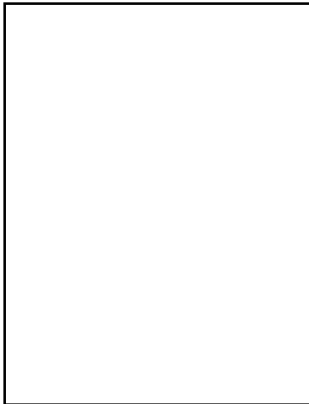


Technological Innovation

New strategies, skills and structures

Rustam Lalkaka

Developing countries have to drastically re-structure their strategic plans, develop the skills needed, and build new structures, in order to survive and thrive in the globalizing environment. While each nation charts its own path, based on its resources and culture, there is now the imperative for all to acquire, assimilate and apply proven technologies, and move from imitation to innovation. In these tasks all players - governments, learning systems, businesses, and nations - have clear responsibilities. This paper outlines some critical areas for action in developing countries.



Mr. Rustam Lalkaka

*President, Business & Technology
Development Strategies LLC
1441 Third Avenue 5A
New York NY 10028, USA
E-mail: rlalkaka@aol.com*

Introduction

ot a day goes by without news of some seeming breakthrough in bio-technology, medicine, computing and space. While the 19th century ushered in the telephone, electricity and automobile, this century has brought us near-costless and ubiquitous information flows, and complex organisms decoded and cloned. Our knowledge of inner and outer space is changing our understanding of the universe and our place in it. At the same time, we are witnessing the decline of the natural environment and the bio-diversity on which we depend for life itself. While the cold war may have ended, weapons proliferate and struggles continue by the world's poor and its ethnic minorities for a better existence.

Globalization is now upon us, with the rapid movement of ideas, lifestyles, advertisements, trade, business and fi-

nance - reportedly, a trillion dollars circling the globe each day. Those already strong are prospering, others falling behind. Computing and communications have the potential to help developing nations leap-frog in some fields, but it is also widening the gap between the knowledge-haves and have-nots, between countries and within them. Scientific progress has always been made by one generation standing on the shoulders of its predecessor; but leap-frogging requires both the capability and the funds. To say that cellular phones can be used when there are no cable connections, or helicopters, when there are no roads to the villages, can be the equivalent of 'let them eat cake', when the means to do so are not available.

Brave new millennium

What then does the coming millennium hold for human civilization? And what