

Infrastructure Management in Science and Technology for Socio-economic Equity

A.M. Pitadeniya

National Science and Technology Commission, Sri Lanka

Science and Technology (S&T) are widely recognized as most important factors that contribute to economic development and social well-being of people in the 21st century. However, despite all these developments, socio-economic inequalities are still prevailing, especially in South Asian countries. Mere advances in S&T will not contribute to socio-economic development, if the activities of S&T are not properly managed. Therefore, there is a need to identify strategies for proper management and benefits-sharing of S&T.

Four major facets of infrastructure contributing to proper management of S&T are proposed as: (i) Policies and legislations, (ii) Organizational collaborations, (iii) Financial instruments, and (iv) Capacity building. Advances in S&T should be incorporated in preparing policies relevant to areas such as health, energy, environment and natural resource management. This knowledge could be used in providing equal access to health facilities and safe drinking, generating renewable energy, as well as in controlling air and water pollution, preventing land degradation and waste management etc. through proper legislations.

Collaboration among institutions/organizations that are relevant to environment, energy, land and water resources will ensure proper management of these resources using new techniques. Government intervention is a must in disseminating agriculture-based knowledge such as new varieties, pest and disease management etc., and information on weather patterns and market trends.

Development of proper criteria for allocation of limited resources, especially finances for Research and Development (R&D) activities will ensure maximum benefits to the society. Applied research should be identified and funded, based on their potential to contribute to socio-economic development of the country. Technology transfer will not bring expected results unless the technology is accessible to intended users. Financial instruments such as tax concessions and credit facilities are needed to encourage SMEs to use advanced technology to increase productivity and quality of products while generating jobs in rural areas. Access to technology or new knowledge should always be coupled with capacity building to use that. Distance learning facilities supported by ICT can be used to take new knowledge to rural areas. University curricula should be adjusted to produce graduates for the needs of the country. Fundamental research should be encouraged to enhance knowledge while establishing tertiary education institutes/ technical colleges to train the youth for technical jobs.

It is expected that proper management of these infrastructure in S&T will contribute to equity in benefits sharing of S&T to overcome socio-economic inequalities.

Keywords: *Infrastructure, Policies and legislations, Organizational collaborations, Financial instruments, Capacity building*