organizational structure and post reprofiling, the volume of transactions is likely to increase, along with the cost of services provided. In the long term, the Bank should develop its own in-house capacity for some of the services that can be provided from within rather than continuing to rely on the Office. The Bank has begun to build its capacity for administrative and financial accounting through training provided by the Office. The process must be allowed to continue.

29. The first three months of 2022 were a time of transition, during which the United Nations Office for Project Services was providing some services to the Technology Bank, mainly in the areas of contracting consultants and individual contractors and of procurement. In the first quarter of 2022, internal capacity was built within the Bank through recruitment of the administrative support team. As a result, relevant administrative transactions can now be processed by the Bank and facilitated by the United Nations Office at Geneva. The Bank had been facing challenges, which have now been overcome, in recruiting General Service staff.

30. Within the United Nations, the head of an organization is normally supported by a dedicated front office to help with routine functions and provide support to the Executive Officer. However, in view of the small size of the Technology Bank, the Managing Director will be assisted by one staff member at the G-5 level.

31. The resource requirements for executive direction and management and operational support are outlined in table 6.

Table 6

Resource requirements for executive direction and management and operational support

(United States dollars)

| <i>Object of expenditure</i> | <i>2021 appropriation</i> | <i>Variance</i> | <i>2022 estimate</i> |
|--|---------------------------|------------------|----------------------|
| A. Staff and other personnel costs | | | |
| 1. International staff | 547 400 | (17 059) | 530 341 |
| 2. Local staff | 170 300 | (86 105) | 84 195 |
| 3. Consultants and experts | 60 000 | (60 000) | – |
| Subtotal A, staff and other personnel costs | 777 700 | (163 164) | 614 536 |
| B. Operational costs | | | |
| 1. Travel of staff | 50 575 | (45 997) | 4 578 |
| 2. Contractual services | 50 000 | 3 000 | 53 000 |
| 3. Equipment and vehicles | 9 800 | (8 300) | 1 500 |

| <i>Object of expenditure</i> | <i>2021 appropriation</i> | <i>Variance</i> | <i>2022 estimate</i> |
|--------------------------------------|---------------------------|------------------|----------------------|
| 4. Supplies | 10 000 | (5 000) | 5 000 |
| 5. General operating expenses | 244 000 | (200 500) | 43 500 |
| Subtotal B, operational costs | 364 375 | (236 797) | 107 578 |
| Total | 1 142 075 | (399 961) | 722 114 |

1. Staff and other personnel costs

32. The amount of \$614,536, reflecting a decrease of \$163,164, will provide for the funding of seven posts in executive direction and management, as follows:

(a) \$530,341 for two international staff: continuation of the post of Managing Director at the D-2 level and of the post of Administrative Officer at the P-3 level;

(b) \$84,195 for five local General Service staff: continuation of one Information Technology Assistant at the G-6 level, one Finance and Budget Assistant at the G-5 level, one Administrative Assistant at the G-5 level, one Team Assistant at the G-4 level and one Driver at the G-2 level.

2. Operational costs

33. The amount of \$107,578, reflecting a decrease of \$236,797, will provide for operational costs, such as travel of staff, contractual services (website development, maintenance and administration, translation and printing of documents and other contractual services), office equipment and vehicle maintenance, supplies, and general operating expenses (information technology support services and licences, internal translation, printing of documents and hospitality). The reduced requirements for operational costs are attributable to reductions in travel of staff for capacity development, with a greater reliance on online training, reduced requirements for contractual services related to website development, reduced general operating expenses, as the rental of a sub-office in Istanbul is no longer required, and reduced requirements for vehicle maintenance.

34. An operational reserve of 15 per cent of the proposed budget was recommended in accordance with the United Nations policy on operating reserve; however, owing to the limited resources available, the Technology Bank has proposed 10 per cent of the total budget, which equals the amount of \$320,000.

IV. Programme of work

A. Strengthening capacity to conduct research, analysis and technology needs assessments and provide advisory services

1. Background and rationale

35. Developing research and analysis capacity will provide the Technology Bank with intelligence and thought leadership on prominent issues in science, technology and innovation in the least developed countries. Moreover, it will deliver a systemic process to identify development challenges facing the least developed countries and to choose the technologies and policy options that may be best for the conditions in those countries. The research and analysis work will be focused on policies, incentives, regulations, rules and governance-related issues that are necessary for the development of science, technology and innovation capacity (compared with more specialized and scientific technical know-how).

36. 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 scheduled to be held in January 2022. The conference was postponed owing to the spread of the Omicron variant of COVID-19. Nevertheless, in 2022, the Bank will launch the report. In addition, drawing on the main insights outlined in the report, the Bank will develop and issue two thematic briefs to continue to strengthen its positioning on science, technology and innovation in the least developed countries.

37. Technology needs assessments provide a basis for the technology transfer and capacity-building programmes that each country may include as part of its national development strategy in order to accelerate efforts towards the implementation of the priorities contained in its national development plan and to promote the achievement of the relevant Sustainable Development Goals.

38. For the Technology Bank, the technology needs assessment programme remains critical because it serves as a knowledge product that provides both the Bank and beneficiary countries with important information on the technological situation in each country and their priority technological needs. Technology needs assessments also serve as effective instruments for identifying development challenges in least developed countries that require technological solutions through targeted project design and sustainable technology transfer.

39. Since 2019, the Technology Bank has initiated 24 technology needs assessments. Five were completed at the end of 2020 and five at the end of May 2022, and an additional six will be completed by the end of 2022. The eight other assessments are pending for various reasons, including suspension/deferral owing to political instability and less active engagement on the part of the beneficiary countries. In 2022, the focus is on completing the ongoing assessments and reviewing the methodology, as well as on addressing the quality of the completed assessments before initiating new ones. Details on technology needs assessment processes conducted in countries are provided in the “Country coverage” section below.

