



**Technology Bank for the  
Least Developed Countries**

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**Technology Bank for the Least Developed Countries: budget  
and programme of work for 2018**



## I. Overall orientation

1. The Istanbul Programme of Action for the Least Developed Countries for the Decade 2011–2020, adopted in 2011 at the Fourth United Nations Conference on the Least Developed Countries, called for the establishment of a technology bank dedicated to the least developed countries. The creation of such a bank has been a long-standing priority of the least developed countries, as confirmed in the Addis Ababa Action Agenda of the Third International Conference on Financing for Development and in the 2030 Agenda for Sustainable Development, under Sustainable Development Goal 17.
2. On 23 December 2016, the General Assembly adopted resolution [71/251](#) on establishment of the Technology Bank for the Least Developed Countries. By that resolution, the Assembly decided to establish the Technology Bank as a subsidiary organ of the General Assembly and adopted its Charter (see [A/71/363](#)). In the same resolution, the Assembly also invited Member States and other stakeholders to provide voluntary funding for the trust fund for the operationalization of the Technology Bank.
3. The full operationalization of the Technology Bank by 2017, which is the first target of Sustainable Development Goal 17 to have been achieved (target 17.8), contributes directly to the objective of the 2030 Agenda to leave no one behind, as well as to the implementation of the Istanbul Programme of Action.
4. The Technology Bank is expected to be a major step in advancing the efforts of the least developed countries to enhance their science, technology and innovation capabilities and to integrate those capabilities into their sustainable development process and towards the structural transformation of their economies.
5. In accordance with its Charter, the Technology Bank will strengthen the science, technology and innovation capacity of the least developed countries, including their 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, promote the development and implementation of national and regional science, technology and innovation strategies, strengthen partnerships among public entities and with the private sector working in this field, promote cooperation among all stakeholders involved in science, technology and innovation, including researchers, research institutions and public entities within and operating between the least developed countries, as well as with their counterparts in other countries, and promote and facilitate the identification and utilization of and access to appropriate technologies by the least developed countries, as well as the transfer of such technologies to them, while respecting intellectual property rights and fostering national and regional capacity among the least developed countries to effectively use such technology to bring about transformative change.
6. Before the adoption of its resolution [71/251](#), the General Assembly had requested the Secretary-General to take the steps necessary to launch and operationalize the Technology Bank by 2017. In that context, the Secretary General appointed interim members of the Council of the Technology Bank in May 2016 to provide support towards its operationalization, including by preparing its Charter and elaborating its first three-year strategic plan (available at: <http://unohrlls.org/meeting-of-the-interim-council-of-the-technology-bank/>).
7. The budget estimates and the programme of work for 2018 set out herein follow the indications contained in the strategic plan of the Technology Bank in a manner commensurate with the resources available in its trust fund. Similarly, the hiring of

staff has been limited in order to maintain a judicious ratio with the budgeted programmatic activities.

8. The programme of work for 2018 will focus on in country activities in two areas:

(a) Science, technology and innovation reviews, including technology needs assessments;

(b) Digital access to research and technical knowledge.

9. As part of the reviews/technology needs assessments in the area of science, technology and innovation, the Technology Bank will carry out baseline reviews for several least developed countries. This will be done in close collaboration with the relevant United Nations agencies. These reviews will identify technological gaps and priority needs of those countries, focus on options to strengthen policies and measures aimed at improving national and regional technological capabilities and encourage innovation. The reviews are intended to provide a blueprint for science, technology and innovation capacity-building programmes and to guide future activities of the Technology Bank and other stakeholders.

10. To advance digital access to research, the Technology Bank will build on existing initiatives and focus on facilitating and increasing online access to scientific journals, books and databases at no direct charge. It will provide capacity-building training for librarians, university teachers, graduate students, researchers and information technology (IT) specialists. This activity is expected to provide improved access for scientists and researchers to data, publications and STI initiatives in the fields of science, technology and innovation. It is also intended to enhance collaboration internationally, between the least developed countries and between research centres and universities.

