

Invest in a Science Career, as New Opportunities Emerge

By

Professor Dato' Dr Ahmad Ibrahim

Fellow, Academy of Sciences Malaysia

Department of Chemical & Petroleum Engineering

Faculty of Engineering, Technology & Build Environment (FETBE)



2021 will be the start of 12th Malaysia Plan (RMK-12), the nation's development plan for the next 5-year. We need a well thought of RMK-12 to achieve the new Vision of Shared Prosperity 2030, launched earlier. Poor implementation has been cited as a major weakness in most past plans. As we move into RMK-12, we should be mindful of recent events which have dealt a strong blow to global health. Our RMK-12 must prepare the nation well to face future disruptions. Topping the list of the many recent disruptive events goes to Covid-19, a public health scourge that has rattled the world. Public health now stands out as a major threat to development, RMK-12 included.

We saw how COVID-19 has disrupted everything in its path. World leaders grapple with the decisions to deal with the pandemic. A few came out with their delirious recipes for the cure. Fortunately, Malaysia pursued a sounder strategy. The nation's health professionals were empowered to take charge. The approach has worked well, even gaining international recognition. Success in managing the pandemic is another clear testimony that our civil servants are no pushovers. Given enough space to manage, they would always rise to the occasion and deliver. Time to stop witch-hunting our civil service. They deserve credit and respect.

There is no denying that the science of infectious diseases is now better understood. Few would disagree that science literacy among the common man has been significantly raised. As a result of the massive publicity by various media channels, the public now learns about genome sequencing, chloroquine, the complex stages of vaccine development, the importance of clinical trials for any new remedy to ensure safety and efficacy.

What has become clear is that it takes a pandemic like COVID-19 to stir up public interest in science. For years, we have been hosting festivals and carnivals to promote science. As people always say, pain is the surest way to bring about change. Now we see, evidence of this in the virus attack which has inflicted pain on the entire global community. There is a saying by a Japanese novelist, "We must embrace pain and use it as fuel for our journey".

RMK-12, which is about formulating a national recipe for progress, is our chance to demonstrate change. A recipe for progress not only in the economy but also progress in the quality of life for all, now and many more years to come. This is what sustainable development is about. Sustainable development involves a lot of science. These include the science of climate-friendly energy, the science of managing health, the science of sustaining key resources such as water, the science of food production and science of keeping the environment safe.

The progress is equitably shared, as articulated in the Shared Property Vision 2030, is not an understatement. Pursuing progress is about overcoming threats and capturing opportunities. Poverty is one threat we need to tackle. Covid-19 has exacerbated poverty. Rural poverty among smallholders is crying for an ending. Now, urban poverty is a growing concern. Creating jobs is a proven way. A strategy to capture the emerging job opportunities should be implicit in RMK-12.

Science has a role in new jobs. Health science is a key area. New tools in biotechnology, especially those linked to medical research, are now more prominent. Vaccine development, for example, is closely tied with the study of genomic science.

Next is digital science, which has also become increasingly critical. Digitalisation is a key ingredient of business competitiveness with the exponential rise in e-commerce and the work from home arrangement. Internet and broadband science have emerged as a discipline deserving attention, especially more investment in broadband support.

Cybersecurity is another branch of science which is in big demand because of rising cybercrimes. Related to IT, the growing demand for expertise in artificial intelligence (AI) and big data has become evident. Of course, environment and climate science remain critical in any development planning. We need to build the right talent, as well as invest in the relevant Research and Development (R&D) to strengthen the nation's expertise in such disciplines. Improving the infrastructure and ecosystem to deliver those sciences should be given priority in RMK-12.

UCSI University is now a strong force in delivering the nation's science and engineering education. It is among the top university in the country in crafting the right curriculum in line with the new demands of science and engineering education.

Many among its alumni members have risen to prominence in their respective professions. The university is not only much sought after by Malaysians but also by foreign students who are keen to have the UCSI University affiliation for added value.

With the new vigour in the science and engineering R&D, UCSI stands ready to contribute to the nation's talent building agenda under RMK-12.