40. On 26 April 2022, the Technology Bank organized a peer review workshop to explore ways in which technology needs assessment processes could be improved by learning from the experiences of other countries and institutions that had conducted them. The exchange of views among experts, Council members and the staff from the Bank was extremely useful for identifying elements that should be taken into consideration when conducting assessments in least developed countries. Therefore, as the Bank completes its ongoing assessments in 2022 and initiates new ones in 2023, recommendations provided in the functional review and the assessment review workshop will be incorporated. All assessments will therefore be driven by demand and will demonstrate the active engagement of targeted countries throughout the assessment process; clarify the link between the key development challenges and the technologies identified to address those challenges; ensure the active engagement of stakeholders at all levels throughout the process and propose technologies that have the potential to address multiple challenges simultaneously. The assessments will ensure that the problem identification process leads to the devising of practical solutions and an agreed implementation/deployment strategy. More details on the approaches to be taken are provided in the strategic plan of the Bank for 2022–2024.

41. The Technology Bank will continue to seek new partnerships with private sector entities, such as the Arab Bank for Economic Development in Africa, and regional bodies, such as the Southern African Development Community, while strengthening existing partnerships with the Commonwealth and the Enhanced Integrated Framework as co-sponsors of the implementation of technology needs assessment processes in some least developed countries.

42. The findings and recommendations resulting from research and analysis, as well as from technology needs assessments, will form the basis for the technology transfer and capacity-building projects that the Technology Bank designs. For example, in May 2022, Lesotho organized a stakeholders' consultation using the recommendations from the technology needs assessment process to identify specific projects for implementation in the short and medium term.

43. In 2022, the Technology Bank will establish a mechanism for monitoring and evaluating the progress made in its activities and lessons learned. The system will be comprehensive, transparent and evidence-based, with a strong focus on the assessment of outputs, outcomes and impacts. This will lay the groundwork for the subsequent establishment of a dedicated monitoring, evaluation and learning unit and a comprehensive monitoring, evaluation and learning strategy.

2. Relationship to the strategic plan of the Technology Bank

44. The research, analysis and technology needs assessment programme is directly linked to outcome 1, under output 1.1 (evidence- and policy-based science, technology and innovation analyses to inform technological development) and output 1.2 (technology needs assessments).

3. Objectives

45. The main objective of the programme is to support sustainable technological development through evidence-based interventions informed by rigorous research, analysis and technology needs assessments. The programme generates knowledge products to provide critical insights into the technological situation and the priority technological needs to guide least developed countries and the Technology Bank. The specific objectives of the programme are as follows:

- (a) To identify prominent and emerging issues in science, technology and innovation while analysing their implications for least developed countries in order to enable the Technology Bank to fulfil its advocacy role in science, technology and innovation-related issues affecting the least developed countries;
- (b) To identify the core areas of focus and technological solutions that each country may include as part of its national development strategy to accelerate efforts towards the implementation of national development plans and to promote the achievement of the relevant Sustainable Development Goals;
- (c) To support the identification of technology transfer needs and facilitate targeted project development and design;
- (d) To guide and orient innovators towards developing technologies that suit the needs of the least developed countries.

4. Main activities

46. The main activities under the programme are as follows:

- (a) Launching the Technology Bank report on the state of science, technology and innovation in the least developed countries, prepared for the Fifth United Nations Conference on the Least Developed Countries;
- (b) Preparing science, technology and innovation policy-oriented briefs covering key issues emerging from the state of science, technology and innovation in the least developed countries and promoting the dissemination of those findings;
- (c) Finalizing technology needs assessment reports on the basis of information collated from inventories, other statistical materials, desk-based research and

interviews conducted by the contracted experts in collaboration with national working group members and other stakeholders;

(d) Preparing booklets for selected least developed countries, summarizing the technology needs assessment findings;

(e) Designing a database and inputting technologies prioritized by least developed countries in selected sectors;

(f) Liaising with other programme areas to share findings from research, analysis and technology needs assessment processes, discuss identified priority areas and inform project development.

5. Expected accomplishments

47. The expected accomplishments in 2022 under the programme are as follows:

(a) The report on the state of science, technology and innovation in least developed countries is published and launched;

(b) Two science, technology and innovation policy-oriented briefs covering key issues emerging from the state of science, technology and innovation report are published;

(c) At least six technology needs assessments are completed and validated by targeted least developed countries;

(d) A database with technologies needed by at least 14 least developed countries is compiled;

(e) Dialogue among stakeholders involved in science, technology and innovation is conducted as a follow-up to the research or technology needs assessment reports.

6. Indicators of achievement

48. The indicators of achievement under the programme are as follows:

(a) The number of science, technology and innovation publications produced;

(b) The number of technology needs assessments completed and validated;

(c) A repository of least developed country priority technologies for adoption, adaptation or scaling up;

(d) The number of events and dialogue sessions held on science, technology and innovation involving policymakers and other stakeholders.

7. Country coverage

49. In 2019 and 2020, the Technology Bank carried out the first round of technology needs assessments in five countries: Bhutan, the Gambia, Guinea, Timor-Leste and Uganda. The reviews were carried out in collaboration with the United Nations Educational, Scientific and Cultural Organization (UNESCO) and other relevant organizations. In 2021, technology needs assessments were initiated in 19 countries – Afghanistan, Bangladesh, Benin, Burkina Faso, Cambodia, Djibouti, the Democratic Republic of the Congo, Kiribati, the Lao People's Democratic Republic, Lesotho, Liberia, Malawi, Mozambique, Nepal, Rwanda, Senegal, Sierra Leone, the Sudan and Zambia – in collaboration with the Commonwealth and the Enhanced Integrated Framework. By the end of 2021, three technology needs assessment processes were validated, in Cambodia, Lesotho and Rwanda.