11. An additional ongoing activity will be resource mobilization, as there is a clear need to boost the programmatic resources and the staff of the Technology Bank, with a view to pursuing the objectives of its Charter in all 47 of the least developed countries.

## **II. Overview of budget estimates and available resources**

12. According to its Charter, the Technology Bank is to be financed by voluntary contributions from Member States and other stakeholders, including the private sector and foundations. The resources of the Technology Bank are kept in a trust fund, with all funds subject to audit by the United Nations Board of Auditors.

13. It is essential to secure adequate resources to allow the successful operationalization of the institution, including the recruitment of core staff, thus ensuring the financial sustainability of the Technology Bank over time. Given the vast needs of the least developed countries in terms of science, technology and innovation, it is estimated that the Technology Bank would require an annual budget of \$35 to 40 million to undertake activities addressing the full range of objectives as set out in its Charter and to make a difference on the ground in all least developed countries.

14. At present, the Technology Bank is able to count on the contribution of \$2 million from the host country Turkey for 2017 and an equal contribution of \$2 million for 2018, in accordance with the Agreement on Financial and In-Kind Support for the Technology Bank signed on 22 September 2017. On 20 December 2018 Norway contributed 1 million NOK (\$1,069,201). This latter contribution required the present revision to the original budget approved by the Council at its meeting on 20-21 November 2017.

15. The overall budget of \$4,773,007 for 2018 covers staff, Council support costs, programmatic, operational and programme support costs (see table 1). The balance between the budget estimate and the available resources is accounted for as unprogrammed balance. Recruitment is under way for a Managing Director position (D-2) and a Programme Officer position (P-4). The budget estimates for 2018 include the full allocation of resources for 2-year contracts for the D-2 and two P-4 positions. The allocation set aside in 2018 will thus cover the salary costs for 2018, 2019 and part of 2020, depending on the start date of the contracts.

16. The Technology Bank will review and consider the most accountable and efficient operations support model to provide administrative services.

17. In light of the fact that the two international recruitment processes will run well into 2018, and that the premises made available by the host country are expected to become available during the first quarter of 2018, the unprogrammed balance will be used and budgeted for activities to be included in the work programme of 2019 and thereafter.

18. Initially the activities included in the 2018 programme of work will be managed by the acting Managing Director, with the assistance of staff from the Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS), until the core staff of the Technology Bank is recruited and has taken up their duties. Thus, 2018 will be a transitional period towards the full operationalization of the Technology Bank.

Table 1  
**Budget requirements**

(United States dollars)

<i>Resources</i>	<i>2018</i>
<b>A. Staff costs</b>	
1. International staff <sup>a</sup>	1 132 300
2. Local staff	73 100
<b>Subtotal staff costs</b>	<b>1 205 400</b>
<b>B. Council support costs</b>	
1. Travel	60 000
2. Hospitality	12 000
<b>Subtotal Council support costs</b>	<b>72 000</b>
<b>C. Programme costs</b>	
Activity 1: Produce science, technology and innovation reviews and technology needs assessment in selected least developed countries	1 200 000
Activity 2: Promote access to research and technical knowledge in selected least developed countries	1 266 500
Activity 3: Resource mobilization	75 000
<b>Subtotal programme costs</b>	<b>2 541 500</b>
<b>D. Operational costs</b>	
1. Travel of staff	90 000
2. Contractual services	
a) Security-related expenditures	60 000
b) Website development and administration	28 000

<i>Resources</i>	<i>2018</i>
c) Translation and printing of documents	50 000
3. Equipment	40 000
4. Supplies	1 000
<b>General operating expenses</b>	
1. IT support services and software licenses	2 000
2. Other miscellaneous expenses	4 000
3. Hospitality	10 000
4. Implementation direct costs	120 000
<b>Subtotal operating costs</b>	<b>405 000</b>
<b>E. Programme support costs</b>	
Programme support costs (13 per cent of total expenditure)	549 107
<b>Total resource requirements</b>	<b>4 773 007</b>
<b>Unprogrammed balance</b>	<b>296 194</b>

<sup>a</sup> The estimates of 2-year contract salary costs for international staff are based on salary costs projections for 2018 and 2019 (one D-2 and two P-4).

