

\$63m programme to boost Singapore's nuclear expertise

By **GRACE CHUA**

SINGAPORE is building up its expertise in nuclear safety, science and engineering, with a \$63 million, five-year research and education programme.

The move, say experts, will help the nation keep on top of developments in the field, and what to do if a disaster should strike.

The new effort, announced yesterday by the National Research Foundation (NRF), comprises a Singapore Nuclear Research and Safety Initiative led by National University of Singapore physicist Lim Hock, and a Nuclear Education and Training Fund.

The fund will train undergraduates and graduate students, and support overseas attachments.

There are few nuclear experts here, and the fund aims to train about 10 people a year, and about 100 in all over the next decade.

While there are no citizenship or residency restrictions, the NRF – which sets the nation's research direction – wants to attract mainly Singaporeans.

The research will focus on three areas: Radiochemistry, which will look at how best to detect radioactivity in the environment and establish baseline data for Singapore; radiobiology, which will study how health is affected by the small doses of radiation in, say, a CT X-ray scan; and the safety analysis of nuclear power plants through models and simulations.

The programme will also include nuclear policy research, and public education on nuclear technology.

The announcement comes on the heels of Prime Minister Lee Hsien Loong's trip to The Hague last month for the Nuclear Security Summit. He had noted that despite the 2011 Fukushima nuclear disaster, the world cannot do away with nuclear energy entirely, especially as energy needs grow and fossil fuels pose environmental concerns.

In 2012, a two-year nuclear pre-feasibility study conducted by the Government concluded that while current nuclear energy technologies are not suitable for Singapore yet, it should continue to take part in global and regional talks on nuclear safety.

It should also be able to assess economic opportunities and safety aspects of various nuclear technologies, especially as neighbouring countries like Vietnam explore the use of nuclear energy.

Commenting on the new effort, Singapore Institute of International Affairs executive director Nicholas Fang said: "This allows Singapore to keep its finger on the pulse of what's happening in other countries in the region that are keen to develop nuclear energy capabilities."

Mr Kwa Chong Guan, a senior fellow at the S. Rajaratnam School of International Studies at Nanyang Technological University, said: "Singapore, if it is to participate in any regional discussion on nuclear energy, needs to build up its expertise on nuclear energy... The establishment of a Nuclear Safety Research and Education Programme is a step towards this end."

✉ caiwj@sph.com.sg