50. In the first half of 2022, the Technology Bank completed two additional technology needs assessment processes, in Mozambique and Sierra Leone, and continued to finalize the three reports validated in 2021. In the second half of 2022, the Bank will focus on completing the ongoing six processes, in Bangladesh, Benin, Djibouti, Kiribati, the Lao People's Democratic Republic and Senegal. The other eight processes were suspended or deferred owing to either political instability (Afghanistan, Burkina Faso and Sudan) or less active engagement by the countries (the Democratic Republic of the Congo, Liberia, Malawi, Nepal and Zambia), and those are to be completed in 2023. No new technology needs assessment processes were initiated in 2022.

B. Identifying technologies, formulating demand-driven and bankable projects on technology transfer and initiating implementation

1. Background and rationale

51. Science, technology and innovation form the building blocks of sustainable development. However, a technology gap exists between the least developed countries and the rest of the world. Technology is inaccessible to the least developed countries for many reasons. Most important is their limited absorptive capacities resulting from domestic resource constraints, inadequate backbone infrastructure, limited investment in human capital, insufficient incentive structures and institutional and policy weaknesses. The importance of promoting and facilitating the identification and utilization of and access to appropriate technologies by the least developed countries, as well as their transfer to those countries, was reaffirmed in General Assembly resolution [71/251](#), as well as in the Charter of the Technology Bank.

52. Investment in science, technology and innovation in least developed countries is low, leaving large parts of the population without access to essential technologies and vulnerable to external shocks, as demonstrated during the COVID-19 pandemic. The least developed countries rely on the transfer of technology from elsewhere to build their domestic technological capabilities.

53. Technology transfer is not by 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 the policy and regulatory environment that supports the science, technology and innovation ecosystem. It is important, therefore, that the support provided by the Technology Bank not be limited to identification and deployment of technologies only but that it include creating – in partnership with key national and international partners – the enabling environment necessary to sustain local technological capability-building through learning, absorption, scaling up and building the capacities for innovation, including the effective utilization of indigenous technologies. These objectives would also require the introduction of the appropriate policy and regulatory measures and support for the least developed countries in the management of intellectual property rights.

54. Guided by insights produced through research and analysis, as well as through the demand-driven technology needs assessment process outputs, the Technology Bank will identify technologies that least developed countries need and design bankable projects in collaboration with technology providers, funders and other stakeholders to forge partnerships, mobilize resources and implement projects. This is a critical area of work for the Bank, and it requires sound judgment and capability in identifying well-established technologies and determining their relevance, applicability, appropriateness and cost-effectiveness, and the scope for implementation. Extensive consultations with stakeholders at the national and

international levels will be critical, along with ensuring that due diligence evaluation of the risks and benefits are carried out in formulating project proposals.

55. In 2022, the Technology Bank will pilot a new model for designing technology transfer projects, as recommended in the functional review, leveraging insights into technological needs identified in technology needs assessment processes and development challenges articulated in national development strategies. This proof-of-concept approach to technology transfer project design will be tested through four projects in the areas of sustainable housing, food systems and digitalization.

56. As part of its efforts to transfer not only hard technology but also know-how, the Technology Bank, in partnership with the National Agency for the Information Society of the Presidency of the Niger, the Turkish Cooperation and Coordination Agency, the Scientific and Technological Research Council of Türkiye, the Ministry of Industry and Technology of Türkiye, and the Presidency of Strategy and Budget of Türkiye, will pilot the Technology Makers Lab in the Niger. The project is an excellent example of the proof-of-concept approach highlighted in the functional review because it will enable the Bank to test the implementation of a sustainable know-how and technology transfer model to least developed countries, including a coordination mechanism between the technology provider and beneficiary countries to enhance the effective adoption of acquired technologies. The Lab is aimed at enhancing the digital and entrepreneurial skills of young people in the Niger and preparing them for the diffusion and uptake of frontier technologies. The project will be targeted to high school students, providing workshops and training on robotics and coding, design and production, materials science, nanotechnology, advanced robotics, software technologies and cybersecurity. In 2022, the Bank will set up the project and coordinate the first phases, which will include the establishment of the project executive board, initiating infrastructural development of the centre, providing training to four selected trainers from the Niger. The implementation of workshops, which will begin in September 2022, is aimed at training 240 students in the pilot year. Once the project is operational and shows positive results, the Bank will explore opportunities for demand-driven expansion of the project in other least developed countries, subject to the successful mobilization of resources.

57. In 2022, the Technology Bank has initiated a project aimed at transferring technology for building resilient and low-cost housing developed at Sakarya University and Düzce University, in Türkiye. The technology for building sustainable and resilient rammed earth dwellings with local materials will be piloted in Mozambique, which has in the past suffered from environmental disasters that left many citizens without sustainable or durable housing. The Bank has designed, on the basis of the new approach and insights from the recently completed technology needs assessment process in Mozambique, a two-phase technology transfer project aimed at building low-cost, affordable, resilient, eco-friendly and sustainable housing. The project will be led by a consortium that includes the 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, Sakarya University and Düzce University. The project contributes to six Goals: Goal 5 on gender equality, Goal 9 on industry, innovation and infrastructure, Goal 11 on sustainable cities and communities, Goal 12 on responsible consumption and production, Goal 13 on climate action and Goal 17 on partnerships for the goals. The stakeholder engagement process has been completed, including the relationship with the relevant authorities in Mozambique. The project proposal has been prepared and submitted to the funders. The feasibility, hazard and risk assessments of the project will be completed by the end of 2022. The project design will be replicable in other least developed countries where there is a need for sustainable housing. The technical files, including the engineering and architectural drawings of the rammed earth

prototype, will be an open source for least developed countries on demand for the sustainability of the project and to build domestic capacity for sustainable housing. To ensure effective knowledge transfer, two engineers from Mozambique will be trained in Türkiye in 2022.

