

Convocation Address by Dr R K Pachauri at Manipal University's 2012 Convocation on 10th November, 2012

November 14, 2012

On this occasion I thought rather than write something specifically as part of my normal Tippani, I would provide below the speech that I gave as the Chief Guest at Manipal University during the 2012 Convocation held on 10th November. I realize this is a lengthy write up, but some of you might have the patience and possibly even the appetite to read what I have written, a good part of which was put together while sitting at JFK Airport, New York on the night of November the 7th.

Convocation Address

Chancellor of the University, Dr. Ramdas Pai; former Chief Justice of the Supreme Court, Justice M N Venkatachaliah; Pro Chancellor, Dr. H. S. Ballal; Vice-Chancellor, Dr. K Ramnarayan; Deans, other distinguished officials of the University on the stage, faculty and staff, members of the media, my young friends the students who are graduating today, ladies and gentlemen!

At the very outset let me convey my congratulations and felicitations to those who are graduating today. You not only embody the brightest hopes of this country, but also those of human civilization as a whole. As I shall endeavor to explain I see India emerging as the beacon light for showing the way towards a sustainable future for the world. And that outcome rests entirely on your shoulders and will be driven entirely through your vision and initiative.

I feel deeply privileged at the capacity that I have been invited in today at this Convocation 2012. I have been to Manipal only once in 1975 soon after I returned from the US following my education there and a year on the faculty of the North Carolina State University. That was a moving experience, because I had the privilege of spending time with the legendary founder of everything that you see in Manipal, that great pioneer Dr. T M A Pai. He narrated his own life story to me in great detail, and he mentioned how he had given up an opportunity to go to practice medicine in Hongkong, and instead devoted his talent and time to building the outstanding institutions which now define the unique intellectual richness of Manipal. His innovations in economic development provide inspiration and set many examples to the rest of India and indeed to the rest of the world. He was a person with a profound richness of spirit and a deeply motivating influence on those around him. There was in his persona a sublime form of serenity which could not have escaped anyone who had the good fortune of spending time with him. I came back from the US at a time which in several respects was the lowest point in this country's contemporary history. Inflation was at an all time high, there were shortages of several items essential for our daily lives, and just a few days after we landed here Mrs. Indira Gandhi imposed a state of emergency on the country. I was assailed by self doubt, having dragged my family back to India much against their individual and collective wishes. Against that background the time I spent with Dr. T M A Pai instilled in me self-assurance and conviction on the merit of my own decision.

Today I am back here to renew that inspiration from the marvelous institutions that have evolved from Dr. T M A Pai's creation and the wonderful manner in which his legacy has been enhanced by his distinguished successors. I must salute Dr. Ramdas Pai for his distinguished contribution in building up the institutions that he leads and taking them to soaring heights of excellence.

I now turn to a quotation that a very good friend brought to my attention recently. It reads: "Beauty will save the world? What does this mean? For a long time it used to seem to me that this was a mere phrase. Just

how could such a thing be possible? When had it ever happened in the bloodthirsty course of history that beauty had saved anyone from anything? Beauty had provided embellishment certainly, given uplift-but whom had it ever saved?"

This is the statement that Alexandr Solzhenitsyn used while beginning his 1970 speech in acceptance of the Nobel Peace Prize. He was actually questioning Dostoyevsky's statement "Beauty will save the world." We are many generations beyond the society for which Dostoyevsky wrote this line and 42 years beyond Solzhenitsyn's acceptance of the Nobel Peace Prize, and we need to ask whether the world lacks beauty today. And what aspect of today's world needs saving from anything that is a threat to human wellbeing? Even more pertinent is the question on how beauty can save us from the ills of modern day society.

