Thailand: Science and Technology Policy for Sustainable Development

Pairash T hajchayapong ¹

Professor
Permanent Secretary
Office of the Permanent Secretary
Ministry of Science and Technology
Thailand

The continuous high growth of the Thai economy during the 1980s and 1990s has led to the belief that the country has achieved the experience of sustainable industrialisation. The belief, however, came under challenge in the wake of the ‘Asian Crisis’ which unfolded in 1997. There was increasing doubt as to whether the high growth achieved by Thailand is sustainable in the long run. As a consequence, many studies were conducted to investigate the real foundation of Thailand’s economic growth. No surprise, analyses based on the use of different performance indicators showed that Thailand owes its apparently impressive growth experience to the adoption of strategies that did little to enhance the underlying efficiency and competitiveness of its industrial sector over the long term. In the other words, the economic growth in Thailand, though rapid, would not have been sustained even without the experience of the 1997 crisis, for the simple reason that basis for growth was not as solid as it was perceived to be. Indeed, there is evidence indicating that some of the factors behind the rapid growth in Thailand, especially in terms of science and technology (S&T), have weakened in recent years.

The Thai Government, however, is not unaware of this. Indeed, recently, sets of related policies and strategies have been adopted in building up indigenous technological capabilities in order to enhance competitiveness. The government's current concern of necessity to increase the country's science and technology capability is reflected in several important policy documents. These include, for example, the Government policy

¹ Permanent Secretary, the Ministry of Science and Technology
The overall objective is to develop S&T capability and use it to enhance competitiveness of target sectors covering industrial sector, community economy, and social sector. With regard to the industrial sector, subsectors possessing future potential are selected by the government to be priority industries. These subsectors include, for example, food, automobile, ICT, fashion, healthcare and tourism industries. The National Science and Technology Strategic Plan (2004-2013) adopts "cluster development" approach to upgrade and enhance the competitiveness of the targeted industries using S&T (especially four core technologies namely: ICT, biotechnology, materials technology and nanotechnology) as key propulsion tool. This is to be implemented under guidelines described in the plan's five strategies. These include: Developing and Strengthening Industrial Clusters, Community Economy and Quality of Life; Developing S&T Human Resources; Developing S&T Infrastructure and Institution; Building Public Awareness of S&T; and Improving S&T Administration and Management System.

Regarding implementation, a number of clusters have been developed including, for example, rice, shrimp, automotive, hard disk drive, and RFID. Also, while many development programmes under each strategy have been initiated and executed, the government is attempting to restructure the administration and management of S&T system. Recently, there is an initiative to turn the Ministry of Science and Technology from a bureaucratic administration to be the so-called "CEO" management system. It is expected that the CEO system will allow higher flexibility and effectiveness in facilitating R&D and innovation and at the same time have more accountability on public money spending on S&T.

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2 NESDB stands for the National Economic and Social Development Board.