

# Three years in Delhi

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I have led the FCO's India Science and Innovation team for nearly three years. As a job and place it has never disappointed. India is a diverse land of contradictions and in the course of this article I will explore what that means for us in the science and innovation community.

The dragons and tigers of the Far East may be cunning, ruthless and fast, but the Indian elephant stands squarely on its feet making its steady if ponderous progress unstoppable. India the re-emerging powerhouse is a fact. A billion plus people working together makes a big impact, but India's continually forward momentum is also down to their ability to be focused in spite of the trials of everyday life.

This tenacity is as true for the science sector as any other. India does not have the biggest research output, far from it, but it continues to grow. The Indian Government wisely spends its economic windfalls on its biggest asset – its youth. India is a country with a young population, with 60% of the people under 40. Yet only 50% of the population are educated to a basic level. To overcome this, the Indian Government has instigated an expansion of its education system that would be staggering to all, but China. For around 50 years India has had just seven elite Indian Institutes of Technology (IIT) and a solitary Indian Institute of Science (IISc) for a hundred years. This year the Government will break ground on new IITs and five new Indian Institutes of Education and Research, along with seven new Indian Institutes of

Management, 20 Indian Institutes of Information Technology, and 30 new central universities. This pyramidal relationship carries on right down to the secondary school level with 6,000 on the drawing board.

This massive expansion is one of the reasons that I am here as Head of the FCO's India SIN team. We need to ensure that the UK is part of this change and I feel strongly that effort now, at the beginning, will pay huge dividends for us in the future, much as it did a hundred years ago when the Royal Society was instrumental in the setting up of the IISc.

This is not the only role of the SIN network in India as we work on a wide range of projects that are more short term in their outlook, but will have far reaching implications for the future. For example, DfID India recently launched its new action plan in which it describes three faces of India. The poorest 400 million live on \$1 a day; the developing India of 500 million who live on less than \$2 a day; and the 'Global India', who answer our banking or computer enquiries and invest heavily in the UK and gold. Despite its advances these figures show that India still faces problems that it cannot deal with all by itself. So, climate change has the potential to impact seriously on the annual monsoon that brings life to the subcontinent, without which it would resemble the deserts of Arabia. To the overwhelming majority this would be catastrophic.

India has a tremendous capacity to innovate and use technology where appropriate. The Science Network is working with teams to develop

beyond 3G networks that have the capacity to connect even the remotest of villages. This is not just bringing communication to the far flung places, but also jobs.

It is not all about the UK assisting with India's problems. We firmly believe in mutually beneficial collaboration as there is a great deal that India can teach us. The hottest topic these days is outsourcing. This phenomenon in India is not based solely on lower labour costs. The many knowledge process outsourcing companies that have come into existence have done so on the back of innovation. This is not innovation in the classic sense that results in a fancy gadget or groundbreaking discovery. It is innovation that removes the cost of manufacturing that gadget, or innovation that removes the cost from the company processes that support the manufacture of the gadget. It is innovation that helps us to see problems from a completely different angle and provide low cost solutions. It seems so simple yet we have yet to embrace fully these concepts as we continually strive for the "Rolls Royce" solution.

In conclusion I need not hesitate in saying that I have spent a rewarding and useful three years in India. I will leave my post satisfied that I am a changed man and have made a difference. But I will also leave thinking that there is so much more to do and that this was just the tip of the iceberg, or perhaps that should be the tip of the trunk. As much as I have tried those who succeed me will still have a long and probably potholed road to travel. My simple advice is "be patient".