

Abstract

For a long time, the crucial contribution of tertiary education to economic and social development has been understated by the international community. But the global commitment to achieving the Sustainable Development Goals (SDGs) has made it harder to ignore that strong and dynamic tertiary education systems are indispensable to make substantial progress on the 17 SDGs.

Tertiary Education is Indispensable to Achieve the Sustainable Development Goals

Jamil Salmi

The Brazilian aviation company, Embraer, is the world leader in the production of regional jets. The success of the country's emblematic firm can be traced back to the creation of the Instituto Tecnológico de Aeronáutica (ITA, the National Aeronautic Engineering School), in the early 1950s. Established in close partnership with MIT (the first president of ITA was an MIT professor), ITA has trained the scientists, engineers, and technicians who helped build Embraer into a leading global company.

Typhidot is a revolutionary technique to diagnose typhoid fever. Invented by researchers from the Malaysian University of Science in Penang (USM), Typhidot is credited with saving thousands of lives. Compared with traditional methods for detecting the disease, Typhidot is faster, more reliable, cheaper, and it does not require cold storage. USM's Center for Medical Innovations, from which Typhidot originates, is dedicated to finding innovative ways of diagnosing infectious diseases in an affordable manner.

Until the beginning of this decade, most practicing teachers in Palestinian primary schools were poorly prepared and did not have a university degree. After new regulations required all teachers to have both a university degree and a professional teaching qualification, three West Bank universities worked together with support from a renowned British teacher training institution, to radically overhaul their preservice teacher-training program, introducing a competency-based approach and a school experience element.

Recognizing the Value of Tertiary Education

These are but three examples to illustrate the unique and vital contribution that tertiary education makes to economic and social development. Recognizing this important role, the pathbreaking 2000 report entitled *Higher Education in Developing Countries: Peril and Promise* called for scaling up investment in tertiary education and research to equip developing countries with the knowledge and the qualified manpower needed to fight poverty and accelerate economic growth. Written by a distinguished group of independent experts with financial support from UNESCO and the World Bank, the report had an important impact at three levels. First, it helped reorient donor policies to give greater attention to tertiary education in partner countries. Second, it unleashed reform initiatives in several developing countries. Third, it paved the way for increased South-South collaboration.

Fifteen years later, in September 2015, the launch of the Sustainable Development Goals (SDGs) by the United Nations gave a new impetus to the recognition of the key role played by tertiary education. Indeed, it is doubtful that any low-income country can achieve the SDGs without a strong and dynamic tertiary education system. In addition to the essential contribution that tertiary education can make to the goals of sustainable economic growth (SDG 8) and poverty reduction (SDG 1), advances on all the other 15 dimensions, from developing a strong agricultural sector and building up a resilient infrastructure to mitigating the devastating effects of climate change and preserving the environment, cannot happen without the participation of scientists and well-trained professionals and the application of leading-edge research in the search for appropriate solutions to the big challenges faced by the planet.

No Progress toward the SDGs without Tertiary Education

With respect to the goal of diminished inequality (SDG 10), tertiary education plays a critical role in promoting social mobility through equal educational opportunities for all groups, especially underprivileged students from low-income groups, minorities, and people with special needs. Achieving the SDGs also requires strong institutions for policy design and implementation and well-aware citizens who care about social and economic inclusion and environmental sustainability.

The contribution of tertiary education is crucial, in particular, for achieving real progress in basic and secondary education. A recent study found that more than a quarter of all primary school teachers in 31 countries had not achieved the minimum education standards themselves. Tertiary education supports the rest of the education system through the training of effective teachers and school principals, the involvement of highly qualified specialists in curriculum development and educational research, and the design of appropriate tests to assess student learning outcomes. The symbiotic linkage between tertiary education and the lower levels of schooling has the potential to stimulate a virtuous circle of capacity building, in the sense that the quality of tertiary education affects the quality of primary and secondary school education and is, in turn, directly influenced by the quality of secondary school graduates.

A similar argument applies to the fundamental role of medical education and research for meeting the health sustainable development goal (SDG 3). Universities train the medical doctors, nurses, technicians, epidemiologists, public health specialists, and hospital managers who form the most important pillar of any health system. Universities and associated health institutes conduct the fundamental research and a significant share of the applied research that condition any significant progress in the fight against diseases and health hazards.

Developing countries must build their capacity to deal with serious health threats not only because of domestic safety needs, but also in order to contribute effectively to the resolution of global health crises through collaborative research. Indeed, research production has moved from being discipline driven to problem focused, with diverse teams of scientists from several disciplinary areas collaborating on the resolution of complex problems, which often correspond to shared challenges that affect humankind as a whole, regardless of political boundaries. This evolution is best illustrated by the global health issues that have come up in recent years, from SARS to MERS to the latest Ebola epidemics in West Africa. ▲

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