#### **Staff costs**

19. The amount of \$1,205,400 will provide for the continued funding of: (a) three international staff, the Managing Director (D-2) and two Programme Officers (P-4), for 2018 and 2019; and (b) up to two General Service (Local level) staff to provide administrative and IT support for 2018.

20. The Technology Bank will be headed by a Managing Director (D-2) who will be responsible for the overall coordination and strategic management. The Managing Director will be assisted by two Programme Officers (P-4) and two General Service staff (Other level).

#### **Council support costs**

21. The amount of \$72,000 will provide for the travel of Council members to official meetings and for hospitality for official functions.

#### **Programme costs**

22. The amount of \$2,541,500 will provide for the implementation of programme activities. Related activities and detailed resource requirements are described in section III below.

#### **Operational costs**

23. The amount of \$405,000 will provide for general operational cost such as security-related services, equipment, supplies, IT services, printing and translation of documents, travel, hospitality, implementation direct costs and other miscellaneous services.

### **III. Programme of work for 2018**

#### **A. Activity 1**

#### **Produce science, technology and innovation reviews and technology needs assessment in selected least developed countries**

##### **1. Background and rationale**

24. Science, technology and innovation are key instruments for the socioeconomic transformation of the least developed countries and their sustainable development. They suffer from serious deficits in their science, technology and innovation capacities and lag substantially behind the more-advanced developing countries that are closing the gap with developed, knowledge-based economies. The Technology Bank, through its capacity-building efforts, can play an important role in bridging these gaps.

25. Under this activity, the Technology Bank will carry out a series of baseline reviews for a limited group of least developed countries, and, over time, scale up to cover all of the least developed countries. These reviews should be organized in collaboration with the United Nations Conference on Trade and Development (UNCTAD) and the United Nations Educational, Scientific and Cultural Organization (UNESCO), and other relevant organizations, and should build upon existing science, technology and innovation country reviews expanded to also cover technology needs assessments. These science, technology and innovation/technology needs assessment reviews will identify technological gaps and priority needs for each least developing country, as a first step towards developing coherent and integrated strategies that are tailored to the specific situation of each country. The reviews will include recommendations for strengthening policies and measures to improve national and regional technological capabilities and encourage innovation, including detailed assessments in areas of critical importance for the countries under review.

26. In particular, in order to help build the ability of the least developed countries to attract technological innovation from the outside, and to facilitate knowledge and technology transfer on voluntary and mutually agreed terms, the Technology Bank, in collaboration with relevant organizations, will conduct science, technology and innovation/technology needs assessment reviews that focus on specific priorities of the Istanbul Programme of Action as well as relevant Sustainable Development Goals, as agreed in advance with the relevant Government entities and in consultation with key stakeholders.

27. The science, technology and innovation/technology needs assessment reviews will provide a blueprint for the capacity-building programmes that each country may include as part of their national development strategies in order to accelerate efforts towards the implementation of the priorities contained in the Istanbul Programme of Action, as well as to promote the achievement of relevant Sustainable Development Goals. These blueprints, in turn, will produce a set of science, technology and innovation capacity-building priorities that will provide a valuable guide to bilateral donors, multilateral and regional development banks, foundations, non-governmental organizations and the private sector.

28. The beneficiaries of this activity include the scientific community, Government officials (with responsibility for science, technology and innovation issues, that is, ministries of science, industry, technology, education, agriculture and planning), entrepreneurs, educational institutions and civil society.