Paul Bloom a distinguished psychologist and colleague of mine at Yale University has researched extensively on what makes human beings happy. He states that "here is a considerable mismatch between the world in which our minds evolved and our current existence. Our species has spent almost all of its existence on the African savanna. While there is debate over the details, we know for sure that our minds were not adapted to cope with a world of billions of people. The life of a modern city dweller, surrounded by strangers, is an evolutionary novelty." According to Bloom our hunger for the natural is everywhere. In his view, the appeal of the natural is also reflected in where we most want to live. All those present here today like to be close to oceans, mountains and trees. If you look at the property markets which are thriving in this country, exaggerated claims are made by packaging a few shrubs of green or a small body of water with a piece of real estate to be sold, so that its market value is enhanced disproportionately. I believe in the India of today the automobile industry and those in the business of real estate have mastered the art of exaggeration and hyperbole to a point where anyone can be talked into buying anything. This reminds me of a survey conducted many years ago in the US on the prestige the public attached to different professions. The lowest rating was earned, perhaps deservedly, by used car salesmen and just above them was placed the species called politicians. I just wonder if such an exercise were to be carried out in India today would this ranking be reversed, with of course both professions resting securely at the bottom of the list!

To revert to the primacy of nature in our value systems, why is it that across the globe we are brutalizing the ecosystems of this planet and degrading and damaging the very foundations of what sustains all forms of life? Paul Bloom states that "technology has come to be more diverse than the biosphere". He quotes an estimate that the average American encounters 20,000 different kinds of artifacts in everyday life, which would be substantially more than the number of animals and plants that we can identify. Indian society is undergoing a transformation in the same direction as that of the US. This may give us some short term satisfaction and sense of pride, but once our honeymoon with materialism goes beyond the initial euphoria we need to reflect on where we are going. We are a country of 1.2 billion people and still growing. Can we aspire to the same consumerist lifestyles that the west has established? Gandhiji, whose wisdom and vision was always ahead of time, was once asked whether he would want India to reach the same level of prosperity as Britain. Gandhiji's considered response was that it took Britain half the resources of this planet to reach its level of prosperity, and he asked "How many planets would India require?" The stark reality is that the resource intensity of global production and consumption has gone far beyond sustainable levels. India's salvation lies in innovation that gives us a way of living which is much lower in resource intensity than what we see around us. Such a direction would allow us to live within our means, and overcome the constraints that would become increasingly severe if we continued with business as usual. Even more important is the benefit of being able to lead in a global market which would inevitably move towards higher resource use efficiency for both local and global reasons.

Many parts of the world have achieved outstanding success in cleaning up the air that they breathe and the rivers that flow through them, and in expanding their forest cover. Of course, India is still going in the opposite direction, infatuated with the goal of maintaining high rates of GDP growth, even as we deplete perhaps at an equally high rate our natural wealth, much of which will never be recovered. Again, Gandhiji was right when he said, "Speed is irrelevant if you are going in the wrong direction." In terms of policy should we not be computing on an annual basis our natural debt rather than being preoccupied solely with national debt and our fiscal deficit? I have every reason to believe that the genius of the Indian people and the reverence we have always displayed towards nature will correct the massive imbalance we see today and the myopic actions that are depriving us of the richness that Mother Nature blessed us with since time immemorial. In our case our emphasis on beauty has saved us through thousands of years and ensured that we do not plunder what we inherited. We worshipped our rivers, treated our groves as sacred, fed animals in the belief that they had as much right to partake of what we had as we did. And for us nature was paramount. It was truly our mother! All this while much of Europe was deforested by the 18th century! That was a significant reason behind the constant stream of migration from Europe to North America.

My greatest concern lies in what Garrett Hardin referred to the tragedy of the commons. We all benefit to an incalculable extent by using the commons, like the resources of a forest or the capacity of a river to absorb various pollutants. We overexploit and abuse these resources because none of the beneficiaries has any responsibility for maintaining any of these in good condition. This tragedy of the commons was analysed and put forward by a biologist, Garrett Hardin, a reality which most economists had ignored before him, except one unusually bright economist, Nicholas Georgescu-Roegen. I regard the latter as my guru in economics, and interestingly his major contribution lay in connecting the economic process with entropy, a phenomenon which lies in the domain of physics. I am mentioning these facts only because I would like to encourage students present here specializing in one discipline to stray into other fields as well. This would not only help you expand knowledge in your own field, but also enrich that in the other discipline that you move into.

