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"SCIENCE AND TECHNOLOGY IN BRICS"

SYNOPSIS:

- *Introduction*
- *On the path of progress*
- *Constructive work for financial upliftment*
- *Focus on technological upliftment*
  - *Enhancing telecommunication among BRICS nations*
  - *The BRICS Cable –Optical fibre submarine communication cable*
  - ***Third longest undersea telecommunications cable in the world***
- *Conclusion*

INTRODUCTION:

BRICS *is the acronym for an association of five major emerging national economies:* ***Brazil, Russia, India, China*** *and* ***South Africa****. The BRICS members are all leading developing or newly industrialized country countries, but they are distinguished by their large, sometimes fast-growing economies and significant influence on regional affairs; all five are G-20 members.*

Since 2009, the BRICS nations have met annually at formal summits. Russia hosted the group's seventh summit in July 2015 with India hosting in 2016 in Goa. Countries like South Korea, Mexico and Turkey were also inducted later.

As of 2015, the five BRICS countries represent over 3 billion people, or 42% of the world population; all five members are in the top 25 of the world by population, and four are in the top 10. The five nations have a combined nominal GDP of US$16.039 trillion, equivalent to approximately 20% of the gross world product , and an estimated US$4 trillion in combined foreign reserves.

ON THE PATH OF PROGRESS:

The BRIC grouping's first formal summit, was held in Yekaterinburg, commenced on 16 June 2009,with Luiz Inácio Lula da Silva, Dmitry Medvedev ,Dr. Manmohan Singh , and Hu Jintao, the respective leaders of Brazil, Russia, India and China, attended the conference. The summit's focus was on means of improving the global economic situation and reforming financial institutions, and discussed how the four countries could better co-operate in the future[1].There was further discussion of

ways that developing countries, such as the BRIC members, could become more involved in global affairs.

In the aftermath of the Yekaterinburg summit, the BRIC nations announced the need for a new global reserve currency, which would have to be "diversified, stable and predictable".

CONSTRUCTIVE WORK FOR FINANCIAL DEVELOPMENT:

*The **New Development Bank (NDB)**, formerly referred to as the **BRICS Development Bank**, a multilateral development bank operated by the BRICS states. The bank's primary focus of lending will be infrastructure projects.*

*The **BRICS Contingent Reserve Arrangement** (**CRA**) is a framework for providing protection against global liquidity pressures. This includes currency issues where members' national currencies are being adversely affected by global financial pressures. The CRA is generally seen as a competitor to the International Monetary Fund (IMF) and along with the New Development Bank is viewed as an example of increasing South-South cooperation.*

Enhancements to financial connectivity for increasing trade and investment opportunities between the BRICS countries include:

- *Key role of ICT and innovation to improve business exchanges;*
- *Co-operation for energy security with focus on green and renewable energy;*
- *Importance of co-operation in Life Sciences to BRICS growth potential, and*
- *Role of BRICS countries in ensuring global food security.*

FOCUS ON TECHNOLOGICAL UPLIFTMENT:

"Technology is a gift of god. After the gift of life,it is perhaps the greatest of God's gifts. It is the mother of civilizations, of art and of science"-Freeman Dyson.

Enhancing telecommunication among BRICS nations:

The BRICS cable:

*The **BRICS Cable** is a planned optical fiber submarine communications cable system that carries telecommunications between the BRICS countries, specifically Brazil, Russia, India, China and South Africa. The cable was announced in 2012,but is still under construction as of 2015. The project aims to provide bandwidth around the Southern Hemisphere of the globe, and to "ensure that developing nations' communications are not all in the hands of the nations of the North".*

The cable is approximately 34,000 kilometres long, and contains a 2 fibre pair with a 12.8 Tbit/s capacity. The cable will be the third-longest cable in the world by the time of its completion. It will interconnect with the WACS cable on the West coast of Africa, and the EASSy and SEACOM cables on the East coast of the continent.

"Any sufficiently developed technology is indistinguishable from magic"-Arthur C.Clarke

BRICS Cable has been in the planning and feasibility stages since March 2011, a few months after the admission of South Africa into the BRICS economic bloc. Currently, the BRICS countries are connected to each other via telecommunications hubs in Europe and the USA resulting in high costs, and the risk of potential interception of critical financial and security information by non BRICS entities. The recent discussions at the BRICS Business Summit concluded that a critical factor of success for the various initiatives relies on an advanced high-speed communication infrastructure. This also has to ensure high-capacity and direct connectivity between the BRICS countries to offer ubiquitous and reliable services.

CONCLUSION:

Fibre optic cable system is BRICS's greatest strategic investment for member countries and is expected to enhance technology sharing, boost trade and facilitate financial transactions.The scope of strengthened trade, transactions and exchange of ideas between Africa and BRICS is virtually limitless. The BRICS cable, when implemented would probably mark the transition from the impossible to the possible,reminding me of the following words…

"The best way to predict the future is to create it"-Peter Drucker