## **2. Relationship to the strategic plan of the Technology Bank**

29. The activity is linked to area 1, “Science technology and innovation policy and capacity-building”, under the actions lines: (a) “attracting outside technology and facilitating technology transfer on voluntary and mutually agreed terms and conditions; (b) supporting homegrown innovation and research; and (c) bringing imported and indigenous technologies to market” of the strategic plan of the Technology Bank, prepared by the interim Council at its meeting of 26 and 27 July 2016 at United Nations Headquarters in New York.

## **3. Objectives**

30. The overarching goal of this activity is to perform science, technology and innovation/technology needs assessments. Each review intends to provide critical insights about the functioning of the national innovation capabilities, present an overview of the national science, technology and innovation and technological deployment ecosystems and understand how the national policy framework in science, technology and innovation impacts national sustainable development. The reviews will:

(a) Identify the core areas of focus for the least developed country under review (such as public health, agriculture, industry, environmentally sound technologies, sustainable energy, and information and communication technology) and specific initiatives to maximize the impact of technology as an instrument to foster structural transformation, reduce poverty and promote sustainable development. For each subject area, the review will focus on four broad issues: the country’s current capacity in terms of innovation capabilities, collaboration on research and development, technology scouting, intellectual property systems, engineering, technical and vocational skills; technologies and capacities that are required to achieve specific Sustainable Development Goals or the objectives of the Istanbul Programme of Action; policies and programmes that are needed to build this capacity; and best practices that are especially suitable for the least developed country those Goals and objectives;

(b) Identify opportunities to strengthen science, technology and innovation capabilities and research and development infrastructure, as well as opportunities to improve the utilization of existing capacity-building programmes;

(c) Identify opportunities for collaboration at the regional level as well as among clusters of countries that share common characteristics and challenges, and explore synergies and complementarities.

## **4. Expected accomplishments**

31. Under activity 1, the expected accomplishments are to:

(a) Facilitate a space for dialogue among all stakeholders involved in science, technology and innovation in the country;

(b) Provide a clear understanding of the policy and regulatory science, technology and innovation framework in the country;

(c) Articulate a series of concrete measures and capacity-building initiatives to improve science, technology and innovation for sustainable development;

(d) Improve national legislation plans and measures to maximize the impact of science, technology and innovation for sustainable development;

(e) Contribute to building capacity to interface with donors, United Nations agencies and international organizations to articulate the priority needs of the least developed countries and prepare proposals for their support.

## **5. Indicators of achievement**

32. The following are the indicators of achievement under activity 1:

- (a) Number of stakeholders interviewed;
- (b) Number of participants in national workshops;
- (c) Increased advocacy for science, technology and innovation with the relevant authorities;
- (d) Increased attention by policymakers to science technology and innovation-related issues;
- (e) Increase in expenditure on and investment in the field of science technology and innovation.

## **6. Main activities**

33. Under activity 1, the Technology Bank will carry out the following main activities:

(a) Initial workshop: A two-day workshop will be organized for high-level ministerial officials and other national stakeholders in the field of science, technology and innovation, with the participation of, inter alia, representatives of the ministries (or equivalent administrative units) of science and technology, higher education, finance and planning, industry and trade, agriculture, health, energy and mining, universities, chambers of commerce and industry, research institutions and statistical offices. Efforts will be made to ensure an adequate gender balance. The main purpose of the initial workshop is to establish a national work group.

(b) Establishment of a national work group: A national work group will be established with representatives of the main national entities in the field of science, technology and innovation designated by the authorities to perform in-country analysis of existing capacities.

(c) One-week mission of three experts: After the workshop, the contracted experts, jointly with members of the national work group, will interview the most relevant science, technology and innovation stakeholders (various ministries and major organizations) in the country in order to collect information on policies and policy instruments for the evaluation of the research and innovation landscape.

(d) Inventory of national science, technology and innovation assets, instruments and capabilities: The national work group, with the supervision of the contracted experts, will perform three inventory exercises:

- (i) Inventory of national and, as appropriate, regional and international, measures, policies and rules applicable to science, technology and innovation activities;
- (ii) Inventory of graduates in the field of science, technology and innovation and institutions of higher education;
- (iii) Inventory of policy instruments on science, technology and innovation.

