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CENTER FOR INTERNATIONAL STRATEGY, TECHNOLOGY, AND POLICY

### **The Political Economy of ICT Growth and Development in India**

On April 9, 2009, **Dr. Anthony P. D'Costa** gave a lecture at Georgia Tech on the political economy of ICT growth and development in India. He mainly focused on India's software industry, since India specializes in that industry.

Since 2008, Dr. D'Costa has been a Professor in Indian Studies at Copenhagen Business School. Before, he had been with the University of Washington for eighteen years. He has written extensively on the global steel, Indian automobile, and Indian IT industries. Currently, Dr. D'Costa is focusing on the theme of globalization and the international mobility of IT workers examining migration pattern, immigration policies, national innovation systems, and tertiary education in India, Japan, and the US. NASSCOM is the IT industry lobby in India. It sees itself as a driver of the Indian economy, and it has its own view of the industry. Dr. D'Costa began his lecture with a quote taken from NASSCOM's website:

“The country is at an important juncture in its history, having completed the transition from an agrarian economy to a fully-fledged, first-world economy, operating at the leading edge of contemporary technology. A key element in taking the country forward and maintaining its growth momentum will be the provision of a highly skilled and competent global workforce.”

By referring to India as a first-world economy and speaking of its fully-fledged world economy, it is clear that NASSCOM sees India's IT industry as having successfully transitioned India. However, Dr. D'Costa argues that India's development model cannot be seen as a working one, because inherently, there are flaws ingrained in the very model. And so he offers a critique of India's development model from the perspective of the IT industry, not the Indian IT industry. Dr. D'Costa's position is that “ICT-led growth, as currently in vogue, is not egalitarian and limited in its transformative scope under the present structural and industry-specific dynamics.” In other words, the Indian IT industry has certain innovation challenges, especially in the long term in sustaining its level of growth. Furthermore, D'Costa posits that pre-existing inequalities in the economic and social arenas have been a precondition of ICT growth, and in turn this very growth is reinforcing inequality. And so the rapid growth of India's IT industry is consequently inducing developmental issues and distortions, and India's ICT employment suffers many innovation challenges (e.g. structural dependence on the export-driven model).

There are three mechanisms of transformative capability through uneven growth rates. They are direct effects, indirect effects, and exclusionary effects. The *direct effects* include employment, income, education, and what Dr. D'Costa calls interlocking dimensions of social well-being. *Indirect effects* include the trickle down effect (or the pull effect), the multiplier effect, and the interlocking dimension of social well-being. *Exclusionary effects* include the interlocking dimension of deprivation, and these exclusionary effects refer to the tendency to forgo, for example, tertiary education if certain social preconditions are not met first.

Furthermore, Dr. D'Costa points out that India mainly exports its IT services to the U.S., which makes its dependence on this one country extremely strong. Thus, as the U.S. has recently been trying to cut various ties with its outsourced employment, India's economy has suffered. According to NASSCOM, India exports 67.7% of its services to the U.S. and 21.3% to the UK. Here, it is clear that diversification strategies are important.

Another setback India suffers is the regional concentration of its IT industry, which is mostly centered around Bangalore, Chennai, Hyderabad, National Capital Region, and Dehli. The four southern states of India wielded 51% of India's engineering and 61% of the MCA degree granting institutions. Hence, spillover effects tend to be regional. Multiplier effects are also not as effective as they may at first seem, because they tend to concern mostly the less educated. For example, a middle class family may hire a nanny and a maid. Also, the multiplier effect is small due to skill bias.

India also faces a demographic problem: Most of its population still lives in the rural countryside. In 1950, only 17.3% of Indians lived in urban areas. In 2000, this number had only risen to 27.7%. Dr. D'Costa estimates that in 2010, this number will only increase to 28.7% (373 million); in 2020, this number will reach 32.2%, and in 2030, only 41.4% of Indians will live in urban areas.

Additionally, India's GINI coefficient has been increasingly steadily since 1993-1994, reaching 0.305 in rural areas and 0.376 in urban areas in 2004-2005. Additionally in 2004-2005, in 27.47% of its population lived in poverty (*Source: Debroy and Bhandary, 2007*). The upper caste of Hindus in rural India are mostly self-employed in agriculture; they are predominantly landowners (60%). The upper caste Hindus in urban areas tend to have steady jobs (56%). Both of these figures can be compared to historically underprivileged groups in Indian society. India's literacy rate mirrors this inequality between urban and rural India and between different caste rankings.

Furthermore, this inequality is in effect circular. Inequality in basic education levels also prevents access to high education, since requirements for higher education require certain levels of basic education. However, because the upper caste Hindus are the ones to benefit most from the current tertiary educational system in terms of both access and outcome, there is no drive to change existing policies.

Given this information, Dr. D'Costa then posited the question, "What are India's alternative development policies?"

Dr. D'Costa is a well-authored scholar. His books include, *The Long March to Capitalism: Embourgeoisment, Internationalization, and Industrial Transformation in India* (2005), *India in the Global Software Industry* (coedited, 2003), *The New Economy and Development: ICT Challenges and Opportunities* (edited, 2006), and *The New Asian Innovation Dynamics: China and India in Perspective* (coedited, 2009). Dr. D'Costa also has several fellowships, including the American Institute of Indian Studies, Fulbright-Hays, Korea Foundation, Social Science Research Council, WIDER, and most recently the Abe. Additionally, he is an editor for the "Technology, Globalization and Development" and "India's Changing Role in the Global Political Economy" book series and serves on the editorial boards of *Asian Business and Management* and the *European Journal of Development Research*.