58. In 2022, the Technology Bank will initiate the pilot phase of a post-harvest loss management project, 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 in two least developed countries. The project will be focused on technologies and know-how regarding the post-harvest treatment of agricultural produce to ensure its protection, conservation, processing, packaging, distribution, marketing and utilization to meet food standards and nutritional requirements. The project will be aimed at small and medium-sized farms, as well as government institutions, regulating food standards in two least developed countries to prevent extensive post-harvest losses and improve the quality of the produce for formal markets (including export) and increase the livelihoods of farmers. The outcome of the project will be replicated/adapted in other least developed countries. The project will be aligned with the outcomes of the technology needs assessment processes and will support national development priorities. In 2022, the Bank will focus on stakeholder engagement to ensure that the project is designed in a sustainable manner, addressing the key constraints in selected agricultural commodities. Capacity development and resource mobilization initiatives to support implementation will also be undertaken. The implementation phase of the project will commence in 2023.

59. In 2021, the Technology Bank initiated a knowledge transfer programme in Bhutan aimed at providing health-care services focused on loss of hearing. The project comprises the early identification of hearing loss or ear disorders, the mapping of referral mechanisms for treatment, building the resource capacity of the treatment hub, along with the upskilling of human resources and the treatment of identified patients in the form of medication, surgery or hearing aids. The initiative, undertaken in collaboration with Medtronic and other private sector entities, is targeted to least developed countries with a prevalence of hearing impairment. In 2022, the first phase of the programme will screen 18,000 children from the Jigme Dorji Wangchuck National Referral Hospital, in Thimphu. The project includes a capacity-building component for health-care workers, specifically on the use of audiology equipment and screening device technologies provided to Bhutan through the project. Support will be provided to establish and sustain the first ear mould laboratory. Two hundred hearing aids have been donated by the company ReSound. The programme has applied for additional funding from the Hear the World Foundation for provision of additional screening technologies and hearing aids for the remaining 170,000 children to be screened by the end of 2024. The company MED-EL, funded by the Austrian Development Agency, will provide rehabilitation training to families and audiology and diagnostic equipment to two regional hospitals under the programme. In addition, it will strengthen local surgical capacities, and international know-how partners (mentor surgeons) will conduct practical workshops and familiarize local participants with a broad range of surgical techniques for basic and advanced ear surgery.

60. In 2022, the Technology Bank, in collaboration with the United Nations Development Programme and the Government of Türkiye, will continue the Sustainable Development Goal impact accelerator programme, which has been funded by the Government of Türkiye and is now in the implementation phase. Two start-ups in Bangladesh and three in Uganda have received a total of \$420,000 to fund their technologies and the implementation. In 2022, the Bank will perform its duties as a member of the Board and as a member of the Technical Committee. Duties for a

member of the Board and the Technical Committee include due diligence, monitoring and evaluation and implementation support for the start-ups.

61. Academies of sciences, with their independence and competencies, are unique institutions that provide evidence-based advice to Governments to formulate national policies in response to national, regional and global scientific challenges. The academies serve the important purpose of advising Governments by providing authoritative and organized guidance 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 2022, the Technology Bank will support Cambodia, Chad, Liberia, the Niger and Sierra Leone in their efforts to establish and legally register their academies. Quarterly meetings for newly established and prospective academies will be held to provide a network for engagement between academies. In addition, the Bank, in partnership with the Network of African Science Academies, will launch a resource mobilization drive to fund the programme. In the first quarter of 2022, the four recently launched academies received up to \$5,000 each in funding from the InterAcademy Partnership for support during the transition to becoming members of the Network.

62. The Technology Bank will work with the World Academy of Sciences for the advancement of science in developing countries to engage and foster networks of scientists and diplomats from least developed countries to build consensus on integrating science into multilateral agreements. The implementation of the programme will be aligned with the resource mobilization strategy of the Bank, which integrates joint funding, financial and in-kind contributions for the different initiatives.

63. Under the programme on enhancing science, technology and innovation capacities in least developed countries, the activity relating to strengthening research capacity in least developed countries introduced in 2020 will continue to collaborate with Research4Life to mobilize least developed country participants to enrol in the online training in 2022. The new online delivery modality will facilitate a significant increase in country and participant coverage while being less resource-intensive. The objectives in 2022 are to increase the number of participants, especially from the Asia-Pacific subregion, and to promote the programme to reach all least developed countries.

64. In 2021, the Technology Bank, in partnership with the International Centre for Genetic Engineering and Biotechnology, launched a new programme that offered fellowships to early-stage researchers from the least developed countries for periods of up to six months, which involved visiting research centres in Trieste, Italy; Cape Town, South Africa; and New Delhi, India. The programme was expected to run for five years, with the first cohort starting the fellowship in 2021. Thirteen recipients of fellowships, eight men and five women, from 10 countries – Afghanistan, Bhutan, Burkina Faso, Burundi, Cambodia, Ethiopia, Mozambique, Nepal, the Sudan and Togo – were selected to participate in the fellowship programme in 2021. The cost for the first year, amounting \$584,000, was covered by the Bank with the understanding that, over a period of three years, the Bank would commit over \$1.8 million to implementing the programme. Owing to delays in the selection of candidates and other setbacks, the programme has not yet begun. Therefore, the 2021 cohort will complete the programme in 2022. However, the delay and, in particular, the unsustainability of the financial commitment made by the Bank, have necessitated rethinking with regard to how the programme should be managed and financed in the future. The Bank, together with partners, will explore alternative financing sources because the Bank is not in a position to fulfil the commitments made when the programme was launched, in 2021. Consequently, it has been agreed that, in 2022, a

joint resource mobilization effort between the Bank, the Centre and the World Academy of Sciences will be undertaken to mobilize resources for the next cohort of fellowships. The Bank will promote and raise the awareness of least developed country participants with regard to applying for PhD and post-doctoral fellowships offered by partners of the Bank, such as the World Academy of Sciences.