This will imply a combination of desktop studies (building on existing information), as well as special surveys, particularly in the case of the last inventory. These inventories should follow the template of a common survey to be discussed at the

initial workshop. The three inventories should be prepared within 2 months of the holding of the workshop.

The national work group will provide other statistical material on research and development and higher education graduates and enrolment (by gender, fields of study and other breakdowns).

(e) Desktop review: The rest of the information needed to produce a country profile will be completed by contracted experts through desktop studies.

(f) Preparation of the draft science, technology and innovation/technology needs assessment review: After receiving the information on the inventories and other statistical material, the contracted experts will prepare a draft science, technology and innovation/technology needs assessment review to be reviewed by all stakeholders in the field.

(g) Validation workshop: A second workshop (validation) will be organized shortly after the draft is distributed to all stakeholders. This will be a one-day workshop with the participation of contracted experts and all national stakeholders in science, technology and innovation. The purpose of the validation workshop is to review the content of the draft science, technology and innovation/technology needs assessment review and to work together in completing the “strengths, weaknesses, opportunities and threats” (SWOT) exercise based on the empirical evidence collected during the draft preparation.

(h) Preparation of a second draft of the science, technology and innovation/technology needs assessment review: The contracted experts will prepare a second draft of the review. A science editor will work with the experts for the final edition of the review.

(i) Release of the electronic version of the science, technology and innovation/technology needs assessment review: The Technology Bank will release an electronic version of the report in collaboration with the relevant United Nations agencies.

(j) Presentation of the science, technology and innovation/technology needs assessment review: The Technology Bank, the relevant United Nations agencies and national authorities will arrange a presentation of the major findings, and the contracted experts of the Technology Bank will suggest a list of possible policy options, initiatives and capacity-building priorities based on the empirical evidence collected during the exercise.

The completion time of science, technology and innovation/technology needs assessment reviews can be estimated in 18-24 months.

## 7. Country coverage

34. Reviews are foreseen in five least developed countries in 2018. It is suggested that subject to the country's approval, reviews should be conducted in Guinea, Haiti, the Sudan, Timor-Leste and Uganda. Additional countries to be considered include Bangladesh, Kiribati and Liberia. A plan to cover all of the least developed countries should be devised starting in 2019.

## 8. Budget estimate

Table 2

### Budget requirements for activity 1

(United States dollars)

<i>Category</i>	<i>2018</i>
<b>A. Staff and other personnel costs</b>	
National experts	150 000
International experts	320 000
<b>Subtotal staff and other personnel costs</b>	<b>470 000</b>
<b>B. Travel</b>	
Travel of participants to workshops and meetings	530 000
Travel of experts	180 000
<b>Subtotal travel</b>	<b>710 000</b>
<b>C. Contractual services</b>	
Printing and layout	20 000
<b>Subtotal contractual services</b>	<b>20 000</b>
<b>Total</b>	<b>1 200 000</b>

#### Staff and other personnel costs

35. The amount of \$470,000 will provide the specialized expertise (including from UN entities) required for the preparation of the science, technology and innovation/technology needs assessment review (approximately 24 work-months for national experts and 36 work-months for international experts).

#### Travel

36. The amount of \$710,000 will provide for: (a) the organization of an initial workshop to establish a national work group and a validation workshop to review the first draft of the science, technology and innovation/technology needs assessment review; and (b) travel of experts as required in the performance of their assignment.

#### Contractual services

37. The amount of \$20,000 will provide for the layout and printing of the science, technology and innovation/technology needs assessment reviews.

