

Investing the Expected Tax-Revenue Increase Towards Scientific Research

Janakiraman Balachandran*

Center for Nanophase Materials Sciences, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA

***Corresponding author:** Janakiraman Balachandran, Postdoctoral Research Fellow, Center for Nanophase Materials Sciences, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA, Tel: +1-865-574-1955; E-mail: balachandraj@ornl.gov

Received: January 17, 2017; **Accepted:** January 20, 2017; **Published:** February 21, 2017

Editorial

India has just completed one of the most radical policies of demonetization geared towards curbing black money market. While eminent economists can rightly argue on the pros and cons of the scheme, RBI's recent statement seems to suggest that most of the outstanding ₹ 500 and ₹ 1000 denominations (counted as of March 2016, to be about ₹ 16.42 trillion) have been deposited into the bank account. This should in turn create a huge boost in the tax revenue for the next fiscal year. In this editorial, we want to urge the Indian policymakers to use a part of the increase in tax revenue to increase spending towards scientific research and development.

The influence of increased research spending by governments on economic growth has been studied in detail in a 2015 UN report titled 'Strengthening the High-Level Political Forum and the UN Global Sustainable Development Report' which calls for spending about 3.5% of GDP in research and development. India although being the seventh largest economy in the world, lags many countries by only spending about 0.85% of GDP. Improving the investment in scientific research has historically shown to create new technologies that have major influence on the economic growth of countries.

Some of the major visions of current Indian government include boost manufacturing through "Make in India" campaign and to provide uninterrupted electricity to all villages through Deen Dayal Upadhyaya Gram Jyoti Yojana. Successful implementation of these schemes while simultaneously meeting the targets of Paris climate agreement in terms of carbon emissions requires development of better and cheaper manufacturing and energy technologies which in turn depends on design and development of new materials with better properties.

Development of novel material technologies have historically been cumbersome, expensive and time consuming. However, thanks to the rapid increase in computational and data-storage capacity, it is now possible to systematically analyze many

Citation: Balachandran J. Investing the Expected Tax-Revenue Increase Towards Scientific Research. Mater Sci Ind J. 2017;15 (1): e001. © 2017 Trade Science Inc.

different materials simultaneously, store the data and perform data analytics on these datasets to gain important structure-property correlations.

The US government identifying the potential of this approach designed the materials genome initiative in 2011 and has invested over \$250 million in R&D and infrastructure development. While, it might not be possible for India to match the investments, any increased funding in creating new materials targeted towards critical technologies such as aerospace, energy storage, renewable energies such as photovoltaics can play a major role in reducing the cycle of time of creation of new materials and open new economic opportunities.