65. The objectives of the Technology Bank include building the capacity of the least developed countries in science, technology and innovation and advocating for the least developed countries in global and regional dialogues on capacity-building in science, technology and innovation, especially in areas where new mechanisms and initiatives are established with implications for the interests of the least developed countries. In this regard, negotiations have been initiated with the International Seabed Authority, and a new training programme will be developed before the end of 2022 for the least developed countries relating to technological developments in ocean governance and the blue economy, with funding from the Authority. The new programme will be implemented in 2023.

2. Relationship to the strategic plan of the Technology Bank

66. The programme is linked to outcome 2 of the strategic plan for 2022–2024 of the Technology Bank. The activities under the programme contribute to the identification of technology solutions and related project development and design to support gaining access to, acquiring, absorbing and implementing technologies (outputs 2.1, 2.2, 2.3 and 2.4).

3. Objectives

67. The main objectives of the programme are to support the access of least developed countries and to deploy appropriate technologies available elsewhere by facilitating technology and know-how transfer on voluntary and mutually agreed terms and conditions while enhancing capacities for technological development across various stakeholders. The specific objectives are:

(a) To initiate and complete the design of project proposals, in consultation with key stakeholders, to ensure effective technology transfer;

(b) To facilitate and coordinate the implementation of demand-driven technology and knowledge transfer projects, including the knowledge transfer of screening technologies and the fitting of hearing aids to address hearing loss in children, the Technology Makers Lab, the rammed earth dwellings and the post-harvest loss management project;

(c) To support the transfer or diffusion of technologies to local entrepreneurs who can use them to produce more knowledge-intensive, higher value-added goods and services;

(d) To support the emergence of new entrepreneurs and attract existing ones both inside and outside the country to initiate new ventures based on technologies that are new to the country;

(e) To increase awareness, enhance science, technology and innovation knowledge and capacity and influence policy formulation in the least developed countries by collaborating and partnering with national, regional and international organizations, as well as academic institutions, to provide targeted training on access to digital research, industrial design, biotechnology and science diplomacy for experts and policymakers.

4. Main activities

68. The main activities under the programme are as follows:

- (a) Identifying technologies aligned with the outputs of the research, analysis and technology needs assessment processes that are considered relevant, appropriate and applicable for least developed countries;
- (b) Identifying potential beneficiary countries on the basis of evidence from research, analysis and technology needs assessment processes and through consultations with prospective recipient least developed countries;
- (c) Securing expressions of interest from least developed countries and assess the capacity of potential beneficiary countries to implement transferred technologies;
- (d) Designing project proposals in consultation with key stakeholders and other programme areas in the Technology Bank;
- (e) Conducting due diligence assessments of potential risks and project sustainability;
- (f) Developing key performance indicators to guide the monitoring and evaluation of the impact of projects;
- (g) Developing and implementing technology and know-how projects, including the hearing loss programmes in Malawi, the Technology Makers Lab in the Niger and the prototype rammed earth dwelling project in Mozambique;
- (h) Developing a prototype for post-harvest loss management technologies and knowledge-sharing on food standards for export;
- (i) Identifying the policy measures and other actions, such as technical training, needed to improve the science, technology and innovation capacities of countries where the Bank has initiated technology transfer projects;
- (j) Completing the implementation phase for the Sustainable Development Goal impact accelerator in Bangladesh and Uganda and initiating a second phase of the accelerator in three additional least developed countries;
- (k) Raising awareness of online courses on the Research4Life platform in English and French to equip existing and potential users of the Research4Life programmes with the knowledge and skills required to gain access to and use the information effectively and efficiently;
- (l) Facilitating the awarding of 50 scholarships in industrial design and increasing the number of tertiary institutions to establish industrial design programmes in least developed countries;
- (m) Facilitating the recruitment and awarding of early-career researcher fellowships from least developed countries for the North-South and South-South programmes and facilitating capacity development workshops on biotechnology policy for regulators, governmental risk assessors and relevant technical experts in least developed countries who address biosafety regulations;
- (n) Mobilizing least developed countries to participate in science diplomacy programmes with the partners of the Bank to enhance effective partnership and collaboration among scientists, policymakers and diplomats.

5. Expected accomplishments

69. The expected accomplishments in 2022 under the programme are as follows:

- (a) A successful technology transfer model, including a work and activity plan, that can be applied to the least developed countries is developed;
- (b) At least four project proposals are developed to meet the gaps identified through research, analysis, technology needs assessment processes and the Goals;
- (c) A due diligence and risk matrix for sustainable technology transfer projects is developed;
- (d) Access to and the use of scientific and technical journals through the Research4Life platform increase, and a larger number of professionals are trained in research skills, technologies and methodology;
- (e) The capacities of 13 early-stage researchers in biotechnology and 25 biotechnology regulatory institutions are strengthened in least developed countries;
- (f) A total of 22 health workers and four clinicians are trained on rehabilitation, screening technologies, producing ear moulds and fitting hearing aids for children;
- (g) There is increased interaction between scientists, diplomats and policymakers on science diplomacy.

6. Indicators of achievement

70. The indicators of achievement under the programme are as follows:

- (a) The finalization and implementation of a technology transfer model for least developed countries;
- (b) The number of technology transfer project proposals developed for pitching to potential partners;
- (c) The operationalization of at least four technology and know-how transfer projects is initiated;
- (d) The establishment of the Technology Makers Lab workshops, as well as its operationalization in the pilot country;
- (e) The number of students receiving technology workshop training through the Technology Makers Lab;
- (f) The completion of the feasibility study, hazard and risk assessments, project and construction plans, negotiations with community leaders and communities and the architectural and engineering designs for the sustainable housing project;
- (g) The number of children screened for hearing loss and fitted with hearing aids;
- (h) The number of participants in each training programme, with a detailed breakdown of participants by sector, institution, discipline, profession and gender;
- (i) The number of newly constituted academies of sciences and of networking events associated with such academies;
- (j) The number of students awarded scholarships and of memorandums of understanding signed between tertiary institutions in China and in least developed countries;
- (k) The number of early-career biotechnology researchers awarded fellowships, and the number of workshops held for regulatory institutions;
- (l) The number of participants in science diplomacy workshops.