## B. Activity 2

### Promote access to research and technical knowledge in selected least developed countries

#### 1. Background and rationale

38. The least developed countries suffer from a considerable deficit in gaining access to published research, which contributes to their poor performance in the fields of science, technology and innovation. To achieve its overall objective of strengthening national capabilities and providing expertise to the world's least developed countries, ensuring that they are no longer left behind in achieving internationally agreed development goals, the Technology Bank will need to:

(a) Advocate the importance of education in the fields of science and technology and of research in those fields to the Governments of the least developed countries;

(b) Produce measurable results quickly in order to encourage commitment within the and in the donor community;

(c) Stimulate the production of high-quality research in the least developed countries, including international research collaboration, both South-South and South-North.

39. Research4Life is an existing United Nations partnership that can be leveraged by the Technology Bank for rapid delivery of results. Research4Life is the collective name for four research programmes (managed by the World Health Organization (WHO), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Environment Programme (UNEP) and the World Intellectual Property Organization (WIPO)), which provide developing countries with free or low-cost access to academic and professional content online. Research4Life has been active in more than 100 lower income countries, including all of the least developed countries, since 2002. By joining with Research4Life as a new United Nations partner, the Technology Bank will build on what the partnership has already accomplished, and produce results for and in the least developed countries, which are beyond the reach of the current partnership. Research4Life has proven that online access to the world's high quality published scientific and technical information, while challenging, is possible in all of the least developed countries. A specific activity led by the Technology Bank will ensure that the least developed countries make the best possible use of this access.

40. The activity will enable the Technology Bank to create strong in-country networks, and to open channels for regular feedback from the least developed countries. It will seek to facilitate and make use of all opportunities to increase connectivity and more effective access to information. The substantial improvement in the scientific and technical information infrastructure in the least developed countries that the activity is expected to bring about will enhance the ability of national institutions to train researchers and produce high-quality research, laying the groundwork for the broader programme of activities of the Technology Bank. It will also facilitate and promote South-South and the South-North collaboration between researchers, young scholars and entrepreneurs working and living in the least developed countries as well as those living abroad.

41. The Research4Life framework has been negotiated and refined over 15 years, and has become a model for other access initiatives. It is a public-private partnership that brings together United Nations agencies, 185 international publishers, along with universities and other organizations to provide researchers, academics, students, professionals and others in the developing world with online access to high-quality international academic and professional journals, books, databases and other information resources. All least developed countries automatically qualify for free access. The Research4Life partners are formally committed, at least through 2020, with an additional 5-year extension in final approval stages. New publisher partners join regularly. Research4Life comprises four programmes operating online portals:

(a) Hinari (Access to Research for Health ([www.who.int/hinari](http://www.who.int/hinari)));

(b) AGORA (Access to Global Online Research in Agriculture (see [www.fao.org/agora](http://www.fao.org/agora)));

(c) OARE (Online Access to Research in the Environment (see [www.unep.org/oare](http://www.unep.org/oare)));

(d) ARDI (Access to Research for Development and Innovation (see [www.wipo.int/ardi](http://www.wipo.int/ardi)));

(e) GOALI (Global Online Access to Legal Information (see [www.ilo.org/goali](http://www.ilo.org/goali))).

## **2. Relationship to the strategic plan of the Technology Bank**

42. The activity is linked to area 3, “Digital access research” under the actions line of “supporting home-grown innovation and research” of the strategic plan of the Technology Bank.

## **3. Objectives**

43. The objectives of activity 2 are to:

(a) Enable, facilitate and increase online access to costly scientific journals, books and databases at no direct charge;

(b) Put in place the necessary capacities to create and/or scale up access to and use of scientific and technical knowledge;

(c) Provide training for librarians, university teachers, graduate students, researchers, IT specialists and other relevant constituencies;

(d) Create tangible, measurable results quickly through intensive, country-wide campaigns in the least developed countries in order to integrate use of the scientific and technological potential in all relevant activities;

(e) Lay the groundwork for other activities of the Technology Bank through substantial improvement in the scientific and technical information infrastructure in the least developed countries.