To illustrate the mounting tragedy of the commons let me refer to perhaps the most glaring and crucially serious manifestation of this reality. This is evident in the altered chemical balance of the earth's atmosphere. I do not intend going into a full discussion of the science of climate change. But let me give you at least some information from the findings of a special report of the Intergovernmental Panel on Climate Change (IPCC), which I have the privilege of chairing.

Global weather- and climate-related disaster losses reported over the last few decades reflect mainly monetized direct damages to assets, and are unequally distributed. Estimates of annual losses have ranged since 1980 from a few US \$ billion to above 200 billion (in 2010 dollars), with the highest value for 2005 (the year of Hurricane Katrina). Loss estimates are lower-bound estimates because many impacts, such as loss of human lives, cultural heritage, and ecosystem services, are difficult to value and monetize, and thus they are poorly reflected in estimates of losses. Impacts on the informal or undocumented economy as well as indirect economic effects can be very important in some areas and sectors, but are generally not counted in reported estimates of losses.

During the period from 1970 to 2008, over 95 % of deaths from natural disasters occurred in developing countries. It is virtually certain that increases in the frequency and magnitude of warm daily temperature extremes and decreases in cold extremes will occur in the 21st century at the global scale. It is very likely that the length, frequency, and/or intensity of warm spells or heat waves will increase over most land areas. Based on established emissions scenarios, a 1-in-20 year hottest day is likely to become a 1-in-2 year event by the end of the 21st century in most regions, except in the high latitudes of the Northern Hemisphere, where it is likely to become a 1-in-5 year event.

It is likely that the frequency of heavy precipitation or the proportion of total rainfall from heavy falls will increase in the 21st century over many areas of the globe. This is particularly the case in the high latitudes and tropical regions, and in winter in the northern mid-latitudes. Heavy rainfalls associated with tropical cyclones are likely to increase with continued warming. There is medium confidence that, in some regions, increases in heavy precipitation will occur despite projected decreases in total precipitation in those regions.

What can we do about dealing with the challenge of climate change? Well the solutions are not beyond our reach or the realm of human ingenuity. We can enjoy all the benefits of modern living and yet reduce the intensity of use of natural resources. This would require technological solutions driven by enlightened policies and lifestyle and behavioural changes, all of which carry huge co-benefits.

My purpose in giving you some of the facts that I have presented is that most global problems and their solutions will need the spread of knowledge on an unprecedented scale. Einstein rightly said that problems cannot be solved with the level of awareness which created them. And this new knowledge will have to come from you and this remarkable institution. Most importantly the spread and use of this knowledge will have to involve all stakeholders, that is, government, business, academia and civil society. But the strength of this change will be driven by the youth of today who will combine their inter-disciplinary expertise and apply their collective passion to create a pattern of development which is sustainable, equitable and inclusive.

I now go back to my original question which invokes Dostoyevsky's faith in beauty. That faith in my view is even more valid today than when it was articulated. We will not be able to protect the global commons or enjoy the glory of nature unless we rediscover the beauty within us to reflect on everything around us. In fact, even the artistic creations of human beings are inspired and motivated by an innate appreciation of nature. And while we learn this appreciation again we must also unlearn a number of things. John Kenneth Galbraith was perhaps right when he warned us against the power of advertising, which does something for the consumer but a huge amount more for the producer. Some suggest that perhaps all advertising must carry a warning like in the case of cigarette smoking listing the harm a particular product does to the environment. Should consumers demand such information? We must not be dismissive of our impacts on other parts of the globe. We are all in this together.

When I had the privilege of accepting the Nobel Peace Prize on behalf of the IPCC, in my speech I invoked the old Sanskrit saying of Vasudhaiva Kutumbakam - the universe is one family!

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