This is mainly because of the very supportive and enabling research atmosphere that has been created in those countries. None of this would have been possible without the active support of their respective governments. To a smaller extent, such changes have also occurred in a few Islamic countries such as Pakistan, Malaysia and Turkey, where the governments have been extremely supportive and proactive.

If Bangladesh is to move forward then it has to emulate the above examples. This can happen only if the government and the policy makers in Bangladesh realize the enormity of the problem, and are prepared to support the notion that sustainable economic development is only possible through a knowledge economy underpinned by a strong science and technology base.

The government can take some of the necessary measures alone, while others will be best addressed through focused collaboration, sharing of resources and expertise, and collective action with other countries in the South.

There are many reasons for the scientific backwardness of Bangladesh and the rest of the OIC region. The need to share meager research funds and infrastructure, and the absence of collaborative and multidisciplinary research programs to combat common national and regional problems, have adversely affected research outcome and resulted in a steady decline in research productivity. Training grants are rarely awarded in focused areas of regional priority, and interventions are often donor-driven rather than need-driven.

Young scientists from Bangladesh and other Third World countries receiving research training in the North often find that their studies are of no direct relevance in their home nations and, once they return home, the research atmosphere is rarely conducive to the continuation of the sophisticated research the young trainees participated in while working in laboratories in the North.

As a result, they often do not return to their home countries, or leave again in frustration because of the lack of research support, causing a very debilitating "brain drain" from the poorer to the developed nations.

One of the greatest obstacles to research productivity in Bangladesh and other countries in the OIC region is the serious lack of trained personnel and full time researchers. The culture of postdoctoral fellowships that runs the engines of research in the North is sadly lacking in many developing countries, and is almost non-existent in Bangladesh. Indeed, a disproportionate number of postdoctoral fellows in the North have their origin in the South, who, because of a lack of research opportunities in their countries of origin, are instead contributing to knowledge-based "wealth creation" in the West.

Biotechnology has been termed "The science of the 21st century" because of the tremendous progress already made, and the immense potential it has for solving problems in health, agriculture and the environment.

In the long term, full time research positions are absolutely essential to plug the technology gap in the less developed countries such as Bangladesh. In the short term, funding must be found for postdoctoral fellowships and visiting fellowships to promote research, and the exchange of researchers, within Bangladesh and the OIC region.

Urgent measures need to be taken to transform the "brain drain" from the developing to the developed world into a "brain retention and circulation" within the OIC region. A further aim should be to develop a "brain bank" by tapping into the enormous talent and expertise available among the region's expatriate scientists, and encouraging them to contribute to the development of science and technology in their countries of origin in whatever way they can. Bangladesh will be a major beneficiary of such an initiative.

In Bangladesh all natural science and technology disciplines, except ICT to a small extent, are in dire straits due to lack of meaningful support from the government. While the focus of this article is on biotechnology (or contemporary biosciences), the conditions described and proposed remedies are equally applicable to all other scientific disciplines.

In fact, the development of biotechnology requires the development of all scientific disciplines, because modern biotechnology (or molecular biosciences) is inherently multidisciplinary, and is an amalgam of all the cutting edge technologies in the biological, physical, chemical and engineering sciences.

Biotechnology has been termed "The science of the 21st century" because of the tremendous progress already made, and the immense potential it has for solving problems in health, agriculture and the environment. The US government has spent more on research in this area in the last twenty years than in all the other natural sciences pooled together.

The rapidly advancing countries of the developing world, such as India, China and Brazil, have also targeted modern biotechnology as a priority area for development, and a vehicle for catching up with the economically developed countries. It is in this very area of modern biotechnology, where the gap between Bangladesh and the scientifically advanced countries is the greatest, that this gap is increasing exponentially with time.

There are serious financial and logistical problems in carrying out internationally competitive biotechnology research in Bangladesh and other similar countries. Most policy makers and development economists around the world, including Bangladesh, believe that the scientifically lagging and least developed countries have many more pressing priorities to cope with and simply survive, and