7. Country coverage

71. All least developed countries will have access to and benefit from the services provided under the programme.

C. Strengthening partnerships and mobilizing resources for inclusive growth, maximum impact and strategic communications

1. Background and rationale

72. As stipulated in the Charter of the Technology Bank, the Bank's budget relies solely on voluntary contributions. In its first three years of operation, the Bank has not managed to expand its sources of funding substantially. Based on current stocktaking, the Bank is in urgent need of resource mobilization to finance not only its programme but also its operational and staff costs.

73. The Doha Programme of Action includes an expression of clear support and expectation from Member States that the Technology Bank replenish its resources in its statement that Member States, as well as international organizations, foundations and the private sector, are invited to provide voluntary financial and in-kind resources to the Bank in order to enhance its capacity and effectiveness.

74. In this context, through a temporary job opening, the Technology Bank has dedicated one person, a Senior Programme Adviser supervising strategic communications, planning and outreach work, to systematically build this function and practice. That will enable the Bank to maintain its resource mobilization efforts, as stipulated in its mandate, in order to carry out its mission.

75. The implementation of the Technology Bank's resource mobilization and partnership activities requires the support and cooperation of a broad range of stakeholders. It is thus imperative that the Bank have a communication strategy and mechanisms in place to communicate effectively with its stakeholders and advocate the necessary support.

2. Relationship to the strategic plan of the Technology Bank

76. Resource mobilization is the key enabler for the survival and sustainability of the Bank's operations and programme, especially at the current stage. Resource mobilization and strategic communication are linked to outcome 3 (resource mobilization and strengthened partnerships for inclusive growth and maximum impact) of the strategic plan for 2022-2024, under output 3.2 (increased resources to build a solid base for self-financing).

77. Resource mobilization, strategic communication and partnerships are linked together in one cluster, given that they work hand in hand to attract and retain resources and recognition of the Technology Bank's work to support the least developed countries. In addition, the organization has to reassure and report back to donors and contributors that the resources are managed properly and utilized for specific deliverables and impact. In this regard, lessons have been learned from previous operations. Therefore, continuous engagement with the resource mobilization and partnership officers, including through their work at the project verification stage, and donor reporting through the entire programme cycle, will be essential to obtain and retain resources.

3. Objectives

78. The Technology Bank's objectives with regard to resource mobilization are:

- (a) To mobilize financial and in-kind contributions from stakeholders, including Member States and the private sector;
- (b) To mobilize voluntary technology transfer and related pro bono services to support science, technology and innovation development in the least developed countries, in line with the Bank's priority programme areas;
- (c) To establish the Bank as a trusted development partner and to attract and retain donors through awareness, reputation and the building of synergies.

79. In relation to assisting with resource mobilization and partnership activities, the objectives of the Bank's strategic communication are:

- (a) To expand and utilize communications networks, including co-branding and in-kind advertising opportunities, and to fully leverage communications channels to demonstrate programme impact;
- (b) To reinforce high-level political support.

4. Main activities

80. The main activities under the programme are as follows:

- (a) Establishing a resource mobilization function with dedicated efforts and proper resources, on par with the standards of practice of other United Nations entities;
- (b) Holding meetings and consultations with the Council's resource mobilization subcommittee to seek guidance, make introductions to donors and report on progress;
- (c) Developing a resource mobilization strategy;
- (d) Establishing a donor database;
- (e) Proactively reaching out to Member States, in particular friends of the least developed countries, to mobilize resources and raise awareness;
- (f) Identifying and designing an innovative approach to attract the private sector, foundations and multilateral organizational donors;
- (g) Continuously verifying progress, and reporting on donors through the programme cycles;
- (h) Supporting the Managing Director's engagement with potential donors;
- (i) Continuously developing the communication strategy and workplan, including regularly updating the official website and social media channels;
- (j) Establishing tailored communications planning for Technology Bank programmes, events and activities as stipulated in the workplan, including the development of audience-centred messages, channels, approaches, tactics and tools, as well as a communications calendar.

5. Expected accomplishments

81. The expected accomplishments in 2022 under the programme are as follows:

- (a) Resource mobilization section established within the Technology Bank, on par with the standards of practice of other United Nations entities;

- (b) Increased donor awareness of the Technology Bank's work and its impact and engagement in at least 20 donor outreach and advocacy activities;
- (c) New financial and/or in-kind resources raised.

6. Indicators of achievement

82. The indicators of achievement under the programme are as follows:

- (a) Establishment of a donor database that is updated regularly;
- (b) Mapping of main potential donors and weekly outreach, including scheduled calls and the sharing of pitch proposals to potential donors, who, in return, demonstrate awareness of the Technology Bank's mandate and interest in collaboration;
- (c) The securing of at least three major new donors for financial and in-kind contributions that cover operational costs and demonstrate interest in multi-year commitments.

83. The indicators of achievement under the strategic communications are as follows:

- (a) Media coverage of the Technology Bank and its work increased by 10 per cent;
- (b) Volume of social media engagement increased by 10 per cent;
- (c) Strategic communications partnerships expanded by 20 per cent, with organizations and media covering topics related to or based in least developed countries;
- (d) Strategic communications partnerships with leading science, technology and innovation-focused organizations and media expanded by 10 per cent.

7. Country coverage

84. The programme will benefit all least developed countries. Resource mobilization is aimed at donors and contributors from all sectors and geographic locations to reach a healthy balance and inclusivity for development. Strategic communication is aimed at covering a global audience, with a focus on the least developed countries, stakeholders in the science, technology and innovation fields, and programme-specific development partners.

D. Partnerships

1. Background and rationale

85. Given the vast needs of the least developed countries in terms of science, technology and innovation, and the need to address the full range of objectives set out in its charter, the Technology Bank relies on core strategic partnerships within and outside the United Nations system and with concerned entities of Member States, as well as non-State actors. Coordinating those partnerships, developing key instruments and conducting research to underpin programmes are therefore critical.

