Concept note
Strengthening National Academies of Science in the LDCs in support of the 2030 Agenda

Background and rationale

According to the United Nations Committee for Development, there are currently 47 least developed countries (LDCs) with a population of just over 1 billion people (approximately 13% of the world’s population), with the world’s fastest population growth rate. Yet, they account for only 1.2 per cent of global gross domestic product (GDP), and less than 1 per cent of world’s exports. Almost half of the population of LDCs still lives in extreme poverty. The basic causes of persistent and widespread poverty in LDCs are low productivity, and high levels of unemployment and underemployment.

Most LDCs face considerable challenges posed by demographic developments, rising inequality and persistent poverty, combined with accelerated urbanization. The population living in the present LDCs is projected to almost double to 1.9 billion by 2050. With a soaring youth population, an additional 630 million people (equivalent to about one third of the estimated LDC population in 2050) will have entered the labour market by 2050.

Without rapidly building up capacities in science, technology and innovation (STI), the goals of eradicating widespread poverty, removing daunting structural constraints and ensuring sustained growth, achieving sustainable development and the 2030 Agenda will remain a distant dream for the nearly a billion people living in the LDCs.

The 2030 Agenda for Sustainable Development emphasises the essential role that science must play in creating the knowledge needed for realizing the vision of sustainability and this represents a fundamental shift in the dialogue between science and policy and assigns a new role to science to generate knowledge for the achievement of the sustainability vision set out in the SDGs.

The United Nations Secretary-General’s Scientific Advisory Board also stated that science will be one of the most critical means of implementation for the Agenda 2030 and appealed for a new global research architecture that supports interdisciplinary collaboration and links science with both policy and society.

There is therefore good justification for academies of science and the wider scientific community, particularly in LDCs, to engage on the SDGs. All UN member States are committed to their delivery and have undertaken to align and integrate national priorities with global commitments, so that the SDGs are mainstreamed within their country development strategies. This means that national research agendas and policy priorities will, if they don’t
already, reflect these global goals. As an important part of their national science systems, academies have a role to play in facilitating this process, drawing on the wealth of expertise in their membership.

**The UN Technology Bank for the LDCs**

The United Nations Technology Bank for the Least Developed Countries was established by the UN General Assembly in 2016 by the resolution A/RES/71/251. In that resolution, the Assembly reaffirmed “the importance of improving the least developed countries’ scientific research and innovation base, promoting networking among researchers and research institutions and helping the least developed countries to access and utilize critical and appropriate technologies”.

The overarching objective of the Technology Bank is to help the LDCs build the STI capacity that they need to promote the structural transformation of their economies, eradicate poverty and foster sustainable development.

The specific objectives as outlined in the Charter of the Technology Bank are:

- To strengthen the science, technology and innovation capacity of LDCs, 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;
- To promote the development and implementation of national and regional STI strategies;
- To strengthen partnerships among STI-related public entities and with the private sector;
- To promote cooperation among all stakeholders involved in STI, including, researchers, research institutions, public entities within and between LDCs, as well as with their counterparts in other countries;
- To promote and facilitate the identification, utilization and access of appropriate technologies by LDCs, as well as their transfer to the LDCs, while respecting intellectual property rights and fostering the national and regional capacity of LDCs for the effective utilisation of technology in order to bring about transformative change.

The Technology Bank as part of its initial activities is undertaking STI reviews including Technology Needs Assessments for all LDCs. These assessments are being undertaken in collaboration with among others the United Nations Conference on Trade and Development (UNCTAD) and the United Nations Educational, Scientific and Cultural Organization (UNESCO). The main objective of the reviews is to identify technological gaps and priority needs, 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 the detailed assessments in areas of critical importance to the participating countries.

Furthermore, the Technology Bank also promotes access to scientific and technical knowledge through its Digital Access to Research (DAR) programme, which builds on the substantial existing national and regional scientific and technical information access and
information expertise, to foster and further enhance national capabilities. DAR also reaches out to national institutions, mainly research institutes and universities, to map the existing knowledge activities in the country.

