



Keynote Speech

KNOWLEDGE, TECHNOLOGY AND COMPLEXITY IN ECONOMIC GROWTH

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ABSTRACT

Overcoming challenges in the next decade is a highly appropriate theme that should be addressed in relation to the Island's current economic situation. Ricardo Hausmann, The director, Center for International Development and Professor of the Practice of Economic Development, Harvard Kennedy School of Government and José Domínguez, Professor of Structural Engineering, School of Engineering, University of Seville, recognize that the application of complexity science tools allows for the better understanding in the fields of economics that will gear a nation towards both social and technological development¹. The application of scientific knowledge for technological developments enables forecast future trends in the global economics and to take necessary steps towards catering for future demands. Overcoming challenges in the next decade is a timely and highly relevant theme that should be addressed in relation to the Island's current economic situation. The wealth of a country depends mainly on the correct and visionary political decisions taken to progressively improve economy in a reasonable timeframe such as a decade or more. The *ad hoc* and abrupt decisions taken without proper studies over a three quarter of a century have completely ruined the economy of our country pushing it towards poorest countries of the world despite its wealth of experts with diverse knowledge, talents and capabilities, and genuine desire to contribute it towards national development. Sri Lanka can be a knowledge hub earning through knowledge-based economy. Additionally, the scientific knowledge can be converted to innovative products with advanced technological developments that can be patented. The number of patents produced in Sri Lanka needs to be drastically increased and either the patents can be sold or be converted to commercial products. Sri Lanka is blessed with diverse natural resources such as high-quality minerals and varieties of endemic flora and fauna. In our research, carried out over the last three and half decades, we have been working on adding enormous value to mundane local minerals yet the minerals are still exported in their raw form without any value addition. Time is ripe to ban the exportation of minerals in their raw forms and either to export



value-added products or to develop devices or products using value-added minerals. Sri Lanka should not be a country that depend on imported petroleum oil for electricity production or even for transportation. Instead, the use of renewable energies such as solar energy should be adapted in real terms not just as attractive political stories. The enormous money wasted for the exportation of oil should be stopped and the money should be used to supply solar panels free-of-charge particularly to the low-income citizens while at a subsidized cost to others. For example, 4 kWh solar panels fixed on our rooftop generates more than sufficient electricity for us and to add the rest to the national grid. We have high-quality graphite for making large scale electrodes for hydrogen gas production from water electrolysis where the required electrical energy can be easily generated from solar cells. Reducing the consumption of natural gas and petroleum oil will not only benefit the economy of the Island but also protect us from various diseases caused by environmental pollution associated with toxins produced by their combustion. All what is needed is a visionary leadership!

References

1. <https://rcc.harvard.edu/knowledge-technology-and-complexity-economic-growth>