## **4. Expected accomplishments**

44. At the country level, “information infrastructure” comprises two interactive elements: access to high-quality, relevant, up-to-date scientific and technological potential; and the capacity to integrate it appropriately into all relevant activities, such as teaching, continuing education, research, policymaking, professional practice and public awareness. While there are variations from country to country, certain common “indicators for success” have become evident through the extensive experience carried out under Research4Life:

(a) Active engagement of local champions;

(b) Training;

(c) Improved user experience with online interfaces to access scientific and technical journals.

## **5. Indicators of achievement**

45. The indicators of achievement for activity 2 will include programme indicators as well as indicators that will eventually be used to demonstrate impact and inform further planning for each country.

### **Programme indicators**

46. The programme indicators for activity 2 are:

(a) Number of trainers trained;

(b) Number of workshops organized;

- (c) Number of participants per workshop (including breakdown by institution, discipline, profession and gender);
- (d) Numbers of institutional support centres established;
- (e) Numbers of user logins.

### **Impact indicators**

47. The information gathered from pre-workshop and post-workshop questionnaires and longer-term follow-up questionnaires will serve as the impact indicators for activity 2 (analysed in conjunction with usage statistics from the Research4Life central authentication system, and from the use-tracking systems on the publisher-partner websites).

## **6. Main activities**

### **In-country support**

48. In-country activities will include:

- (a) Identifying “champions” for country focal points to coordinate activities in-country;
- (b) Training trainers;
- (c) Organizing workshops;
- (d) Creating professional networks through workshops that bring together students, researchers and professionals from different institutions, disciplines and functions (for example researchers, librarians and IT personnel);
- (e) Providing technical support to IT personnel in national institutions;
- (f) Training librarians and others to act as “support centres” within their own institutions and, eventually, as country-wide support experts;
- (g) Providing feedback to improve and tailor services from the Research4Life-LDC initiative;
- (h) Conducting surveys at workshops and among users more widely to create baselines and measure activity and progress.

49. In-country support activities will be managed by experts (electronic library services and training), with contribution and support from the Hinari/Research4Life Secretariat at WHO and the Research4Life capacity development team at FAO.

### **Upgrading and stabilizing Research4Life technical architecture**

50. A central focus of this area of work will be on improving the way the users experience access to scientific and technological potential, particularly in response to user feedback as the in-country activities roll out in the least developed countries. This major advocacy and training push in the selected countries will, in turn, create a significant increase in demand for access to Research4Life, and put pressure on authentication systems, content portals, usage statistics data-warehouses and other back-office databases and infrastructures. Ensuring the stability of and regular improvement to the Research4Life technical architecture is therefore essential.

51. These activities will be managed by experts (portfolio technology and project management), with support from the Hinari/Research4Life Secretariat at WHO, where most of the Research4Life systems are currently maintained.

## 7. Country coverage

52. In 2018, activity 2 will be focused on seven countries (Bangladesh, Mozambique, Nepal, Rwanda, Senegal, Uganda and United Republic of Tanzania) which appear to be at an “information tipping point”, at which a concerted effort will create the most significant results; and on five additional countries (Bhutan, Burkina Faso, Liberia, Madagascar and Malawi), which present a more challenging environment for quick uptake of scientific and technological potential. Agreement with the respective Governments will be sought. After 2018, “champions” and trainers from the first countries will be directly involved in rolling out support in the next group of countries, creating regional networks and South-South collaboration.

## 8. Budget estimate

Table 3

### Budget requirement for activity 2

(United States dollars)

<i>Category</i>	<i>2018</i>
<b>A. Staff and other personnel costs</b>	
1. Experts: capacity development coordination and management <sup>a</sup>	185 000
2. Experts: technology development and management <sup>b</sup>	45 500
3. Local experts: country focal points	96 000
<b>Subtotal staff and other personnel costs</b>	<b>326 500</b>
<b>C. Travel<sup>c</sup></b>	
1. Staff travel	80 000
2. Workshop related travel <sup>d</sup>	200 000
3. Travel of country focal points <sup>c</sup>	150 000
<b>Subtotal travel</b>	<b>430 000</b>
<b>D. Contractual services</b>	
1. Workshop venue and other capacity development related services <sup>c,d</sup>	210 000
2. Technology development: support, maintenance, improvement	300 000
<b>Subtotal contractual services</b>	<b>510 000</b>
<b>Total</b>	<b>1 266 500</b>

<sup>a</sup> Part-time experts for up to 370 days at level C consultant (ST/AI/2013/4).