86. Establishing effective and well-functioning multilayered cooperation mechanisms between least developed countries, donor Member States and organizations within and outside the United Nations system, in particular institutions that are present in the field, is critical for addressing technological development challenges in least developed countries. It is also important for enhancing overall science, technology and innovation capacity by ensuring that Technology Bank

projects are inclusive and do not neglect marginalized groups in the least developed countries, in particular women and young people.

2. Relationship to the strategic plan of the Technology Bank

87. Partnership activities are linked to outcome 3 of the strategic plan for 2022–2024, under output 3.1 (cross-sector partnerships to enhance science, technology and innovation development).

3. Objectives

88. The objectives of the programme are:

(a) To identify and mobilize key strategic partners that could work closely with the Technology Bank to enhance the impact of projects implemented in least developed countries;

(b) To nurture and develop relationships with the relevant government institutions of Member States, including the host country;

(c) To create a coherent and targeted approach to partner outreach and relationship management, mapping the potential role of partners in upgrading the technological capabilities of the least developed countries;

(d) To establish effective and well-functioning cooperation mechanisms between least developed countries, donor Member States and organizations within and outside the United Nations system, in particular institutions that are present in the field;

(e) To secure the Technology Bank's institutional presence at relevant international summits for enhanced stakeholder engagement.

4. Main activities

89. The main activities under the programme are as follows:

(a) Participating actively in the work of Technology Facilitation Mechanism activities;

(b) Designing and developing strategic documents, tools, processes and programmes in correspondence with the objectives and expected achievements;

(c) Securing the representation and facilitating the participation of the Technology Bank in international forums and summits related to science, technology and innovation development in least developed countries;

(d) Nurturing existing partnerships and developing new ones to support the delivery and expansion of effective programmes and projects;

(e) Ensuring active coordination between project partners to support implementation of agreed initiatives.

5. Expected accomplishments in 2022

90. The expected accomplishments under the programme are as follows:

(a) Identification of key project partners for joint project development and implementation;

(b) Partners' financial and in-kind contributions to the Technology Bank's activities are increased;

(c) Specific partnerships are developed for the inclusion of women, young people and vulnerable groups in project development and implementation;

(d) Awareness is raised of the Bank as a key stakeholder in science, technology and innovation.

6. Indicators of achievement

91. The indicators of achievement under the programme are as follows:

(a) Increased participation in global networks, international initiatives and summits;

(b) An increased number of institutional partnerships of the organization in international forums and summits relevant to supporting science, technology and innovation development in least developed countries;

(c) An increased number of cooperation agreements (letters of intent, letters of agreement and memorandums of understanding) with the key governmental entities of Member States, the private sector and other international stakeholders that direct financial and/or in-kind contributions to projects;

(d) The percentage of young people and women benefiting from the Technology Bank's projects.

7. Country coverage

92. In 2022, country coverage will include all least developed countries.

Table 7

Resource requirements for the programme of work

(United States dollars)

| <i>Object of expenditure</i> | <i>2021 appropriation</i> | <i>Variance</i> | <i>2022 estimate</i> |
|---|-------------------------------|--------------------|----------------------|
| Staff and other personnel costs | | | |
| 1. International staff | 711 000 | 269 155 | 980 155 |
| 2. Local staff | 67 200 | (11 520) | 55 680 |
| 3. General temporary assistance | — | 316 866 | 316 866 |
| 4. Consultants and experts | 1 070 680 | (1 038 680) | 32 000 |
| Subtotal, staff and other personnel costs | 1 848 880 | (464 179) | 1 384 701 |
| Travel | | | |
| 1. Travel of staff | 739 793 | (638 585) | 101 208 |
| 2. Travel of participants to meetings and workshops | — | — | — |
| 3. Travel of consultants, resource persons and panellists | 375 308 | (368 944) | 6 364 |
| Subtotal, travel | 1 115 101 | (1 007 529) | 107 572 |
| Grants and fellowships | 290 280 | 520 207 | 810 487 |
| Contractual services | 460 450 | (388 950) | 71 500 |
| General operating expenses | 63 600 | (63 600) | — |
| Furniture and equipment | — | — | — |
| Total | 3 778 311 | (1 404 051) | 2 374 260 |

8. Staff and other personnel costs

93. The amount of \$1,384,701, reflecting a decrease of \$464,179, will provide for the following:

(a) The staffing costs consist of five international staff, with the continuation of four posts of Programme Management Officer (P-4) and one post of Communications Officer (P-3), and of three national staff, with the continuation of three posts of Programme Assistant at the G-5 level;

(b) In addition to including fixed-term staff, the costs in table 7 include two general temporary assistance staff: one P-5 position and one expert at the P-2 level;

(c) The amount of \$32,000, reflecting a reduction of \$1,038,680, for the engagement of consultants and experts for four programmes, including a technology needs assessment, the development of a new strategy for resource mobilization, and the development of monitoring, evaluation and learning strategies.

94. In addition, in 2022, the Bank will continue to benefit from the support of one Associate Programme Management Officer at the P-2 level, to be extended for a third year following its agreement with the Government of Italy under the Junior Professional Officers Programme.

9. Travel

95. An amount of \$107,572, reflecting a reduction of \$1,007,529 from 2021, will provide for the travel of staff, consultants, resource persons and panellists, their substantive and programmatic support and their participation in local consultations, workshops and training courses, as well as outreach activities in support of resource mobilization. The decrease is attributable mainly to a greater focus being placed on online training through a newly developed substantial open online course, resulting in reduced requirements for the travel of participants to attend meetings and workshops.