As part of its STI policy and capacity building work programme, the Technology Bank has also been tasked with strengthening and supporting national academies of science in LDCs. For the Technology Bank to successfully deliver its mandate, a strong network of interlocutors and partners at the national and regional levels is critical.

To deliver this support to academies of science, the Technology Bank will partner with regional networks of academies of science, UN Regional Commissions and other key regional bodies.

**United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)**

ESCAP serves as the United Nations’ regional hub promoting cooperation among countries to achieve inclusive and sustainable development. The largest regional intergovernmental platform with 53 Member States and 9 associate members, ESCAP has emerged as a strong regional think-tank offering countries sound analytical products that shed insight into the evolving economic, social and environmental dynamics of the region.

The Commission’s strategic focus is to deliver on the 2030 Agenda for Sustainable Development, which is reinforced and deepened by promoting regional cooperation and integration to advance responses to shared vulnerabilities, connectivity, financial cooperation and market integration.

ESCAP has also been working with member States in the Asia-Pacific region to develop STI policies for the SDGs with a focus on ensuring such policies are inclusive and “leave no one behind”.

**The Initiative**

Academies of Science serve the very 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 and, as such, should play a major role in the development of national science and technology as well as sustainable development policies. Membership to such academies is predicated on demonstrated distinction in science or notable accomplishments in the applied sciences and technology. Most of the recent Science Academies follow a proven model adopted by the United States National Academies or other such academies existing in developed nations, are non-profit and established by an act of parliament.

There are only thirteen academies of science in the forty-seven LDCs. The programme intends to strengthen the existing academies of science and support the creation academies in LDCs, with their eventual success being determined by their ability to devise policies, form partnerships and encourage interactions at all levels of STI. This programme will build on work already done by the Interacademy Partnership under the project *Improving Scientific Input to Global Policymaking*. 
Regional consultations

To commence the programme, the Technology Bank will organize regional consultations of LDCs, to bring together policymakers, representatives of existing national academies of science (NAS) and scientists and researchers from countries without academies.

The objectives of the consultations are:

- to discuss the global and regional sustainable development agendas and the role that science must play in supporting them
- to exchange national and regional experiences of engagement of academies in national SD agendas
- to identify pilot countries for support in the establishment of academies of science and to strengthen the work programme of existing academies of science

The expected outcomes from the consultations will be a report and a schedule of work outlining the identified capacity building support towards national academies of science and regional cooperation activities.

Four regional consultations have already been held in Africa in September 2019 for the 33 African LDCs. The Technology Bank and ESCAP will organize a consultation for the LDCs in the Asia-Pacific region on 3 and 4 February 2020. All LDCs in the Asia-Pacific region will be invited to the consultations along with representatives from non-LDCs with mature academies to share their experiences and to serve as champions for pilot LDCs.

Draft Programme (2-day consultation)

Registration

High level opening session
Ministerial representation from some countries
Delegates from TBLDC and ESCAP

SESSION I: The International Sustainable Development Agendas
This session will provide an overview of the 2030 Agenda agendas to which countries are committed and the role of STI in advancing the agenda.

SESSION II: Status of science, technology and innovation in the region
In this session the regional bodies will present position reports on the status of STI in the region with emphasis on the LDCs. There may also be national cases presented by representatives of LDCs.

SESSION III: The role of academies of science in advancing STI in the region
In this session the perspectives from the academies and governments on the perceived and potential roles of NAS will be shared. Champions will present their experiences in engaging in national and regional STI agenda. Challenges and opportunities to enhance the role of NAS will also be discussed.

SESSION IV: Engaging and supporting academies in national and regional processes
Following on from the previous session, this session will discuss the priority needs of existing NAS to strengthen and enhance their capacities to engage in national and regional processes. A workplan to address those needs will be drafted.

SESSION V: Identifying pilot LDCs for NAS creation
Two (pre-identified) pilot countries will present their requests for support in establishing a NAS. Representatives from the regional networks will outline the process for the creation of NAS including the importance of wide consultations and the need to establish the legal basis for the NAS. Champions will also share their experience in establishing their own NAS. A roadmap will be established for the pilot countries.

Closing session