<sup>b</sup> Part-time experts for up to 70 days at level D consultant (ST/AI/2013/4).

<sup>c</sup> There is considerable variation from country to country in complexity, size, population, in-country transportation and communications. These will have an impact on the cost of activities and travel of the country focal points. Once the countries are confirmed, an appropriate proportional distribution of the allocated honorariums and activity budget can be made.

<sup>d</sup> Up to 3 larger workshops, up to 10 smaller workshops, and seed grants for launching local trainers in their activities.

### Staff and other personnel costs

53. The amount of \$326,500 will provide the required specialized expertise (including from UN entities). In particular: national and international experts on electronic library services capacity development and coordination for approximately

17 work-months; international experts on technology development and management for approximately 3 work-months and country focal points.

#### **Travel**

54. The amount of \$430,000 will provide for the travel of staff and experts, including country focal points, as may be necessary to support the main activities.

#### **Contractual services**

55. The amount of \$510,000 will provide for the required support, maintenance and ongoing improvement of the scientific and technological potential capacity-building programmes, as well as venues, expert training services in specific locally required topics, advanced training carried out in a South-South context and other services for the organization and delivery of workshops and professional network building amongst the target recipients.

### **E. Activity 3 Resource mobilization**

56. The Technology Bank is a major step in advancing the efforts of the least developed countries to enhance science, technology and innovation and the integration of technology in development for structural transformation and sustainable development. It will help them strengthen their science, technology and innovation capacities, foster the development of national and regional innovation ecosystems that can attract outside technology and generate home-grown research and innovation. The Technology Bank will assist the least developed countries in building their national and regional capacities in the areas of intellectual property rights and technology-related policies, facilitate the transfer of technologies and, in the process, accelerate the integration of the least developed countries into the knowledge-based economy.

57. It is estimated that in order to realize the objective of the Technology Bank in all of the 47 least developed countries an annual budget of \$35 to 40 million would be required. However, an annual budget of \$10 million will enable the Technology Bank to begin substantive activities on the ground in a good number of least developed countries. The resources available for 2018 thus show a significant resource gap that needs to be addressed.

58. Additional efforts are needed to mobilize resources from all stakeholders, including foundations, civil society organizations and the private sector. This will be one of the key tasks of the Managing Director. In order to establish an effective resource mobilization approach, it is necessary to formulate an effective way to raise funding from traditional donors, foundations and other stakeholders. In order to do so, the Technology Bank will contract resource mobilization expert(s) to prepare a plan based on extensive desk research and direct contacts with a range of representatives within the different donor segments.

**Budget estimate**

Table 4

**Budget requirement for activity 3**

(United States dollars)

<i>Category</i>	<i>2018</i>
<b>A. Staff and other personnel costs</b>	
Resource mobilization expert	30 000
<b>Subtotal staff and other personnel costs</b>	<b>30 000</b>
<b>B. Travel</b>	
Expert travel	40 000
<b>Subtotal travel</b>	<b>40 000</b>
<b>C. Hospitality</b>	
Hospitality	5 000
<b>Subtotal contractual services</b>	<b>5 000</b>
<b>Total</b>	<b>75 000</b>

**Staff and other personnel costs**

59. The amount of \$30,000 will provide for consultant services with specialized expertise in resource mobilization (approximately 3 work-months).

**Travel**

60. The amount of \$40,000 will provide for staff and consultant travel as it may be required for the resource mobilization efforts.

**Hospitality**

61. The amount of \$5,000 will provide for hospitality for official functions.