

Getting more science students into universities

HUMAN CAPITAL ROAD MAP: Malaysia needs 500,000 science grads to develop country

KUALA LUMPUR

FORTY per cent of lower secondary school examination graduates, or Form Four students, will be automatically channelled to the science stream as part of the government's plan to address the dire need for science graduates in public universities.

Education Ministry secretary-general Tan Sri Abdul Ghafar Mahaud said this was one of 61 recommendations, to be implemented in phases, in the ministry's strategic plan to increase the number of science stream students in secondary schools.

"The first phase will see the implementation of 15 recommendations, which includes the automatic channelling of lower secondary school examination graduates to the science stream within three years."

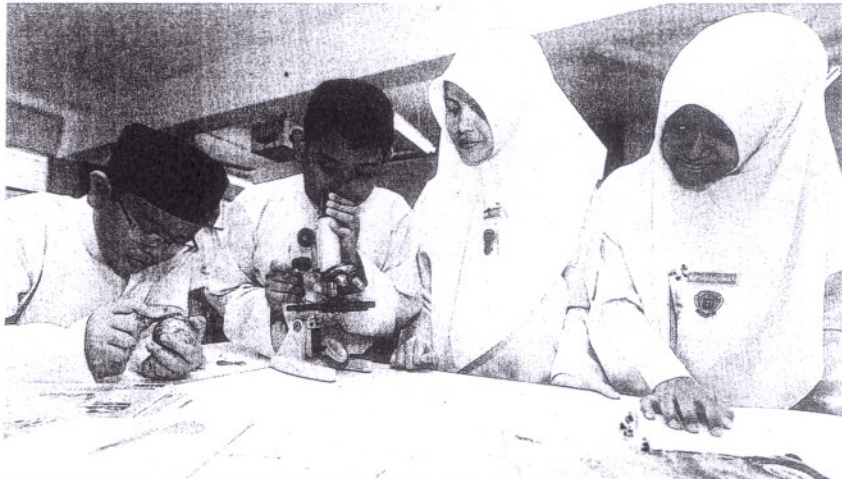
Ghafar said other recommendations were the reintroduction of the actual science centralised examination; increasing pure science subjects' teaching hours to five times a week; and improving and upgrading secondary and primary schools laboratories, including ring, plumbing systems and furniture at the cost of RM300 million.

"The ministry realised that the lack of interest in science subjects among secondary school students since 1967 has translated into fewer human capital in the field."

A report by the Science, Technology and Innovation Ministry, led the "2020 human capital d map", had identified a lack of science teachers, ill-equipped laboratories, poor teaching methods and lack of career incentives reasons behind the declining interest in science among students.

It also stated that the ratio of 20 science to 80 arts students was worrying as there would not be enough science and technology personnel to fill gaps in the industry.

It was also revealed that in 2011,



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ST enrolment in public universities after secondary school education was about 180,000 students, whereas the 2020 human capital road map stated that Malaysia needed 500,000 ST graduates to provide enough human capital to accelerate the country's growth and achieve developed nation status by 2020.

Ghafar said following the report, the ministry had come up with a strategic report outlining the recommendations and strategies to increase the ratio to 60 science and 40 arts students.

"Based on the recommendations, we are revising the primary and secondary science curriculum to achieve the target."

In welcoming the ministry's efforts, curriculum development expert and educationist Datuk Dr Sharifah Maimunah Syed Zin said the implementation of automatic channelling of students into the science stream was timely because insufficient human capital in the ST sector could hamper Malaysia's development.

"It might come off a bit regressive to some quarters, but there is no harm putting children into the science stream as science helps build their intellect and improve their analytical skills."

"At the same time, the importance of science and technology has never been more crucial than now. This is also a national interest issue."

"It does not mean that these students will not be able to choose their future. After the Sijil Pelajaran Malaysia examinations, they will be able to choose their higher education path and, who knows, maybe the science stream will spark passion in the field."

Sharifah Maimunah, who is also the coordinator at the International Science, Technology and Innovation Centre for South-South Cooperation, said many students were reluctant to take the science stream because of unclear career paths.

"Students are influenced by their surroundings. Thus, the government must guarantee that ST graduates can land good jobs."

"We are short of middle-level sci-

ence and technology professionals, such as engineers and researchers."

Sharifah Maimunah suggested that students who do not perform well in academics but are interested in science should also be encouraged to enrol into the science stream.

"It has been proven that an interest in the subject is the student's biggest motivation to score."

Young Scientist Network chairman Prof Dr Mohd Basyaruddin Abdul Rahman, a chemistry professor at Universiti Putra Malaysia, said the government could get more students interested in science by providing incentives for them and their parents.

"We have also a lot of science graduates pursuing a career far from ST because they were forced by their parents to take the discipline."

He suggested that students should learn only pure science at secondary schools and only after pursuing their studies at universities should they take up biology, chemistry and physics.