10. Grants and fellowships

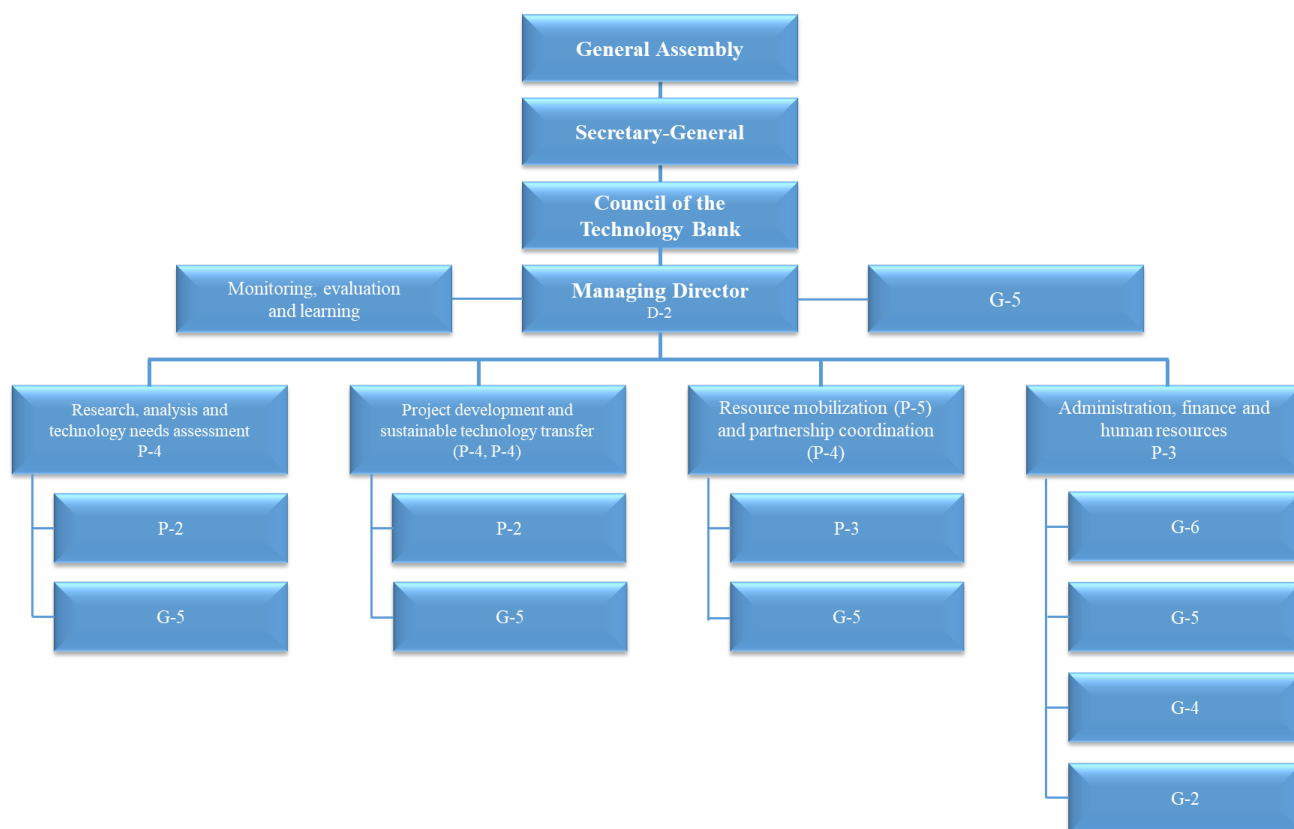
96. An amount of \$880,487, reflecting an increase of \$520,207 from 2021, accounts for the earmarked funding received from the host country for the Sustainable Development Goal impact accelerator, Sustainable Development Goal-related projects, and the Fifth Conference for the Least Developed Countries. The amount also includes the operating reserve.

11. Contractual services

97. An amount of \$71,500, reflecting a reduction of \$388,950, will provide mainly for the cost of venues and other related services for workshops, as well as for printing and layout services for the related reports. The decrease is attributable mainly to the reduced number of planned events and to host countries covering the costs of venues for workshops and other related costs, such as printing.

12. General operating expenses

98. This budget line has been reduced to zero from \$63,600 in 2021, on the assumption that the associated general operating costs will be covered by the host country.

Annex I**Technology Bank for the Least Developed Countries organization chart**

Annex II

Summary of in-kind contributions in 2022

| <i>Programmatic activity</i> | <i>Donor entity</i> | <i>Value</i> | <i>Status</i> |
|--|--|--------------|-----------------|
| <i>Hearing loss project (Bhutan)</i> | | | |
| Screening devices | Medtronic Labs | \$120 000 | <i>Secured</i> |
| Hearing aids | ReSound | \$87 000 | <i>Secured</i> |
| Rehabilitation training and outreach | MED-EL | \$500 000 | <i>Expected</i> |
| <i>Technology Makers Lab (the Niger)</i> | | | |
| Equipment | Turkish Cooperation and Coordination Agency | \$130 000 | <i>Expected</i> |
| Training of trainers | Ministry of Industry and Technology | \$22 000 | <i>Expected</i> |
| Workshop content and equipment | Scientific and Technological Research Council of Türkiye | \$100 000 | <i>Expected</i> |
| Office space, personnel, maintenance | National Agency for the Information Society, the Niger | \$61 400 | <i>Expected</i> |
| <i>Technology needs assessments</i> | | | |
| Technology needs assessment process, two countries (Lao People's Democratic Republic, Senegal) | Enhanced Integrated Framework | \$112 000 | <i>Secured</i> |
| Launch of Lesotho technology needs assessment process | Commonwealth | \$5 000 | <i>Secured</i> |
| Technology needs assessment process, one country (Tanzania) | Arab Bank for Economic Development in Africa | \$40 000 | <i>Expected</i> |
| <i>Housing technology transfer</i> | | | |
| Sustainable housing project | Limak Holding | \$105 000 | <i>Expected</i> |
| <i>Other collaborations</i> | | | |
| Secondment (digital economy) | China Ministry of Commerce | \$500 000 | <i>Expected</i> |